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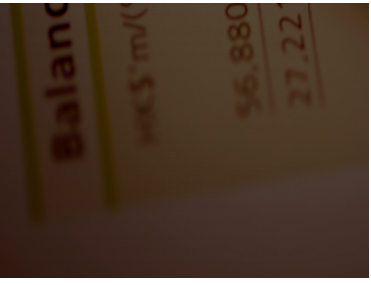
The Economics of Civil and Common Law

Zagros Madjd-Sadjadi



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Zagros Madjd-Sadjadi
Winston-Salem State University

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Abstract

Law is supposed to encourage innovation, morality, and conformity with societal expectations, yet it may provide perverse incentives causing individuals, or even the State, to act in discordant, inefficient, and even immoral ways. It will explore the inefficiencies that are created that serve to deny individuals work and shelter in a haphazard and capricious manner. It will examine property rights, including eminent domain that lets the State take property away with seemingly arbitrary compensation to the owner.

Individuals must understand both civil law, codified by statutes, and common law, enshrined in precedential judicial decisions, and why the common law tends to better reduce transactions costs and thus avoid courts entirely. This book is written for economists and noneconomists and has an extensive glossary of economic, political, and legal terms. Two items that are not formally treated in other economics of law textbooks are the legal organization of businesses and tax law from an economics perspective.

Keywords

adverse selection, antitrust law, civil law, climate change, Coase theorem, common law, contracts, corporate personhood, deadweight loss, discrimination, externalities, family law, free trade, information asymmetry, Laffer curve, moral hazard, patents, Pigouvian tax, precedent, price discrimination, principal–agent program, property rights, Supreme Court decisions, tax incidence, Theory of the Firm, torts, transaction costs, unconscionability

Contents

CHAPTER 1

The Interaction of Law and Economics

In this chapter, we examine the evolution of the legal system and the interaction of law and economics. By the end of this chapter, you should be able to discuss how precedent guides and limits the legal system. You will understand how law and economic theory may align to incentivize individuals to make decisions benefiting all of society in cases where narrow self-interest would normally deviate from this path. You will understand limitations of the economic approach to law and that it helps address questions in a more systematic and rational manner than would otherwise be the case.

Key Economic Concepts

efficiency
equitability
externality, negative
externality, pecuniary
externality, positional
externality, positive
marginal benefit, private
marginal benefit, social
marginal cost, private
marginal cost, social
optimal punishment theory
rationality
transaction costs

Key Legal and Political Concepts

Corpus Juris Civilis
evidentiary standard
inalienable rights
jurisdiction, personal
jurisdiction, subject-matter
precedent, binding
precedent, nonbinding
qui tam
stare decisis
unconscionability, procedural
unconscionability, substantive

How the Legal System Has Evolved

Hard as it may be to imagine a world without lawyers, the law did not always exist. Prior to permanent settlements, there was little reason for it. Property, contract, tort, and even crime do not require codification of law. This does not mean that in a pre-law system there was an absence of disputes but these were resolved in a rather simple manner—violence. This is the way animals adjudicate conflict. They do not muse about a tribal council and deliberate finer points of who said what and when. Instead, they engage in a brute force competition and to the victor go the spoils.

However, such an arrangement was somewhat unsatisfactory once permanent abodes were established. People wished to protect property, which serves as the basis for most of the common and civil law traditions, and did not want to have to guard it continuously against potential raids. Laws were created to enshrine property rights into the collective psyche of the populace and to protect those rights from trespass.

Law probably originated out of religion and began as an appeal to the gods who were thought to be watching over human endeavors. A concept of justice was formed that ascribed it to the gods since one needs an independent third party to adjudicate disputes, lest you end up back with the aforementioned "solution" to disputes of clubbing the other side over the head to determine the victor. Trials by fire or ordeal were soon consigned to the realm of criminal law, a subject that we will not delve into in this text,[1] and replaced by a written code or past tradition to resolve conflicts.

Past tradition, or oral law, was probably the earlier form, but there is no ability for us to confirm this. On the other hand, codified law dates back to more than 5,000 years ago. The oldest recorded laws are tax laws, which is probably not coincidental since laws are the first manifestations of governance and governments need revenues to survive. Ancient Egyptian texts dating back to 3,100 BC suggest Pharaoh Hor-Aha would collect in-kind taxes of labor or harvest bounty at the biannual Following of Horus during which time he, as head of state and chief lawgiver, would roam the countryside, settle disputes, and promulgate new laws.[2] These laws could be rescinded as desired by the next ruler (or even the current one). Soon, the first tax shelters appeared in the form of religious institutions, as early governments derived their powers from religion.

The Pharaoh, being a god-king, ruled by divine right;[3] however, that right was enforced through the Pharaoh's security forces and religious authorities. Security forces (what we would now refer to as the military and police, although these two entities were typically combined in ancient times into one unit) dished out punishment in a temporal manner and the clergy reminded citizens that justice was always in service to a higher authority that meted judgment in the afterlife for those who escaped it in the present.[4] In the case of the ancient Egyptians, a virtuous life meant eternal life, whereas a nonvirtuous one ensured that one's heart would be eaten by Ammit, a combination of crocodile, lioness, and hippo.[5] This was a good reason to obey the law.

The earliest known codification of law, the *Code of Urukagina*, has been lost to the ages but, based on references to it from other documents, it is known that it ascribes to the Pharaoh the task of lawgiver and is the first statement of what is commonly referred to as the Divine Right of Kings.[6] The *Code of Ur-Nammu*, the first document for which we have a formal copy, documents a primitive form of family law for the first time.[7] Yet both of these are not nearly as important as the Code of Hammurabi, the most famous legal document of antiquity, which survives nearly intact. Much of the document deals with matters of contract and labor law, whereas another sizeable chunk deals with family and estate law. There is also a series of criminal laws, with the most common penalty (death) being rather punitive in nature, in line with what would be the optimal punishment when it is rare that one can actually catch the criminal.[8] I discuss this further in my Business Expert Press companion book, *The Economics of Crime*.[9]

While criminal law is a natural one for the government to dictate, civil and common laws are different. Criminal law is that field of law characterized primarily by a system where the state takes a position against a defendant and for which a defendant can face legal sanction while there is no corresponding potential negative consequence for the state. Typically, this legal sanction is the *potential* for loss of liberty or life, as opposed to mere property loss. A civil law has no potential for incarceration or death penalty and typically involves two or more individuals appearing before a court to adjudicate a dispute in which the court can award damages, thus potentially enriching one party to the detriment of the other.

The earliest known form of civil law that corresponds to modern practices is the *Corpus Juris* ***Civilis*** (erroneously but commonly referred to as the *Codex* Justinianus.) promulgated in the sixth century AD by the Emperor Justinian. It is more refined than earlier legal codes, which were nothing more than perfunctory statements of offense and punishment or they are not extant enough for us to determine their comprehensiveness (such as the laws of Solon and Draco, from which we get the term draconian, due to their emphasis on capital punishment or enslavement for the most minor of transgressions), especially when it comes to civil matters. The *Corpus Juris Civilis* (Body of Civil Law) is considered to be the foundational document of civil jurisprudence in the West via its well-defined contract and tort law as well as its status as the principal originator of corporate law. Its continued influence is felt in the Napoleonic Code, which serves as the basis for French civil law, as well as the civil law of Louisiana, which alone among the 50 states does not have a strong common law tradition.[10]

Common law uses previous decisions of jurists, rather than appeals to legislative authority. Common law in the United States derives from English common law, which originated after the Norman invasion of 1066. While civil law disputes are normally handled before a judge who adjudicates facts of a case as they relate to codified law, common law cases are usually presented before a jury that judges both facts and application of that law, while judges are left to interpret the law and give guidance to juries. On appeal, civil litigation is typically concerned with the nature of that interpretation rather than the facts as presented and judges refer to similar cases adjudicated in the past for guidance. This is in contrast to civil law, where courts defer to the original intent of the legislators. Given the nature of precedence, common law, a mixture of codified law with uncodified localized judicial interpretation, can be quite different from jurisdiction to jurisdiction, even when the same original law is examined.

One thing I should note at this point is that I am not a lawyer and nothing in this book should be considered to constitute legal advice. Instead, this is a book on the economics of law and should be viewed exclusively through that lens. If you seek legal advice, find a lawyer rather than referencing this text.

The Nature of Precedent

Precedent is the deferring to earlier decisions for rendering a decision on a contemporary case. Rather than deciding something based exclusively on the opinions of a jurist without reference to decisions of others, precedent serves as an important tool to maintain consistency between judicial jurisdictions over time and tends to enforce a certain degree of conservatism in legal scholarship. This belief that the past should inform the present is quite old. As far back as the ancient Romans, we have evidence that prior judicial decisions were being used to inform then-current ones. The passage of the *Law of Citations* under the Roman Emperor Valentinian III is an indicator of this as Roman authorities sought to bring order to what was then believed to be a chaotic system of utilizing decisions of other jurists. The rule of the Law of Citations was that a mere citation count based on a limited number of classical jurist (Gaius, Papinianus, Paulus, Modestinus, and Ulpianus) opinions could determine the correct application of law in a particular case and accorded the opinion of one jurist in particular—Papinianus, the role of tie-breaker.[11] The irony should not be lost on the reader that codifying the nature of precedents makes the law difficult to alter when circumstances change and ascribing jurisdiction to one lawgiver in particular makes the law excessively conservative.

Modern jurists have reached back as far as ancient Roman times to find justification for rulings. In *Pierson v. Post*, 3 Cai. R. 175, 2 Am. Dec. 264 (N.Y. 1805), the New York Supreme Court used ancient Roman law to establish that a hunter who pursued a fox was not entitled to sue a different hunter who killed the fox even if the second hunter knew the first hunter was in pursuit. A similar reasoning can be applied to the taking of a parking space even if someone else is waiting. Although common decency may suggest deferring to someone who is already waiting, it is actual possession that renders that taking legal, not the imminence of its possession. Similarly, the claiming of a foul ball goes not to the fan who pursues it first but rather to the one who actually catches it. However, our own sentiments suggest that a 45-year-old grown man who intercepts it and thus denies it to a 7-year-old boy may not wish to assert his right. After all, the child will proceed to bawl for the cameras

and have the crowd immediately chant, "Give the kid the ball" until the man dutifully turns it over. The "court of public opinion" may overturn legal right, although it is far from efficient to give in to the brat, given that it will simply encourage more such behavior and possibly lead the little monster to a life of crime, or worse, politics. Perhaps, that is why legal right ought to triumph over mob mentality.

In *United States v. Robbins*, 269 U.S. 315 (1926), an ancient Visigoth community property standard was held to be controlling in California since its common law tradition emerged from Spanish law, given California's origin as a Mexican possession and Spanish colonial territory. Thus, decisions are based on prior precedential rulings and law in a particular locale, as opposed to universally across jurisdictions, when it is a matter of local concern.

Precedents can be binding or nonbinding. Binding precedents apply to all inferior jurisdictions under the principle of *stare decisis*. A U.S. Supreme Court decision is binding on all other courts for U.S. law (though not on the U.S. Supreme Court itself), whereas a California Supreme Court decision has jurisdictional authority over California law, except in conflicts with federal law. Federal district court opinions invoking federal law are binding on areas within that district. However, a federal district court or the U.S. Supreme Court that finds a matter is one of state law defers to opinions of the relevant state authority, as in *United States v. Robbins*, cited earlier.

Binding precedents have a narrow applicability in that they are only binding when case facts render them applicable. Thus while courts may cite the Supreme Court decision in *Loving v. Virginia*, 388 U.S. 1 (1967), which invalidated laws prohibiting miscegenation (the mixing of different racial groups, especially with regard to marriage) in other decisions, such as those regarding polygamy (*Brown v. Buhman,* 2:11-cv-652 [2013]), they may not treat this decision as binding if facts are not the same. At least for polygamy, there exists a Supreme Court decision explicitly referencing polygamy as illegal, so an overly broad interpretation of one decision could cast a pall on the other (*Reynolds v. United States*, 98 U.S. [8 Otto.] 145 [1878], religious duty is not a defense to a criminal indictment).

Nonbinding precedents may have persuasive authority and can be relied upon for justification for a decision, but the earlier decision will not be binding on the court making the ruling. Thus in *Cleopatra De Leon, et al. v. Rick Perry, et al.,* 5:13-cv-982, U.S. District Court, Western District of Texas (San Antonio) (2013), Judge Orlando Garcia cited cases brought before the Supreme Court of Vermont, the Supreme Court of Hawaii, and the Ninth Circuit Court of Appeals, which oversees decisions on the West Coast, to decide that the ban on same-sex marriage in Texas was unconstitutional. This was done although none of those court cases had binding authority on his court since none were superior to the district court in terms of the hierarchy. Indeed, the only binding precedents on the U.S. District Court in the Western District of Texas are from the U.S. Court of Appeals for the Fifth District and the U.S. Supreme Court.

Although precedent, especially when binding, brings consistency and predictability to decisions and increases economic efficiency by reducing potential litigation and court costs associated with the crafting of new opinions, it may inhibit the legal system to adapt to changing circumstances and can maintain an inefficient legal doctrine for a long time. Thus, precedential decisions require deliberative thinking on the part of jurists because they may have unforeseen consequences in future dispute resolutions that were never part of the original thought process of the judge who proclaimed an opinion. Thus, decisions are often narrowly crafted so as to deny broad applicability to cases where facts are not clearly similar to the case under consideration.

Bringing a Court Action

In order to bring a court action, there must be standing, personal jurisdiction, and subject-matter jurisdiction. Standing is the right of a party to bring an action before a court. Personal jurisdiction means that the court's judgment can be binding on the litigants. Subject-matter jurisdiction is the ability of a court to hear a case regardless of who brings the action to the court.

Standing generally requires the party bringing the suit (the plaintiff) meet one of three basic conditions. The first is when the plaintiff has

something to lose or has already lost something and seeks recovery. The second is when the plaintiff is not directly related but the impact of the law or behavior is such that it can harm others incapable of bringing a suit or it can cause a "chilling effect" on others that may wish to bring a suit out of fear of reprisal. A third possibility is when standing is granted as a matter of law, as when a whistleblower files a "false claim" action against a government contractor. The purpose of standing is to eliminate frivolous lawsuits filed on behalf of individuals who do not wish to bring the action themselves.

Even when these three conditions are met, there are additional required rules. Although the loss need not be economic, it must be real, rather than hypothetical. The court must have the ability to provide relief and there must be nontenuous causality. If a person drinking a can of Coca-Cola while listening to Sirius XM radio crashes their Mercedes-Benz into your Toyota, you sue the driver of the Mercedes-Benz. You don't sue Mercedes-Benz, Coca-Cola, Toyota, Sirius XM radio, the Mercedes-Benz dealer who sold the Mercedes-Benz to the man, the artist whose song was playing on Sirius XM, the store that sold the man the Coca-Cola, or your Toyota dealer!

Not that people don't try. In 1993, John Carter, a New Jersey man, unsuccessfully sued McDonald's for causing a car accident. The person who had hit Mr. Carter had been holding a milkshake between his legs while attempting to grab some food. He must have squeezed on the drink container as he quickly found his pants covered with his drink. This distracted him and he plowed into Mr. Carter's car. According to Mr. Carter's complaint, McDonald's was liable because they should have warned the driver against eating in the car while driving![12]

Although these general rules may seem straightforward, they are not. In *Fairchild v. Hughes*, 258 U.S. 126 (1922), the earliest case to deal with standing, the U.S. Supreme Court ruled that the plaintiff lacked an ability to bring a constitutional challenge to the 19th Amendment giving women the right to vote. Charles Fairchild had argued that the amendment would diminish the voting power of males and double election expenses thus providing harm to him as well as all men and sought the court to tell the Secretary of State not to issue a declaration that the

Amendment was adopted and to tell the Attorney General not to enforce the Amendment. However, the court reasoned they could not provide him with injunctive relief since both the Secretary of State and the Attorney General were acting in accordance with the law. Similarly, a taxpayer cannot bring suit claiming injury "in some indefinite way in common with people generally."[13]

While standing relates to a plaintiff's ability to sue, personal jurisdiction and subject-matter jurisdiction relate to a court's ability to hear a suit. One cannot sue another person in a court that does not oversee either party. Thus, if I were to sue Apple Computer because of an action at a North Carolina-based Apple Store, I could sue Apple in North Carolina, where the action occurred, or in California, where Apple is headquartered. I could be precluded from suing in Louisiana, even though I might find a Louisiana court more sympathetic to my case. Now if Apple and I agreed that the court in Louisiana should have jurisdiction and we would be bound by the decision, the court in Louisiana could hear the case but, without an agreement, generally speaking, a defendant can move for dismissal when the case is brought before a court that does not have geographical jurisdiction over the location of action or the defendant.

Subject-matter jurisdiction is a little different. State courts, which have general jurisdiction, can hear any case, but courts of limited jurisdiction can only hear cases arising within their subject-matter. Thus, a traffic court cannot hear a divorce case.

How Economics Can Help Us Understand Law

Economics is the study of how choices are made under conditions of scarcity, although a more precise definition would be it is the study of how *incentives* alter behavior. We can consider the development of *qui tam*, a legal doctrine that allows a private individual, in this case a whistleblower, to initiate a civil lawsuit against a third party on behalf of the government alleging fraud and share in a portion of the recovered proceeds. Since fraud is notoriously difficult to prosecute, as the false claim can be hidden so one needs to know where to look, this incentivizes people to come forward. However, this incentive can be perverse since *qui tam* may result in

delays in advancing a false claim argument until returns from whistleblowing sufficiently compensate the litigant from financial fallout of being labeled in the job market as a whistleblower. Thus, fraud may continue longer than socially optimal (of course, the financial inducement might also be too great, resulting in fraudulent false claims arguments!). In 1986, an amendment to the False Claims Act increased the maximum share of proceeds a whistleblower could receive from 10 percent to 25 percent of recovery when the government intervenes and from 25 percent to 30 percent when the government did not initiate a recovery effort. It created minimum civil penalties to induce individuals to come forward even at lower levels of fraudulent activity, altered the rules such that prior government knowledge of fraud was no longer a hindrance to recovery of damages, and restored an evidentiary standard of "preponderance of the evidence." These actions made it more likely for whistleblowers to come forward. Further amendments in 2009 and 2010 strengthened the *qui tam* principle and provided additional whistleblower protections. As a result, *qui tam* suits filings soared.

People normally alter behavior in the presence of legal threat. We sometimes hear of teachers "overreacting" by calling police to restrain out-of-control students. Six-year-old Salecia Johnson of Milledgeville, Georgia was accused of destroying school property and simple assault when she tore items from the wall and then pushed over a bookcase, injuring her principal at Creekside Elementary, back in 2012. Rather than physically restraining the child, school officials called police, who arrested the tyke.[14]

That such a reaction seems overreaching may be clear to many individuals, but there is precedent for it. Back in 2000, Joshua Kaplowitz, a Teach for America participant at Emery Elementary in Washington, DC, was told that the mere laying of hands on a student, even to break up and physically separate two students engaged in fisticuffs was an example of corporal punishment. In 2001, Mr. Kaplowitz, along with the DC school system, was sued for $20 million for putting his hand on the small of a student's back to escort the student out of the classroom. Mr. Kaplowitz was also charged with simple assault. While at trial it was established that Mr. Kaplowitz's actions did not constitute a misdemeanor and the court

dismissed the action, the school district settled for $75,000 with its insurance company kicking in an additional $15,000, all for a student who had repeatedly acted in a disruptive and violent manner toward his classmates.[15] This is an example of how perverse incentives can induce what would otherwise appear to be irrational behavior. Economics has much to say about unintended consequences of overly broad interpretations of law and their consequent effect on individual behavior and group dynamics. When people live in fear of getting sued, they tend to not engage in actions that could cause such an occurrence since people are risk-averse by nature.

Another example is found in my own personal experience. When my sister, Shereen, was about 9 years old, she and another girl were playing on the playground at school during recess a game called four square, which involves hitting a large ball back and forth until one person misses. At some point, the ball got away and the two girls ran after it (as kids are wont to do). Alas, both girls tripped over each other while racing for the ball and both were injured. The parents of this little girl did what any parents in an overly lawsuit-happy society would do: they sued my sister and my parents, never accepting that responsibility for the injury lay with no one since both children were acting in a manner not unreasonable or uncommon for children under the circumstances. My parents and their insurance company were stubborn and refused to pay. Common sense prevailed through a binding arbitration process and the complaint was dismissed.

Is Common Law Efficient?

One of the biggest arguments in favor of common law rather than civil codes is an efficiency claim advanced by Richard Posner that common law, as a general rule, is efficient.[16] That does not mean it is always efficient, but inefficient rules may be more likely to be challenged than efficient ones. This is because an inefficient rule can harm all parties whereas an efficient one does not.[17] That does not mean efficient rules do not cause harm. They do, but they are purely pecuniary in nature—a redistribution of gains and losses so that no one is made better off without making someone else worse off.

Still, this claim is often self-serving for economists. It is true that economics influences the making of law, not only because more judges and lawyers become versed in the subject, but also because the employment of high-profile economists as expert witnesses has become more prevalent. Yet, the competitive market mechanism, which is the method by which we reduce or eliminate inefficiency, does not need to rely upon common law to do its bidding. When inefficiency exists due to law, there can be a workaround by the free market that restores the efficient outcome. For example, capital and insurance markets can develop in response to punitive liability laws in emerging technologies to provide ample capital to cover potential losses and allow growth of innovations. With laws that prohibit the payment of interest, such as those that exist under Islamic law, buyers of homes end up with a percentage ownership, rather than total ownership of their property, allowing them to rent the unowned percentage of the property from the bank in exchange for a lease payment and having them apply what is nominally referred to as a principal payment toward the purchase of the bank-owned portion of the property every month. In such a manner, the lease payment decreases month after month, just like interest drops every month under a traditional mortgage. The end result is quite similar to an adjustment-rate mortgage even if that rate is tied to the local rental market, rather than a formal interest rate mechanism.

Limitations on Use of Economics to Understand Law

The single greatest defect an economist can have is to lose a hand, as he or she will be unable to say "on the other hand," the oft-repeated mantra put forth by economists to explain that every debate has (at least) two sides. Economics holds no absolute claim on truth. Although throughout this text we examine the law through the lens of free-market economics and the general belief that a government is best that governs least, other perspectives are also valid. An oft-cited example is the claim of economics that trade makes both parties to a transaction better off since it is done voluntarily. This would appear to explicitly deny the possibility of unconscionability, the idea that there are some contractual

terms so one-sided or conditions prior to contract so imbalanced that a fair contract cannot be derived. However, when one considers one's actions have consequences outside of oneself, unconscionability no longer seems to be something to be thrown out automatically. In *Williams v. Walker-Thomas Furniture Co.,* 350 F.2d 445 (D.C. Cir. 1965), the court invalided a cross-collateral clause so egregious that it defied an equitable result. Mrs. Williams, a single mother with seven children, had purchased a number of goods from Walker-Thomas Furniture over a 5-year period. To protect its interest, Walker-Thomas Furniture insisted upon an add-on clause that allowed it to repossess *any* furniture purchased under credit terms from Walker-Thomas Furniture. Thus, if Mrs. Williams defaulted on a sofa, Walker-Thomas Furniture could repossess the sofa as well as a chest of drawers and a refrigerator on which Mrs. Williams was still making payments. Furthermore, the release from credit terms were not extinguished at the end of the original contract period. If the refrigerator was purchased on a 5-year basis and there still was 1 month to go when Mrs. Williams signed a 3-year agreement to purchase a sofa, the collateral interest in the refrigerator would be extended for an *additional* 3-year period. These terms were found by the court to be unconscionable since failure to pay the smallest payment at the end of the term could lead to the repossession *in toto* of all purchases for which cross-collateral had been obtained, thus allowing the retailer to derive a far greater amount than would be the case under a normal standard of equitability.

Although the court's reasoning is valid from an individual standpoint as is befitting a system of adjudicating individual claims, it is harmful for the poor in general. Individuals with poor credit histories and limited assets face higher costs without such add-on clauses, having to pay higher down payments and interest rates, if they were able to obtain credit at all. On the other hand (and now you see why we economists need at least two hands!), such individuals are statistically more likely to fail to understand the contract terms or be able to comprehend potential ramifications. Thus, unconscionability can be procedural or substantive in nature. Procedural unconscionability would be wide discrepancies in power dynamics present at the start of a transaction or the

attempt to provide terms of service without allowing full consideration of the contract. A classic example is when one does not see the full contract until after already entering into it. Thus, if I sell you a downloaded program and I only reveal the contractual terms of the downloaded program *after* you have paid for it and I do not allow you to secure a refund if you refuse the terms, I have engaged in procedural unconscionability. Another example would be the infamous "fine print" contracts that go on for pages of legalese in such a manner as to be incomprehensible to the average consumer. Substantive unconscionability would be insisting on a price clearly far above market price. A contract with a doctor for surgery that requires you to agree not to sue or seek damages regardless of the outcome of the procedure or whether he conducts himself in an unprofessional manner provides incentives for the doctor to not exercise judicious care and thus is unconscionable. Similarly, the notion a cell phone provider can "lock" your phone to its network and refuse to unlock your phone after the initial contract period has been exhausted and the phone subsidy paid may be unconscionable depending upon the circumstances.

As one can see, one of the key limitations of the law and economics approach is it does not always provide a clear pathway to a "correct" solution. Solutions depend critically on evaluation of the evidence and the core assumptions. Neoclassical economics assumes individuals are rational autonomous creatures with no costs associated with conducting transactions, and the vast majority of transactions involve only contracting individuals and no others. This leads to all sorts of conclusions that, at first glance, seem quite bizarre. Why shouldn't I be able to contractually sell myself into slavery if I can be compensated adequately for this?[18] If you think such a contract is automatically unconscionable, think again. If selling myself into slavery means not only would you save my life but also my family's lives and ensure freedom of everyone else in my city, would this not appear to be a good bargain if the alternative were to be our mass death due to a virulent plague that is quite painful and always fatal but for which the would-be slave owner has the only antidote? Note that this particular case, although repugnant, is not the same as that of a mugger, for I have no legitimate legal claim to the plague

cure since I do not own it. The alternative of seeing more than 100,000 people die horrific deaths, including myself and my family, by failing to agree to such terms is hardly preferable to the singular enslavement of one individual who is willing to be so enslaved to avoid such consequences. Furthermore, to free me of those obligations by stating slavery ought not exist and thus interfere with my right to contract in this manner would cancel all of the benefit that I could negotiate. The logic of this is pretty indisputable. Perhaps, we can find a way around it by arguing one's liberty is inalienable, in other words that it cannot be given away, sold, or otherwise transferred. But, if that is the case, why is it that one's life is alienable, as in Oregon where individuals may engage in assisted suicide? Is one's liberty so precious that it trumps one's life? These are questions economics cannot answer but neither can any other objective system of inquiry.[19]

Economics is not perfect. It can yield perplexing, even contradictory, results. However, its biggest limitation is it will not substitute for our own analytical thought. We are all required to think through the cases and consider all assumptions before reaching conclusions, or, as we economists like to say, we must always consider the other hand.

Externalities

An externality exists when, in the consumption, production, or transaction phase, others are affected either adversely or beneficially. A positive externality produces a benefit to others, whereas a negative externality produces a loss. The consumption of cigarettes in a crowded room generates smoke breathed in by parties who neither purchased cigarettes nor sold them. The production of knowledge in academia is a positive externality because once an individual acquires knowledge that information can be transmitted freely without paying a second time, without manufacturing it again, and without giving up the ability to continue to use that information. This is quite unlike a physical good that must be parted with in order to give it to someone else. Even the introduction of competition in a monopolistic market not characterized by natural monopoly is an externality because it lowers the price paid, thus adversely

affecting the prior present monopolist, even as it benefits the consumers. On balance, however, it is a net positive externality because it reduces the deadweight loss of monopoly. On the other hand, in a perfectly competitive world, competition is a mere pecuniary externality that imposes no *net* cost or benefit since there is no alteration of the overall market: the introduction of a new competitor merely reallocates resources from current competitors to the new entrant while not altering the price paid or the overall quantity of goods. These are just a few examples of externalities.

Another type of externality is known as a positional externality. This is one in which the value of something is based on its relative position in a hierarchy. Income inequality is an example of a positional externality. Consider gifts to children from parents. If a parent favors one child over another by bestowing a gift of $5,000 on their daughter, but only $2,000 on the son, both daughter and son are absolutely better off. However, the son, upon learning of the inequality, may actually have preferred to have received nothing, provided the daughter received nothing as well. The perception of inequality in the gift-giving was seen as unjust by the son. When our neighbors do better, we may feel envious. When those to whom we feel some degree of animosity do poorly, we may feel joy. Having central air conditioning in Kingston, Jamaica is something only the wealthy can afford. Indeed, the fact we had a room-based air conditioner in our master bedroom was an indication we were in the upper middle class. However, if all you had was a room-based air conditioner in your master bedroom and you lived in Miami, Florida, you would be considered poor, where central air conditioning is considered a necessity. The difference between these two cities is the overall prosperity level of the individuals in the society. Over time, positional externalities mean even as individuals and societies get wealthier, there is no general corresponding rise in contentment. It is not clear that previously established hierarchies will continue. During the Middle Ages, obesity was a desirable condition indicating that the person was rich. Today, it predominantly affects the poor and it is considered undesirable. Lobster used to be given as food to orphans and prisoners, so base was it considered; but today, it is a delicacy. At the beginning of the

20th century, crooked teeth were not regarded as a detriment. Today, most children have orthodontic braces to correct the most minor of dental overbites or spaces between teeth. This has also caused some interesting reactions, with children in Japan now deliberately having surgery to *cause* imperfections in their teeth!

From the standpoint of efficiency, what is important is whether individuals gain or lose but rather (1) whether society as a whole gains or suffers a loss and (2) whether the cost of overall improvement is worth it (in other words, does fixing the harm cost more than the harm is worth).

The efficiency purpose of the law is to encourage positive *net* externalities and discourage negative *net* externalities and to do this in the most efficient manner without imposing so many costs on society that benefits of the law are outweighed by costs. Thus, we encourage the introduction of competition in otherwise competitive markets and discourage cigarette smoking.

Transaction Cost Analysis

Transaction costs are costs associated with transactions that are not readily apparent in the price. If I wish to purchase a Sony PlayStation 4 game console, I have information costs I undertake to determine whether I wish to purchase the console in the first place and from whom I will purchase it, transportation costs associated either with ordering it online, or which I will directly incur by having to drive to that retailer, the time associated with completing the transaction, and so on.

Justice also has a price. There are court filing fees, time associated with case preparation, costs to read and understand contracts, and so on. There are many wrongs in this world simply not worth attempting to fix because the cost of fixing them far exceeds any real benefit. It may be cheaper to mitigate harm than eliminate it or it may be cheaper to ignore harm entirely. For example, lead-based paints were extensively used in homes prior to the late 1970s. When paints chip or flake, they find their way into the mouths of children, who can acquire lead poisoning. Removal of these hazards, if done improperly, can lead to even greater risks as lead dust is

spread around the room. Such removal is often very costly. When minor children and pregnant women are unlikely to come into contact with surfaces and the paint is still in good condition, it is cheaper to use a disclosure rule, rather than require mitigation or removal. Although it may be desirable for people to have "good manners," this is not a legal question. If you fail to bring a gift to a birthday party, you will not be sued, but you are not likely to be invited to the next birthday party.

If a retailer sells me a shrink-wrapped DVD, but there is no DVD inside, I might talk to the retailer and convince them to rectify the situation, but there is typically nothing I can legally do to compel them to refund my money. I could sue them but that will entail paying court fees and take time over a $15 item that it is quite likely a case of "I claim, they claim" and will likely not result in a favorable judgment from my perspective. That is, unless, it turns out there are a large number of individuals with the same problem. Then, rather than individually suing the retailer (which would prove quite costly), we band together to form a "class action lawsuit." By pooling our collective experiences, we not only stand a better chance of victory but we also do not all have to go to court. One litigant (or at most a few) will appear in court as class representatives and the overall transaction costs associated with the lawsuit will decrease.

In addition to answering "what to do?", the law also addresses "who is to pay?" In this, we consider the cost not only of the action but also the cost associated with the conducting of the transaction itself. Liability rules are constructed; so those who are able to avoid the liability at the lowest possible cost are the ones who are saddled with the said liability. The general rule under an 'all perils" homeowner's policy is to cover wind damage to a home. However, there is no indemnification in the somewhat inappropriately named "all perils" policy against termite damage since this may cause homeowners to fail to take necessary steps to identify or eradicate the issue before it grows to become a major threat to the structural integrity of the house. Although general insurance may offer this coverage, usually if you want protection against termites, you go to a termite eradication company, which provides insurance in exchange for protecting your building with periodic treatments. In this case, the termite exterminating company can offer this because they also will mitigate the damage.

For the Economist: Modeling of Externalities and Transaction Costs

An externality may be shown as the gap between social marginal cost (SMC) and private marginal cost (PMC) or the gap between social marginal benefit (SMB) and private marginal benefit (PMB). We can think of this as a "wedge" that does not allow these two to coincide.

An example of a negative externality is given in Figure 1.1. The PMC is equivalent to the supply curve, whereas the SMC is where we would like to locate the supply curve. The socially optimal result is at price, P*, and quantity, Q*, but the wedge causes private marginal cost to be lower than socially optimal, so "too much" of the good is produced/consumed than desirable. The wedge occurs as nontransacting individuals absorbing costs without receiving benefits.

With a positive externality (Figure 1.2) the socially optimal is a higher price and quantity—the higher price needed to induce more production. There is "too little" produced/consumed than socially desirable. The creation of this wedge occurs as individuals not party to the transaction receive benefits without paying costs. A transaction cost imposed on consumers has the same effect as a positive externality of equal magnitude in terms of quantity sold (Q_M), although the price paid by the consumer (P_C) will not equal the price received by the producer (P_P). The difference equals the size of the wedge, now relabeled as a transaction cost (Figure 1.3).

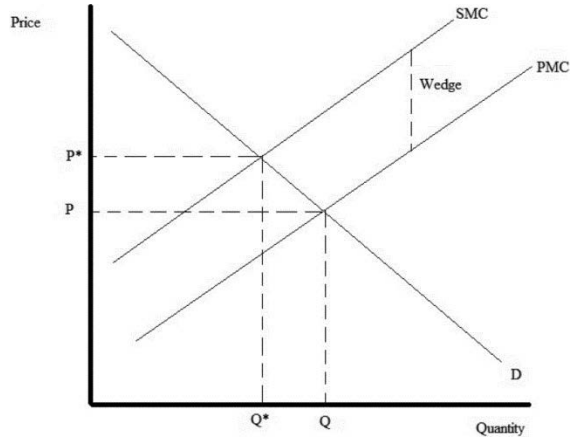

Figure 1.1 Negative externality

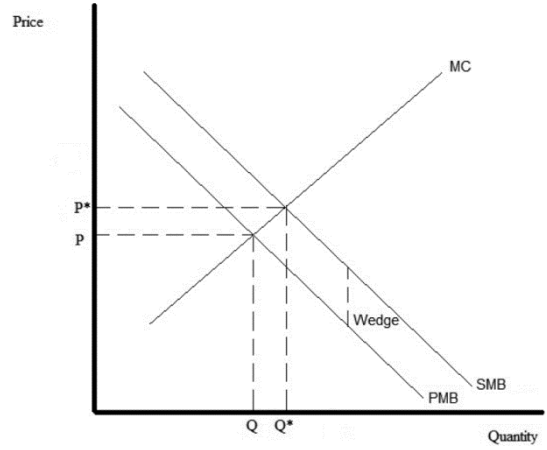

Figure 1.2 Positive externality

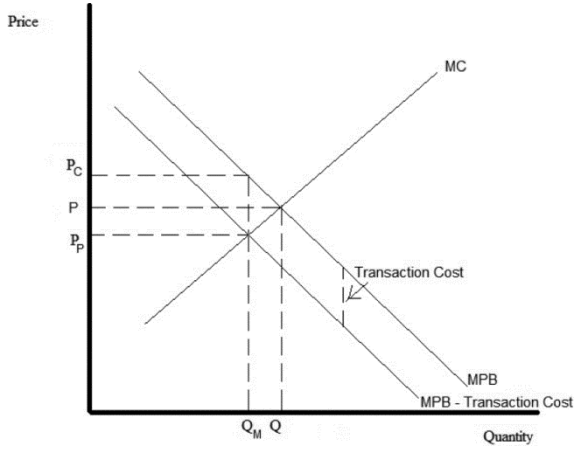

Figure 1.3 Transaction costs

A transaction cost will be paid as part of the transaction and thus affects the decision with two caveats: (1) the transaction actually occurs and (2) the transaction cost is known prior to the transaction. Transaction costs that never result in a consummated transaction are borne exclusively by the party that incurs them. A consumer who must drive to a store to take delivery of a good will consider that cost in his or her decision to purchase a product. However, if there is no product in stock when the consumer arrives, the cost of going to purchase the good no longer is a transaction cost but now becomes a sunk cost that is borne

exclusively by the consumer and ought not to be considered in future decisions regarding the product. Similarly, if the consumer gets into an accident on the way to the store, that accident is not part of the transaction cost since it was not anticipated prior to driving to the store. On the other hand, a transaction cost that is known in advance need actually never be paid at all if that transaction cost is high relative to the transaction itself. For example, I love to eat poutine, which is a Quebecois concoction that consists of French fries covered in cheese curds and smothered with gravy. This veritable "heart attack in a bowl" would probably be what I would eat today for lunch if it were not for the fact that the nearest restaurant that sells poutine is some thousand miles away from where I live. The transaction cost of driving to Montreal to satisfy my urge means that this transaction will not even be contemplated and thus I do not pay the transaction cost in the first place. Thus, transaction costs have effectively saved my waist line, my life (given how much I love to eat poutine), and my wallet. Now it is time to go eat my salad.

Questions for Review

1. Given that the author has explicitly stated that poutine is hazardous to his health, does this mean poutine has a negative externality?
   No, poutine has no negative externalities associated with it. The cost in terms of clogging the author's heart arteries is borne exclusively by the author and thus it does not affect others. If a healthier version of poutine were developed that did not compromise on taste, more people would undoubtedly partake of this most excellent meal.
2. Would the results differ if the transaction cost is paid by the producer?
   The end result will be the same regardless of whether the producer or the consumer "pays." The producer will attempt to pass on the cost to the consumer in the form of a higher price, P_C, and will receive P_P as the price net of transaction costs. See Figure 1.4.

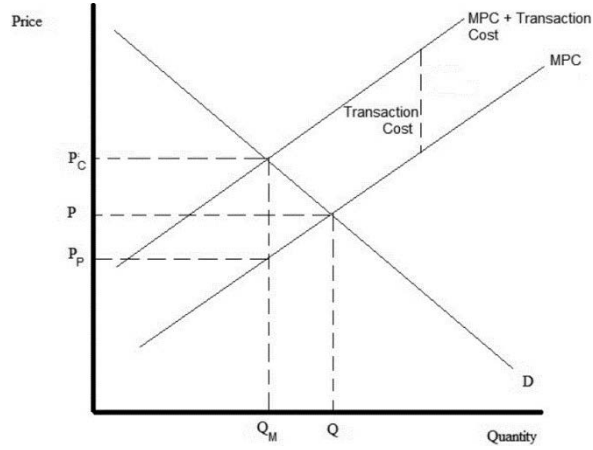

Figure 1.4 Transaction cost paid by producer

Questions for Discussion

1. Is the sales tax a transaction cost? Is the cost of acquiring information a transaction cost?
2. Given the ubiquitous nature of transaction costs, would it be proper to label them as market failures and attempt to conduct corrective action using the law?
3. Is an externality a transaction cost? Why or why not?

CHAPTER 2

Property Rights

The common law typically encompasses the law of property, the law of contacts, and the law of torts and will occupy our concern over the next three chapters as well as parts of the last chapter in this text. In this chapter we will discuss the concept of property rights and the four basic types of property: real, personal, intellectual, and public. In addition, we will look at how governments limit the use, transfer, and possession of property under the guise of regulation.

Key Economic Concepts

administrative cost
cooperative game theory
deadweight loss
regulation

Key Legal and Political Concepts

adjudication
bailee
copyright
eminent domain
estate, subsurface
estate, surface
"fair market" value
fair use
incompatible use
key money
patent
police power
possession, adverse
possession, constructive
possession, involuntary
possession, unconscious
property, abandoned
property, intellectual
property, lost
property, mislaid
property, personal
property, public
property, real
property rights
public domain
public nuisance
public purpose
public use
regulatory taking
rent control
servicemark
state of nature
statute of limitations
trade secret
trademark
warranty of habitability
zoning

Origins

What is the nature of property? We begin in the so-called state of nature, before government exists, with the concept of the natural right of self-ownership, first articulated by John Locke:

> . . . every Man has a *Property* in his own *Person*. This no Body has any Right to but himself. The *Labour* of his Body, and the *Work* of his Hands, we may say, are properly his. Whatsoever then he removes out of the State that Nature hath provided, and left it in, he hath mixed his *Labour* with, and joyned to it something that is his own, and thereby makes it his *Property*. It being by him removed from the common state Nature placed it in, hath by this *labour* something annexed to it, that excludes the common right of other Men. For this *Labour* being the unquestionable Property of the Labourer, no man but he can have a right to what that is once joyned to, at least where there is enough, and as good left in common for others.[1]

Locke recognizes three principles found in the common law: first, an individual owns himself or herself and thus the violation of that individual is an abridgement of their property; second, individuals are entitled to the fruits of their labor, which is the basis for custody of real, physical, and intellectual property; and third, one can only take from the Earth in the state of nature, "at least when there is enough, and as good left in common for others." This latter principle underscores the need, before government, to ensure that others can also use nature. When this principle cannot be handled adequately, disputes arise and an independent party adjudicates.

A standard rejoinder may be, "Why?" Why should we adjudicate such disputes? We do not convene a council to judge the merits of mere opinion, such as whether North Carolina is a better state to live in than South Carolina. We do not settle by debate the question of whether God exists. We also do not require discussion of matters of indisputable fact. You can argue that jumping out of an airplane without a parachute is a good idea but no one will believe you. We do not contravene

common sense to argue that vanilla is a better ice cream flavor than mint chocolate chip (mint chocolate chip is definitely the best, there can be no debate on this subject).

The reason for law in terms of defining property, its ownership, its limitations, and its ability to be transferred is to increase wealth for all of society. Without an ability to protect property, why would we engage in productive activities? Why should I write this book if I am not compensated for its use? Why should a drug company create a life-saving drug if it cannot generate a profit? Why should I ever leave my car unattended if it can be easily stolen and if there is no mechanism to return it back to me? Indeed, why should I purchase a car in the first place?

Imagine a world lacking individual property rights and having only a collective common right. What would happen to the stock of cars that currently exists? You could take any parked car and drive it anywhere. Since no one owns anything, what is the incentive to maintain those cars? What is the incentive to put in any more gas than absolutely necessary? What would be the incentive to manufacture new cars or repair existing ones that fell into disrepair? Property rights are important for society because they provide *incentives* for acquisition, care, regular maintenance, and even transference of unused property in exchange for compensation.

Property acquisition is ultimately intertwined with the question, "What *is* property?" Property is that which one owns and ownership implies a certain bundle of rights associated with that which is owned: those being, at a minimum, a right to use, oftentimes exclusively, and a right to possess. If the property is alienable then there is also the right to sell or otherwise transfer that property to another. However, some property is inalienable, which means it cannot be transferred to another by one or more of the common arrangements by which this occurs. You are the inalienable property of yourself, preventing you from selling yourself into slavery. You cannot transfer your vote to another. In some cases, however, inalienability may be incomplete. You cannot sell your nonregenerative body organs (though you can sell your hair, your blood, your semen, and your eggs, all of which are regenerative), but you can bestow them by gift at any point in time, so long as in doing so you do not cause a guaranteed end to your own life or that it will be transferred

only upon your death with the proviso that your death was not engineered to allow for such a transference. The economic rationale against inalienability in organ transplants is, of course, that it hinders the operation of a free market by reducing the supply of available donations. People end up dying because there is a shortage of available organs due to restrictions that prevent their sale. The basic argument is thus identical to one concerning rent control, which we will take up later in this chapter. On the other hand, the ability to sell an organ may lead individuals to be more likely to attempt to donate damaged organs, which generates an information asymmetry, and the potential that donated organs will be of higher quality than sold organs. We will take up this issue in more detail in Chapter 3 when we deal with warranties.

There are also certain other rights commonly associated with property, such as the right to alter, mortgage, loan, consume, or even destroy. For example, back in 2001, I created the *American Review of Political Economy*, an academic journal dedicated to the idea of an academic "sandbox" in which all heterodox and orthodox economic traditions could meet and exchange ideas. For a few years, due to various time commitments, I placed the *American Review of Political Economy* on extended hiatus. It is my property and I can do with it what I will. If I choose, I may restart it or I may decide to allow it to die. This right to decide its fate is uniquely mine. Yet this right to destroy is not extended to certain other properties that I own. I cannot do the same for my dog since the right to destroy is modifiable based on the nature of the property in question. Furthermore, if I exercise my right to kill off my academic journal, it will not preclude another from coming and starting a new journal with the same name and the same mission. The new owner will not be able to acquire my copyrights without negotiating with me, but he or she can certainly compete in that space if I choose to abandon it. The basic premise of the common law is that I should enjoy maximum liberty to do with my property what I will so long as I do not interfere with the right of others to do likewise with their property.

Locke's insistence that our labor when combined with nature creates property is also found in ancient Roman law, which held the property of no one became owned by another the moment it was claimed through

occupancy that was notorious, adversely possessive, and continuous. Each of these elements was needed to resolve a dispute that the property was actually owned since property that appeared to have no owner was subject to claim by another. Notoriety meant that the claim was open for others to see. Adversely possessive meant the property was exclusively used by the claimant and the continuous requirement meant sporadic possession was insufficient for a claim of ownership. Roman law specifically held that the property of enemies was also subject to these principles since enemies of the state enjoyed no property rights in the Republic.

This works if property is easily defined and immovable, but what happens when it lacks definite boundaries or can move? In *Hammonds v. Central Kentucky Natural Gas Co.,* 255 Ky. 685, 75 S. W. 2d 204 (Court of Appeal of Kentucky, 1934), this was the question. A natural gas reserve was found below land leased by the Central Kentucky Natural Gas Company, but this reserve also traversed several other properties and one of those was owned by Hammonds. If natural gas were like diamonds or coal, fundamentally immovable until extracted, the owner of the subsurface estate (in this case the same person who owned the surface property) would be the owner. However, natural gas is fungible—it is impossible to determine from where the natural gas came. A better analogy would be of a feral or wild animal, as in *Pierson v. Post*, discussed in Chapter 1. Ownership of such resources is based not on who owns the land over which the natural resource is located but rather who first possesses the resource. Thus the decision was given in favor of Central Kentucky Natural Gas Company as opposed to Hammonds.[2]

Today, the principle of adverse possession allows the taking of real or personal property by another under similar conditions once the statute of limitations has run out. The economic rationale is that over time, utility derived from possession of property increases for people who adversely possesses it and declines for people who only own it nominally. This is an argument that utility is derived from use, rather than mere possession, of something. While intellectual property and public property are not subject to adverse possession, one can lose a trademark if one does not enforce the exclusive right to its use, one will lose one's trade secret if it becomes disclosed, and one has a statutory time limit on how long one can hold a copyright or patent.

Real Property

Real property is defined as land and those objects that are, for the most part, unmovable and are attached to it. Land, buildings, fences, and other structures constitute real property. Although it is true that one can move a building, it is inordinately difficult to do so. The act of moving a building alters the character of the property itself in such a way that it no longer can be thought of as the same. If I take my car from North Carolina and drive to the Mohave Desert, it is undoubtedly true it is still a car with approximately the same value in both locales. However, if I took my house and transferred it, the value of that house would drop appreciably since it no longer would be connected to any of the modern amenities that make residence in the house valuable, such as electric, water, sewer, and natural gas services. Going further, it is also possible to move the topsoil of my property to the Mohave Desert but it would be clear that doing so would not really be transporting it. All it would mean is I now have a bunch of topsoil in the Mohave Desert; the ability to grow a garden with vegetables or to have a lawn would be nonexistent because these features of my land are characteristics of the unique climate in which it naturally is found.

Eminent Domain

If a private person not directly connected to me wants my continuously used property, there is only one (legal) way with which he or she can acquire it and that is a voluntary agreement to transfer ownership. Taking the property using the barrel of a gun is theft. Taking the property through duplicitous means is fraud. There is no legal requirement I sell to another even if the price seems, to most individuals, to be more than reasonable. There are exceptions. If you cause me injury, you can be sued and compelled to provide me with monetary compensation for my loss. If I use adverse possession, which was discussed earlier, I can legally take your property. I can also take your property if it is not truly yours, as in I can have the government restore *my* prior property rights in a work of art poached from my house and then sold to you by the thief. If I hold a collateralized contract and you default on that contract, I can take your collateral.

In each case, there is a direct connection between the parties or (in the case of adverse possession) a lack of continuous use on the part of the owner used to the advantage of the person who seeks to acquire the property. The transfer of property is granted to provide satisfaction to an aggrieved party *or* based on the principle of abandonment and the subsequent claim of the property by someone else. When it comes to the government, however, no such rationale is required. It may take your property for a "public purpose" *even if you are currently occupying it* without you doing something for which you can be found at fault. In order to take property, all it need grant you is compensation at the current market rate under the doctrine set forth by the Supreme Court in *Olson v. United States*, 292 U.S. 246 (1934). Yet this is inefficient.

Suppose you had a book given to you by your grandfather and thus it holds a lot of sentimental value such that you would never sell it for the current market price (that is not to say that you would never sell it but you would need to be compensated not only for the market price but also be paid a significant premium). I offer you $20, the current value of the book in the bookstore and you, naturally, say no. I then take your book and give you the $20 even though you do not agree to the transaction. This is theft. It does not matter I have given you money at the current market price. It would also not matter if I paid you *more* than the market price to compensate you for the "trouble" of reacquiring another book. Unless the transaction is voluntary, it is a form of theft. Of course, in the case of a book, you might very well ask, why do I not go and purchase the book myself from a third party? If there were truly a free market in these goods, you would be correct. Taking your goods by force implies that the "fair market price" really isn't.

From an economic standpoint, the desirability of voluntary transactions is straightforward: the person who most values the good will receive it; we achieve *allocative efficiency* since there are no trades that can be made that can make both parties better off.

If I value the book at $30 and you value it at $27, I can offer you $28 and we both will be better off but if I require you to sell it to me for $20, I have enriched myself at your expense, although society as a whole is made better off since the good is now in the hands of the person who values it

more. In this case, we achieve an efficient outcome but we could have accomplished the same result without violating your property rights.

On the other hand, what if you value the book at $35? In this case, the transfer from you to me is not merely a matter of an enrichment of me at the expense of you but is also a reduction in the overall social welfare of the entire society; the amount by which I am benefiting *cannot* compensate you for your loss and not only are we not seeing a win–win situation whereby both parties are better for it, we are in a scenario where your loss exceeds my gain—we would both be better off if you turned around and bought the book back from me for $33! Thus, in this worst case scenario, a trade can be engineered that will return us back to a point of allocative efficiency but only because I have enriched myself at your expense. However, since trades involve transaction costs, which are deadweight losses for society, such theft is inefficient.

The standard argument for eminent domain, that it is necessary so a holdout will not "unreasonably" extract payment far in excess of that which is commanded by the market, is a poor economic one. In its best case scenario, using an involuntary transaction involves getting a good for less than what a voluntary transaction would cost, but it comes at a terrible price; if we routinely violate property rights to get what we desire, what would be the desire to acquire property? If we reduce our desire to acquire property, we hamper the incentive mechanism that creates wealth in the first place. Strong property rights are the basis not only for a free society but also a wealthy one. Violation of property rights disrupts trust, the basis for all market transactions. If I cannot trust you to treat me fairly, why should I do business with you? It is the quintessential characteristic of market economies that one acquires goods in trade not by appeals to sympathy but by having a meeting of the minds based on mutual self-interests. Self-interest, in most cases, is served best when neither party seeks to take advantage of the other since the most important attribute of an individual is his or her good name and the defining characteristic of a profitable going concern is customer goodwill. If I gain a reputation for taking property of others without just compensation, soon the only way I can acquire the property of others is in a similar manner. I will have become a thug and will have rejected even the veneer of being an honest

dealer. Once I have legitimized taking by force, what right do I have to complain when a similar situation happens to me? In its worst case scenario, all of the aforementioned ills are present with the addition that the transfer is an inefficient one—not only are we reducing everyone's welfare in the future through the destruction of goodwill, reputation, and trust but we also do so for no good reason in the present since the overall societal welfare is reduced even with regard to this one transaction. One cannot hope to save the market by destroying it.

At least some of this might be redeemable in cases where a public need was being served. The construction of an interstate highway, for example, has numerous benefits that adhere to the whole of society. However, in some cases, these benefits are tenuous at best and the takings clause may be overly broad. A series of decisions from the court have concluded that "public use" equates to "public purpose" and have allowed the government to increase its power over private owners when less extreme remedies are already available to it. For example, urban blight and slum conditions can be alleviated under the police powers of a state using nuisance laws. Various remedies can be required of property owners and failure to adhere to these after being given adequate notice and sufficient time can still lead to property condemnation. Yet in 1945, the U.S. Congress introduced the *District of Columbia Redevelopment Act*, to allow the district to use eminent domain to eliminate blight and engage in urban renewal. It could then transfer that property to another private entity to undertake this project. The question before the U.S. Supreme Court in *Berman v. Parker*, 348 U.S. 26 (1954), was whether the District of Columbia was allowed to seize a department store that itself was not slum housing or blighted but which nonetheless was in the redevelopment area and needed to be cleared for the comprehensive redevelopment plan to take effect. The Supreme Court unanimously upheld the legislation, allowing the taking, even though it ultimately led to "a taking from one businessman for the benefit of another businessman," on the grounds that the overall project served the public purpose of eliminating slums and failing to take everything within the redevelopment area could jeopardize the entire project. Subsequently, in *Hawaii Housing Authority v. Midkiff*, 467 U.S. 229 (1984), the mere localized concentration of property ownership was a sufficient

public purpose under the police powers act to legalize takings via eminent domain, while in *Kelo v. City of New London*, 545 U.S. 469 (2005), the Supreme Court held that a taking solely for the purpose of potentially expanding tax revenues and improving the local economy was a legitimate "public use" under the takings clause. Ironically, the redevelopment plan in that case eventually was shelved as the developer was unable to obtain adequate financing. After this last case struck a nerve with the public, the vast majority of states passed new legislation that limited (though often only slightly) the power of municipalities to engage in similar takings.

This can also work in reverse, whereby a property owner can force the government to purchase the property or on easement that is created by government action even though no declaration of taking occurs, through a process known as inverse condemnation. In *United States v. Causby* 328 U.S. (1946), the Supreme Court found that the ancient property rule of *Cuius est solum, eius est usque ad coelum et ad inferos* (whosoever owns land, it is theirs, from all up to Heaven and all down to Hell) was not applicable with respect to normal commercial air space but because the U.S. government was conducting flights out of a nearby air force base that were so near to the ground as to disrupt the commercial chicken farming interests (the planes were flying at an altitude of less than 100 feet over the property), the actions constituted the taking of an easement that had not previously been the government's and for which compensation had to be paid, even though the easement reverted back to Causby when the flights ended. This particular case also serves as the basis for compensating homeowners either with cash settlements or by mitigation efforts when commercial flight paths are altered so that they affect homeowners negatively in the surrounding area where they had not previously been affected.

Incompatible Uses

When I lived in Ontario, California, the wind would often blow in my direction the powerful odor of cattle. The fact that the cattle were there first did nothing to reduce the offense that was faced by my olfactory. Similarly, if you build a tall building next to mine such that I can no

longer operate my satellite dish since your building is blocking my line of sight to the southern sky, your actions have harmed my preexisting claim. These two are examples of those that are referred to as "incompatible uses" because the enjoyment of property by one individual manifestly interferes with the enjoyment of property of another in such a matter that the two uses cannot occur simultaneously without interference. Technically, this issue points to a coordination problem in which the two sides need to work out an agreement that will not lead to a conflict.

Oftentimes agreements will not be forthcoming and the government will take it upon itself to impose a solution. Under "right to farm" rules, if a farmer has operated a farm for at least 1 year without the farm being considered a nuisance, it is impossible for others to object on those grounds unless there is a substantial change in how the farm operates. The Indiana Court of Appeals ruled in *Shatto v. McNulty*, 590 N.E.2d 897, 898-99 (Ind. Ct. App. 1987), "People may not move into an established agricultural area and then maintain an action for nuisance against farmers because their senses are offended by ordinary smell and activities which accompany agricultural pursuits. . . . We must observe that pork production generates odors which cannot be prevented, and so long as the human race consumes pork, someone must tolerate the smell." Yet a substantial alteration is not the mere increase or decrease in numbers of animals but rather an alteration of the type of activity would be required. In addition, once that activity has occurred for a period of at least 1 year, the right to object is forfeited (*Laux v. Chopin Land Associates, Inc.*, 550 N.E.2d 100 [Ind. Ct. App. 1990]). In these particular cases, we see the law favors the party for whom the transaction cost would be greatest at the time that the nuisance is identified. It is far less costly from the standpoint of the consumer to decide not to rent or purchase a property because of a preexisting farm that is located adjacent to it than for the farm owner to be forced to mitigate the smell. Still, one has to wonder why we have a "right to farm" rule in the first place. Why should a farmer have a greater right under the law of nuisance than that given to a tanner or leatherier? Right to farm legislation is, at least partially, predicated on the idea that the property right *ought* to go to the preexisting claimant but that can be inefficient as well. If it would be easier for the farmer to mitigate the issue, why shouldn't the farmer do just that? By granting a right

that trumps the rights of future uses through the doctrine of incompatible use, it can lead to an excessive amount of farming than is socially optimal or the use of land that is suboptimal for the purpose of farming simply to establish the right not to be bothered.

A similar condition is present in the subdivision where I purchased my existing home. As we are located a mere 5 miles from an international airport, my builder installed extra installation so the noise of jets would not be heard. This noise abatement has additional benefits in that I cannot hear my neighbor's loud music and, in the 8 years during which I have been resident here, I have never heard the sound of an airplane even though they fly directly over my property at a distance of about 4,000 feet.

Under English common law, if you have been able to utilize natural light for a period of 20 years, your right to that light has been established and a neighbor who obstructs that light by building a structure or planting trees can be held at fault under a nuisance claim. However, this would severely restrict the ability to develop commercial property, so it has not been adopted by the United States (*Fontainebleau Hotel Corp. v. Forty-Five Twenty-Five, Inc.*, 114 So. 2d 357, 1959 Fla. App.). A similar ruling would likely be made with respect to satellite television reception. I can, of course, attempt to move my dish to acquire a signal. Rules established by governments and homeowner's associations can restrict where I place an antenna provided they do not preclude me from installing it somewhere where I can acquire reception. If I cannot acquire reception except in a location which is not permitted by the government or homeowner's association, the reason for not allowing me to locate it would have to be due to safety concerns or for historic preservation reasons under the Telecommunications Act of 1999, as amended. The reason for this makes economic sense. Preventing my neighbor from erecting a tall building that he or she is otherwise permitted to do under the law would be a grave expense for my neighbor, while moving the satellite dish would be a minor expense for me. The basic idea here is that the cost of the transaction ought to be borne by the individual who is best able to pay it. Reconfiguring a building to allow my satellite reception would be far more costly than having me move the satellite to a differing location. Of course, it would be nice for my neighbor to pay

for that relocation but I cannot compel him to do so. As we can see here, the mere fact that I was here first (contrary to the right to farm statutes) does not guarantee me the right to be able to continue to enjoy my property to the same extent and without future interference.

There is an important lesson here from an economics standpoint: although it is easier to administer a law that sets out clear parameters for deciding property rights (such as a first-in-use, first-in-right system), we must consider all deadweight losses (transaction costs, administrative costs, and efficiency costs) when determining the best policy. We will consider these issues once again when we examine environmental law and the Coase theorem in Chapter 6. However, for now, we will look at a technique that has long been used to solve this incompatible use problem and that is to *impose* coordination on a market through a regulatory measure known as zoning.

Zoning and Land Use Restrictions

Zoning originated in San Francisco in 1867 when it passed the first land use ordinance in order to preemptively prevent the construction of slaughterhouses and other similar businesses in certain defined areas of the city as opposed to trying to cure these defects in arrears through a nuisance abatement action, while Los Angeles became the first city to designate between residential and commercial areas of a city in 1909 and the U.S. Supreme Court upheld the concept in *Hadacheck v. Sebastian*, 239 U.S. 394 (1915). Similar types of actions were found in several East Coast cities to prevent high-rise buildings from being constructed, which were upheld in *Welch v. Swasey*, 214 U.S. 91 (1909) (limits on heights of buildings do not violate the Constitution's prohibition on takings or on the requirement for equal protection under the law).

In 1916, the first comprehensive zoning ordinance to combine these two features was introduced in New York City and, in *Village of Euclid, Ohio v. Ambler Realty Co.*, 272 U.S. 365 (1926), the U.S. Supreme Court ruled that zoning regulations were legitimate uses of the police power of a locality so long as they were not "clearly arbitrary and unreasonable, having no substantial relation to the public health, safety, morals, or general

welfare." The economic rationale for carrying out zoning is to impose order on an otherwise disorderly market and although every major city except Houston, Texas has a zoning ordinance on its books, it is not entirely clear that these are necessary to solve the incompatible use coordination problem. Manufacturing plants typically are located in areas that have low land values since they must occupy a great deal of real estate when compared with single-family and multifamily dwellings. You rarely see such plants in the middle of cities that are typically dotted with residences, offices, and shops. Similarly, few single-family homes will be found in a shopping district, the land is simply too valuable and the owners of the residence would be hard pressed to refuse a generous offer from a potential retailer for the land. Land prices tend to reflect their use and zoning merely reinforces this existing arrangement.

Still the libertarian-minded will not find a free market nirvana in the antizoning capital of Houston. Land use restrictions still persist in the city and the municipality's attorney can enforce through the police power of the state highly restrictive covenants, conditions, and restrictions of private landowners without requiring that these actions be brought privately as most contract signatories are required to do when attempting to enforce those provisions. Furthermore, while private contracts are usually thought of as being negotiations that inure to the benefit of all parties, restrictive covenants can be pushed through after the fact and imposed on property owners who would not wish to otherwise agree to their terms. Although aesthetic rules are not enforced in this matter, land use is, which makes for a de facto zoning code that, while not uniform throughout the city, is, nonetheless, highly restrictive in character, sometimes more so than in other cities. In addition, there are general overlaid rules of minimum lot size and minimum parking size regulations that work hand in hand to generally restrict property owner rights to a much greater extent than would appear to be the case on first glance.

The basic problem with zoning is that it transfers from individuals the right to completely enjoy their property, as these controls fundamentally restrict rights in the name of preventing negative externalities, such as locating a factory next to a residence. There are numerous other methods that are less intrusive and destructive of the right to property

that are available to accomplish a similar goal, including private contracting, private negotiation, and the use of the police power of the state through nuisance ordinances. These other solutions are, contrary to zoning, either established freely between the individual parties or are imposed based on a uniform standard. On the other hand, zoning, by its very nature, can be capricious since properties in different sections of the city are treated differently even if they are otherwise similar.

The segregation of districts of a city into commercial, industrial, and residential areas is designed to reduce the juxtaposition of properties that have fundamentally incompatible uses. Yet it is unclear why this is an issue in the first instance. Zoning is about grabbing from your neighbor a portion of his rights and giving it to the community at large. Similarly, your neighbors take from you a portion of your rights. Yet if there were no zoning restrictions whatsoever, this would mean that you could do not only all that you currently are allowed to do with your property but also those things that zoning currently restricts. As such, your property's land value, assuming everything else stays the same, would be no lower and arguably would be higher under a system where there is no zoning than a system where zoning exists.

Things are not quite as simple as this naïve argument would suggest. If there are significant negative externalities present because land owners do not take into consideration the effect of their actions on their neighbors, everyone can lose. To demonstrate this problem, we can look at zoning through the lens of cooperative game theory.

Cooperative game theory is a modeling method in which we can examine how one individual's reactions to the actions of another individual complicates the returns each individual receives. Although everything we do is dependent in some way on the actions of others in the abstract, in many cases these activities are so far removed from each other that they are almost meaningless. A decision to run a house of ill repute in Chicago has very little to do with me, except that I might find it offensive to know that such a business is located anywhere. However, if it is located next door to me, the comings and goings of prostitutes and Johns could end up causing me serious harm as my own property values will tend to decline in the presence of such a business.

Suppose I value my property at $300,000 if I can do whatever I like with it but only $250,000 if I am limited in terms of my rights under the current zoning ordinance that exists in my area. Suppose further that you value your property the same. If it were true that the exercise of our rights could not impact our neighbors then there would be no reason to have zoning whatsoever. But suppose that, in fact, the exercise of your rights in the absence of the current zoning ordinance would lower the value that I set for my property by $100,000 and a similar conclusion is made by you with respect to me. Suppose further that the right in question in both cases is disallowed under the current zoning law. In such a case, our calculations change. If each of us is able to fully utilize our rights, we each end up valuing our properties for $200,000 rather than $300,000 because the exercise of those rights by the other party creates a negative externality for us that devalues our respective property values in our eyes. By limiting our rights, we are able to increase our valuations to $250,000 by mutually agreeing not to engage in that behavior. However, why can't this be accomplished via standard negotiation? Certainly if we can come to an enforceable agreement that is mutually satisfactory, the benefits from zoning cannot outweigh the benefits that we receive from negotiation—or can it? The answer to that question lies in with transaction costs. While two individuals can negotiate a common agreement in most cases, groups of hundreds of different individuals may find it quite difficult to do so. Zoning, by allowing all to come together through a democratic process, binds everyone into a negotiated settlement using a voting mechanism. It may not always be the most efficient in the absence of transaction costs, but it will hopefully be close to that when transaction costs are considered. Indeed, if zoning achieves the *same* result as a negotiated settlement, it may be that the transaction cost reduction will be so great that it is actually a preferred solution to a negotiated one.

Zoning creates many issues that would suggest such a result cannot be achieved. It is almost always imposed within political subdivisions, such as counties and cities. Since there is some degree of substitutability between political subdivisions with respect to land, whether they are commercial or residential, zoning in one city affects the land values in another even when

zoning is not present in another community. This is because zoning effectively changes the supply of land available for development with respect to any given use. If supply is relatively inelastic, reducing the supply of land for housing by stipulating a minimum lot size and mandating single-family housing, this will effectively raise equilibrium prices in the community; but, if other cities have relatively elastic supplies of land since they do not have as strict zoning requirements, there will tend to be an increase in demand in those cities without such a steep rise in price.

Tenancy and Eviction

When you rent a space, you expect it to be habitable and that you can enjoy its use. The first of these two expectations is covered by the implied warranty of habitability and the two are jointly codified into contracts by a covenant of habitability and a covenant of quiet enjoyment. Under the implied warranty of habitability, the landlord represents that the property meets certain standards that afford it a reasonable living standard. This was in sharp contrast to earlier common law rulings on property that afforded the doctrine of *caveat emptor* with regard to such transactions. Similarly, a lease contract was essentially considered a conveyance of the property for a fixed period of time and thus the renter assumed the obligations and liabilities that went along with ownership, though not all of the benefits that would normally accrue to the landlord.

Yet courts in the early years of the republic were already beginning to recognize that tenants were at a disadvantage in negotiations since the landlord had the benefit of hidden knowledge that the renter did not have. As such, if a renter discovered later the fact that the premises was not adequately maintained or if the landlord did not provide adequate protection for the tenant to be able to enjoy the space, tenants could leave a lease mid-term under the doctrine of constructive eviction. The seminal case regarding this was *Dyad v. Pendleton*, 8 Cow. 727 (N.Y. 1826). In that case, the tenant complained that the presence of the brothel in the building rendered continual habitation intolerable and thus demanded to be able to break the lease. The dissent to the decision noted that this could lead ultimately to a condition in which leases meant nothing since a renter

could always come up with some excuse to plead constructive eviction and be let out of the lease. Furthermore, it was argued that the remedy for the tenant was obvious: call the police. Still, this case set a precedent for tenants arguing that circumstances such that the property was uninhabitable or unfit for quiet enjoyment effectively forced them to move and thus the termination of the lease was not their fault.

More movement toward tenant rights occurred in the middle part of the last century as indoor plumbing, electrical wiring, and other hidden aspects of a residence made it difficult for renters to know what was in proper working order. This alternation led to a greater risk being carried by landlords and rents accordingly rose as more and more requirements were laid at the feet of those who would rent properties to others. Still, this can be considered as a mitigation of transaction costs and the transfer of risk also afforded landlords an incentive to keep their properties in rentable condition. When the warranty of habitability is breached, the law affords various remedies for the tenant. First, if the tenant has given the landlord adequate notice of a minor defect and the landlord has done nothing to remedy the situation, the tenant may initiate the repair at his or her own expense and then deduct that expense from the next month's bill.

Second, one can apply to place rent into escrow until corrections are made. If the length of time for corrections is unwarranted, courts can authorize payment be made to the tenant as compensation for reduction in use from which he or she was enjoined.

The most drastic remedy is receivership where the court appoints a third party to oversee repairs and collect rent to be used toward correction of defects. In some cases, where the cost of such remediation is particularly high, the receiver can seek additional loans against the property that will create new first liens and forcing existing lenders into a position of subordination, even without their consent. This creates powerful incentives against landlords since these actions can make it difficult for them to raise money for other ventures and because the receiver has no responsibility to the landlord to merely bring the properties up to standards or to do so in a less costly manner. Instead, the receiver may engage in actions that harm the financial interest of the landlord since the receiver owes his or her allegiance to only the tenants and the courts.

These remedies would not be effective unless they could be made into a credible threat. If the landlord could terminate the lease without cause or in retaliation for undertaking such remedies, few would come forward to challenge the condition of the rental property. At the same time, there are laws that are designed to protect the landlord. Security deposits may be required and landlords are permitted to deduct from the security deposit the cost of repairs due to actions undertaken by the tenant that exceed normal wear and tear. While tenants are expected to be able to enjoy their covenant of quiet enjoyment, such that the landlord cannot come at all hours of the night, a tenant who bars a landlord from enacting necessary repairs cannot turn around and complain when those repairs are not done in a timely manner.

There are other methods whereby a landlord can seek to end a rental contract but these usually fall under the category of "just-cause eviction." A tenant who materially breaches the contractual terms including, but not limited to, failing to pay rent, engaging in willful destruction of the property, or engaging in behavior that is inconsistent with the rules and regulations of the premises may be evicted prior to the end of the lease. In addition, changing circumstances for the landlord or a violation of housing codes by the tenant may cause a cancelling of the lease. Various reasons may differ from jurisdiction to jurisdiction but the San Francisco Just Cause Eviction Ordinance found in Section 37.9 of the City and County Ordinances provides a good overview. In that city, a rental agreement may be terminated unilaterally by the landlord and eviction procedures may be instigated (usually with a requirement of having provided prior written notification and an opportunity for the tenant to address the issue) whenever the tenant:

1. fails to pay rent on time, habitually pays the rent late, or frequently writes checks to the landlord with insufficient funds in the account from which they are drawn;
2. violates a lawful obligation or covenant of tenancy and fails to correct this violation;
3. continues to engage in a nuisance or allows a nuisance to continue that causes harm to the building, the residents, or the landlord;
4. uses or allows the unit to be used for an illegal purpose;

5. refuses to renew the lease under substantially similar terms after the previous lease agreement has run its course;
6. refuses to grant the landlord lawfully required entry to the unit; or
7. attempts to transfer tenancy rights to a subtenant not approved by the landlord at the conclusion of a rental period.

In addition, under the same ordinance, the landlord may evict for the following reasons of his own design provided they are undertaken in "good faith" and "without ulterior motive":

1. if he or she wishes to utilize the space for his or her own personal enjoyment or the enjoyment of an immediate relative for a period not to be less than 3 years;
2. for converting the residences to condominiums;
3. to demolish the unit or building;
4. to temporarily evict for the purposes of conducting repairs and improvements;
5. to rehabilitate the property; or
6. to remove from the rental market altogether all units in a building.

Each of these provisions is designed to preserve for the landlord certain basic rights associated with ownership and allow for enforcement of the rental contract or lease. Some of these may seem obvious since a tenant who fails to follow the lease terms or who fails to pay rent no longer has rights to inhabit the housing unit. If we allowed squatters to continue to reside, it would be equivalent to legalizing trespassing in general and would preclude development of any rental market. Other provisions, such as prohibiting the use of a unit for an illegal purpose or creation of a nuisance protect the landlord from reputational or financial harm. The presence of drug dealing in all of its various manifestations can cause a landlord to lose ownership of the building under asset forfeiture laws. The dismantling of smoke detectors in violation of the law could result in substantial property damage, while a provision that would not allow a landlord to take rental property off the market entirely could effectively require landlords to lose money in perpetuity under rent control laws, which will be discussed in the next section.

Rent Control

Rent control is a restriction on a landlord's ability to freely set rental prices. While habitability laws raise costs, rent control reduces revenues, transforming a monopolistically competitive market into one fraught with price controls. Like all price ceilings, it does nothing for the market when not effective (Figure 2.1) but, contrary to intuition, it also does some harm:

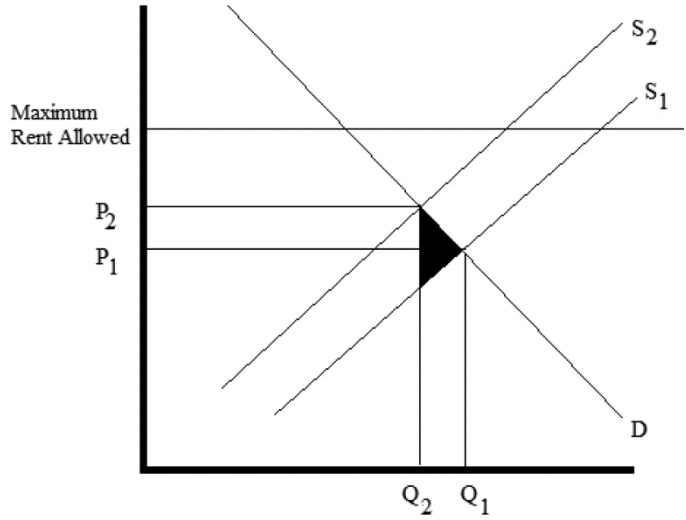

Figure 2.1 Ineffective rent control

At first, this graph may seem counterintuitive, especially for economics majors who are used to seeing a deadweight loss (the blackened triangle region), an increase in price (from P_1 to P_2), and a reduction in quantity (from Q_1 to Q_2) only for effective price controls. However, the mere existence of such controls creates problems since there are costs associated with managing and enforcing controls even when they are ineffective. Thus, in reality, since these costs are imposed typically on the landlord side of the ledger in the form of higher property taxes to pay for general government, there will be a small reduction in quantity and a small increase in price in cases where price controls are above the market rate. Thus, merely trying to *appear* to do something to benefit tenants actually backfires as the supply curve shifts from S_1 to S_2. Of course, when rent control *is* "effective," the situation is even *worse* (Figure 2.2).

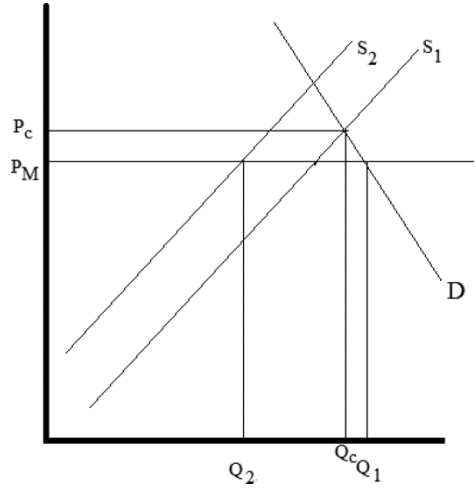

Figure 2.2 "Effective" rent control

Although price declines from P_c to P_M, quantity of housing supplied declines from Q_c to Q_2, while the quantity of housing demanded increases from Q_c to Q_1. The net effect of this rule is to enrich renters who currently rent at the expense of those who wish to rent (as well as the expense of those who are forced out of the apartments as landlords take rental properties off the market). In addition, since price ceilings limit the ability of landlords to recoup substantial investments, there may be a "race to the bottom," leading to quality deterioration of the housing market until it reaches the mandated minimums associated with the aforementioned habitability laws. There is another effect that is often not discussed when examining these controls and that is the higher administrative costs associated with maintaining a rent control ordinance. These costs are ordinarily passed on to the renters from the landlords who are nominally responsible for them in the form of higher initial rents, increases in deferred maintenance, or the confiscation of larger portions of the security deposit when the rental period comes to a close.

This is because rent control in many jurisdictions is not a permanent ceiling on rents but rather is one that restricts the rate of increase on existing rents. This is what is known as vacancy decontrol laws and are designed to give incentives for landlords to continue to rent properties, but the hidden danger is that such attempts to deregulate the market on a temporary basis harm transient residents such as college students,

while protecting long-term residents, since landlords will often try to raise rents to a position such that they will be able to acquire more up front to mitigate the reduction in freedom to raise rental prices later. Similarly, laws may be instigated to limit the ability of landlords to convert existing dwelling to condominiums or demolish them entirely and the presence of rent control oftentimes signals more stringent just-cause eviction laws. Other limitations that are usually imposed at the same time are rules that regulate the amount of money that can be held as a security deposit. In Japan, for example, there is the phenomenon of "key money" that requires the payment of a nonrefundable fee in order to obtain the key to the apartment. Such tactics are merely methods by which the base rent can be lowered while simultaneously ensuring that the overall cost is higher than advertised.

Personal Property

"Possession is eleven points in the law and they say that there is but twelve" goes an ancient Scottish proverb.[3] Possession is the predominant way we ascribe ownership to personal property, given it is conveyed often without title. There are seven different types of legal possession (including adverse possession, discussed earlier) that may be ascribed for personal property. The first, and most familiar, is simple possession—ownership of an object is presumed when one has possession of it. Ownership is conveyed when one receives an item via gift or by trade, but not by theft. The presumption one owns that which one has in one's possession is an important legal principle because it sets forth the ability to engage in various transactions with that article.

A second type of possession is when I hand over an object to a third party for them to convey or to repair. I still own the object in question and the third party is simply acting as a bailee for my good and must take proper care of it since he or she is personally liable for its safety. This creates a powerful incentive to exercise proper care over the object in question. When I hand over goods to United Parcel Service (UPS) for shipment, they are still my property until they are conveyed to the party to whom I am sending them. Similarly, when I hand over my wedding band

for resizing, the jeweler acts as a bailee with respect to my ring. It does not flow from my ownership to his simply because he is now in possession of it. Yet this must not be taken too far. A bailee is only liable to the extent that he or she personally knows or should reasonably know the value of the object in question. If I leave my keys with a valet to take care of my car, the car is the responsibility of the valet. If something happens to it while it is in his possession, he is liable for it. However, if I leave a sum of money in the glove box the same level of care and liability does not apply to that money since the valet is not aware of it being in his possession while he cares for my car. If, on the other hand, the valet sees the money in the car, that knowledge affords him no protection against liability but instead transfers the liability from me to the valet since he now possesses knowledge of the value of the contents of the glove box.

A third type of possession is referred to as constructive possession. When I loan or hand the object over to a bailee, I still constructively possess it, even if it is not currently within my control. Thus if the bailee loses it or sells it without permission, I still have ownership over the good and this means that I can recover the good in question from the third party who now possesses it. This is a good reason not to trust people who offer to sell you something for far below its value—they might not have legal title to the object in the first place.

A fourth type of possession is involuntary possession. For example, if you have cocaine delivered to your doorstep that you neither ordered nor wanted, you can be considered to be involuntarily possessing of it. Similarly, if you find a diamond ring on the sidewalk, you cannot claim ownership of the ring. In the case of illegal goods (such as in the first case), this creates a powerful incentive to report it to the police so that you might not be considered at fault. This is especially true if you come into possession of something for which possession is considered a felony. Take, for example, the case of viewing a website that contains child pornography. Since mere possession of child pornography (even for an instant, such as in your Internet cache) has strict liability, one cannot deflect one's responsibility by closing the browser—or can one? In *United States v. Stulock*, 308 F.3d 922 (8th Cir. 2002) the court ruled that merely having a picture on your computer is not evidence of possession since you do not have

control over the contents of your computer in total. Viruses and malware can seize control of your computer and bring up material that you had no desire to possess and, in fact, you might not actually have viewed. Similarly, in *Barton v. State*, 648 S.E.2d 660 (Ga.App. 2007), the Georgia Court of Appeals ruled that a person must take an affirmative action to save or download an image beyond merely viewing something that then goes *automatically* into the cache to be convicted of possession of child pornography. This makes perfect sense. If you walk down the street and, while walking, view a pornographic picture, in no way does that mean that you now are in possession, or control, of it. However, if you *snap a photo* of that picture, you have now conducted a conscious act to possess and control the material in question.

The fifth type of possession is similar to involuntary possession and deals with that which happens after one finds a lost, unclaimed, mislaid, or abandoned object. If the item in question is lost in a public place and the original owner of the object cannot be found after a reasonable period in which the item in question is held for the owner and for which proper notification of finding such an item is made (usually by turning it in to the relevant authorities), the item in question goes to the finder of the object. In the case of a finding of an item in a private location, the item goes to the owner of the private space. A private location, however, does not mean a location that is owned by a private person but rather a location in which members of the public are not free to enter or exit without obtaining permission. Thus, a shop, though owned by a private individual, is considered a public location. In *Bridges v. Hawkesworth*, (1851) 21 L.J.Q.B. 75, 15 Jur. 1079, Bridges found paper currency in an envelope on the floor of Hawkesworth's shop. When Bridges returned some 3 years later and discovered that the original owner of the currency could not be located, he demanded the currency be turned over to him as the finder of the object, while Hawkesworth claimed that since the currency had been found in his shop, he held the superior claim. The court awarded the currency to Bridges. On the other hand, sometimes ownership is easy to determine. The contents of a lost wallet that contains an identification card is presumed to be the property of the individual for whom the card is present. The idea is to create an incentive to return the item to the rightful owner.

Unclaimed financial property to which the owner's name is attached (stocks, bonds, bank accounts, insurance proceedings) is turned over to the state, which advertises in a newspaper of record the property contents so the owner may come forward to make a claim. Property not claimed after a lengthy period becomes the property of the state through the principle of escheat.

Mislaid property, which differs from lost property, in that the original owner walked away from it after first deliberately placing it somewhere is treated in a similar manner to lost property although, in this case, the item in question is turned over to the owner of the premises and is held by that owner until the rightful owner of the object in question returns. If the rightful owner does not return to claim ownership, the item's ownership is transferred to the owner of the establishment where the item was mislaid. The reason for this rule is that the individual who mislays an item is likely to return to the scene of where he or she mislaid the object. For example, if I leave my wallet at a Wal-Mart counter, it would be reasonable to assume once I realize I have mislaid it that I would return to Wal-Mart to claim my wallet rather than expect me to go to the police, which would be the case if I had merely dropped it somewhere in a location where the object was not obviously mislaid.

Then we have the concept of abandoned property, such as the proverbial treasure trove. To qualify as abandoned property, it must be clear that either (1) the object in question was deliberately abandoned (such as a car that does not run and that has been left for some time) or (2) that the object in question, while not deliberately abandoned, has been effectively abandoned because a significant time period has lapsed since the object was concealed or buried such that it is no longer reasonable to assume that the original owner will return to claim it. Thus treasure that has been buried for over a century qualifies as abandoned property just as a wrecked car may be. However, something that was buried 5 years ago is not a treasure trove since the original owner may come back to claim it. Abandoned personal property, especially certain types of abandoned property, such as shipwrecks and cars, may be forfeited to the state, under the principle of escheat in some jurisdictions. However, usually the personal property will belong either to the

individual who finds it or to the owner of the real property on which the object is found. This latter principle is designed to reduce the incentive for engaging in trespass.

The final type of possessing is unconscious possession, which occurs when one of three different scenarios presents itself: (1) when there is no awareness that an item is within one's control; (2) when one knows one has an item within one's control but has no idea what that item actually is; or (3) when a person has an item within one's control but thinks the item is something other than what it is. In *Hannah v. Peel*, 1 K.B. 509 (1945), the owner of a house, who had never taken actual possession of it and in which an expensive broach was found, was found to have no superior claim to the broach than the finder of the object stationed in the house after it was commandeered by the Royal Artillery during the Second World War. The finder, Hannah, had properly turned the broach over to the authorities and, after the statute of limitations had passed for lost objects, had been awarded the broach and subsequently sold it. The fact that Peel, the owner of the house, had no knowledge of the broach in question and the broach was not attached to the house physically meant it was considered lost personal property. While the standard rule is that lost personal property goes to the owner of the private space in question, this is based on the assumption the lost property belongs to the owner. Since Peel had never taken possession of the house, this could not have been the case and the broach went to Hannah, the finder of it.

Intellectual Property

Intellectual property is property produced by original thought and includes inventions, creative works, ideas, and nomenclature or a symbol of a distinctive type recognizable as indicative of a specific good or service of a particular individual or company or directly representative of that individual or company. Intellectual property law covers not only physical possession of a good but all such representations, derivative works, and items that naturally flow from it. Intellectual property does not cover facts or naturally occurring characteristics that rightly belong

to all nor does it cover prior work appropriated from the public domain, that reservoir of ideas that are common and available to all due to their passing into common knowledge or the expiration of their related protective status. Thus, while a physical book may be conveyed indefinitely from party to party and owned without prejudice against the party in possession of it, the right to copy that physical book resides with the original author of the manuscript for the period of time allotted by law. After the right to copy (copyright) has expired, while no one can take control of any physical item in question, the right to reproduce that work passes to the public domain so that all might benefit. For example, the story of Mulan is an ancient Chinese poem first transcribed some 1,500 years ago but the Disney film version is nonetheless protected by copyright. Individuals may freely use the term Mulan and create stories that feature this character. However, distinctive elements in the story that are unique to Disney, such as the creation of Mushu the dragon, or the illustrative representation of Mulan as expressed by the animators, are covered by copyright. In addition, changes that Disney made to the original character, such as changing her last name to Fa from the original Hua may be protected under intellectual property rules.

Intellectual property rights (IPR) are monopoly rights of one form or another. The greater the period of duration at the time the IPR is granted along with the greater the scope, the greater the incentive to engage in the creation process. At the same time, this must be balanced by the fact that longer IPR durations and scopes carry with it significant negative results as well. There is less incentive to engage in cost reductions and combine elements found in one IPR with those found in another. To give a concrete example, when the game Dungeons & Dragons came into existence in 1974, the initial game contained references to hobbits and ents, which are particular to the world created by J. R. R. Tolkien in *The Hobbit* and *The Lord of the Rings*. As such, this caused legal troubles for the fledgling enterprise and in future editions, changes were made so that they would be called halflings and treants, respectively. Even in cases where the intellectual property originates with one producer, this does not mean that combinations are always possible. Marvel Entertainment, now owned by Disney, currently is riding high with its

The Avengers universe but had previously sold off the film rights to Spiderman (now owned by Sony Pictures Entertainment), the X-Men (20th Century Fox), and the Fantastic Four (20th Century Fox), so certain crossover stories that replicate actions in the comics are not possible (Spiderman/Fantastic Four or Spiderman/The Avengers) without cross-licensing agreements between the various studios. On the other hand, Quicksilver and the Scarlet Witch, both of whom originated in the X-Men series, are members of the Avengers and both Marvel and 20th Century Fox can apparently utilize them separately, albeit with restrictions. Since all mutant rights went to the 20th Century Fox, nothing can be stated in the Avengers about the mutant father of both Avengers, Magneto, or the backstory that both are mutants. However, their Avenger compatriots, Captain America and Iron Man, cannot be mentioned in the X-Men films.[4]

Patents

A patent is a legal monopoly granted by the government to allow the sale and manufacture of an invention that is substantively different in use than other inventions. Patents typically last for 20 years from the date of application, although drug patents have a concurrent period of exclusivity that may extend beyond the patent date or run out prior to it. Patents are awarded based on the "first-to-file" for it and thus even if someone else invents a technology, if they are not the first ones to file, they can effectively be barred from profiting from it. This places smaller companies that lack financial and legal resources at a distinct disadvantage but it also places the United States on the same legal footing as the rest of the world. At the same time, however, an inventor who has not filed a patent but, nevertheless, has published the idea is able to utilize a 1-year grace period before being forced to file for the actual patent. This differs from the practice in Europe where prior disclosure would invalidate a subsequent patent application by any party.

A patent must be novel, nonobvious, useful, completely described in the patent application so it can be reconstructed by another skilled individual, and each patent claim attached to the patent must be clear and

specific, so as to be not overly broad. These limitations balance the ex ante benefit of patent protection, the creation of new technologies, with the ex post cost of patent protection, the creation of monopolies that prohibit additional incremental innovation by third parties. A patent, since it has a specific guaranteed expiration to its longevity, may not suffer as badly in terms of efficiency losses as other monopolies as there is a built-in incentive for the monopolist to continue to improve the technology, so as to lessen the ability of future entrants to compete against the initial patent holder. Even though the patent eventually expires, improvements on the initial design that meet the patent standard can be protected and thus while others can compete using the initial design and make improvements on it, they will be prohibited from adding the later patented enhancements until those later patents also expire.

One problem that can occur is when two different firms have patents that cannot be developed into viable commercial products without each other. In such cases, firms might decide to cross-license the patents so that both can develop the technology or one might decide to license their patent to the other company. These activities will be mutually advantageous and need to be allowed and the patent system provides an opportunity to make these transactions by endowing the individuals with property rights in their respective inventions. One issue, however, is that these licensing agreements might end up extending the requirement to pay royalties for far longer than the initial patent application originally specified. While this might seem to be unfair to the company that is licensing the technology, one might also want to think about the other firm. There is no compelling reason why one company should license the technology over the other and by writing a contract that extends the licensing term forever, this is not an unreasonable clause due to the rapidly diminishing future value of payment in the present value. Consider a payment that is to be made 20 years hence when interest rates are 5 percent per annum. In such a case, a $100 payment at that future time is worth just $37.69 today. However, perhaps more importantly from the competition standpoint is that a company that licenses its technology might have an increased incentive to stay out of the business in the future since they would be trading a payment

without assumption of risk of loss (the royalty payment) for a variable return that might not pan out if it entered the market. This, of course, can be codified as part of the agreement and allow the firm paying the licensing fee to stop payment if the first that is doing the licensing begins to compete in the same market.

Patents can be infringed upon by government fiat under a compulsory licensing scheme; in the United States such actions are rare and usually limited to Department of Defense projects that are deemed necessary for national security purposes (although the U.S. government has threatened to use this policy to force drug company Bayer to lower the price of its antibiotic, ciprofloxacin, in the aftermath of the 2001 anthrax attacks).[5]

Patents become more important the more competitive the industry as companies seek to differentiate themselves and thus create monopoly rents, but they are also less likely to occur in perfectly competitive industries since such underdeveloped capital markets frequently shy away from endeavors that require a great deal time and money for the initial investment and for which the probability of success is low. On the other hand, successful inventors can utilize their monopoly profits as a means of funding the research and development of other inventions. Thus, although patents can lead to sloth, they can also lead to more inventions, making it difficult to determine whether, on balance, the patent system works to retard or encourage innovation.

Trade Secrets

A trade secret allows a company to protect an invention without describing the nature of the invention. A trade secret, by revealing little information about the product or work process, can theoretically last forever. It is also costless insofar as government filing fees are concerned, but it does require secrecy to ensure the trade secret is not to be exposed to others. There is law that protects a trade secret from improper disclosure such as theft or by employees violating nondisclosure agreements. However, this protection vanishes as soon as someone else discovers the process independently. Famous examples of trade secrets are the recipe for Coca-Cola, Google's search engine algorithm, and Kentucky Fried Chicken's 11 secret herbs and spices.

A trade secret is an example of that which economists refer to as "hidden information." In most cases, hidden information *reduces* the value of a product that is the object of the transaction but, in the case of a trade secret, hidden information actually *increases* it. To understand why, one must understand the nature of hidden information itself. Hidden information typically reduces the value of the object because it becomes discoverable *after the transaction* and that information results in a *negative* value to the recipient. On the contrary, a trade secret does not become discoverable after the transaction, although it too will result in a negative value to the recipient once discovered. The key difference is that for both the recipient and the giver, the trade secret itself *is* the value of the product.

Suppose you have a fatal disease with no known cure, but I promised one for you anyway that consisted of something that could do you no harm whatsoever. As such, I have deceived you about the true worth of the "cure" but that doesn't matter to you. What I have provided is almost as valuable: hope. That hope that it is a cure can actually cause you to *become* cured as a positive outlook is an amazing cure for much of that which might ail you. The "placebo effect" in medicine is so powerful that even if you *know* it is placebo, it can actually help you. For example, although I have often tried to count calories and limit eating, I have often found that the only effective way for me to lose weight is to go on a "fad diet" that does much the same thing but supplements it with special pills that medical science states are completely ineffective. Even though I know this intellectually, my body still sheds the pounds but only when I am taking those pills!

A similar aspect is found in taste tests. When researchers swapped labels of Coke and Pepsi products, they found 22 out of 30 college students who drank Coke poured from a Pepsi bottle and Pepsi poured from a Coke bottle incorrectly identified the product as being the one with the listed label.[6]

The irony is the best way to "profit" indefinitely from a trade secret for someone who is a small proprietor may not be to keep it a secret for yourself but rather to license it to a third party. After all, when a trade secret is generally known, it can be copied by those not privy to the original trade secret without providing consideration to the originator. A trade

secret has no continuing value unless it has been licensed to others before the trade secret expired. In *Warner Lambert Pharm. Co. v. John J. Reynolds, Inc.*, 178 F.Supp. 655, 665-66 (S.D. N.Y. 1959), aff'd 280 F.2d 197 (2nd Cir. 1960), Warner Lambert Pharmaceuticals sought to end its continuing royalty payments for the license to the formula in Listerine mouthwash after the formula became well known in the industry. They argued that they no longer had to pay since they had nothing of value. However, since the licensing contract for as long as Listerine continued to be manufactured and had no clause for cancellation when the formula no longer was a secret, the court ruled that the payments had to continue.

Trademarks and Servicemarks

A trademark is a word, phrase, symbol, or other distinctive expression that is uniquely identified with a particular product or company. In the case of a service, a trademark is referred to as a servicemark. Trademarks and servicemarks are designed to promote trust in customers by distinguishing the product or service from competitors and can only be applied for when they are used in commercial activity. They continue in force so long as the owner continues to utilize it in business operations and cease to exist when the product or service is no longer offered for sale. Trademarks can be limited to certain geographic regions and, since they are designed to reduce confusion, they may be restricted to certain product categories. The trademark of Delta is associated with airlines, faucets, and dental plans, among others. Since there is no likelihood of confusion between Delta Faucets and Delta Airlines, there is no issue of trademark confusion. Trademark confusion instead prevents competitors from utilizing your trademark space as their own. The law prevents PepsiCo from slapping a Coca-Cola label on Pepsi and selling it as Coke. Trademarks also serve to prevent others from engaging in "reverse passing off," taking your product and turning around and claiming it for your own. Thus, PepsiCo cannot purchase quantities of Coca-Cola, relabel them, and proceed to claim they are selling Pepsi. Unlike other protections, trademarks and service marks persist for as long as the company utilizes it in business, though a registered trademark does have to be renewed in the due course of time.

Trademarks are valuable properties that must be defended for them to be considered of worth. Xerox, Kleenex, Scotch tape, and Coke do not want to go the way of aspirin and thus vigorously defend their trademarks against competitors and misuse by retailers by insisting that others use the term "photocopy," "facial tissue," "cellophane tape," and "cola" unless they are referring to their specific products. Under *Coca-Cola Co. v. Overland, Inc.,* 692 F.2d 1250, 1252 (9th Cir. 1982), restaurant owners who substitute Pepsi for Coke without informing the customer are guilty of trademark infringement. Woe be it for the bar that serves you a "Rum and Coke" if they pour Pepsi instead! So have pity on the poor restaurateur who quickly tells you that they do not serve Coke but would you like a Pepsi. She or he is merely trying to avoid an expensive lawsuit.

However, it is possible to regain a trademark, even after it has been lost due to a court challenge that finds that your trademark is now generic. In 1983, after a 10-year protected battle between General Mills Fun Group, which then owned Parker Brothers, and San Francisco State University economics professor Ralph Anspach over his use of the term Anti-Monopoly for his trust-busting board game, the Supreme Court denied certiorari to the appeal by General Mills and left the decision that invalidated the Monopoly trademark in *Anti-Monopoly, Inc. v. Gen. Mills Fun Group, Inc.*, 684 F.2d 1316 (9th Cir. 1982). The reason for the invalidation was that there was no clear connection between monopoly and the manufacturer of it, Parker Brothers. People bought Monopoly because it was Monopoly, not because of the company that produced it. The immediate reaction was pandemonium among manufacturers who worried that their valued trademarks would vanish if people associated their trademarks with their products rather than the companies that produced them. This resulted in the Trademark Clarification Act of 1984 that established that the connection only need to be with the specific product that was manufactured, rather than the company itself, thus restoring the traditional delineation that a mark became generic when it became synonymous with competing products as well, although that law contained an addendum that ensured the judgment would not allow Parker Brothers to continue to pursue its legal case against Professor Anspach.[7]

Trademarks are used to buttress claims that can be made under other intellectual property laws, such as copyrights. However, they cannot be used to extend the life of an expired intellectual property. Thus, in *Dastar Corp. v. Twentieth Century Fox Film Corp.*, 539 U.S. 23 (2003), the U.S. Supreme Court ruled that one cannot use trademark to trump copyright expiration. In that case, Dastar Corporation had taken *Crusade in Europe*, an Emmy-award winning television show produced by Fox and airing on ABC, and had edited and re-released it as *World War II Campaigns in Europe*, listing itself as the producer. Although the original book, *Crusade in Europe*, had its copyright renewed by Doubleday in 1975, the film studio had not chosen to renew the copyright on the television series. In 1988, Fox once again acquired the rights to *Crusade in Europe* and allowed other companies to release the series, collecting licensing fees in the process. Fox turned around and sued, accusing Dastar of engaging in "reverse passing off," a prohibition under the Lanham Act, that entails claiming the work of another as your own. However, once an item passes into the public domain, it is for the public to use and the mere fact that a trademark exists cannot be used to afford greater protection. The case was remanded to the Court of Appeals to deal with whether Dastar had violated the underlying copyright in the book, which remained in effect and the court found against Dastar on that matter.

Unlike patents, trademarks need not be registered, although registration does carry with it certain additional legal benefits. An unregistered trademark is denoted by the superscript ™, while a registered trademark uses an R with a circle around it, designated as ®. Using the registered trademark symbol without having actually registered it with the Patent and Trademark Office *and receiving final approval of that trademark* via its placement on the trademark registry, is a federal crime. While unregistered trademark have common law protections, registration carries with it statutory benefits, including enhanced standing to sue, an ability to prevent others from obtaining websites under that name and cybersquatting, and the possibility of deterring others from using the same term by its conspicuousness on the federal registry.

Copyrights

This book is copyrighted. I have spent a lot of time and effort writing its contents and my copyright allows me, as the author, to assign rights to my publisher, Business Expert Press, to print this book and provide me with the opportunity to earn royalties. My copyright also means that you, as the reader, cannot take the material that I have written and wholesale redistribute it on the Internet via a file-sharing service. You only have the right to the copy that you legally purchase and no additional rights come with that. Since my publisher is a very innovative one, if you are a university student or faculty member, you can download a copy of this book from your university library if your library has purchased the e-book collection. However, you may not redistribute this copy to others outside your university. Each individual must acquire their copy in the same legal fashion, either by directly purchasing it or by downloading from their own university library. So if one of your friends wants a copy of this and your library subscribed to the BEP Digital Library, tell them to go pick up a copy at no cost. However, if your friend from another university wants it, tell them to get their library to subscribe. As for those without university access, there is always Amazon.

This is far from the first book ever written on economics of law and it will not be the last. Copyright only exists to protect the original expression of an idea rather than the underlying idea itself. Copyright covers more than simply the entirety of a work but also substantial portions of it and provides for the copyright holder alone the right to create or license derivative works. The characters in *Star Trek* are protected by copyright; so if you want to write a short story detailing a romantic encounter between Sulu and Uhura, you would need the permission of Paramount Studios or one of their licensees, in order to publish it.

While copyright used to have several technical rules that could cause a company to lose protection if it did not meet these (including a requirement to prominently state that the product was copyrighted through proper noticing), this no longer is the case. Everything has copyright as soon as it is conceived and implemented in a fixed tangible form. This can cause issues because an undated manuscript has copyright from date of initial creation but if it is undated it may be difficult

to establish the date of creation. While this is partially remedied by the copyright act's rule that copyright exists for life of author plus 70 years, it does not cover the case in which the work is created anonymously or as a work for hire. Registration is still useful because without it the copyright holder has no standing to file a lawsuit. Registration that occurs within 3 months of publication also provides the opportunity to receive statutory damages, which may be assessed regardless of actual damages and can rise to $150,000 per incident depending on the willfulness of the violation.

If copyright did not exist, there would be little incentive for publishers to contract with authors since they could take our intellectual efforts and duplicate them without additional cost. But this incentive would be short lived because the authors would have little incentive to create the material that publishers could sell. Similarly, without copyright, the only reason people would even purchase from publishers would be if the price was so low that duplication by the individual was not practical. In any case, since there was no monetary incentive for authors, fewer new works would be created. This does not mean that there would be no works created because authors may receive benefits that are not relayed by publishers (for example, my university considers the publication of books such as this in its allocation of annual raises) but, truth be told, the opportunity to earn royalties does induce me to write more books than I otherwise would be inclined to do. Thus, copyright allows for all parties to benefit by encouraging the creation of new works. It is, according to Lord Macaulay in a speech to the UK Parliament in 1841:

> a tax on readers for the purpose of giving a bounty to writers. . . . I admit, however, the necessity of giving a bounty to genius and learning. In order to give such a bounty, I willingly submit even to this severe and burdensome tax. Nay, I am ready to increase the tax, if it can be shown that by so doing I should proportionally increase the bounty. My complaint is, that my honourable and learned friend doubles, triples, quadruples, the tax, and makes scarcely any perceptible addition to the bounty.[8]

This latter point is often missed. It isn't the fact that copyright entails a transfer of funds from readers to authors that ought to be a problem but rather that the returns to authors are often nonexistent as we steadily expand the term of copyright and no surer is this fact than when we extend the term of copyrights already in existence. Indeed, the net result can actually be a *reduction* in new works when we extend copyright protection ad infinitum.

To understand why, let us consider the prohibition on derivative works unless licensed from the original author. I cannot create new stories surrounding the characters in Hogwarts since it is part of the creative output of J. K. Rowling, the creator of the Harry Potter books. However, I can create new stories featuring Sherlock Holmes and Dr. Watson, so long as I do not utilize elements that are derived from the 10 Sherlock Holmes stories that are still under copyright, at least according to the ruling in *Leslie S. Klinger v. Conan Doyle Estate Ltd.*, (7th Cir., No. 14-1128, 6/16/14):

> There are the early Holmes and Watson stories, and the late ones, and features of Holmes and Watson are depicted in the late stories that are not found in the early ones . . .. Only in the late stories for example do we learn that Holmes's attitude toward dogs has changed—he has grown to like them—and that Watson has been married twice. These additional features, being (we may assume) "original" in the generous sense that the word bears in copyright law, are protected by the unexpired copyrights on the late stories. But Klinger wants just to copy the Holmes and Watson of the early stories, the stories no longer under copyright.

The net result, if the Conan Doyle Estate had been successful in its lawsuit, would be to provide 135 years of copyright protection (extending back as far as the publication of the first Sherlock Holmes story, "A Study in Scarlet" in 1887) for its cannon until the final Sherlock Holmes story enters the public domain in 2022 (or at least until Disney gets around to having Congress extend copyright yet again). By continuously extending copyright, items that would normally fall into the public domain do not

do so and the ability to utilize these common elements in new stories without first tracking down and obtaining permission for use from the original copyright claimant becomes impossible. Without the public domain, many iconic films and books of recent years could not have been made. If the Greek pantheon had been under copyright, there would be no Percy Jackson series from the creative pen of Rick Riordin. If Snow White, Cinderella, Alice in Wonderland, Pinocchio, or The Jungle Book were under copyright the eponymous animated films of one Walt Disney could have been placed in jeopardy and the myriad of changes that the studio made to the beloved characters and stories may not have been allowed by the original copyright owners.

In *Eldred v. Ashcroft*, 537 U.S. 186 (2003), the Supreme Court considered the question of whether Congress could extend copyright retroactively on works that were already under copyright. The plaintiffs argued that retroactive copyright extension failed for three reasons.

First, that it plainly violated the Constitution that enumerated the power of Congress "[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries" since a copyright extension could allow Congress to continually extend copyright for a de facto perpetuity, which is clearly Constitutionally prohibited.

Second, the extension violated First Amendment free speech protections because it constrained the use of older materials in the preparation of new materials. They noted that there was no incentive created with respect to the creation of older materials when one extends copyright: one cannot go back into the past and create new works at an earlier date in anticipation of copyright extension at a later date. The sole incentive is for the creation of new works. When incorporating old materials into new works, only the original copyright holder has the right to create derivative works on items that otherwise would have gone to the public domain and this unfairly constrains competition and innovation, as well as free speech. This is contrary to First Amendment protections as it constrains the speech of parties not privy to the original copyright and who were anticipating the release into the public domain of previously copyrighted works based on the original date under which copyright was

supposed to lapse. However, the Court of Appeals for the District of Columbia ruled and the Supreme Court demurred on this rationale, relying on the 6-3 Supreme Court ruling in *Harper & Row, Publishers, Inc. v. Nation Enterprises*, 471 U. S. 539 (1985), that since copyright only protected the actual expression of an idea, not the idea itself, it was not an undue limitation on First Amendment rights.

Third, that materials in the public domain are subject to the public trust doctrine, which requires that there be a clear public benefit before the government releases such materials from their purview into private hands. Indeed, the plaintiffs argued that this required that there be a quid pro quo not unlike what we see in trade. A mutually beneficial *trade* would occur if, in moving materials from the public domain back into private hands, the public, through its representative government, receives a benefit that is at least equal to the loss that it incurs when materials are privatized. This harkens back to one of the basic principles of economics—trade can never be welfare-reducing with respect to the entities engaged in it, while a transfer without compensation has no such guarantee. Although a transfer without compensation of something of value (such as that occurs when material is transferred from the public domain back to the original copyright owners after copyright had initially expired or is extended from when it was expected to expire) always leaves the individual recipient no worse off than before, it also always leaves the individual who is deprived of his or her property in a position that is no better than before.

In *Eldred v. Ashcroft*, 537 U.S. 186 (2003), the Supreme Court, in a 7-2 decision, decided that copyright could last for any period short of "forever," prior copyright acts had similarly made extensions of copyright on existing works, and American authors would be placed at an unfair disadvantage to not allow this extension since the European Union had already extended it for their authors and would not provide equitable treatment for American authors if the United States did not act in a similar manner to protect European authors. This latter idea can once again be examined through the lens of economic theory.

Essentially, the European Union was offering a positive externality to American authors as enticement to protect European authors. Since such protections were already afforded to European authors in Europe, publishers that took previously copyrighted works from Europe that

were now in the public domain could only sell them to American customers. Furthermore, the rights of American publishers in Europe were similarly limited to the standard that held earlier. The United States could receive the benefits in Europe if they approved a copyright extension for European authors but that would create an uneven playing field since American authors would not receive this benefit. This would create an incentive for American authors to have their copyright held by European publishers. To combat this threat, American authors would need a similar extension. By extending copyright in the United States to match Europe, the United States gained more favorable copyright treatment abroad, making this a de facto trade agreement just as much as a raid on the public domain. Thus, the U.S. public *did* receive a benefit from the extension independent of the original authors, though this was not the argument that the Supreme Court provided.

One significant difference between copyright and other intellectual property rights is the notion of "fair use." Fair use constitutes a limited exception to the basic intellectual property rights granted to a copyright holder and is not a blanket license to eviscerate those rights. Section 107 of the Copyright Act enumerates examples of activities that might constitute fair use (including research, scholarship, teaching, news reporting, comment, and criticism); it goes further to list a four-element test to act as a guide in determining whether the use of the work is infringing:

1. the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;
2. the nature of the copyrighted work;
3. the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
4. the effect of the use upon the potential market for or value of the copyrighted work.

This is not a checklist nor does any individual element preclude or dictate a finding of infringement or fair use. For example, parodies, which act as commentaries on the original work, are considered a fair use under *Campbell v. Acuff-Rose Music*, 510 U.S. 569 (1994) even though their patterning may be substantially similar to the original and they might significantly reduce the marketability of the copyrighted

work. As the Supreme Court noted, "there is no protectable derivative market for criticism. The market for potential derivative uses includes only those that creators of original works would in general develop or license others to develop." This is even true in the case in which the parody is a commercial product designed to make money for the parodist. At the same time, photocopying an entire textbook and providing it to students for free would not constitute fair use, even if done by a nonprofit educational institute.

In *Sony Corporation of America v. Universal City Studies, Inc.* 464 U.S. 417 (1984), also known as the *Betamax* case, the U.S. Supreme Court ruled that using a VCR to record live television broadcasts for the purposes of watching them at a more convenient time constituted "fair use," although the exception was a narrow one because copying these same programs for archival purposes was an infringing activity. This established the principle that a technology that had a substantial and widely used noninfringing use could not be held liable for damages associated with contributing to copyright violations.

In *A&M Records, Inc. v. Napster, Inc.* 239 F.3d (9th Cir. 2001), In *re Aimster Copyright Litigation*, 334 F.3d 643 (7th Cir. 2003), and *MGM Studios, Inc. v. Grokster, Ltd.*, 545 U.S. 913 (2005), various peer-to-peer file-sharing companies were found to be contributory in infringement activities even though they each denied having constructive knowledge of such infringement owing to various privacy safeguards that were in place. In each case, they were found to have based their business models on the infringing use and had not demonstrated that their products were widely used for noninfringing uses.

The last point to be made on copyright deals with compulsory licensing, which requires musicians to allow their songs to be played over the air in exchange for a payment fixed by law. In addition, local over-the-air stations were to be paid based on a compulsory fee basis by cable companies for retransmission of over-the-air broadcasts. In *Am. Broad. Cos. v. Aereo, Inc.* 573 U.S. ___ (2014), (Docket No. 13-461), the U.S. Supreme Court held that the retransmission of over-the-air signals by Aereo, Inc. without payment of either compulsory or negotiated fees to the original broadcasters was an infringement as an unauthorized public performance.

For the Economist: Optimal Duration of Patents and Copyrights

The case for having copyrights and patents *at all* is because incentives matter and having a legal framework for a corresponding monopoly on one's intellectual endeavors causes increases in the quantity and quality of such efforts. The longer the time period during which intellectual property is protected, the more such property will be created, albeit with diminishing returns.

The period of duration for intellectual property rights differs, from an economic perspective, based on the harm caused by denying others the right to produce the product. That harm, the marginal social cost of patent protection, may be measured by taking into account the amount of time that it would take for another person to come up with the invention (in the case of the patent) in the absence of such legal protection as well as the cost of the monopoly that is granted since the monopoly can command a higher price as a result.

Assuming a copyrighted product and a patented product of equal social benefit, we would find that the patented product almost certainly has a lower social cost initially since competitors cannot as easily enter the market with a similar invention, as it must be both novel and non-obvious. It would take considerable effort to reverse engineer the design in the absence of patents and, in fact, it could be that the product would remain so secretive in its operation that its effective duration would be closer to that of a trade secret. In addition, a copyrighted product is oftentimes characterized by monopolistic competition rather than pure monopoly with a corresponding lower social cost. We can represent this tradeoff between social cost and social benefit by means of a graph with the social cost sloping upward, representing the idea that an increase in duration of monopoly (and monopolistically competitive) rights will carry with it a corresponding increase in social cost. The social benefit declines over time since increased investment activity in patent and copyright development has diminishing returns with respect to patent and copyright duration (Figure 2.3).

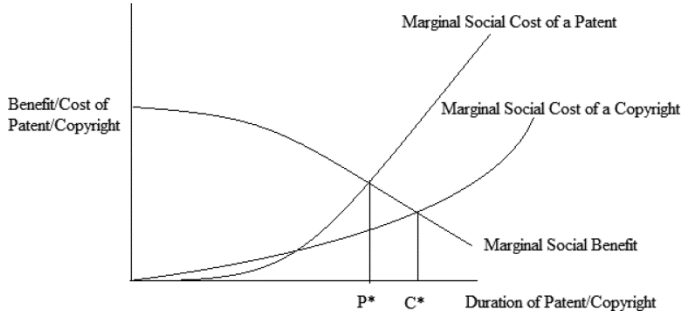

Figure 2.3 Optimal duration of patents and copyrights

Since the welfare reduction from a pure monopoly over a monopolistically competitive product is larger than the cost associated with a new invention, the optimal copyright term (C*) is usually much longer than the optimal patent term (P*), especially since the granting of a patent *requires* divulgence of the operation of the item in question such that others can duplicate the effort. Thus, it is actually quite possible that granting a patent will speed up innovation not only for the inventor but also for those who seek to duplicate the effort after the patent expires since the marginal cost of reverse engineering is dramatically reduced owing to the publication of the patent itself. Indeed, if, in the absence of the patent, the inventor would have been able to hide the nature of the invention sufficiently from those who would seek to duplicate it for as long of a period or longer than the time allocated to the patent itself or if the development of a similar technology in the absence of the publication of the patent would have been cost-prohibitive, the granting of a patent will actually be welfare-enhancing for the inventor's eventual competitors.

Business Regulation

A government can regulate for a variety of reasons. Traditionally, the rationale fell under the police power of the state. Businesses that interfered with the health, safety, and comfort of others could be regulated in order to ensure that they did not become a public nuisance.

In *Muglar v. Kansas*, 123 U.S. 623 (1887), it was held that the regulation of the manufacturing of alcoholic beverages fell within the police

power of the state to advance the health and safety of its community and thus were a legitimate exercise of state prerogative. As this regulation did not harm any other potential business interest but merely prohibited a certain very specific type of business, it was unlikely to cause significant harm to the underlying value of the property.

Pennsylvania Coal Company v. Mahon, 260 U.S. 393 (1922) established the principle of regulatory taking. In contrast to eminent domain, which transfers control of a property to the government, onerous regulations could serve as a "taking" requiring compensation under the 5th Amendment when it significantly reduces the value of the property as a result. However, a key consideration was that the regulation in the case interfered with a preexisting contract between the parties that Mahon had sought to break. In 1878, Mahon had purchased the surface estate but Pennsylvania Coal had maintained the support estate allowing it to mine coal and Mahon had accepted the risk associated with building over the potential mining location. This unbundling of rights had resulted in a lower price being paid than would otherwise have occurred had the support estate also been part of the contract. In 1921, the Commonwealth of Pennsylvania had passed a regulation that prohibited mining that could cause harm to the surface estate and Mahon sued to prevent Pennsylvania Coal from extracting the coal and weakening the surface supports. In its decision, the Supreme Court ruled "We are in danger of forgetting that a strong public desire to improve the public condition is not enough to warrant achieving the desire by a shorter cut than the constitutional way of paying for the change.' Essentially, if Mahon had wanted to ensure that his property would not be harmed by mining, he should have purchased the support estate as well. By prohibiting Pennsylvania Coal from mining coal, the government was, in essence, transferring effective control of the support estate to Mahon without Mahon having to pay for it and without compensating Pennsylvania Coal for the loss.

In contrast, *Penn Central Transportation Co. v. New York City*, 438 U.S. 104 (1978) was a case that found New York City's Landmarks Preservation Law to be Constitutional and not a regulatory taking. In that case, the owners of Grand Central Station had wanted to build an

office building on the land since it found that it could not make a profit otherwise. However, the Supreme Court ruled that the restriction did not inhibit the original use nor did it interfere with the primary purpose that had initially been envisioned for the property. Thus, in sharp contrast to the Pennsylvania Coal case, no regulatory takings occurred as it did not interfere with any currently-in-force contract or preapproved business use at the time the property last changed hands. Thus, there was no reduction in value, merely a denial of an increase in value that would have been a purely pecuniary gain to the owners.

Still, the regulatory power of the state is not absolute and it must consider the cost of compliance. Under *Michigan v. EPA*, 576 U.S. _____ (2015), 14-46, 14-47, and 14-49, the Supreme Court ruled that government agencies must consider the costs of regulation before pursuing regulatory action as opposed to only considering how to mitigate costs after deciding to engage in the regulatory action in the first place. Specifically, the Environmental Protection Agency was found to be overstepping its bounds when it issued new rules designed to regulate mercury and other emissions from coal-fired plants since it failed to consider those costs *before* deciding to regulate, even though it did consider costs at a later stage in the rulemaking process.

Questions for Review

1. Why is it socially optimal to provide time limits on copyrights and patents but not on trademarks?
   While a patent establishes a monopoly over an idea and a copyright establishes one over the expression of an idea, a trademark merely acts to associate a particular product with a producer and creates no such monopoly interest. Moreover, attempting to ascertain who the owner of a patent or a copyright is for the purposes of trying to request permission to license or use the work can entail significant costs that are immediately and completely eliminated once the patent or copyright expires. In the case of a trademark, however, the ownership is clear since it only lasts as long as it is used and its connection to a particular company's product does not preclude others from providing exactly the same

product provided the item in question also does not have copyright or patent protection. Finally, while patents and copyrights preclude competition for the length of their registered terms, trademarks actually enhance competition by allowing competitors to clearly identify themselves in the marketplace and thus build up reputations that serve as indicators of quality, thus reducing transaction costs for consumers.

2. In *Brenner v. Manson,* 383 U.S. 519 (1966), the Supreme Court ruled that "a patent is not a hunting license" and held that "a process patent in the chemical field, which has not been developed and pointed to the degree of specific utility, creates a monopoly of knowledge that should be granted only if clearly commanded by the statute." Why was the Supreme Court ruling nonsensical from an economics perspective?

   If the process patent had some use, it would have been granted a monopoly, and that monopoly would have value to the degree that the process patent has usefulness. The fact that usefulness could not be demonstrated would suggest that the monopoly itself was, at the time the application was made, quite worthless. Therefore, granting the process patent would entail granting a worthless monopoly, which is hardly something over which to worry.

Questions for Discussion

1. North Carolina's General Statutes 136-44.51 states

   After a transportation corridor official map is filed with the register of deeds, no building permit shall be issued for any building or structure or part thereof located within the transportation corridor, nor shall approval of a subdivision . . . be granted with respect to property within the transportation corridor.

   Discuss whether this constitutes a regulatory taking and whether property owners should be able to file for inverse condemnation.
2. Why might it make more sense to read the obituaries rather than the classifieds when looking for an apartment in a rent-controlled area?

CHAPTER 3

Contracts

A contract is an enforceable promise to do something for someone else whether that promise is made implicitly or explicitly and whether it is oral, written, or merely understood. If I lend a friend $20 with the understanding that she will pay me back by next Tuesday, it is a valid contract. When I present a syllabus to a class, I am creating a contract with my students. When you go to a butcher and ask for a kosher cut of meat, you are entering into a contract. Each of these contracts takes a different form but each is, nonetheless, a contract. Even though the lending of money was done verbally, my friend must still pay me back (though it may be difficult to prove that I lent the money rather than gifting it without having this in writing). The syllabus is an explicit written contract that incorporates by reference everything that is in the student handbook of my university and the laws of the state of North Carolina in addition to outlining the course schedule and the grading policies.

Key Economic Concepts

efficient breach
information asymmetry
principal–agent problem
opportunity cost
Pareto optimal
litigation cost

Key Legal and Political Concepts

anticipatory repudiation
breach of contract
caveat emptor
consideration
damages
damages, expectation
duress
fraud
frustration of purpose
gift
impossibility
inducement
mistake, mutual
mistake, unilateral
misrepresentation
rescission of contract
remedy
undue influence
warranty of fitness
warranty of merchantability
warranty of title

The Nature of Contracts

Returning to the contract between students and a faculty member that is known as a syllabus, in the contract that I write, it explicitly states that I can deviate from it in some respects without violating it (I can move faster or slower through the material as circumstances dictate). However, this deviation is not absolute in all matters. For example, I cannot unilaterally alter the contract to the detriment of the students with respect to grading and the assignments. The contract between the butcher and you is an implicit contract that is neither oral nor written but merely understood by which it nevertheless contains warranties of merchantability (that the good is what it is claimed to be), title (that the seller has the legal right to sell the goods to the buyer), and, in some cases, fitness (if the seller knows that the buyer is relying upon the seller to provide a kosher cut of meat). For example, the latter contract contains within it certain guarantees: the meat is not contaminated with salmonella (warranty of merchantability), the meat really is kosher (a warranty of fitness), and the butcher has the legal right to sell the meat in the first place.

The key word in the foregoing statement is *enforceable*. A contract is only legally binding on those parties who are willing, fully capable of entering into it, and when the terms, as discussed in Chapter 1, are not unconscionable. The parties must make an offer, have that offer accepted, and have consideration given to each side, so there is reciprocity in terms of obligations and inducements. Consideration is the payment extracted to induce acceptance of the promise. When I lend $20 to a friend, the $20 is the consideration paid *now* to ensure she will return the money by next Tuesday. This payment need not be monetary nor need it go to the person who is attempting to extract it. It merely requires each party either promises to act or fail to act in a manner limiting their overall freedom. If I tell my daughter that I will buy her a new car at the start of her senior year of college if she gets all As on her report card during her sophomore and junior years, I am legally obligated to buy her a new car since I have extracted from her a promise to do well in school, which she would otherwise be free to ignore.[1] On the other hand, inducing a party to do something that they are legally required to do or forswear something that they are legally required not to do cannot be the basis of consideration. Extracting a promise from a thief to *not*

steal from me is *not* an enforceable contract since he is already legally obligated not to do so. Requiring someone to promise to provide food for one's child is similarly dubious. In addition, one cannot extract a promise for someone to do something that they legally *cannot* do. A contract hit on one's spouse is automatically unenforceable.

On the other hand, if I give a beggar $20 as a gift and tell them explicitly that it is a gift, there is no contract. I am under no obligation to give and the beggar has no obligation to return the money. Even if the beggar sees me later in the week and promises to return the money, that statement does not create an obligation since the original amount provided was a gift. I have no reasonable explanation of receiving a gift, even if it is promised to me.

Moving on to the question of willingness, if a thief comes up to me and extracts $20 from me at gunpoint, even if he promises to return the money by next Tuesday, there is no contract since there was no willing transaction. This does not mean that the thief is off the hook. Quite the contrary. If a thief steals from me, there is not only an obligation to return the stolen funds but also the thief can be charged with a crime and duly sent to jail even if he has already made restitution by returning my money to me. Paying restitution does not absolve the thief of blame.

Warranties

The problem for the provider of a good or service is that sometimes the quality of the item is known by the provider but not by the potential purchaser. If neither the provider nor the buyer knows the quality (such as is the case of most retailers) there is no issue. Even still, a retailer might stand behind the products that she or he sells with a warranty and industry standards have arisen to provide such assistance to buyers so that they are assured when purchasing a product. This is done because repeat business (and reputation) matters to retailers. The primary problem isn't the case of large scale retailers (for the most part) but rather the smaller seller, especially one that isn't likely to sell to you again. While warranties of merchantability, fitness, and habitability are available as part of the standard law, a contractual warranty that goes beyond these basic protections can provide additional incentive to purchase from one party or another.

When I bought a used car a number of years ago, I purchased my car through Hertz Rent-A-Car. Although certainly purchasing a used car from a rental company might seem on first glance to be the height of stupidity, it actually is a very smart decision for a number of reasons. For one thing, the rental car agency knows that individuals do not employ the same level of care as ordinary owners do. Therefore, the rental car company will likely spend more time and effort on maintenance to counteract this issue. Another reason is that rental car companies will often charge drivers for damages to the cars unless they purchase collision and damage waiver policies that are often quite pricey. This creates an incentive to inspect the cars thoroughly when they are returned to ensure they are spotless. Rental car companies frequently replace their cars with newer models as part of fleet deals that they have with major car companies, creating a need to dispose of these cars after only a few years. Therefore, the quality of rental fleet would typically mirror that of the general car population, while other owners would typically hang on to their good cars and try to get rid of their problematic cars. In addition, they have a significant reputation to maintain and foster since purchasers of former rental cars are also potential rental customers when they travel. Finally, rental car companies often will back their cars with extended warranties that are frequently far better than that offered by new car companies.

For a company that has high quality products, a lengthy warranty costs very little and can allow for a substantial increase in price, owing to the peace of mind that comes with that warranty. Indeed, it is quite ironic that a product that is most in need of a warranty because it is of low quality will likely not have one; however, one that does not need a warranty is more likely to have a lengthy one. We will explore this question more in the next section.

The Lemons Problem

The lemons problem is an information asymmetry problem arises that was first addressed by George Akerloff.[2] Consider the case of a used car that is 4 years old. For the sake of argument, let us assume that I know that on an average, about 20% of all cars *initially* sold in the United States are

"lemons," those being cars that are not of the quality standard that one would normally expect from a car. At the same time, about 20% are "peaches," which far exceed the normal quality standard, and about 60% are ordinary cars, not only ones that are that great but also ones that are not of poor quality. Further, let us suppose that I would be willing to pay up to $10,000 for a "peach," $8,000 for an ordinary car, and only $4,000 for a "lemon" (even lemons have a value because although they may require more repair, I might be able to tolerate that in exchange for a discounted price). Let us further assume that the owners of each of these three types of cars would not be willing to sell their cars for less than $9,000, $7,000, and $3,000, respectively.

The problem is that in a normally functioning market in which I cannot know in advance the quality of the problem for which I am purchasing and for which the advice to buyers is *caveat emptor* (let the buyer beware), the initial distribution of cars will tend to lead to lower-quality cars being transacted more than higher-quality cars. To illustrate this, consider what would occur if I took at face value that the market contained cars based on the initial percentages. Then that would mean that based on my expected value, I would wish to pay no more than:

Expected value of a used car = (% peaches)(value of peach) + (% ordinary)(value of ordinary) + (% lemons)(value of lemons) = (20%)($10,000) + (60%)($8,000) + (20%)($4,000) = $7,600.

The problem is that while ordinary and lemon car owners are willing to sell at $7,600, no peach owner is willing to do so. Therefore, all peaches evaporate from the market and the percentage of ordinary cars rises to 75%, while the percentage of lemons rises to 25%. Knowing this, I recalculate my expected values as follows:

Expected value of a used car = (% ordinary)(value of ordinary) + (% lemons)(value of lemons) = (75%) ($8,000) + (25%)($4,000) = $7,000

At this price, the market clears. However, what happens if we change the values slightly so that ordinary car owners are not willing to

part with their cars for less than $7,500? At that point, *all* used cars sold will be lemons and the market value of used cars falls accordingly to just $4,000.

We can solve this problem by having peach owners impose costs on themselves that are relatively inexpensive for them to provide but which are prohibitively expensive for the lemon owners to provide. Thus, a new paint job is something that should be considered in determining whether to purchase a car, in sharp contrast to items such as warranties (since only a "peach" owner can afford to offer a long warranty as they are the only ones not likely to have to pay for repairs), allowing a mechanic to examine the car, providing detailed records, or a well-earned reputation for quality that only arises because one has performed well in the past. This is the reason why used car dealers, despite their sordid reputations as an industry, often are quite well regarded as individual businesses.

These reputation effects and their importance are clear for all to see. On eBay, sellers with high ratings command higher bids on equivalent items than those with low ratings, restaurants compete furiously for a Michelin "star," and hotels seek the coveted AAA five diamond rating.

Craig Richardson has developed a heuristic model for reputation-building that can be put to good use here. Essentially, when a company discovers a hidden defect, they have a choice to make. Fixing the defect will cost the company by requiring it to recall a product or redo a service. When the defect is obvious, the choice is as well but oftentimes the defect is unobtrusive and only the company knows that it exists.[3] A recent example is the case of General Motors (GM), which deliberately decided not to recall millions of cars across its product line for ignition switch defect that caused the cars to lose power suddenly while driving. This defect, which has been linked to 13 deaths, was covered up and ultimately caused a national scandal that required the GM CEO Mary Barra to appear before Congress and required the appointment of a special administrator to oversee the compensation of crash victims and the correction of the defect.[4]

GM destroyed enormous goodwill by not getting ahead of the crisis when it first erupted but the smoking gun was the admission by GM

executives that the defect was known to them and yet they did nothing. Similarly, tobacco companies knew that their product was addictive and lethal and yet resisted calls for labeling and for damages to be applied to them by smokers who the companies claimed knew the risks that were involved and deliberately chose to accept them.

Richardson argues that revealing defects in advance can build a reputation for being honest.[5] Deliberately showing that you are willing to sacrifice short-term gain can result in long-term benefits. By enhancing one's reputation, one can quickly move above the rest of the field and maximize long-term profits. These tradeoffs, however, lead to some very important policy implications. If governments do not keep a lid on inflation, for example, individuals and businesses will end up sacrificing long-term profitability for short-term profits. Thus, one of the most important things a government can do to protect property rights is to keep price inflation at a minimum.

Remedies and Breach

A breach is that which occurs when one party or the other fails to live up to the bargain that is specified in the contract and the remedy is the recourse that the individual who is being denied the benefits of the contract can seek to enforce. These remedies generally fall into one of three distinct categories. The first type of remedy is spelled out in the contract and is called a stipulated remedy. For example, I might have a remedy that states that if my contractor fails to deliver my house on time, I will be paid $200 for each day that he is in breach of this agreement. This remedy is both an incentive for the contractor to complete the contract on time and compensation to me for having to stay in a hotel for another night until my home is completed.

Still, we do not want to have to specify every single possible breach and remedy. Negotiating such a contract is costly, not only because of the involvement of lawyers but also because the more complicated the contract, the more likely that there will end up being a breach. Still, the stipulated breach is actually quite useful in acting as a general guide to the overall care and consideration that is given by another party and can

actually increase the level of trust between participants. For example, in one famous rider to his lengthy contract, Van Halen lead singer, David Lee Roth, inserted a requirement that a bowl of M&Ms be provided but that there should be no brown M&Ms in the bowl and specified that the penalty for the breach would be that the concert would not go off as planned but the venue would still be responsible for paying the band the full fee that they were to receive that night. This might seem to be the height of arrogance but, in reality, it served a very useful purpose: anyone who failed to follow through on such a mundane request was likely to fail to fulfill other parts of the contract as well.[6]

When a remedy is not specified in the contract, the courts need to make a determination as to what will be done. Court-imposed remedies usually fall into the realm of either provision of damages (a monetary payment) or required performance, meaning the party that breached the contract is ordered to fulfill the contract anyway. We will examine three different types of damage remedies in order from the highest amount to the lowest so that they can be directly compared.

When it comes to damages, one needs to determine exactly what is meant by them. Let us suppose that I contract with a caterer to supply food for a business meeting that I am having with a client. If I pay $1,000 to the caterer and the caterer fails to show, I have actual damages of $1,000, the amount that I am out for the good or service. However, my damages exceed this particular amount even still. Merely refunding me the money does not obviate my harm. If I must go to a second caterer at the last minute and pay a much larger sum, say, $1,500 to obtain a similar service, my losses are actually $1,500 since it takes that amount in order for me to be made whole and receive the benefit for which I have contracted. In the case of the client being the one who breaches, the expectation damages that would accrue to the caterer would include the lost profits that she or he failed to realize as a result and thus, in this case, would mean that the caterer could keep the $1,000 and refund only for those expenses that did not actually accrue to him. The point is to place the caterer in the same position as if the breach had not occurred, not to make them better off.

On the other hand, suppose that the caterer did deliver the service but did so in an inferior manner. I would be entitled to expectation damages in the amount that was the difference between the value of the good that I received and its fair market value. Thus, if I was promised filet mignon but you delivered hamburger to me, your breach has cost me even if you did deliver a catered meal and I am entitled to damages as a result. The whole idea behind this concept, referred to as *expectation damages*, is to make the aggrieved party *whole*, such that they are no better or worse off than they would have been had there been no breach at all.

There are also *opportunity costs* that must be considered. The fact that I have hired you to cater my event means that other potential opportunities are lost. Thus, even if you can turn around and resell the food, the mere fact that there were other clients available who you had to turn down to work my event also means that you have been harmed. While presumably the gain from the next best available contract is less than that which you would receive if the contract would have gone through, it is almost certainly higher than the reliance damages that would be calculated. The opportunity cost damages would leave the aggrieved party in the exact same position as if they had gone with the next best alternative. Thus, if the caterer could have received $950 from a different client and I breached the contract by cancelling, I would be liable for $950 in damages, rather than the $1,000 for which the services were originally contracted.

At the same time, the caterer is entitled to damages from me if I breach the contract. If the caterer hired additional staff to cater the event or if the caterer bought food in preparation that cannot otherwise be used by another party (or which must be resold at a discount), the caterer relied upon my promise to pay in making these arrangements and I am liable for the costs of failing to follow through on my initial promise. The payment of these costs will compensate the aggrieved party for the loss in such a way that they are left in the exact same situation as they would have been had there been no contract at all. Thus, if the caterer had $800 in nonrecoverable expenditure, she or he would be entitled to recover those expenses from me when I breached. Notice that the value of these reliance damages, which are damages paid based on the caterer's

reliance on my decision to hire her or him, are less than the expectation damages of $1,000 (the amount I originally contracted with the caterer to pay in return for the service) that would accrue from such a breach.

Anticipatory Repudiation

Although technically a breach does not occur until such time as someone fails to deliver, an anticipatory repudiation can lead to the exact same type of result as a standard breach would since contracts are based upon the willing participants creating conditions upon which both parties can feel secure that the other will perform her or his obligations under the contract. Without such assurances, contracts are breached since the aggrieved party must now take steps to ensure the contractual aspects upon which they relied are still carried forth by finding another party to fulfill them. Anticipatory repudiation constitutes total breach of the contract and damages may be awarded immediately upon presentation of the repudiation:

> If a man promises to marry a woman on a future day, and before that day marries another woman, he is instantly liable to an action for breach of promise of marriage; *Short v. Stone*, 8 Q.B. 358. If a man contracts to execute a lease on and from a future day for a certain term, and, before that day, executes a lease to another for the same term, he may be immediately sued for breaking the contract; *Ford v. Tiley*, 6 B.&C. 325 So, if a man contracts to sell and deliver specific goods on a future day, and before the day he sells and delivers them to another, he is immediately liable to an action at the suit of the person with whom he first contracted to sell and deliver them; *Bowdell v. Parsons*, 10 East. 359.[7]

An anticipatory repudiation does not mean that the aggrieved party necessarily is able to collect on the full value of the contract. In cases where the contractual terms are inordinately long so as to be de facto indefinite (as in the case of a lease with decades or even centuries left to run), the

court may examine a reduction in term when calculating damages. In *Palmer v. Connecticut Railway & Lighting Co.*, 311 U.S. 544 (1941), a lease with 969 years to go when the trustees in a bankruptcy reorganization informed the leaseholders of their intent to default on the lease terms, the U.S. Supreme Court ruled that "the measure of the lessor's damages is the present value of the rent reserved less the present rental value of the remainder of the term"[8] and actual damages could be calculated using a relatively small time period, in that case 14 total years.

Rarely will a court force contracting parties to carry out the actual performances required by the contract. Instead, what courts do require is parties that breach the contract pay for that breach in such a manner as to ensure that the other party is not harmed. We want to allow for deliberate efficient breaches of contract (ones where the breaching party can make the other party whole, so that neither party comes out the loser in the contract), while prohibiting inefficient breaches of contract whereby one party gains at the expense of the other. If I so benefit from my breach that I can not only enrich myself but, at the same time, ensure that the other contracting party is not harmed, it is *Pareto optimal* to allow for breach of contract and pay off the other contracting party with my gains that would not accrue to either of us if I do not breach the contract in the first instance. This is the very essence and definition of an efficient breach.

Defenses to Breach

Not all contracts ought to be honored even where efficient breach will not occur, especially when it would be unreasonably costly to honor it in the first place. Among these defenses are the doctrines of unconscionability (described in Chapter 1), impossibility, frustration of purpose, fraud or misrepresentation, duress or undue influence, or mutual or unilateral mistake.

Impossibility

The defense of impossibility is one such example. When there are unforeseeable events that transpire that prevent fulfillment of the contract and if the contract does not clearly spell out the risks involved in fulfillment,

the renderer of the service can reasonably argue that the doctrine of impossibility ought to apply. An example of this would be the 9/11 terrorist incident. The felling of the World Trade Center on that day rendered the ability of both tenants and the owner of the World Trade Center unable to fulfill their contractual obligations (the tenant by means of paying and the owner by means of providing suitable office space). Unless the contract specifically assigned the risk to one of the parties and provided that "a discharge was preventable at reasonable cost,"[9] this defense would be relevant and the courts would decide which party ought to be assigned the riskbased on three factors: "knowledge of the magnitude of the loss, knowledge of the probability that it would occur, and (other) costs of self- or market-insurance."[10] The economic justification of this is an efficiency criterion: we want to place the burden of the risk on the party able to bear it at the lowest overall cost (including preventative measures that may be undertaken to mitigate or eliminate the risk). Using the impossibility defense also has the benefit of reducing transaction and litigation costs. A contract that considered every possible ramification would become difficult, if not impossible, to administer.

Another example would be the death of a contracting individual. While some contracts could still be upheld against the deceased's estate, others could not. Consider the difference between Michael Jackson's contract with his credit card company and a contract that Michael Jackson had to perform on stage, both of which are interrupted by the performer's untimely death. While the credit card company can rightfully enforce the legal obligation of Michael Jackson's estate to pay in full for any charges incurred by the entertainer prior to death, the venue where Michael Jackson was going to perform cannot similarly compel the estate to produce Michael Jackson on stage as his death makes such a performance functionally impossible.

In *Taylor v. Caldwell*, EWHC QB J1, 3 B & S 826, 122 ER 309 (1863), the court held that the physical impossibility of conducting a concert in a hall that had been destroyed by fire through no fault of either party rendered the contract that the concert would occur in the hall no longer valid. Yet neither complete destruction nor total impossibility is required for this doctrine to be successfully invoked. In *Mineral Park*

Land Co. v. Howard, 172 Cal. 289, 156 458 (1916), the court accepted that a contract that required the removal and purchase of 114,000 cubic yards of dirt and gravel did not actually require that amount to be removed and purchased if the cost to do so was unreasonable and impracticable. The amount actually removed was less than half the agreed amount but the totality of that which had been removed was all that was financially reasonable since the remainder was exclusively found below the water table and the cost of removal would have been a dozen times of what the cost was for the gravel that was actually removed from above the water table. Thus, a prohibitive cost from a financial standpoint is sufficient to cause the doctrine of impossibility to be invoked. It is not merely physical, but financial, impossibility based on the idea that that which is impractical is, by default, impossible from a commercial standpoint. Once again, this is efficient from the standpoint of economics, given that we do not want contracts enforced that could not mutually benefit both parties.

This does not mean all such contracts are null and void. Under the Uniform Commercial Code Section 2-615, a seller's requirement to render services or goods due to commercial impracticability *only* occurs when neither party assumed risk by contract or custom, the seller has taken reasonable care to ensure that she or he could fulfill the contract in the event that the commercial impracticability constraint were not present, the seller did not create the situation, and the failure was one that could not reasonably be foreseen at the time the contract was made. Thus, if the seller knew in advance that she or he would be unlikely to be able to deliver on, the contract would not relieve the seller of the obligation to perform under the contract nor would the seller be excused if she or he caused the issue that made the service rendering impracticable, even if it is later determined that it is so. One should not enter into a contract knowing that it will be violated nor should one be able to plead that one's action that caused an impossible situation should be excused. We do not reward the child who kills his parents and then pleads to the court for leniency on the grounds of being an orphan! Similarly, under this principle, a person who enters into a contract with a life insurance agency with intent to commit suicide would have their life insurance cancelled and no payout would go to the beneficiaries, although most such life

insurance contracts carry with them only a 2-year suicide rider on the assumption that someone who waits for 2 years to kill themselves after purchase of such a policy did not conspire in advance of taking it out to do themselves in with the intent of defrauding the insurance company.

Frustration of Purpose

Frustration of purpose is slightly different from impossibility but leads to much the same conclusion. It is derived from *Krell v. Henry* [1903] 2 KB 740, wherein the defendant, Henry, was accused by the Plaintiff, Krell, of reneging on a promise to rent a room, for which Henry had paid an initial deposit of £25 and was scheduled to pay the balance of £50 upon arrival. The purpose of the rental was for Henry to attend the coronation of King Henry VII. When the King's coronation was postponed due to His Royal Highness's illness, Krell sued for damages of £50, the balance owed, while Henry countersued for £25, the initial deposit. The King's Bench court ruled that Henry was entitled to recover since the King's illness frustrated his initial purpose in viewing the coronation. Grounds of impossibility could not be invoked because there was nothing preventing Henry from renting the room from Krell, as it was available at the time. However, the communications between the parties made it clear that the *only* reason Henry was renting the room was to observe the coronation, with sworn affidavits that the room had an excellent view of the coronation route and the fact that the room was being let to Henry for only the days and not the nights so that the coronation could be observed. Since both parties knew the sole purpose of the contract was for Henry to view the coronation and since that purpose had been frustrated by the postponement of the coronation, the court sided with the defendant on both the initial judgment and the counterclaim.

Duress or Undue Influence

The following exchange between a robber and Jack Benny, a comedian who portrayed himself as the most miserly of individuals, perfectly illustrates this

concept. After the robber pulls out a gun and demands Benny's wallet, an unexpected turn of events occurs:

> Robber: "Shaddup. Now, come on--your money or your life."
> (Pause.)
> (Laughter.)
> Robber: "Look, bud! I said your money or your life!"
> Jack Benny: "I'm thinking it over!"
> (Laughter.)[11]

Although Jack Benny may be the source of constant laughter for this classic routine, he illustrates an important point: contracts made under duress are not enforceable as a matter of law. While most of us would be quite willing to enter into the bargain to save our own lives, such transfers of wealth are not efficient from the ex ante position of before the threat is made, even if they are extremely efficient from the ex post standpoint of after the threat is made.

In *Alaska Packers' Association v. Domenico*, 117 F. 99 (9th Circuit 1902), a group of seamen hired by the defendant attempted to extort a higher wage by refusing to work unless the defendant agreed to their demands for more money after the defendant had already transported them to Alaska. Given that there were no available alternatives and the short fishing season was already well under way, the defendant agreed to pay the seamen their higher wage upon their return to San Francisco. When they returned, the defendant only paid the seamen the initially agreed upon amount, not the higher amount that the season attempted to acquire, and the court ruled in favor of the defendant since the renegotiation was one that was conducted under duress.

On the other hand, in *Goebel v. Lin,* 47 Mich. 489 (1882), an ice company that had contracted originally to receive $2 per ton for ice successfully renegotiated for a higher amount of $3 per ton after the fact when it became clear that the ice could not be procured for anywhere near that amount. Since the ice company was not conducting an opportunistic breach, but was merely attempting to convey the fact that without a higher price it would invoke the doctrine of impossibility, the court ruled that this did not constitute duress and the higher amount

had to be paid.In each of these cases, the activity constitutes duress because of threat or coercion. On the other hand, undue influence would manifest itself if one were to take advantage of being in a position of power over another. For example, a child who transfers ownership of the family home while taking care of an senile parent may be violating her fiduciary responsibility to her parent in doing so and thus has exercised undue influence over the decision.

Misrepresentation or Fraud

Suppose I agree to sell you the Brooklyn Bridge, but since I do not hold title to it, are you entitled to take possession? The answer, according to the law, is no. My actions constituted fraud and no valid contract could be enforced therein. The only way that we could go forward would be to allow a material breach of law but no contract can legally require one part or the other to break the law and any contract that does so require is automatically void. Thus, marital contracts cannot be entered into unless both parties are currently single, widowed, or divorced.

If I take advantage of you by failing to convey a material fact that is not public knowledge and of which you cannot acquire, the action would constitute fraud. However, if that information is something that I could reasonably assume that the other party knows *or ought to know* or has the capability of discovering, I do not have a duty to disclose. In *Laidlaw v. Organ*, 15 U.S. 178 (1817), the Supreme Court ruled that Organ, a merchant who discovered that the Treaty of Ghent had been signed ending the War of 1812 prior to the knowledge becoming public, did not have to disclose this fact to Laidlaw when he purchased tobacco at a predetermined price even though the price of the tobacco increased dramatically when news broke of the Treaty signing a few hours later. While the actions by Organ were no doubt based on his advance knowledge of the signing of the treaty, there would have been no incentive for Organ to obtain the information if he could not profit from it. At the same time, if Organ had been *asked* by Laidlaw if the war was over, Organ would have an obligation to disclose this information. The common law right to not speak the whole truth does not give one the right to lie (commit a sin of commission).

However, there are times when one is required to disclose information to the buyer. There is a common law duty to disclose safety information. In *Obde v. Schlemeyer*, 56 Wash. 2d 449, 353 P. 2d 672 (1960), a seller was obligated to disclose the fact that the building under sale was infested with termites as this was required by "'justice, equity, and fair dealing' . . . regardless of the [buyer's] failure to ask any questions relative to the possibility of termites." Furthermore, other duties to disclose may be imposed by statute. For example, a death on the property must be disclosed under California Civil Code 1710.2 if it occurred within the past 3 years. Earlier deaths only need be disclosed if the buyer asks.

Not knowing the information is a valid defense but when someone knows a material fact that may adversely affect the value of a property, they are compelled to reveal it even if it isn't listed as a statutory requirement. In *Stambovsky v. Ackley*, 169 A.D.2d 254 (N.Y. App. Div. 1991), the defendant Ackley had publically stated on multiple occasions in the popular press that her property was haunted but failed to disclose this fact to a potential buyer moving in from the area. The court granted rescission of contract to Stambovsky on the basis that:

> The unusual facts of this case, as disclosed by the record, clearly warrant a grant of equitable relief to the buyer who, as a resident of New York City, cannot be expected to have any familiarity with the folklore of the Village of Nyack. Not being a "local", plaintiff could not readily learn that the home he had contracted to purchase is haunted. Whether the source of the spectral apparitions seen by defendant seller are parapsychic or psychogenic, having reported their presence in both a national publication (Readers' Digest) and the local press (in 1977 and 1982, respectively), defendant is estopped to deny their existence and, as a matter of law, the house is haunted.[12]

Justice Rubin, writing for the majority on the Court of Appeal, had a sense of humor, quoting from Hamlet, Ghostbusters and stating that even though the plaintiff did not have 'a ghost of a chance" in suing the real estate broker, the court was moved to grant relief by "the spirit of

equity" and the idea one could reasonably ascertain a haunting was present by using a standard home inspection needed to be seen as "a hobgoblin which should be exorcised from the body of legal precedent and laid quietly to rest."[13]

Finally, we can look at the role agents play in the disclosure process. When we were selling our home, we were required to disclose any defects that had not been addressed and that we knew were present. We conveyed this information to our realtor, who passed this on to potential buyers. We were the principals and the realtor was our agent. In a principal–agent relationship, the agent in the transaction is required to treat the principal as they would have treated themselves—the agent is an extension of the principal in the legal sense. The agent can also act to advise the principal in the negotiating process. If they act in a manner contrary to our interests, we would be subject to a *principal–agent problem*. Thus incentives need to be aligned so that the principal and the agent are on the same page, so to speak. If these incentives are not aligned, the agent may not serve the interests of the principal. One way that they are forced into alignment is by explicit contract. Failure to adhere to the principal's best interests is a breach of contract and could result in the agent becoming liable for any lost business.

One must be clear about who has the agent. Many buyers of real estate make the mistake of hiring a seller's agent under a dual agency contract. This can arise regardless of whether the agent or the agent's firm is representing both sides since the agent's firm is an extension of the agent. When we went shopping for a home, we hired a buyer's agent and refused to look at homes where the buyer's agent's firm also represented the seller, as opposed to utilizing the seller's agent. While the seller's agent was legally required to disclose certain characteristics about the home regardless of the wishes of the owner (such as whether the home was in a flood plain), a dual agent's ability to help is limited since they owe a fiduciary responsibility to both parties. Thus, under a dual agency model, we could not tell our agent the maximum price we were willing to pay and let the agent negotiate on our behalf. We would have been responsible for the negotiation ourselves. Similarly, when we were selling our home, we hired a seller's agent who had to keep secret the

fact that we needed to sell the house within a certain time period as well as our minimum acceptable price. While these would have continued to be true even if we had signed a dual agency agreement under the confidentiality clause, the fact that the agent would no longer be exclusively loyal to us would place us in an adverse situation with regard to negotiations and not allowed us the benefit of our realtor's advice during those negotiations.

Mutual or Unilateral Mistake

A final rational for breach is mutual or unilateral mistake. Consider, for example, the case where a man instructs his wife to wire him the money from the sale of his Porsche after he absconds to Hawaii with his mistress. She, quite naturally, is upset with his behavior and resolves to punish him by offering the car for sale—at a price of $1. While the mistake is, no doubt, the man's for trusting his (soon-to-be-ex-) wife after betraying her trust in the marriage, this type of transaction would probably not find favor with a divorce court.

However, a more common example of a unilateral mistake occurs when a business offers a good or service for sale at an unbelievable discount—so great the discount is that the business itself did not intend to sell the product for that price. While normal sales prices can be enforced as a matter of contract law, the offering of a price at such a deep discount can be considered unenforceable under the doctrine of unilateral mistake and the merchant may cancel any sales that arise out of the attempt by the customer to "snatch up" the offer before it is rescinded or to try to enforce the contract. In order to do so, however, the pricing error must be egregious, such that it would make the contract unconscionable or the buyer knows of, or causes, the mistake to occur. An example of this is a "price matching" plan. If a retailer offers to "price match" against a competitor's prices (such as Amazon's) and the customer brings to the retailer's attention a price offer on Amazon *from a third-party seller of a used good*, a retailer can deny the price match under this doctrine. Similarly, if the price offered by Amazon itself is a mistake that will not be honored by Amazon itself, the retailer can deny the

price match. Typically, brick and mortar retailers are more apt to accept the consequences of their own errors since they have a secondary firewall (the retailer's clerk) to administer the policy, but online retailers who mistakenly sell an item for $9.99 rather than $99.99 might find thousands of people attempting to take advantage of the mistake. Online retailers can protect themselves by establishing protective covenants that allow them to cancel sales when there are pricing errors. Since the buyer agrees to these terms and conditions as a result of visiting the website and clicks "I agree" to them before concluding a transaction (oftentimes without reading the contract at all, but that's a different story entirely), the retailer is given additional cover when such errors inevitably occur, provided sales are cancelled prior to shipment.[14]

In the case of unilateral mistake, the only recourse is cancellation of the contract; reformation of the contract terms is not a possible remedy since the contracting party cannot be obligated to purchase at the new price that would prevail absent the mistake.

We now turn to the case of mutual mistake, wherein both parties make a mistake about the nature of the transaction. Under *Sherwood v. Walker*, 66 Mich. 568, 33 N.W. 919 (1887), the seller sold the buyer a cow to be used as beef, believing it barren. When the cow ended up with calf, the seller subsequently rescinded the sale. The buyer attempted to compel purchase but the court ruled that there was not sufficient evidence that either the buyer or the seller knew of the ability of the cow to become pregnant. As such, the nature of the contracted item (the cow) had changed and the sale could be voided. Mistakes do not have to the same to qualify as mutual mistake. In the case of *Raffles v. Wichelhaus*, 2 Hurl & C. 906 (1864), the two parties believed *different* things about the same transaction. The contract specified that 125 bales of hay would be arriving from Bombay and going to Liverpool aboard the ship the *Peerless* but failed to specify the date. Unfortunately, there were two ships departing Bombay that year with the same name (one in October and the other in December) with the defendant believing that the cotton would be delivered on the earlier ship and the plaintiff on the latter ship. The plaintiff sued for breach of contract but the Court decided that it could not determine which ship was the correct one and thus no

guarantee of *consensus ad idem* (meeting of the minds) between the two parties, the entire contract was null and void, and the defendant did not have to pay. As both mistakes were reasonable ones and there was no carelessness in the execution of the contract, the court believed that there was no reason to enforce contractual obligations.

Final Word: Why have Contracts at all?

Why do we even have contracts? Contracts help solve the problem of deferred exchange. If all activities occurred simultaneously and products or services vanished at the time of trade with money changing hands at that time as well, there would be no need for contract. However, this simply is not the case. Normally, there is a time delay on one side or the other that means we must generate a promise to either pay for or deliver a particular good or service at some point in the future. Consider the question of a meal at a sit-down restaurant. I consume the meal and then pay. Alternatively, we can think of the meal that is bought at a fast food restaurant. I pay first and then consume the meal. If we lacked contracts, there would be no means to enforce payment after the meal was consumed in the first case. Similarly, there would be no means to ensure that the meal was that which was expected after payment was made. The passing of time entails both risk and uncertainty. There is risk associated with whether payment will actually occur in the first case and uncertainty over whether the meal will be of expected quality in the second case.

Contracts allow us to mitigate these risks by assigning them to one party or the other and provide an enforcement mechanism to ensure compliance. So long as both contracting parties are rational self-interested maximizers of gain who engage in voluntary transactions within a competitive environment devoid of externalities and complete with perfect information, courts are loathe to intervene. However, when there are information asymmetries, externalities, compulsory transactions, or the parties are irrational or otherwise incapable of forming a contract either due to age or mental invalidity, courts will often take a dimmer view of negotiations, choosing to side with the individual who would come out on the losing end of the bargain.

Questions for Review

1. Why doesn't the law require that the person who breaches the contract pay the full cost of the contract but instead allows deductions for costs that were not realized by the parties?
   If the law required payment of the full cost of the contract, that would open the possibility for what is termed as opportunistic breach since it would make sense to breach the contract just to recover the damages. It is not efficient to create a perverse incentive for parties to first contract and then deliberate default on those contractual promises in the absence of any material change in circumstances. In such cases, a contracting party could deliberately enter into a contract with no intention of fulfilling it and then realize not only the profits that would accrue from fulfillment but also additional profits that corresponded to costs not actually undertaken by her or him related to performance of the contract. In such cases, rather than making the parties indifferent between breach and contract fulfillment, it would make the party that breached the contract ex ante prefer a breach of contract to fulfilling the contract. The law seeks to protect only ex post efficient breaches of contract, not make ex ante breaches of contract the social norm.
2. As pointed out in this chapter, companies have a choice between confessing that there is a defect in a good and covering it up. It was argued that companies that confess a defect sacrifice short-term profits but gain in the long run due to enhanced reputation and that the question of whether a company will be honest or deceitful depends on the time horizon the businessperson employs. However, this leads to the possibility that a company will confess to a defect that actually does not exist. Explain.
   When characteristics are hidden, a company can actually benefit by lying that they have a defect when there is none in order to enhance a long-term reputation for honesty. The irony is that this reputation for honesty accrues to the company because it is not possible to ascertain whether the company is being honest. Thus, while products have hidden characteristics, so do motives, which means that we must be careful not to be gulled into thinking that confession is always good for the soul.

Questions for Discussion

1. On August 2, 1979, when I arrived home from school, I turned on the radio to discover that Thurman Munson, famed New York Yankees catcher, had passed away in a plane crash. This information was a "breaking news story" and every network was carrying the news. I immediately went over to another schoolmate's house and proceeded to trade a bunch of reprint cards for the Thurman Munson rookie card. Both of us knew that the cards I was trading were reprint cards and both of us knew that the card I was trading for was a Thurman Munson rookie card. Furthermore, my schoolmate had previously offered to trade me the rookie card for the reprint cards but we had not yet had a chance to make the trade. Did my failure to disclose that Thurman Munson had died constitute fraud or misrepresentation? Why or why not?
2. According to the California State Constitution, Article 14, Section 3:

   > Mechanics, persons furnishing materials, artisans, and laborers of every class, shall have a lien upon the property upon which they have bestowed labor or furnished material for the value of such labor done and material furnished; and the Legislature shall provide, by law, for the speedy and efficient enforcement of such liens.

   In 1991, I was a subcontractor providing custom computer software that would be used in conjunction with the operation of a Magnetic Resonance Imaging machine at a California hospital. The general contractor filed for bankruptcy and, when I was not paid for my work, I filed an artisan's lien against the hospital to recover the money that I was owed. Although the hospital, at first, denied responsibility, stating that it was the general contractor's responsibility and insisting that it had the right to operate the machine, I pointed out that the lien had to be cleared by the hospital in order for it to use the machine and that the hospital should withhold the money from the general contractor instead. I received the money the next day, at which point I released the lien. Why was this a more effective route than suing the general contractor and why do all 50 states provide for security liens of this type?

CHAPTER 4

Torts

A tort is an intentional or negligent civil wrong under the common law that is brought against another party who suffers injury as a result of an action or a failure to act. Such injuries can be economic, physical, emotional, reputational, or rights-based in nature. Although torts can arise out of criminal actions (or failures to act), they need not. However, there is a necessity that the individual who is sued is at least partially the causal agent of the damage that results.

Key Economic Concepts

adverse selection *insurance* *moral hazard*

Key Legal and Political Concepts

accident
assumption of risk
cause, probabilistic
cause, proximate
damages, compensatory
damages, punitive
damages, statutory
duty
Good Samaritan defense
intentional tort
"judgment proof" liability
liability, strict
medical malpractice
negligence
negligence, comparative
negligence, contributory
sovereign immunity
tort
tortfeasor

Liability

Liability refers to whether the tortfeasor, the defendant in the case, is legally liable to pay; in other words, it is the amount of damages accorded to the plaintiff in the suit. Traditionally, there were three requirements to prove liability. First, the person had to have breached or been negligent in a duty that they had to another person either to do something or to

restrain from doing something. Second, the plaintiff had to suffer actual harm, rather than a theoretical harm. Third, that breach or negligence had to be the causal reason for the harm that was suffered.

One can sue for damages another party caused due to texting while driving. However, one may not sue for damages if the other car were to be picked up by a tornado and dropped right on top of your car. Furthermore, the mere exposure to the *possibility* of harm is an insufficient reason to allow a suit to be successful. So if someone *almost* hit your car, but this did not result in you *actually* suffering damage, no recovery in a lawsuit would be possible.

The hardest thing to prove is whether the breach was a causal reason. Many people die from cancer who are not exposed to any cancer-causing agent and yet the fact there has been a significant increase in cancer deaths resulting from certain chemicals has meant that the producers of those chemicals are seen as potentially liable in civil suits. Perhaps more problematic, suppose that we have the case of a man who instantaneously dies of a brain aneurism and then his dead body falls into a railing which was not built properly and thus gives way, sending his body plummeting 70 feet to the ground below. The person who built the railing can argue that they were not the cause of the man's death, even though the railing was improperly constructed, because the man was dead before he even hit the railing in the first place.

Nowhere is intent required, although intentional torts do exist (and are often, but not always, synonymous with crimes). In addition, multiple tortfeasors may be liable under a doctrine of joint and several liability whereby the victim who sues can collect damages up to the total loss from any or all of the defendants. This does not extend to being able to collect *more*. The plaintiff will have only one cause of action and cannot go around suing each party individually, hoping to collect multiple times the entirety of the loss. The purpose of this doctrine from an economics standpoint is to ensure that proper caution is exercised when one or more defendants would be "judgment proof." An example of this occurs when an individual in the course of her or his employment commits an act of negligence that result in the death of someone else. The employee typically lacks the proper incentives to take reasonable care since she or he

knows that it would be impossible to pay the sums required. Therefore, even though the employer may not have acted in a negligent manner in the hiring, training, or management of the employee, the employer is still held liable for the employee's actions and can be sued. This means that employers are more likely to take precautions or even engage in substitution of capital for labor so as to reduce potential liability. In addition, the employer can take actions to discipline the employee in a manner that a third party cannot do, such as decide to fire the employee.

Strict Liability and No Liability

When one party has strict liability, the other party has no liability. The party with the strict liability is said to have a duty to take necessary precautions to avoid accidents. Suppose that we have a rule of strict liability for drivers with respect to pedestrians being hit by cars. In such a case, drivers will be more prone to drive safely but pedestrians would be more likely to jaywalk or look at their phones while walking. Similarly, a strict liability rule that places financial responsibility on owners of pools will result in more precautions being undertaken by those owners (hiring of lifeguards, building of gates, etc.) and fewer by swimmers. The rule of strict liability (provided the victims are made "whole" in the process, such that all costs of the victim are borne by the strictly liable party) will be efficient when it comes to the precautions that will be undertaken. If the victim is not made "whole" either by under- or overcompensating the victim, there will be a bias in the same direction. Thus, undercompensating victims will ensure that the party with strict liability takes less precaution than would be optimal, while providing overcompensation would lead the party with strict liability to adopt much more burdensome precautions than are optimal. For example, if every manufacturer of cigarettes were strictly liable for all cancers on the assumption that cigarettes caused the cancer in the first instance, cigarettes would become prohibitively expensive (there simply is no mechanism to eliminate such risk, so the only alternative would be to raise prices to build a war chest of funds to pay off claimants). Alternatively, if cigarette companies could absolve themselves of liability (as they did for many years), they would have little incentive to reduce the carcinogenic properties of their products.

If car drivers have no liability for pedestrian safety and pool owners have no liability for swimmer safety, pedestrians and swimmers will be more cautious and aware of surroundings. The rule of no liability (whereby the victims suffer the entirety of the consequences of their actions) naturally causes swimmers to be efficient when it comes to their own precautions.

However, this efficiency only is with regards to their own actions. It does not imply that the rule itself generates overall efficiency. To accomplish that, the rule that determines which party shall bear the liability should require the entity that would bear the lowest cost to take the precautions necessary to avoid an incident.

The problem is that the precautions each party takes reduces the overall likelihood of the accident and since the precautionary costs rise as one takes precautions (based on the idea that there are declining marginal benefits to taking a precaution), it usually makes sense to require *both* parties to take precautions. For example, the placement of a gated fence with control card access greatly reduces the likelihood of a child accidentally wandering into our homeowner's association swimming pool without supervision. This is an up-front expense with minimal ongoing cost (the extra cost to the association is the battery needed to run the gate card access). Given the reduction in likelihood of an accidental drowning, this makes a lot of sense. However, if we employ lifeguards, we have a very large expense each month due to ongoing labor costs and we might need to employ multiple lifeguards to ensure that everyone is safe since even one incident would impose strict liability on the homeowner's association. It makes a lot more sense to require adults to watch over their children and for adults to be required to watch out for each other by requiring no one be allowed in the pool by themselves and holding swimmers who go to the pool liable for their own injuries since these costs are relatively minor for individuals when compared to the cost to the association of employing lifeguards. One cannot have bilateral liability under the strict liability vs. no liability construct. What we need is a negligence rule.

Negligence

Negligence occurs when an individual does not take proper legal care to ensure that an avoidable accident is avoided. This is not based on custom or past practice. It is immaterial whether the requirement is given by statute, although a disregard of a statute, custom, or past practice when it would have avoided the accident would certainly be classified as negligent. What is required is merely that the cause of the accident could have been reasonably avoided with due care.

In re Eastern Transportation Co. (The T.J. Hooper), 60 F.2d 737 (2d Cir. 1932), a group of two barges sank in stormy weather while being towed by two tugboats, one being the T. J. Hooper. The owners of the cargo that was aboard the barges sued the barge owners who sued the tugboat owners for indemnification on the grounds that the tugboat operators had been negligent in that they did not have properly working radios that would have received the broadcast of poor weather conditions. The court pointedly rejected the argument given by the tugboat owners that the equipping of radios was not a standard industry practice, stating "in most cases reasonable prudence is in fact common prudence, but strictly it is never its measure. A whole calling may have unduly lagged in the adoption of new and available devices. . . . There are precautions so imperative that even their universal disregard will not excuse their omission."[1]

In *United States v. Carroll Towing Co.*, 159 F.2d 169 (2d. Cir. 1947), the now-famous Hand formula was formulated in a case involving another tugboat accident. As Justice Learned Hand stated, "Since there are occasions when every vessel will break from her moorings, and since, if she does, she becomes a menace to those about her; the owner's duty, as in other similar situations, to provide against resulting injuries is a function of three variables: (1) The probability that she will break away; (2) the gravity of the resulting injury, if she does; (3) the burden of adequate precautions. Possibly it serves to bring this notion into relief to state it in algebraic terms: if the probability be called P; the injury, L; and the burden, B; liability depends upon whether B is less than L multiplied by P: i.e., whether $B < PL$."[2]

Negligence arises whenever the cost of avoiding the injury is less than the probability of the injury times the actual injury sustained. If we

look at this from the standpoint of marginal (as opposed to total) costs and benefits, this is an efficient doctrine that fully encapsulates the argument given earlier for liability rules provided all aspects can be fully specified. This last qualification is important. Probabilities are subjective. To determine whether someone is negligent ex ante is not the same as determining whether they were negligent ex post. Yet courts often deal with facts with 20/20 hindsight, which means they might be prone to overestimate probabilities of injury and understate burdens. Consider the case of whether one should use a motorcycle helmet. The use of a motorcycle helmet will reduce the severity of injury for the rider (since the helmet protects the rider's head) but also increase its likelihood (as it reduces the rider's field of vision). An airbag can simultaneously reduce severity and frequency of injury for some car riders but increase it for others (when the car rider is relatively small in build).

Another issue is while the damages associated with physical goods that are easily replaceable are relatively easy to calculate, damages related to unique goods and personal injuries, or even worse, deaths, are much more difficult as the gravity of injury necessitates calculations that are far less precise. As such, it is much more difficult to make a victim whole without under- or overcompensating her or him when dealing with unique goods or with personal injuries or death.

Then there is assigning blame and properly allocating costs. The Hand formula assigns blame based on whether the party exercised the efficient level of care. However, it may be economically inefficient when both parties contribute to the activity and if the probabilities of an accident are altered because individuals take actions conditional on the activities of others. Since results will differ if we look at liability independently rather or conditionally, the Hand formula gives different results even though precaution necessitates taking action in advance and may require us to assume things that are not true.[3] I assume people are not going to jaywalk across the freeway but, if they do, I still need to try to avoid the accident. Of course, if I knew in advance that they were going to jaywalk, I would act differently than if I realized this was not the case.

Proximate Cause

A negligent act must be sufficient close (or proximate) such that a reasonable person would have foreseen the harm that would occur, given what the negligent person knew at the time. For example, if I hold up a gun on New Year's Eve in Times Square and fire it into the air in a celebratory gesture at the stroke of midnight, it is not unreasonable to suppose this action could have seriously negative consequences, gravity being what it is. That alone should be sufficient for me to realize that this action is not a smart move.

On the other hand, consider the case of *Palsgraf v. Long Island Railroad Co.*, 248 N.Y. 339, 162 N.E. 99 (N.Y. 1928), where a man rushing to catch a departing train jumped aboard but then appeared to be about to fall. Two guards for the railroad attempted to assist him: one, who was on the train, pulled him forward, while the other, on the platform, pushed him from behind. In the process, the man dropped a package, which contained fireworks that ignited when they struck the rails below. At the other end of the platform were some scales that fell down as a result of the explosion, causing injury to Mrs. Palsgraf. The injuries that she sustained, however, were not foreseeable since there was no way of the guards knowing what the contents of the package were. To the extent that there was negligence, it was to the passenger who had been running for the train since the guards' actions caused him to lose control of his package.

The basic principle of proximate cause is actually laid out quite nicely by the concept of the butterfly effect—that a butterfly flapping its wings in one part of the world can cause a tornado to appear in another part of the world many months later. However, this does not mean that we have any ability to predict what would occur. Indeed, mere measurement error is such that even if one thought one could predict the result, the prediction itself would likely be faulty. Thus, the butterfly effect is the perfect example of the unforeseeability of a nonproximate cause.

The idea that the possibility of harm must be foreseen makes enormous economic sense. If one were responsible for actions that could *not* be foreseen, the result would likely be a significant reduction in risk-taking in society. Since people are normally risk-averse and thus require a positive return to risk, when risk-taking activity is reduced, overall societal welfare will fall.

From an economic standpoint, perhaps the best example of how proximate cause factors in is when we are fighting over purely pecuniary gains and losses: one person's loss is another person's gain, as opposed to societal gains and losses. Take the case in which the sole bridge connecting an island to the mainland is struck due to negligence by a barge captain, such as occurred in *Rickards v. Sun Oil Co.,* 23 N.J. Misc. 89, 41 A. 2d 267 (1945). Although the barge owner is liable for damages to the bridge owner, the liability does not extend to businesses of the island, even though their sales have fallen as a result. After all, business did not just evaporate. It went to those establishments on the mainland that saw an increase in sales and we cannot take from them the extra profits they received as the result of the bridge being taken out of service.

Given the island was a tourist destination, some individuals may also have cancelled their planned vacations and stayed closer to home, enriching merchants of their own localities. The one thing we know is that the action that disrupted the bridge caused a loss in overall welfare, the mere fact people did alter their decision-making proves by revealing their preferences they chose their second-best option, given their preferred option was closed to them. It was the consumers, therefore, who were most harmed and yet they have no cause of action whatsoever because to allow them to sue would open up a limitless supply of rent-seekers, each claiming that their plans were disrupted even if their only plan was to participate in an attempt to extract payment from the hapless tortfeasor. With limited exceptions, such as *In re Exxon Valdez*, No. A89-0095-CV, 1994 WL 182856 (D. Alaska March 13, 1994), where commercial fisherman were allowed to recover economic losses sustained as a result of the Exxon Valdez oil spill as it was considered a proximate cause, purely economic damages are not recoverable.[4]

Probabilistic Cause

It can also be impossible to assign a specific causal agent even when one can foresee negative consequences. Take cigarette smoking and cancer. It is certainly foreseeable that smoking cigarettes will cause cancer because cigarettes contain carcinogens. However, so do a lot of other things. How can you be certain that it was caused by cigarettes and not some other factor?

In *Sindell v. Abbott Laboratories*, 26 Cal. 3d 588 (1980), the California Supreme Court apportioned liability based on *relative* market share that each company had at the time the plaintiff had been exposed to diethylstilbestrol (DES), a drug that was believed to reduce pregnancy complications. In 1971, DES was removed from the market when it was determined that the active ingredient caused a particularly rare form of cancer. It was that form of cancer that the plaintiff had contracted. Since all manufacturers of the drug had to adhere to the exact same chemical specifications that caused the cancer and since it was impossible to determine the exact source of the drug in question, every firm that manufactured the drug during the 9 months pregnancy period was a potential tortfeasor. However, in *Skipworth v. Lead Industries Association*, 690 A. 2d 169 (Pa. 1997), the Pennsylvania Supreme Court refused to entertain a market share liability test for lead poisoning because it was impossible to determine when the lead paint had been applied and so the liability apportionment was too broad to be valid. Furthermore, since lead paint is not fungible as to the nature of the toxicity, the Court ruled that the test for market share apportionment found in *Sindell* was not valid for this latter case.

This does not mean that a modification of this test could not be devised. However, it requires that the proportionate probabilistic share of liability be correctly ascribed (perhaps by modifying the probabilities based on the level of toxicity, such that defendants with lower levels of toxic paint would adjust their market shares in direct proportion to that level), including assigning to the plaintiff the remaining percentage of risk. This was not the case in *Sindell*, which apportioned full liability to the manufacturers of DES in complete contradiction of the fact that there was not a 100% probability that a drug manufactured by one of the defendants was at fault.

For example, suppose that manufacturer A's product was only half as likely to cause injury as the average product in the marketplace once the product was used. In that case, manufacturer A would find that its liability would be cut in half when compared with its market share. At the same time, manufacturer B, which had a toxicity that was twice the average, would find its liability doubled. Thus, each defendant would receive

a proportionate judgment against it that would fully account for its probabilistic causation. Any probability that remained after accounting for the defendant would be the responsibility of the plaintiff.[5]

Defenses to Tort

There are several defenses that one can mount to an accusation of tort other than the most obvious one of innocence. Among these defenses are assumption of risk, contributory negligence, immunity, and Good Samaritan.

Assumption of Risk

Assumption of risk is a defense that the plaintiff assumed the risk that he is now attempting to place on the defendant. Without this defense many types of activities available to the public would likely disappear either because potential liabilities would be too great for companies to assume the risk or because the cost of paying for those liabilities would drive the prices of those activities so high that they would become cost-prohibitive to all but the wealthiest.

Let us consider a foul ball hitting a spectator at a major league baseball game. This is not an isolated incident. About 1,750 fans are injured in this fashion every year.[6] Yet, ever since *Crane v. Kansas City Baseball & Exhbition Co.*, 168 Mo. App. 301 (1913) established the defense, ball club owners owe to patrons only a duty of reasonable care, providing to those *who desire it* protection from being hit by a foul ball. When a patron seats himself or herself in an unprotected seat, the fan assumes risk of injury. This is not without due and proper consideration. A fan shielded from foul balls cannot catch one and, as consolation for taking the risk, the fans seated in the unprotected areas have the opportunity. On the other hand, a fan who has decided *not* to assume the risk transfers back to the ball club owner the responsibility to not act in a negligent manner. Thus, in *Edling v. Kansas City Baseball & Exhibition Co.*, 168 Mo. Ct. App. 908 (1914) a patron who sits in the protected does not assume the risk and the club owner assumes the liability for when a ball gets through a hole in the protective netting and strikes the fan.

Contributory and Comparative Negligence

Contributory negligence occurs when both plaintiff and defendant played a part in the injury. The idea is if you play some role in your own injury, you may be barred from recovery, regardless of how little you were negligent. Thus when a pedestrian jaywalks and a bicyclist strikes him due to lack of care, the pedestrian may be barred from recovery on the grounds he contributed to the incident. This would not work in an intentional tort, such as if the bicyclist deliberately struck the pedestrian, but it is a valid defense when ordinary negligence is to blame rather than intent.

At first glance, this hardly seems fair. The victim may be only 1 percent to blame and yet receives no compensation whatsoever. Yet sometimes it is fair. Suppose a victim sees the injuring party act in a negligent manner but the victim can still avoid the accident. Without contributory negligence, he lacks necessary incentives to do so. On the other hand, if the situation is reversed and the victim is seen acting in a negligent manner, under a policy of contributory negligence, the injurer might not take appropriate measures to avoid the accident. This doctrine, called "last clear chance" was articulated in *Davies v. Mann*, 152 Eng. Rep. 588 (1842). The only way to have the right incentives to still try to avoid the accident is if he is not made whole for his loss.[7]

Most states have adopted a different rule called comparative negligence. Under this doctrine, victims who are partially at fault end up receiving less in total compensation than their overall loss as they bear some of the responsibility. This seems fairer than to provide nothing when they are partially responsible or everything under a policy of strict liability. It works equally well as other liability rules from an efficiency standpoint. To understand why, simply look at the calculation each victim will make. So long as each party does not know what the other party is doing, each will bear the full costs of any accident and so will take every precaution to avoid it. In the case of comparative negligence, even though not all costs are recompensed, the mere fact that losses will not be fully realized will result in an efficient outcome as well. People simply do not like to be made worse off, even if it is only a slight reduction in their overall welfare.

Two caveats exist to the equal efficiency of liability rules: (1) apportioning fault can result in higher transaction costs simply because it is more difficult to determine a relative level of fault than it is to simply determine whether someone is at fault; and (2) in cases where one cannot perfectly estimate the level of precaution necessary, people tend to take more precautions than required under a contributory negligence framework as opposed to comparative negligence. That is because comparative negligence limits overall exposure to a percentage of the accident based on fault, while contributory negligence requires the offending party to foot the whole bill.

Sovereign Immunity

Sovereign immunity is invoked by government officials. Its principle has been enshrined for centuries in the phrase *rex non potest peccare* ("the king can do no wrong") unless the state waives immunity either by statute or fiat. The Federal Tort Claims Act of 1946 allows some torts against the federal government but the grounds are quite limited. There is absolute immunity in certain policy decisions, such as military interventions, tax enforcement, and decisions to prosecute or incarcerate. In addition, a government official acting or failing to act within the discretionary scope of his or her responsibilities is not subject to legal action.

On April 16, 1947, the *SS Grandcamp* exploded in Texas City harbor, killing more than 500 people and injuring 10 times that number. Many rushed to sue the federal government, arguing that the disaster resulted from government agencies failing in their responsibility to protect the public and mishandling the situation and inadequately dealing with the resulting firestorm. The argument stemmed from the fact that port authority officials had discretion over whether to allow the fertilizer to be loaded since other ports, such as Houston, did not allow such transports. However, in *Dalehite et al. v. United States*, 346 U.S. 15 (1953), the U.S. Supreme Court ruled in a 4-3 decision that planning decisions of this nature and the discretionary actions undertaken after the event were not subject to compensation under the statute since they fell under the Act's numerous exemptions. Congress later granted relief but that did not alter the court result.

Not all decisions are granted sovereign immunity. In *Berkovitz by Berkovitz v. United States*, 486 U.S. 531 (1988), the Supreme Court ruled that when decisions are made that violate the law, an appeal to discretionary authority is not valid. In this case, the issuance of a license to manufacture a live polio vaccine was found to be subject to tort claim because the issuing agency explicitly violated its own rules, even though it lacked the discretion to do so. The infant soon developed polio as a result and this violation of protocol led the court to reinstate the tort action.

Without a sovereign immunity defense, ordinary policy actions undertaken by government would be greatly reduced. Praise and reward for a job well done would be minor in comparison to the potential liability for making a decision or failing to make a decision that resulted in death or serious injury. Government is supposed to be a risk-neutral agent but the potential increase in liability would cause officials to reduce their exposure to such lawsuits, choosing the less hazardous decision in each case rather than the optimal one. However, in many cases, this a Hobson's choice since either action or inaction could result in harm. By not considering potential benefits and instead focusing solely on costs, the result would be a large reduction in efficiency. In addition, government agencies act via the "will of the people" in determining how to balance societal costs and benefits. Since all citizens are part of the "body politic," governments are presumed to make decisions in the best interest of the public unless proven otherwise.

Good Samaritan

The Good Samaritan defense applies in the case of ordinary citizens who attempt to rescue someone but accidentally cause harm in the attempt. It is designed to protect individuals who otherwise might not get involved and for whom there is no corresponding duty to help. Suppose I see an individual who is choking and I attempt to save them by performing the Heimlich maneuver. Unfortunately, I break one of their ribs in the process. Since I did not have a duty to help the individual and provided I acted in good faith, meaning that I believed that I was performing the action correctly, not intending any harm, I would likely be shielded from liability. On the other hand, if I had a duty to intervene and failed to do so, I could be held liable.

We all owe a duty to help our spouses, our children, those children in our immediate care, and those who are physically put in peril by our prior actions, but that duty does not typically extend to others, although some states have a requirement to seek assistance for strangers in peril. Still, not everyone you think has a duty to help actually has one. In *Warren v. District of Columbia*, 444 A. 2d., 1. D.C. Ct. of Ap. (1981), the District of Columbia Court of Appeals ruled that police officers owe only a duty to the general public, not individual citizens, to enforce the law.

The Effect of Insurance

Individuals and businesses often try to reduce financial liability by purchasing insurance policies to mitigate against risk brought by tort suits. Once they do so, they effectively become judgment proof although this is somewhat limited since insurers can and will attempt to address this. First, insurers will look at past behavior in order to discern whether an individual is likely to collect on the insurance if they continue to act in a similar manner. This is the principle of adverse selection and it is necessary because people who are likely to need insurance are more likely to request it, while those who are unlikely to need it will typically decide against purchasing insurance. After all, there are a lot of people in their 40s, 50s, and 60s (or even later in life) who would love to have affordable life insurance but few people in their 20s think about such matters, even though the cost of insuring someone in their 20s is incredibly low unless that person has a preexisting condition (such as cancer) that would significantly increase the risk. Thus a person with a history of automobile accidents will pay a higher premium than someone who has a clean driving record. Life insurance companies have safeguards to screen out those with a high likelihood of collection during the policy term. They require medical screenings and impose a 2-year moratorium on collection of benefits for suicide. If one can acquire insurance without such restrictions, it is going be priced incredibly high, since it assumes you are at high risk, just as all cars are assumed to be lemons unless proven otherwise (see Chapter 3 on "The Lemons Problem").

Once insurance is bought, it is a sunk cost for the insured and without measures taken by the insurance company, there is little reason to

take precaution. Some of the ways insurance companies help to reduce the incidence of this activity, known as moral hazard, is by raising premiums once accidents or other factors tending to increase the probability of a tort occur, providing claim-free discounts when they do not, and providing additional discounts when customers take actions that tend to reduce accident rates or the costs of accidents once they do occur. In the case of automobile insurance, auto insurance companies provide discounts if the driver does not have any tickets or accidents or if the driver has a new car (since new cars come with additional safety features and because people are more cautious with newer cars than with older cars). Higher rates are accorded to the inexperienced driver, ones caught driving under the influence, and those who have been found at fault in accidents in the past. In the case of homeowner's insurance, premiums are set such that the newer homes with security systems will receive lower rates, while homeowners who have poor credit histories will end up paying for insurance (since individuals with poor credit and large debts have this unfortunate habit of "discovering" their homes burglarized or burned to the ground—who would have thought?).

In addition, the setting of a deductible and the provision of coinsurance can reduce the incidence of moral hazard but regulatory bodies have often placed limits on how punitive insurance companies can be in rate-setting and thus it is more likely that higher-risk applicants will be shuffled off to the high-risk pool or have their coverage cancelled than be provided "reasonable" insurance rates. Indeed, the quest for "reasonable insurance rates" works to *increase* insurance costs for everyone as it tends to be inconsistent with accident avoidance and mitigation of damages. Take, for example, no-fault insurance, which eliminate tort liability (except in case of serious accidents) in favor of having one's own insurance company handle each accident victim's claim. There are two major problem with this. First, though their liability is capped under any insurance system, time is a significant cost and having to go to court to face a tort presents a large opportunity cost even if there is no monetary penalty since the insurer is ultimately paying the judgment. Second, since there is no negligence standard under no-fault insurance, individuals who are negligent end up receiving payments despite the fact

that they *were* negligent! This only serves to increase the likelihood of an accident as well as the number of fatal accidents. The exact same result occurs when we move to a system of compulsory insurance. While the number of uninsured motorists goes down, the number of fatalities increases as drivers take fewer precautions simply because they are now insured. It seems that people who are uninsured and therefore bear the full cost of any accidents, as well as those who are subject to tort liability, are safer drivers, all other things being equal.[8]

Damages

Once it is determined that one side has suffered losses and is entitled to relief, there are four types of damages that may be awarded: court costs, compensatory damages, punitive damages, and statutory damages. Court costs include not only the cost of filings and court fees but also attorney fees. They do not include the cost of time associated with appearing in court for the plaintiff or the defendant, which can also be quite large and serve as a detriment to pursuing legal cases in minor disputes, although there exists the small claims court, in which litigants act as their own attorneys, that is designed to allow for these type of disputes to be heard.

Compensatory Damages

In order to compensate the victim for the negative externalities imposed on her or him by the tortfeasor, the court may order compensatory damages. The basic idea here is to make the victim "whole" so that they are in the same position as they were prior to the tort being committed. It is usually based on the economic concept of indifference, such that the victim would find that in a choice between the monetary payment and the object in question is such that he or she could flip a coin to make the decision between the two and would be happy with the "decision" the coin "made."

In the case of personal property, one can provide the victim with the replacement or repair cost of the object, since the object can be replaced or repaired for that price. When the tort results in the destruction of

irreplaceable objects or in serious injury or death, this isn't precisely possible. Instead, compensation in these cases focuses on factors that one can see in the market.

Ideally, compensation for something irreplaceable would be a *greater* amount than that which would have prevailed in the market had the item been up for sale. While a contemporaneous market does not exist for such works, even a "priceless" work of art has a price based on the sales price of similar works of art by the same artist or similarly desired works of the same basic genre. However, to merely provide that dollar value ignores certain realities.

While it is relatively easy to replace this book were it to be damaged by simply ordering it again on Amazon (the author and publisher thank you in advance for doing so if you are so unfortunate as to have it destroyed by a tortfeasor), it would be quite difficult for me, as the author, to replace a work in progress, given the time and value of my investment in its product. Indeed, as an academic, even the economic value of this work is substantially greater than for the average author since damages related to its replacement would have to consider not only the lost royalty income but also the reduction in earnings within my academic career since the production of intellectual property is mostly subsidized by my university and my compensation is derived from my academic salary that would be negatively impacted by its loss.

For something unique I might own, such as an original Monet (I wish!), the mere fact I do not offer it for sale implies that my reservation price, the price at which I would be willing to sell, is greater than that currently prevailing in the marketplace for similar works of art. Since a market price is only derived from a meeting of the minds of a *willing* buyer and seller, the price of my Monet would have to be greater than is currently in the marketplace. The problem is determining that price *after the destruction* is quite difficult and I might be inclined to exaggerate it, since not only is there no such Monet anymore, but also a willing buyer is not to be found (the tortfeasor being placed in the unenviable position of an *unwilling* buyer of a painting now sadly destroyed).

These questions are much easier to determine than how to compensate someone for death. One way of determining compensation is

performing a self-valuation test. In this case, one examines the behavior of the dead individual to determine the value that he or she placed on his or her own life. This can be accomplished by measuring the increase in risk that someone undertakes in exchange for a particular reward. For example, firefighters earn more money because they place their own lives in danger through that which is known as a compensating wage differential. This method has severe drawbacks because people generally would refuse a monetary offer from a third party for their certain death as opposed to a mere fractional increase in the likelihood of their death. We must also remember that looking at a self-valuation test involves rewarding the individual for taking a risk (as opposed to a certitude) that their life will end, while damages in the case of a death are awarded to another party who may not hold the same valuation.

On the other hand, valuing a person's life, such as is done in the case of death, draws on the potential lifetime income no longer available to the person's family as a result of their demise. This would be the present value of their total lifetime earnings less the personal expenses, such as food and clothing that they would have had they continued to be alive, since that spending does not benefit others, only the now deceased individual who no longer has the need for these expenditures. This is the same valuation given when one is so severely injured as to preclude work. However, in this latter case, payment is also made for ongoing medical expenses as well as personal expenses, which leads to the bizarre conclusion that a person's life absent their ability to work for an income is actually worth *less than nothing*, since a person's death actually reduces the payment that the tortfeasor must make when compared with a serious injury!

Only the victim's estate and immediate relatives (often also the beneficiaries of that estate) are normally entitled to compensation, although the employer also loses in the process. However, courts have been loath to consider the employer a victim, except in some limited cases in which obligations exist precluding movement of the employee to another employer during a fixed term contract. Even still, awarding damages to an employer is the exception rather than the rule.

In the case of a child's death, this is particularly problematic since parents are unlikely to be beneficiaries of a child's future stream of

income and because the loss of a child generally reduces overall expenses for the parents. Parents seldom buy life insurance on their children, although they frequently do so for themselves—one does not insure liabilities, only assets. On the other hand, the services of a housewife or househusband may be calculated based on how much it would cost to replace them with equivalent external labor, though this excludes the opportunity cost of forgone income given up by the individual by not being in the paid workforce.

There is also the category of "pain and suffering" that is not so easy to quantify and again often leads to much larger judgments in cases of severe injury as opposed to death. After all, death ends both pain and suffering for the victim, at least on this Earth.

Finally, there is the issue of collateral benefits. If I have an insurance policy that pays me, unless I assign the rights to sue to my insurer through a process called subrogation, I am entitled to receive payment from both the insurance company *and* the tortfeasor and there is no reduction in the amount the tortfeasor must pay me simply because I have insurance. Similarly, without such assignment of rights, I am not obligated to repay the insurer since in both cases this would mean a windfall to either the wrongdoer (the tortfeasor) or the company with whom I contracted to provide insurance. This is the correct procedure, even though many people may think that it means that I have received a windfall. In fact, I have not, since the cost of my insurance is based on the expected cost of my claim plus any costs associated with processing it and underwriting the policy. Therefore, I have fully paid (at least theoretically in advance) for the payment from the insurance company. If we did not allow full payment of collateral benefits, there would be less incentive for me to buy insurance and less incentive for the tortfeasor to be careful.

Punitive Damages

When a tort is intentional, malicious, fraudulent, oppressive, or results from gross negligence (as opposed to simple negligence), it goes beyond a mere "accidental" occurrence into something requiring a punishment be inflicted on the tortfeasor. An example is one in which the tort occurs

during commission of a crime. However, punitive damages are not inflicted by the criminal justice system, but rather by the civil courts, and often are imposed based on the relative wealth of the tortfeasor so that damages actually "hurt enough" to deter future "bad behavior." In my companion book, *The Economics of Crime*, I look at how rational criminals decide to commit crimes based on the probability of being punished and the extent of punishment. A punitive damage assessment is similar in analysis and readers are encouraged to read that text for details.

Statutory Damages

Finally, there is the category of statutory damages, which specify by statute certain amounts be paid to victims. The copyright act provides statutory damages of between $750 and $30,000 for each work infringed irrespective of the level of actual damages. These damages can be reduced to $200 if the violation was unintentional and raised up to $150,000 if it was intentional. In contrast, the civil penalty for stealing a physical copy of a copyrighted work from the bookstore is the actual value of the work and it becomes clear that piracy is taken far more seriously than simple theft even though theft results in actual physical losses rather than theoretical lost income.

Tort Reform

One of the major issues with torts is that when there is provision of insurance, tort liability may be distorted. The problem is that when one has a third-party payer for either the payment of a tort (as in the case of business liability and medical malpractice insurance), there is not as much incentive to attempt to mitigate risk. This is because a third party will be paying the damages, not the party that causes the damage in the first instance. Although it is true that the business owner will pay eventually through higher premiums, at the margin at the time of the occurrence, the business owner encounters the "moral hazard" problem. At the same time, this situation is compounded by a system of health insurance (in the case of medical malpractice) that means consumers are paying "too little" for their medical services and thus there will be higher demand relative to

what they would occur had market prices prevailed. In addition, since many medical procedures are "one-off" events and both quality and price are masked by the current medical care system, it can be difficult for consumers to effectively evaluate the services that will be rendered. One way to mitigate this is the doctrine of "informed consent," which requires doctors to clearly explain all "material risks" that are involved, those being significant based on a "reasonable person" standard.

However, especially in the case of combating disease, it is difficult for physicians to accurately define that line. Patients go to a physician seeking expert advice but doctors may punt and resort to what is known as "defensive medicine," requiring more and more tests that drive up the cost of care while conferring few additional health benefits. This is understandable given the physician's requirement to "do no harm," but the fact is that passively testing for conditions that probably have no relevance can actually do harm by delaying the start of effective treatment.

Similarly, patients, not being experts, often have overestimated the benefits of elective surgery and nontraditional medicine and have dismissed the risks. Given the numbers of people who engage in such therapies and surgeries, the fact that doctors do not take adequate notice of these is a cause for concern. Interactions between "natural" products that the public has come to believe are 100 percent safe and medications, as well as a tendency for patients to abandon therapies that either do not convey immediate benefit or that appear to have caused the elimination of symptoms (even if they have not addressed the underlying cause—as in the case of antibiotics, which patients often stop taking in the middle of the course of treatment, thus increasing the chances of superbugs that have antibiotic resistance), one of the biggest threats to American health is simply the overworked physician who does not take sufficient time to ensure that patients are following directives and that those directives are in the best interest of the patients in the first place.

The irony is instead of allowing patients to be effectively and efficiently informed as to risks, this type of activity tends to result to that which may be perceived as a "passive-aggressive" strategy on the part of medical doctors who allow patients to take unreasonable risks in the case of elective surgery, while simultaneously prompting them to delay necessary treatments.

If one cannot effectively analyze risk (in the case of the consumer for medical malpractice) or if the incentive to do so is not aligned properly (in the case of businesses or medical services), the entire premise of tort liability goes out the window and that brings up the need for tort reform. The solution is to remove the at-fault requirement from current tort liability when it comes to medical malpractice and replace it with a no-fault system of strict liability. In doing so, the physicians requirement to "do no harm" is codified and, by transferring damage provisions to an administrative hearing, costs associated with these cases will be greatly reduced, while victims will receive faster and more predictable payouts. It will also benefit doctors by reducing the uncertainty as to their liability and thus should stabilize medical malpractice costs. Indeed, unless a doctor has gone so far as to engage in an *intentional tort* (for which insurance cannot be sought), tort reform is likely the superior solution in the case of medical malpractice.

As for business liability for personal injuries of consumers (as opposed to torts between business), this too would be better suited to a system of strict liability for precisely the same reasons. Businesses have superior knowledge as to the risks involved and thus are better able to avoid them. So long as they do not engage in intentional torts, most liability suits would be better served by appeal to an administrative hearing. This will dispense with the need for class action lawsuits since smaller claims can easily be adjudicated and will reduce costs for both consumers and businesses alike. The problem of torts when they are unintentional in nature is that they end up expanding transaction costs without altering damages. As earlier stated, the goal in the economic analysis of law is to reduce those transaction costs because they result purely in pecuniary gains and are inefficient from the standpoint of society at large.

Questions for Review

1. How does the current tort system potentially increase the probability of murder?
   By providing lower payments for tortfeasors who kill than those who seriously injure, the tort system provides a perverse incentive to ensure

that severe accident result in death. It is for this reason that there is a duty to rescue those who are placed in harm's way by your actions and why punitive damages are given for intentional torts.

2. Use the Hand formula to determine whether a private bridge owner is negligent for not providing a barrier between the northbound and southbound lanes if it would cost $10,000,000 to install and maintain a barrier and this would result in 3 fewer deaths and 500 fewer accidents. Each death costs $3,000,000 and each accident costs $2,500. What if the cost per accident were lowered to $1,500? Would your answer change if the bridge authority was a government agency?
   Under the Hand formula, if B < PL, the firm is negligent. In this example, B = $10,000,000, while the probability of loss is 100% (due to the sheer number of cars traveling the bridge, it is certain that there will be a reduction in losses). Since each death costs $3,000,000 and each accident costs $2,500, the total loss, L, is (number of deaths)(cost of deaths) + (number of accidents)(cost of accidents) = 3($3,000,000) + 500($2,500) = $9,000,000 + $1,125,000 = $10,125,000. Since B < PL in this case, the firm is negligent. However, this changes if the cost per accident were lowered to $1,500, since 500($1,500) = $750,000, resulting in a total loss, L = $9,750,000. In this case B > PL and the firm is not negligent. If the bridge authority is a government agency, no liability would occur since this is a discretionary policy decision.

Questions for Discussion

1. If we already have a criminal system, why do we have punitive damages (hint: criminal convictions require proof beyond a reasonable doubt, while civil verdicts are based on preponderance of the evidence)?
2. What would be the consequences of eliminating the Good Samaritan defense?

CHAPTER 5

Organization of the Firm and Competition Law

We now move from common law into civil law. Firms generally take one of three forms: corporation, partnership, or sole proprietorship. There exists a variety of additional options, such as a syndicate, limited partnership, and other corporate structures. While the vast majority of enterprises operating in any country are organized as sole proprietorships, most individuals are employees of corporations and the majority of market transactions are conducted by corporations. In this chapter, we will examine firm organization, their economic reasons, and delve specifically into corporate law since this organizational form is the most important to the economy writ large.

Key Economic Concepts

antitrust
arbitrage
control
General Theory of the Second Best
monopoly grant
natural monopoly
ownership
price discrimination
Theory of the Firm
Vickrey auction
X-inefficiency

Key Legal and Political Concepts

bankruptcy
collateral
damnum absque injuria
ex ante
ex post
fiduciary duty
indefinite lifespan
indemnify
limited liability
per se rule
public interest
public–private partnership
resale price maintenance
rule of reason
unlimited liability

Benefits and Costs of Various Firm Organizations

Sole proprietorships are completely owned by only one individual. In some cases, married couples can jointly run the sole proprietorship under the theory of community property. Income is passed through to the owner's income tax statement using Schedule C of the U.S. tax return. The sole proprietor runs the business and makes all decisions but is also solely responsible for company debts. Although this is theoretically unlimited liability, federal bankruptcy law does limit the total amount that can actually be collected. The paperwork associated with starting a business of this type is minimal. Debt financing is usually not an option beyond that available to an individual normally due to comingling of company and owner assets and liabilities. There is also no equity financing option. A major problem for the sole proprietor is raising funds.

Suppose an entrepreneur needs $1 million to start his or her firm but only a 40 percent chance of succeeding, a rate of success that is actually quite high relative to other firms. If the individual decides to borrow the money, they would face an exorbitant interest rate. If I can receive 2 percent on my money in a riskless endeavor by putting it into the bank, I would need to receive a 155 percent rate of interest *just to break even on the deal based on expected returns*. How did I arrive at this rate of interest if I am not a Mafioso? Simple: I need an expected return of 2 percent, which means I expect to receive back 102 percent of my investment in a year. However, 60 percent of the time, I lose everything. We calculate the return with x denoting what I need to receive in order to break even:

$0.4(x) + 0.6(0) = 102$
$0.4x = 102$
$x = 102 / 0.4 = 255$, which is the $100 in principal plus $155 in interest to be paid.

This high rate of interest is also why payday loans and other loans to poor credit risks command such high interest rates. If there is a high chance of default, the risk becomes unreasonably high to bear unless interest rates become usurious in nature. To allow individuals to borrow at reasonable rates, banks and other lending institutions insist upon

personal loans and pledging of adequate collateral (oftentimes the personal residence of the entrepreneur) to secure the loan. There are other solutions that can be creatively derived but these would involve rather high transaction costs and might lead to endeavors of questionable legality (such as having a loan shark break one's legs if one fails to pay the vigorish, otherwise known as the vig, the interest charged, oftentimes weekly, by the loan shark).

Is there another way to do this? Yes, we can form a partnership. Partnerships are a more complex form of organization and are a contractual form of organization whereby each partner assumes certain risks and receives certain rewards as specified in the contractual agreement that establishes the partnership. Every individual in the partnership has unlimited liability for the actions of the partnership unless they are protected under a limited partnership clause, which functions in a similar fashion to indemnification. An example of a type of arrangement that lacks such a limited partnership clause is found at Lloyd's of London, which technically runs as a syndicate in that losses (and gains) are limited to the actual lines in which investors (known as names) assume risks. Thus if you invest in Lloyd's of London's ship insurance business, you are personally on the hook for all potential losses but only within that business line. If the earthquake insurance business is doing poorly, claims cannot be exacted against those in the ship insurance business. However, this also means that if the ship insurance business is doing poorly, revenues from a profitable line (for the sake of argument, personal injury insurance) cannot be used to pay for these losses. This compartmentalization limits the potential magnitude of losses but also reduces risk diversification, which is oftentimes the best means of reducing nonsystemic risk.

Issues with sole proprietorships are magnified under partnerships. If a sole proprietor dies, the proprietorship dies with them but a partnership is automatically dissolved every time a partner exits the business, including upon death. While this can be overcome with suitable contractual arrangements, transaction costs are very high. For example, a partnership can purchase life insurance on each partner's life in order to maintain the capital necessary to continue but that means paying a premium each year that will likely increase dramatically as individuals age.

As a company grows in size, additional problems crop up. While the sole proprietorship can transfer ownership at will, the partnership must get the agreement of all partners. Furthermore, as you grow, you may find it beneficial to hire professional managers, but transferring control provides additional downsides due to unlimited liability: would you want to cede control of your company to professional managers who can harm your interests to such an extent that your own personal assets would be at stake? Yet failing to do so might limit growth opportunities since entrepreneurs rarely have the managerial skills necessary to conduct larger enterprises.

In order to limit such liability, sole proprietors might transfer risk through contracting by making the management company *indemnify* the sole proprietor against harm. Indemnification occurs when someone else takes on the responsibility for any loss caused by them. Indemnification can occur between any two parties. For example, authors indemnify publishers against charges of intellectual theft by representing the work produced is uniquely the author's own work. However, indemnification only goes so far. If the individual is "judgment-proof" such as that occurs when there are few assets relative to the potential liability from which a plaintiff can recover, there will often be an attempt to go after the party with the larger amount of financial resources, a strategy known as a deep pocket search. Furthermore, why would a management company wish to engage in such indemnification unless they are compensated for that risk with a very lucrative management fee structure that brings us right back to the original lending problem that caused us to move on to the partnership form of organization in the first instance?

Alternatively, an owner could simply sell his or her interest to the workers themselves and create a worker cooperative. This allows the owner to cash out his or her interest and the workers would have the necessary incentives to carry on the enterprise in the owner's absence. Or would they? While the sole proprietor has an interest in maximizing the value of the firm even as he or she plans to exit the business since the expected present value of the enterprise can be capitalized in its sale price, the worker has no such incentive once he or she leaves the firm. This is because a worker cooperative is a type of partnership in which the shares

of the firm are nontradable and thus while they are entitled to a claim on current profits, either paid out as dividends or retained as earnings, it is unclear how to value potential future streams of income without a viable market mechanism to validate the overall value of the firm. This leads to a time horizon problem in which each worker views projects through a short-term lens that ends when he or she retires. Furthermore, it may lead to the company placing too much emphasis on worker retention since each worker realizes gains from both his or her employment contract as well as a residual claim on profits. As such, worker cooperatives can be less agile and adaptable to change than other enterprises. Even the claim that worker cooperatives will better take of workers is somewhat suspect. Unless all workers are equally exposed to workplace hazards, there is a public goods problem that is created with workers who are not as exposed to such risks being less likely to desire to reduce those risks than is optimal and those workers who are more exposed being more desirous to reduce those risks. While this can be overcome, as will be explored in the following chapter on environmental law, using negotiation strategies, such negotiations carry with them enormous transactions costs that may swamp any potential benefits from such mitigation.

The third method of organizing a firm is known as a corporation. While sole proprietors need no contractual form and partnerships have their origins in contract law, corporations originated as creations of the state. In exchange for a monopoly grant, they were required to carry out certain tasks in the "public interest" and really were "public–private partnerships" designed to raise large sums of private investment to carry out certain capital-intensive or risky activities the government supported. While certain mining corporations had already been in existence for hundreds of years, the modern corporation can be said to have originated with the Dutch East India Company in 1602. For the first time in history, the public trading of ownership interests (called stock) could occur in such a way that virtually anyone could participate. The Amsterdam Stock Exchange was created specifically to facilitate such trades.

That is not to say that stock did not trade among individuals before. Corporate stock had been issued for several hundred years, especially in the area of mining, which required vast sums of capital and high risk.

There had also been "markets" of a sort such as the Leipzig trade fair where one could buy stocks in various German mining concerns as far back as the 14th century and the Venetians moneylenders used to carry around slates on which they quoted prices. There had even been a stock exchange in Antwerp where corporate bonds were traded. However, an *exchange* in which buyers and sellers could come together to trade common stock of a company and where arbitrage effectively conveyed information about a company's perceived value and brought it in line with others in the market quickly and systematically—that was a new concept.

Joint-stock companies traded shares on an open exchange and had an indefinite lifespan (unlike partnerships or sole proprietorships), but did not enjoy limited liability. While limited liability was granted as a favor at times by the government, it was not until 1811 when New York enacted the first general limited liability law to help out its nascent manufacturing base that the modern corporation blossomed into its fullest form. The results were transformative. Market capitalization, which up until the mid-1800s was predominantly composed of bonds, shifted dramatically toward stocks by the latter half of the 19th century. Still, the potential for losing one's investment never went away as countless investors have learned with every bear market.

Limited liability allowed investors to avoid active participation in decisions. Unlimited liability joint-stock companies also had separation of ownership from control, but they were playthings of the wealthy, not the masses, and the wealthy could significantly influence decision-making when they owned a significant portion of the stock. With the democratization of the stock market and widespread individual ownership of corporate stock, separation of ownership from control was no longer a matter of desire but rather one of necessity.

Unfortunately, separation of ownership from control creates a principal–agent problem. This can be addressed by requiring the officers of the corporation (the managers who are the agents in this example) to have a fiduciary duty to the owners of the company. This means that the owners (the stockholders) can sue the managers if they perform in any manner other than that which advances the stock owner's best financial interests. Note that emphasis on *financial interests*, however. With a

large disperse ownership, one could not maximize all potential interests. So the law has created a requirement to advance *only* the financial interests of the owners. Interestingly, this actually makes the corporation *inefficient* from the standpoint of economic theory since when you cannot maximize any one dimension, you shouldn't maximize any of the other dimensions either but instead should seek a compromise if you want to continue to exhibit Pareto optimality. This result is an application of the economic theory known as the General Theory of the Second Best.[1] An easy way of thinking of this is to suppose that you placed equal emphasis on profits and the environment. If it is impossible for me to maximize both, I should maximize neither in order to achieve an economically efficient outcome. This is because I want to ensure that each dollar that is spent gives me the most *utility* as opposed to the most *money.* It is a reason why we don't work to exhaustion and why we don't only consume one type of food. As there is diminishing marginal utility for any particular activity, the only way to maximize utility in the face of a constraint is to not maximize anything for which there is a tradeoff. Since there is a tradeoff between corporate profitability and environmental sustainability in the minds of at least some shareholders, one cannot guarantee that one will be economically efficient if one pursues only profits. Indeed, the fact that the agents (the managers of the corporation) are subsuming all goals but one (profits) when the owners themselves, if they were sole proprietors, would likely pursue other goals means that the principal–agent problem is *not solved* by appealing merely to their financial interests to the exclusion of all others.

Limited liability allows greater liquidity since approvals of stock transfer no longer required the assent of other owners. Before limited liability, the transfer of ownership to someone who was potentially judgment-proof due to low asset ownership created a negative externality for all other stockholders. They couldn't allow dilution of liability to adversely affect their own interests. This creates a problem for bondholders: since owners no longer have unlimited personal liability, bondholders have an increased probability of default and a decreased potential amount of recovery in case of such default. This is yet another reason why the preferred form of raising capital has shifted to stock issuance from bonds.

Corporate Borrowing

Limited liability corporations still borrow considerable amounts of funds and bondholders still lend to corporations despite these risks. Why? The answer is that the market (as usual) has the answer: corporations pay higher borrowing costs due to limited liability than they would enjoy in the absence of limited liability. This is one reason why corporate bond debt (even at the AAA rating) costs more than similarly priced debt for the U.S. government, which only has an AA rating. After all, the U.S. government, by the very nature of its debt in that it only borrows in its sovereign currency, need never default. That does not mean that the U.S. government will never default, for it can do so and has done so in the past with the most recent default being in the Spring of 1979 when it failed to pay $120 million of bonds on time, an error that caused interest rates on government debt to spike about six-tenths of a percent for at least 6 months.[2] Though the reason for failing to pay was described as "technical glitch" at the time, it nevertheless belies the notion that the U.S. government has always paid its bondholders in full and on time.

So what can a bondholder do to ensure that corporations pay them back? They can, of course, require the corporation to waive limited liability but they can already fully price the risk of default based on available information into the interest rate and so is unnecessary for publicly traded companies. However, there is still the risk that circumstances will change, not just that the corporation's plans will cease to come to proper fruition but, more importantly, the corporation could seek to take on "excessive debt" that dilutes the likelihood of being fully paid back. Furthermore, the corporation might take funds from one project and apply them to another. To guard against these potentialities, bondholders (and banks that directly lend to corporations) may require securitization of debt or enforcement of covenants that preclude the corporation from engaging in activities that would materially affect its ability to fully realize its bond obligations.

Corporate Bankruptcy

For the corporation with liabilities that exceeds its assets, the law provides, similarly to that of an individual, the possibility of bankruptcy. Of course, personal bankruptcy provides a true upper limit to even the unlimited liability required of the sole proprietor or the investor in a partnership. It might, therefore, seem unnecessary for corporations to also have a bankruptcy option. After all, a corporation that has liabilities in excess of its assets is only required to hand over the assets to the creditors, while the shareholders can walk away with no further liability than the loss of their investment. However, the right of bankruptcy exists for *both* debtors *and* creditors. While the debtor can discharge debts in a voluntary bankruptcy and thus limit overall payments to creditors, the creditor can force a debtor into bankruptcy through an involuntary process as well.

This serves to protect the creditor from having other creditors because the more creditors that a firm has, the more likely one creditor will take an action that harms another creditor. An example of this is that which happened to Simulations Publications Inc. when it failed in 1982. SPI was, at the time, the largest producer of war-games in the world but it still did not use this position to secure any type of market power and it was still a tiny company with only a few million dollars a year in sales. Its most important asset was the magazine *Strategy and Tactics*, which had 30,000 subscribers.[3] However, close to 1,000 of these were *lifetime* subscribers who had paid a $300 one-time subscription fee in exchange for a perpetual subscription.[4] A subscriber pays money up front with the promise of receiving issues in the future and that makes them creditors of the company at least until the end of their existing subscriptions but these subscribers were due a perpetuity ad infinitum. Given the high interest rates that occurred at the time, these perpetuities were actually not worth very much. In 1982, the annual subscription price was $20 and the prime lending rate was at 17%. A perpetuity's value is the annual rate divided by the interest rate. This leads to a nominal value of about $120. That wouldn't have worked given the contractual terms of the lifetime subscription stated subscribers could cancel their subscriptions and receive their $300 back less a $2 per issue cost for each issue that they had previously received. With that in mind and

based on when lifetime subscriptions were offered, the owed amount to these 1,000 lifetime subscribers would have been about $250 each or $250,000. In addition, there were about 30,000 other subscribers. Assuming that each subscriber still had half their subscription remaining, the total amount owed to subscribers *alone* was in excess of $500,000.

That was the least of SPI's worries. It had tapped out all its borrowing options and had even taken $300,000 from venture capitalist firm, Alan Patricof Associates, which was upset at the burn rate that SPI was running through the money. It was at this point that SPI turned to the publisher of Dungeons & Dragons, TSR, a company that was about 10 times larger, for a nearly half million dollar loan and used much of the proceeds to pay off the venture capitalists in full. SPI secured the loan by pledging all of its intellectual assets. In so doing, TSR became a secured creditor and moved to the top of the list. When TSR called the loan a few weeks later, SPI could not pay and TSR took the collateral, which essentially made SPI worthless as an entity. Upon looking over the books, TSR was shocked to see the extent of its potential liabilities and refused to honor the existing subscriptions. Claiming that it took possession of assets but not liabilities, TSR ended up paying off a few of the corporate creditors but did not honor the subscriptions or the preorders.[5]

This example illustrates what can happen when a side deal to allow for the clean exit of an investor occurs before a company can be placed into involuntary bankruptcy. If SPI had been moved into bankruptcy, subscribers and individuals who had preordered product might have had an opportunity to recover at least some of the cash that they had expended. This problem would occur as well if the company simply paid off some creditors in advance of others. Those creditors who were paid off in full end up diluting the remaining assets that could have served the other creditors. Therefore, bankruptcy protects the positions of creditors who might not have as detailed knowledge as others of the financial precarity of the firm in question. Of course, the problem could also have been solved by ex ante contracts between creditors and the SPI as well as between subscribers and SPI but such contracts would have necessitated greater disclosure of the financial problems of SPI to their subscribers, which might have dimmed the desire of individuals to subscribe in the

first instance, thus speeding up the failure of the company. Given the small value each subscriber had in the overall company, it would have been too expensive for any to place SPI into involuntary bankruptcy. Only one of the larger creditors could have done so and TSR effectively shut them up by paying them off. The irony was SPI's underlying value lay in its customer base, which TSR destroyed by refusing to honor the subscriptions or preorders.

Rather than force a company into involuntary bankruptcy, a company can voluntarily place itself into bankruptcy and undergo corporate reorganization. In such a plan, corporate debt is converted into stock and existing stockholder shares are diluted as a result. Existing shareholders almost always prefer this option since it typically preserves at least some capital for them. Management *always* prefers this option since it allows them to remain in place as debtors in possession through the reorganization planning process, which can last up to 6 months. Creditors can object to this transference but if the firm has more value as a collective entity with existing management in place, it can end up not only preserving value for the creditors but actually help them receive more money than they initially would have been entitled to under the original repayment plan. Furthermore, at times, insolvent firms may still be valid going concerns if only they can solve short-term liquidity problems brought about by a need to pay off current liabilities. When credit markets seize up, such as that which happened in the 2007–2009 recession, even well-managed firms can find themselves facing liquidity constraints and debt repayment requirements that could make them temporarily insolvent. However, if they can find a way to outlast this period, they could end up returning more than their obligations to everyone concerned.

Alternatively, the firm cannot cover its total costs but still can cover variable costs once debt payments are alleviated. In such cases, liquidation reduces overall payments to the creditor. Consider a firm that owes $100 million at 10 percent interest and it is supposed to pay $10 million each year in principal payments until the debt is satisfied. Suppose further, the firm has $5 million in equity and makes an operating profit before considering the loan of $15 million a year. This year, the firm must make a $20 million payment on its debt but the $20 million

payment necessitates the complete wipeout of all equity. The firm is technically bankrupt and the following year, the firm will be unable to make its required payment of $19 million ($9 million in interest and $10 million principal payment) since it would then have a loss of $4 million with no equity from which to draw. The problem for the creditors is forcing the firm into bankruptcy will mean they will be paid just $20 million total (this 1 year's payment). However, if they suspend payment of interest, the firm can continue to pay them $10 million every year indefinitely. Alternatively, they can demand a principal payment of only $5 million this next year. Although the firm now takes 20 years to pay off the loan, the creditors can recoup their entire investment.

Corporations and Torts

A pesticide plant has a gas leak that exposes half a million people to toxic gases. A tobacco company sells a product it knows to be highly addictive and carcinogenic. An automobile manufacturer sells a car that it knows is defective and decides against recalling it, reasoning that the payment of a few dozen accidental death claims will be less than the cost of replacing defective parts. All of these actions constitute torts that give rise to potential involuntary debts on the part of the corporation. Provided these actions can be considered accidental, they can be covered by insurance but deliberate malfeasance is not covered and the corporate veil can be pierced, allowing potential exposure to unlimited liability for the shareholders in such circumstances.

This is not ordinarily the solution proffered since shareholders are not usually responsible for these actions. In circumstances where the shareholder himself or herself is the source of the tortuous behavior (such as when a subsidiary corporation of a parent corporation is borrowing and the assets of the subsidiary corporation are misrepresented by the parent corporation or in the case of a closely held corporation where the owner and manager are one and the same person), piercing of the corporate veil may be appropriate. Similarly, a closely held corporation formed for the sole purpose of reducing exposure may find itself having this plan backfire if it is determined that its principals deliberately engaged in risky

behavior to the point of negligence because they were counting on the limited liability afforded to them as being a corporate entity.

Companies engaged in risky activities might choose to be undercapitalized relative to potential liability. Instead they distribute profits through enhanced dividends, basically playing a game of Russian Roulette until a tort manifests itself. Since tort victims have the same standing as other unsecured creditors, such firms not only find themselves with limited share capital but also high secured debt. Larger companies protect themselves from large-scale liability by creating wholly owned subsidiaries to engage in these activities. Because subsidiaries are not being created for purposes of misrepresentation but rather serve a valid corporate use (since in their absence, the firms will be merely spun off and end up severely undercapitalized anyway), it is unlikely a court will allow the exposure of the parent corporation's assets to pay a tort judgment of its subsidiary.

Another way to solve this from the corporate standpoint is to securitize your accounts receivables or sell them outright. When I ran a small gaming company, we used to find ourselves running low on cash since accounts receivables were due in 90 days while accounts payables were due in 30 days. We would sell our invoices at a discount to collect cash up front, a process known as factoring. At that point, our assets were transformed from accounts receivables to cash, which is obviously much more liquid. If the firm then turns around and distributes this cash to its investors or if it pledges its invoices to a secured creditor, this money is off-limits to tort victims.

Transaction Cost Theory of the Firm

Businesses necessitate enclosing certain types of transactions within a legal structure and prohibiting them from occurring outside of that structure, thus effectively prohibiting free trade that would make both parties better off. So why creates businesses? The answer is, once again, transaction costs. Each time we buy, we conduct a deliberative search and acquisition process that can be quite costly, especially for small items. These costs, associated with each transaction, are called transaction costs and can become quite a significant proportion of the overall bill.

Suppose the night before Valentine's Day, I wish to purchase a gallon of milk, three pounds of apples, two pounds of hamburger, a box of oatmeal, one dozen roses for my wife, a set of batteries, a light bulb, a video game for my youngest daughter, a book for my oldest daughter, and a pair of pants for myself because I have been losing so much weight. I could get some of these items at the grocery store, but not all of them, and the grocery store is much closer than is Wal-Mart. In addition, the grocery store is currently having a special deal on flowers. Wal-Mart has all of these items but it also has a long check-out line. The prices are better on the video game at GameStop, where I can buy the game used (my daughter does not really care if the game is used or new), and I can get a better deal on the pants if I go to the Men's Wearhouse.

If I want to minimize overall costs, I need to consider factors other than price. There are *direct* costs, such as gasoline and increased maintenance costs of longer drives. More importantly, are *indirect*, or *opportunity* costs, including the time it takes to drive to each location and the time spent in each store. I could decide to spend less time driving and order some items from Amazon but everyone wants everything *right now*, so that isn't much of an option and it represents yet another cost: the cost of waiting. There is also the aggravation associated with it all. I could try to ask my wife to do these things but since it is almost Valentine's Day, it will probably end up costing me significantly more than flowers to make it up to her—the last time I didn't buy her flowers, I ended up having to buy her a diamond necklace at Macy's. Ouch!

So what do I do? I wait until everyone is asleep, jump in the car, and go to Wal-Mart and buy everything except for the flowers since they are sold out. Luckily, on my way home from the store, now certain that I will have to pay for a necklace once again this year, I spy a still-open florist shop that is selling a dozen roses for $80, about twice what it would have cost if I had thought about ordering them in advance, but that still beats the price of the diamond necklace, so I buy it.

So, why did I go to Wal-Mart instead of driving all over town? Wal-Mart effectively *minimized* my overall costs (including transaction costs). Business organization is similar in nature. Think about the costs associated with a hamburger restaurant. There are acquisition costs associated

with acquiring a new customer. There are costs of the food that is used in meal preparation. While it may be possible for a restaurant to acquire its meat and bread cheaper if it shops around, the consistency of the product may not be as high as if the restaurant purchases goods from one supplier. Similarly, if the restaurant decides to become a franchisee instead of going it alone, it is possible that customer acquisition costs can be lowered significantly. While this is going to cost the restaurateur in terms of a high franchise fee to go with one of the national chains and it will mean an inability to differentiate the product from those of the other franchisees, buying into a national restaurant chain will typically entail a location monopoly for the restaurant over a few square miles when it comes to that particular chain's locations. This opportunity cost is capitalized in terms of the franchise fee that the restaurateur pays to the national chain.

Businesses internalize production when transaction costs associated with markets are so great that it would overwhelm cost savings associated with competition. On the other hand, if cost savings from competition outweigh transaction costs, businesses will contract with others to provide those services. As companies grow, they end up finding that it makes more sense to internalize operations since transaction costs associated with going to the market tend to dominate (or they sign an exclusive contract that is an intermediary position from conducting continual market transactions and internalizing the activity). That is because every time a business engages in a market transaction, it pays a transaction cost and, when businesses grow, they tend to become more efficient in their operations, thus reducing benefits from the marketplace. As when I go to Wal-Mart for everything, businesses find that internalizing operations reduces transaction costs to such an extent that it compensates them for extra costs associated with not entering into the competitive marketplace for commonly purchased items.

Competition Law

In writing this book, I placed myself into competition with similar books in the field of law and economics. Thus, sales of my book may reduce sales to other authors. In fact, I might cause them grave harm. But do any of them have a legal action against me?

Is Competition a Tort?

While certainly my actions result in an externality for them, this is what is referred to as a pecuniary externality, one that manifests itself in changes in pricing rather than directly affecting the production or consumption of another. In order for them to have just action against me, I would have to behave in an *anticompetitive* manner, rather than a competitive one.

The earliest case law is found in *Hamlyn v. More*, Y.B. 11 Hen. 4, fol. 47, Hil., pl. 21 (1410) (Eng.) in which two schoolmasters tried to enjoin a third from providing schooling in the town of Gloucester, arguing that the action of entering into competition caused a decline in their livelihoods, reducing the customary fees from 40 pence to a mere 12 pence per term. Justice Hankford noted that although there were damages, it is possible that there was no injury (*damnum absque injuria*), just as the case when a mill opens near another mill, thus causing a loss of business. However, if the other mill dammed up the stream so that water no longer flowed to the second mill, the second mill owner would have cause for damages under the law of nuisance. This is the first time that the distinction between pecuniary externalities (in the first instance) and real externalities is manifested in legal doctrine and the court decided in favor of the defendant.

Virtually all things cause pecuniary externalities. My decision not to purchase a computer causes a loss of business from the seller of that computer but this is not a tort either. The key determination in deciding whether something is tortuous is whether there is an interference with an inherent right. In an earlier case from more than a hundred years before, *Prior of Coventry v. Grauntpie*, De Banco Roll, Hil. 2 Edw. 2 (No. 174), r. 151 (1309), the court found that the granting of a monopoly by the government could forestall competition since allowing others to compete would interfere with a right that was explicitly granted by force of law.

Antimonopoly Law

On the other hand, when rights are not granted by force of law, a cause of action can be made against the monopolist provided the monopolist acquires or attempts to maintain the monopoly through anticompetitive

means. Contrary to what many believe, having a monopoly is not illegal. Indeed, if one were to take it to the extreme, all property rights convey some type of monopoly power to their rights-holder. I have a monopoly over the use of my intellectual property as well as my physical property in that no one can utilize these without my consent. However, this isn't typically what an economist means by a monopoly. By a monopoly, an economist means that the company is the sole provider of the good or service and that there are no close substitutes. Thus, although Burger King has a monopoly over the Whopper sandwich, it is not a monopoly because the Big Mac from MacDonald's is a close substitute.

Monopolies arise in two basic ways. First, is a pure monopoly, which arises either because of sole control over a basic resource (such as might occur if a company owned all of the diamond mines around the world) or by grant of force of law. Examples of these are patents that grant a monopoly over the implementation of an idea for a limited duration of time, and government franchises such as the monopoly that your electric company likely has in your city or town.

Second, a monopoly could naturally arise as it is economically efficient for there to be only one provider of a good or service. This occurs when there are very high fixed costs, resulting in a situation in which the lowest long-run average cost will not be achieved unless there is only one firm in the market. Economists call this type of monopoly a *natural monopoly*. Such monopolies (and monopolies in general) produce at an inefficient pricing point unless they are regulated since the profit-maximizing Price does not equal Marginal Cost ($P \neq MC$). As the firm lowers price, it must bestow the same reduction on all market participants, so Price exceeds Marginal Revenue ($P > MR$). As firms produce where Marginal Revenue = Marginal Cost ($MR = MC$), this implies $P > MC$. Furthermore, since firms must at least make their average costs in order to stay in business, allocative efficiency cannot be achieved unless the monopoly is subsidized. Because this is usually politically unpopular, monopolies are usually regulated and allowed to produce where their average costs are covered, as illustrated in Figure 5.1. If at least their average costs are not covered, the firm would have to be subsidized.

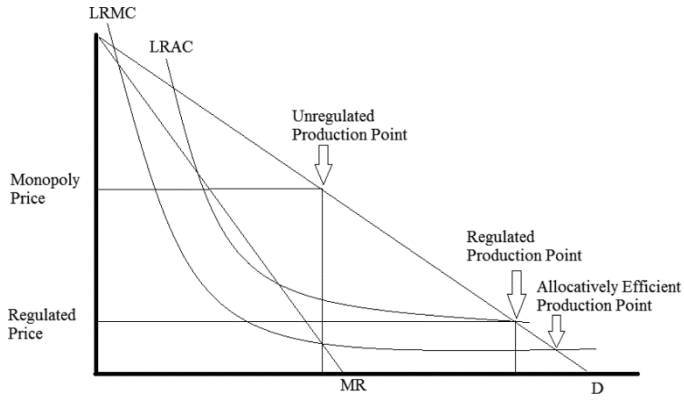

Figure 5.1 Natural monopoly

Economists have identified three major complaints about monopoly: (1) deadweight losses, (2) rent-seeking behavior, and (3) X-inefficiency. Deadweight losses occur when firms are not allocatively efficient and thus P > MC. Rent-seeking behavior occurs when individuals either within a firm or within a regularity or legislative body raise the regulated price to enrich themselves. X-inefficiency is an increase in the marginal cost of doing business that occurs when firms are not subject to competition and thus do not achieve cost minimization.

Anticompetitive Measures

Anticompetitive measures are illegal activities that reduce competition. They may be practiced by monopolists or by firms that are in imperfectly competitive markets and that have the power to set price as opposed to being price takers. While state laws regulate intrastate commerce, the Federal Government's jurisdiction only applies to interstate commerce. The definition of interstate commerce is both broader and narrower than what many believe. In *Federal Baseball Club of Baltimore, Inc. v. National League of Professional Baseball Clubs, et al.* 259 U.S. 200 (1922), the Supreme Court ruled that Major League Baseball was not engaged in interstate commerce despite teams crossing state lines, noting "a firm of lawyers sending out a member to argue a case, or the Chautauqua lecture bureau sending out lecturers, does not engage in such commerce because the lawyer or lecturer goes to another state." Yet, in

Katzenbach v. McClung, 379 U.S. 294 (1964), it ruled that racial discrimination in restaurants was unconstitutional because it harmed interstate commerce, even if the restaurant did not significantly engage in such commerce.

The *Sherman Act of 1890* makes conspiracy to restrain trade or use anticompetitive means to monopolize a market illegal. Actions may be brought by the government or any party injured due to anticompetitive actions. The Supreme Court said the "purpose . . . is not to protect businesses from the working of the market; it is to protect the public from the failure of the market. The law directs itself not against conduct which is competitive, even severely so, but against conduct which unfairly tends to destroy competition itself."[6] Many early cases were not directed against corporations but were against labor unions to force them to return to work. When workers ignored court injunctions against striking, they were found in contempt of court and sentenced to prison. Eugene V. Debs, the famed labor organizer, was convicted of contempt of court for refusing to disband a strike. His conviction was upheld by the Supreme Court, which laid the groundwork for antagonism between labor unions and the court system for two generations.[7]

Whether anyone is *actually* harmed in the process is immaterial so long as it is "by and of itself" illegal under the *per se* rule. In *United States v. Addyston Pipe and Steel Co.* 85 Fed. 271 6th Cir. (1898), the court determined that an agreement is per se illegal if its purpose is to restrain trade. This is different from the "rule of reason" in which an agreement that serves another *legitimate* purpose is only illegal when the restraint on trade that results from that agreement is either unnecessary or broader than necessary to serve that legitimate purpose. In other words, a violation of the rule of reason occurs when the restraint on trade is *unreasonable*.

The *Clayton Act of 1914* specifically exempted unions from its effects and prohibited mergers and acquisitions, tying or exclusive dealings, or price discrimination where these significantly reduced competition. It also prohibited the creation of interlocking directorates wherein one or more individuals appear on the board of directors of competing companies.

When government mandates price fixing, like minimum wages, its actions cannot be construed as anticompetitive, but the Supreme Court has been equivocal regarding private price fixing. It ruled resale price maintenance that prohibited retailers from selling below a price specified by a manufacturer was *per se* illegal in *Dr. Mills Medical Co. v. John D. Park and Sons Co.*, 220 U.S. 373 (1911) but ruled in *Schwegmann Bros. v. Calvert Distillers Corporation*, 340 U.S. 928 (1951) that it was legal, provided state law allowed it. It found prohibiting retailers from charging more than a specified price was a per se violation in *Albrecht v. Herald Co.*, 390 U.S. 145 (1968), leading many firms to add the proviso "Available at participating retailers only" when sales were advertised, but it overturned that ruling nearly 30 years later in *State Oil Company v. Barkat U. Khan and Khan & Associates, Inc*, 522 U.S. 3 (1997).

From an economics perspective, these latter decisions make for better public policy since price ceilings can reduce customer uncertainty over retail pricing, while retail price maintenance polices allow retailers to engage in nonprice competition and offer superior service and salespeople who are knowledgeable about the products sold to consumers.

Mergers

Market tradeoffs exist when firms engage in technologically beneficial mergers. If the government uses a total welfare test to approve mergers, some mergers should be approved even though they tend to create market power. If there are synergies to be found that reduce costs, society benefits in allowing these to occur whenever cost savings from the merger exceed deadweight losses from greater monopolization.[8] Figure 5.2 illustrates this. Before the merger, the two firms engage in competition but after the merger, they become a monopoly, raising the price of their product. Cost savings are demonstrated by A and B (since the combined firm realizes increased efficiencies of scale) and the deadweight loss associated with monopolization is shown by C. In terms of efficiency, if Area C > (Area A + Area B), the merger should be rejected but if Area C < (Area A + Area B), the merger should be approved.

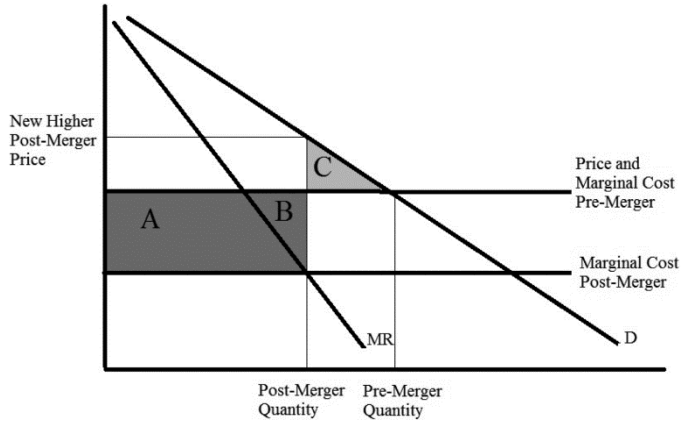

Figure 5.2 Economics as an antitrust defense

Price Discrimination

Price discrimination is the practice of charging different prices to different customers. When firms have monopoly power, price discrimination serves to reduce the associated deadweight loss but it also tends to reduce consumer surplus. There are three forms of price discrimination.

In first-degree (or perfect) price discrimination, every customer pays the highest price that he or she would be willing to pay to receive the product. This eliminates all consumer surplus but allows the producer to sell along the full range of the demand curve so there is no deadweight loss either. While this is never possible in practice, in the case of unique items that which comes close to this is what is referred to as a Vickrey Auction. In a Vickrey Auction (similar to what occurs on eBay), the winner of the auction receives the item at the price of the second-highest bid plus a small charge to ensure that theirs is the highest bid, but since this total is no higher than the actual bid of the winner, there is an incentive to provide one's true reservation price (in the case where two bids are the same, the earlier bid takes precedence and no additional charge is required).[9]

In second-degree price discrimination, buyers receive quantity discounts, paying a lower price for buying in bulk, while in third-degree price discrimination, buyers pay a different price depending on their membership in a particular group. For example, children pay less for entrance to a movie theater than do adults and students pay less for software than other customers.

Unless the third-degree price discrimination requires the consumer to overcome a hurdle (such as clipping coupons), arbitrage needs to be eliminated for it to make business sense. Individuals receiving the discounts cannot simply turn around and hand reduced-price items to a third party who does not qualify for the discount. That is why children do not receive discounts on popcorn at the movie theater. The cinema can bar entry by an adult on a child's ticket but can't stop the adult from eating the child's popcorn (though the crying child might preclude that activity!).

In many states, differential pricing based on gender is illegal unless it is based on actual cost differences. Life insurance companies can charge men higher rates since they are statistically likely to die earlier and barbers can charge less for haircuts typically sought by men than those given to women given the time required to cut hair may differ by gender, although pricing in such cases may be challenged when the actual cut sought is identical. However, charging men and women different prices solely based on gender where there is no cost differential is a little more questionable. In California, under the *Gender Tax Repeal Act of 1995* and the *Unruh Civil Rights Act of 1959*, an event such as a "Ladies Night" is illegal since the effect is to charge male patrons more than female patrons even though both are receiving identical services.[10] However, under *Hollander v. Copacabana Nightclub*, 624 F. 3d 30 (2d Cir. 2010), such actions are not a violation of either federal or New York state law.

When discrimination concerns a retail establishment, price discrimination is illegal under the *Robinson-Patman Act of 1936* unless it can be justified by either cost considerations or to meet a competitor's price. The cost consideration argument, however, needs to be qualified since the quantity discount needs to be *actually and reasonably* available to all, not merely available to all in name only. In *Federal Trade Commission v. Morton Salt*, 334 U.S. 37 (1948), the Supreme Court ruled that when a quantity discount was available to only a limited number of large buyers, it was illegal: "The legislative history of the Robinson-Patman Act makes it abundantly clear that Congress considered it to be an evil that a large buyer could secure a competitive advantage over a small buyer solely because of the large buyer's quantity purchasing ability."

Interestingly, the Act allows affected companies to sue not just the company offering the discount but also those *receiving* the discount. In addition, trying to protect wholesaler margins by offering different prices to wholesalers and retailers can also be illegal when wholesalers enter the retail business in an effort to utilize these discounts to undercut the competition under the Supreme Court decision in *Texaco, Inc. v. Hasbrouck*, 496 U.S. 543 (1990).

Remedies

When a violation occurs, remedies usually take the form of injunctions against the specified activity. However, these injunctions may be difficult to enforce without additional measures. As such, consent decrees usually are offered wherein a series of steps are listed that the company must engage in or a penalty will be enacted up to or including divestiture to reduce monopoly power. Alternatively, damages can be awarded that serve to disgorge the profits that were realized from the monopoly action either in the form of rebates to consumers or by paying the penalty directly to the federal coffers.

Questions for Review

1. Why might an Employee Stock Ownership Plan (ESOP) run by a trustee have a better incentive structure than a worker cooperative, in which the company is run directly by the workers?
   Employees may prefer to maintain their jobs than improve profitability. In addition, workers nearing retirement would have shorter time horizons and thus make decisions that were not always in the long-term best interests of everyone in the firm.
2. Predatory price discrimination, the selling of a good or service below average variable cost or marginal cost, has often been a complaint directed at large successful companies. Why does this argument make no economic sense?
   Any firm that actively charged below its costs would soon find that it could not compete. Either the company must be charging less with the hope that it can sufficiently increase production so as to see a sufficient reduction in its marginal costs due to greater economies of scale to justify

the price reduction (and therefore it no longer would be charging below cost) or it must be doing so as a threat and plans to raise prices as soon as competition evaporates. The problem with this strategy is that the threat of competition never goes away unless it is completely eliminated and, even then, it cannot be assured of being eliminated unless the price set by the monopolist is sufficiently low so as to preclude new entrants. The only way around this is by executing a credible threat to forestall future competition, but this entails building excess capacity, which itself is costly, but which serves to reduce marginal costs (while simultaneously increasing fixed costs) and thus lowers the threshold amount wherein a price can be declared predatory. However, once that capacity is built, economies of scale kick in, which means that a law against predatory pricing tends to establish natural monopolies!

3. Harris Teeter, a supermarket in North Carolina, offers a 5 percent discount on Thursdays to people above the age of 60 years. There is nothing that prevents someone from bringing his or her parents to shop with them for groceries that the younger shopper will actually be using. Does this violate the argument that third-degree price discrimination requires arbitrage be eliminated for the policy to make business sense?

   No, Harris Teeter's policy is really more of a gimmick than an attempt to practice third-degree price discrimination. Like Ross, a national discount clothing store that offers seniors a 5 percent discount on Tuesdays, its policy is more akin to advertising, serving to generate repeat business from a particular clientele. While either could just as easily lower prices for everyone on those days, these well-known policies serve to reinforce the brand among a group that tends to be more brand loyal than younger consumers.

Questions for Discussion

1. While prices are higher under monopolies, costs can be higher as well since a lack of competition means that there is little incentive to control costs. What does this mean in the long-run for potential maintenance of monopolies?
2. How does limited liability distort incentives for corporations?

CHAPTER 6

Other Laws

In this concluding chapter, we examine a hodgepodge of other laws including environmental law, international law, family law, discrimination law, and tax law. We could consider other laws but those would be the subject of another book. Our purpose is to introduce various topics and provide the reader with the ability to see that economics can be used to analyze any type of law.

Key Economic Concepts

ability-to-pay principle
benefits-received principle
Coase theorem
international enforcement problem
Laffer curve
Lorax Problem
Pigouvian tax
political transaction costs
progressive tax
proportionate tax
regressive tax
socially optimal quantity
"taste" for discrimination
tax incidence
tradable emission permits

Key Legal and Political Concepts

Act of God
affirmative action
bona fide qualification
disparate impact
disparate treatment
export control requirements
housing discrimination
labor market discrimination
opportunistic breach
pacta suet servanda
racial covenant
"redlining"
reasonable accommodation
subnational sabotage
tax, excise
tax fairness

Environmental Law

Much of what we have discussed thus far has dealt with property rights since they underpin every other right that exists,[1] but environmental law oftentimes seeks to reverse this by making the claim that the environment

holds a superior position to a property claim. We will see that this is the wrong way to look at things, not because property rights are superior to environmental concerns, but rather because environmental concerns are *about* property rights.

The Lorax Problem and the Need for Property Rights

Lesson plans on Dr. Suess's *The Lorax* center around that which some see as a fundamental tension between capitalism and the environment. However, they are mistaken here. The issue is all about property rights and what is needed is more capitalism, not less, which is what I refer to as the Lorax Problem. Consider this quote at the end (emphasis added), of the story's moral:

> You're in charge of the last of the Truffula Seeds. And Truffula Trees are what everyone needs. Plant a new Truffula. Treat it with care. Give it clean water. And feed it fresh air. Grow a forest. *Protect it from axes that hack.* Then the Lorax and all of his friends may come back.[2]

The only way you can "protect it from axes that hack" is with property rights. Unless you own it, you have no right to tell others they cannot use it. Indeed, the Lorax first attempted to assert property rights (emphasis added), "What's that THING you've made out of *my* Truffula tuft?"[3]

The Lorax makes two *critical* errors. First, he failed to emphasize the Truffula tuft was *owned* by the Lorax. Instead, he concentrated on the Thneed that the Once-Ler made. Second, the Lorax attempted to appeal to the Once-Ler's altruism by showcasing the damage caused by Thneed production. But why should the Once-Ler *care* about this? Here is what Adam Smith says about altruism versus self-interest in *The Wealth of Nations*:

> It is not from the benevolence of the butcher, the brewer or the baker, that we expect our dinner, but from their regard to their own self-interest. We address ourselves, not to their humanity but to their self-love, and never talk to them of our own necessities but of their advantages.[4]

The Lorax has this reversed. He repeatedly attempts to address the Once-Ler's humanity, not his self-love. So, naturally, the Once-Ler would not listen.

What The Lorax should have done was *sue* the Once-Ler for theft or, in the absence of responsible government, he could have shot the Once-Ler (never bring a knife/axe to a gun fight!). However, he apparently did not have a property deed or a gun (believe me, however, launching a lawsuit is far more preferable to taking matters in your own hands).

The Lorax makes several property claims. He talks about "my trees," "my poor Bar-ba-loots," and "my poor Swammie Swams" but makes no attempt to enforce them besides blistering talk. Yet without enforcement, the rights mean virtually nothing. By not *enforcing* his property rights, he allows the Once-Ler to argue, "All you do is yap-yap and say, Bad! Bad! Bad! Bad! Well, I have my rights, sir, and I'm telling you I intend to go on doing just what I do!"[5]

Property rights are important but equally important is to *enforce* them. That is the lesson we must take from *The Lorax*, not the feel-good environmentalism about what we *should* do. Even the environmental movement requires force be applied against those who would seek to harm the environment but how do we balance the needs of the environment and the economy? You can argue until blue in the face that the environment *should* take precedence but you would end up only being blue in the face. You must have authority to force others to respect your decision and that only comes from one of two sources: authoritarian command and control without property rights (i.e., communism) or freedom with property rights (i.e., capitalism).

It might be "unfair" that those with so much are able to run roughshod over those with so little but this is a mistaken critique. For those with so much *always* run roughshod over those with so little, whether under communism or capitalism. The difference is if you can acquire wealth under capitalism, capitalists freely respect and uphold your right to do with your property as you wish. However, no one respects rights under communism—you *must* uphold them by force.

Climate Change

While we could, like most books, look at this problem in the abstract and concern ourselves with environmental issues from the perspective of externalities, the most pressing environmental issue of our times is probably climate change and it is to this subject we now turn.

Climate change can be thought of as an incomplete property rights problem. An incomplete property right is (1) unenforceable ("Gaming" contracts; criminal activity; no government; lack of ability to call upon government); (2) undefined (predominant with new technology); or (3) ill-defined (such as the tragedy of the commons). Climate change fulfills all three of these criteria.

Three items stand in our way. First is the "Act of God" problem. How do you claim enforcement for what may be a pure "Act of God" (climate change)? Second is the principle of proximate cause, discussed in Chapter 4. To sue someone, you normally show that they are the cause of your inability to use your property but when *everyone* contributes to a problem, from a legal standpoint, *no one* is the causal agent. Third is the international enforcement problem (discussed later in this chapter). Even if you show who is to blame, how do you enforce across borders?

We will examine three possible solutions that have been given for the issue of climate change. Each of these has a counterpart in other aspects of environmental law. These are the Pigouvian tax, cap-and-trade (similar to tradable emission permits), and the Coase theorem.

Pigouvian Tax

A Pigouvian tax effectively internalizes the externality by raising the marginal cost of the activity to account for the marginal cost to others, such that the Marginal Social Cost is equal to the Marginal Social Benefit at the Socially Optimal Quantity (see Figure 6.1).[6]

A huge problem is determining the actual Pigouvian tax. It is only optimal at one quantity point. When the amount produced is smaller than Socially Optimal, Private Marginal Cost plus the tax will exceed Marginal Social Cost. When the amount produced is larger than Socially Optimal, Private Marginal Cost plus the Tax will be lower than Marginal

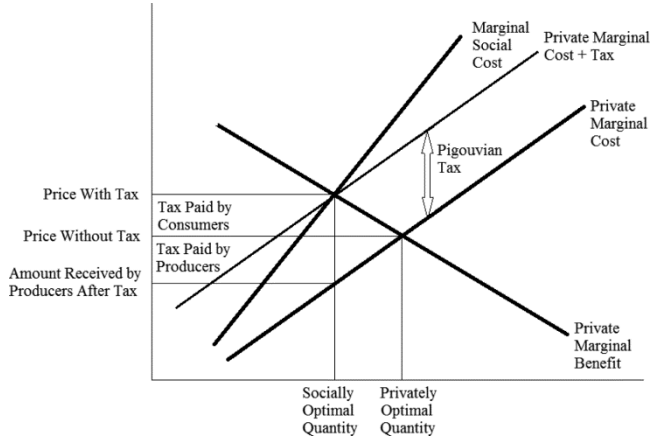

Figure 6.1 Pigouvian tax

Social Cost. A critical defect of it is likely to be suboptimal since government officials lack perfect information. Given that climate change manifests itself over a long term, this could lead to either over- or under-taxation depending on the level of the tax compared to that which would occur under complete property rights.

Tradable Emission Permits

A quota effectively is a tax at two different rates. The first rate, a 0 percent tax, is levied on everything up to the level of the quota. A second "penalty" rate is imposed for exceeding the quota and this penalty rate is usually much higher at the margin than a tax rate would be.

Suppose we place a "cap" on all carbon emissions and assign quotas to each carbon emitter based on the current emission level, so each must reduce emissions by a like percentage. For efficiency purposes, you allow companies to made trades in their quota allocations so that one can pay another for the right to pollute as long as the overall level of pollution remains the same.

Let us illustrate this with a concrete example. Assume that Company A and Company B are each emitting 30 units of carbon. Now institute quotas of 20 units each. Suppose it is relatively easy for Company B to reduce emissions by 20 units but hard for Company A to reduce by 10 units. Company B takes the entire reduction, allowing Company A to produce 30 units, while Company B produces 10 units.

However, there are some problems with this. Carbon offsets can be used (such as planting trees) but these can be difficult to quantify, while emission in some locations may end up doing more damage than others, making it hard to justify permit trading across such areas. There is also the problem of setting the overall cap since those who are harmed by carbon emission may desire a lower overall output. One solution, of course, is for those individuals to purchase the carbon permits from the polluters but that has some issues with respect to initial endowments. If you give carbon producers the right to pollute and the permits concurrently, there is a windfall that accrues to them that is denied to those already being negatively affected. A final problem is the exact same issue we had with the carbon tax: how can imperfect beings devise a perfect solution?

Coase Theorem

One can solve this dilemma through negotiation between affected parties. The Coase theorem states that in the absence of transaction costs, it doesn't matter who gets the right to pollute, the end result is the same.[7] If you give the right to pollute to the emitters, those who wish to see less pollution can pay the polluters *not* to pollute. Similarly, if you create property rights in clean air, those who wish to see more pollution can pay those who want clean air for their trouble. Whichever side values their position more will end up getting their way.

The problem is that transaction costs *do* exist and they tend to be very large. The large number of parties increase transaction costs enormously and some people may have very high reservation prices, yet the only way to convince polluters to reduce pollution is to pay off everyone. One holdout who desires a large payday may cause a holdup in negotiations.

Government Mandate Plus Private Bargaining = Big Problem

Let us go back to the Pigouvian tax as it seems to have fewer issues than tradable permits. If we set the rate correctly, since Marginal Social Cost equals Marginal Private Benefit, we effectively eliminate the property rights problem—or do we? What about the victim? One answer is

"Who cares? That's an equity concern, not an efficiency concern!" Similar to our concerns with torts and insurance, as discussed in Chapter 4, this answer is wrong.

Suppose carbon emissions from Company A do $60,000 worth of damage to Company B, carbon emission sequestration costs $80,000, and having Company B shutdown costs $100,000. The efficient outcome is to emit carbon, since the damage is less than the cost of avoidance. Under a carbon tax, we institute a $60,000 tax to offset the cost. But this isn't efficient! The reason is that Company B isn't being compensated, so it pays a bribe to Company A to sequester carbon in the amount of $30,000. This is better for Company B because paying $30,000 is better than having $60,000 worth of damage and it is better for Company A because it effectively brings down the cost of sequestration to $50,000, which is less than the amount of the tax. Adding a Coasian side payment to the Pigouvian tax means we give Company A too much incentive to control carbon emissions! However, if Company B receives the payment *instead of* the government, there is no incentive to try to make the Coasian side payment and we, once again, find ourselves doing that which is efficient. Thus a potentially fatal defect of the Pigouvian tax is that the money goes to the government rather than those who actually suffer harm.

A *Solution?*

A way to potentially do this is to turn everything over to insurance companies but that would require we allow them to form a cartel to enforce a climate model that all insurance companies would use. Allowing a limited antitrust exemption is not unheard of in American law. Insurance companies already enjoy an exemption under the *McCarran-Ferguson Act*, 15 U.S.C. §§ 1011-1015, which was enacted after the U.S. Supreme Court decided in *United States v. South-Eastern Underwriters Association*, 322 U.S. 533 that insurance was subject to federal regulatory jurisdiction. The justification in this case would be that climate change is an insurable event, since climate change causes economic damages. In addition, insurance companies would be more likely to invest premium dollars in technologies to reduce exposure to climatic change.

The climate model used by insurance companies only needs to be adopted by the major reinsurance companies for it to have practical use since reinsurance companies could deny reinsurance if an insurer did not follow the model. Alternatively, the government could act as an insurer of last resort and then require the climate model be used by the firms. The climate model would set the price of carbon and insurers would collect it as a premium charge. If you wanted insurance of any type, you would have to pay the charge. To ensure compliance by those who fail to buy insurance, insurers could sue self-insured companies that contribute to climate change under the probabilistic cause theory of law described in Chapter 4. But does this solve the problem of setting a carbon price in the first place? Actually, it does. The issue with both the carbon tax and the tradable emissions permits is that there is no market-corrective mechanism to properly equate social cost with private cost. Since the government takes the money, it spends it on whatever it likes and that creates a constituency to keep paying taxes. To see how taxes are difficult to remove once they are instituted, we need only look at the "temporary" telephone tariff enacted in 1898 to help pay for the Spanish–American War. Despite the fact the war ended rather quickly, the tariff did not: it took 112 years before that tariff was repealed by Congress.

How does this work for insurance if it doesn't work for the government? If insurers set the carbon charge too low when compared with the socially optimum point, they would start to deplete their reserves. This would signal them to ask regulators for an increase in the carbon charge. Meanwhile, if the carbon charge is too high, their reserves would expand significantly. These large reserves would create pressure on regulators to force reductions in premiums.

International Law

One of the biggest issues in enforcement of law is that laws, in general, are national or subnational in scope and enforcement across country borders is problematic even though actions taken in one country can profoundly affect another. When pollution occurs in a border region it affects not only the country where the pollution initially occurs but also

its neighbor, yet force of law may not extend across the border. This is an issue in international trade but it can also go far beyond. When a criminal crosses a border there is no guarantee she or he will be returned to the country where the crime initially occurred. Instead, an extradition process conducted under the laws of the country to which the criminal has fled must occur and only after a successful conclusion can the individual be returned to the jurisdiction of the crime. With the Internet, individuals can violate criminal statutes of another country and an extradition process may be launched even if the individual never set foot in the country of the alleged violation.

Some laws are automatically extraterritorial in nature. Antibribery, anticorruption, and export control requirements are imposed on American companies doing business abroad. Back in the 1980s, I had to restrict sales of certain software programs I developed because selling to some countries would violate U.S. export laws. These laws would apply to my work even if I set up a company overseas because I, as a U.S. citizen, am bound by U.S. law, regardless of where I reside. Similarly, my income is subject to U.S. taxation, even if I earn it abroad, and I am required to disclose whether I have any foreign bank accounts, as well as additional details about those accounts if they exceed a prescribed monetary value, even if I generate no income from them.

Classically, a nation could only be held to account for agreements it made by treaty. Treaties are contracts agreed to between countries and are based on the legal principle of *pacta suet servanda* ("agreements must be kept"). However, treaties can only be made when a country is competent to make them and although the general principle might suggest a country cannot abrogate its responsibilities by appealing to its constitutional basis, such an appeal not only can be made but has also been made on multiple occasions by various countries as justification for not fulfilling their treaty obligations. In *Canada (AG) v. Ontario (AG)* [1937] UKPC 6, [1937] A.C. 326, the Privy Council of the United Kingdom, then the highest court of appeal for Canada, declared that:

> It must not be thought that the result of this decision is that Canada is incompetent to legislate in performance of treaty obligations. In totality of legislative powers, Dominion and Provincial

> together, she is fully equipped. But the legislative powers remain distributed and if in the exercise of her new functions derived from her new international status she incurs obligations they must, so far as legislation be concerned when they deal with provincial classes of subjects, be dealt with by the totality of powers, in other words by co-operation between the Dominion and the Provinces. While the ship of state now sails on larger ventures and into foreign waters she still retains the watertight compartments which are an essential part of her original structure.

One cannot guarantee that treaty obligations in a federal context are going to be carried out without considering that subnational governments can "sabotage" an agreement by passing legislation that frustrates it.[8] We should also consider why countries do not engage in universal free trade. "Free trade" agreements are actually agreements on deviations from free trade. Any agreement actually specifying free trade shall exist could occupy the entirety of one line on a page: "There shall be free trade."[9] Instead, agreements go on for hundreds, if not thousands, of pages, all with trade rules quite unlike the free trade agreement between the cities of Greensboro and Winston-Salem in North Carolina—in other words, a total *lack* of such an agreement has not precluded individuals from these two cities from engaging in active business transactions with each other.

That there are benefits to free trade should go without saying. If there were none, no trade would occur. Yet significant costs span cultural, political, and legal dimensions. The cultural issue is one of great importance to countries like Canada and France, both of which see their respective cultures as self-defining characteristics. Political costs include restrictions on sovereignty that are at the heart of any contract. That individuals, countries, and governments make contracts in the first place implies that the loss of freedom such contracts entail is of lesser importance to the participants in the arrangement than benefits accruing to them. However, to argue there are no costs would be to argue there are no costs to contracting and imply freedom itself is worth nothing. Entering into a marriage contract with one person requires I foreswear the ability to enter into another such contract concurrently with a third

person. Similarly, entering into a trade agreement may require acceptance of ancillary obligations such as binding arbitration and allowing use of retaliatory tariffs if subnational governments fail to implement treaty provisions in areas of their legislative competency.

Economists often portray free trade as a free lunch, but that violates the "there is no such thing as a free lunch" principle and runs contrary to international economic theory that actually details how deviations from free trade make economic sense in certain limited circumstances. What economists like to point out, when confronted with this, is these deviations are normally suboptimal. However, this ignores the considerable *political* transaction costs associated with implementing free trade regimes. If we look at reality, trade simply *isn't* free. The reason comes down to a simple observation: trade agreements tend to focus on "low-hanging fruit" such that there is declining marginal political benefit and there are at least constant, if not rising, marginal political costs from free trade.

Consider the political cost of negotiating with various parties who will be harmed by opening up trade with other countries. That there will be a loss is a given as those formerly protected and thus granted market power within the country now stand to lose that power. In such ways, it is like antimonopoly rules that transfer wealth from the monopolist to the consumer. However, in this case, the monopolists in a country end up transferring some wealth to consumers in the country while other wealth ends up going to foreign competitors. To the extent that countries care only about domestic production, this is of concern from a political standpoint.

There is an additional political dimension. Losses from opening trade tend to be obvious and concentrated, while gains are hidden and diffuse. If we consider gains from repeal of the sugar quota versus accrued losses, we would find most losses go to a very small number of individuals relative to the entirety of the U.S. population but these individuals are located predominantly in two states: Hawaii and Florida. Each producer receives a very large benefit via the sugar quota such that they may not be able to compete without it being in place. In addition, the sugar quota indirectly benefits corn farmers, who supply high-fructose corn syrup to soda manufacturers as a result of the relative lack

of affordability of sugar for these processes given the highly elastic demand for its product the producer faces if it switched to sugar from the current lower-cost corn syrup. These corn farmers are disproportionately found in the upper Midwest of the country. On the other hand, the gains from lower costs to consumers benefit everyone but although the overall gains are large, the gains to any one individual are small, so very few would be interested in writing their legislator to repeal the sugar quota since the gains received would definitely write as elimination of the quota directly threatens their livelihood be so small relative to their income, yet corn and sugar farmers will definitely complain.

Figure 6.2 illustrates this. It assumes benefits from free trade increase rapidly at low levels of political cost but marginal benefits from deepening trade diminish with increases in free trade. This is likely the case since "low-hanging fruit" on which everyone can agree are almost certainly the first items to be negotiated. There is an implicit assumption the cost of free trade is a linear function of its provision but that is only necessary for the graph to be drawn in an easy to understand manner, so the point of tangency is where the MC = MB (marginal costs = marginal benefits) curve is parallel to the TC = TB (total costs = total benefits) line and the distance between the curve and the line is maximized. As long as there is declining marginal benefit to trade and negotiating costs are either constant or rising, there will always be some finite point in which MC > MB

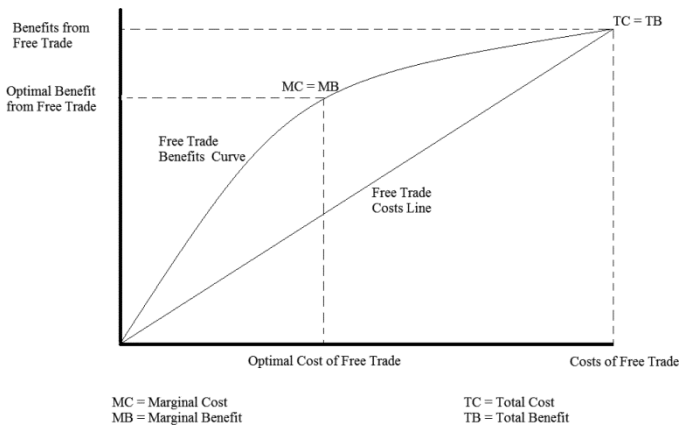

Figure 6.2 Non-optimality of total free trade from a political perspective

(marginal cost > marginal benefit). If this is the case anywhere on the curve, total free trade is suboptimal, i.e., some (minor) restriction on free trade is Pareto superior to absolute free trade. This is the exact opposite conclusion you will find in most economics textbooks in which free trade is erroneously treated as being a "free lunch" because transaction costs, once again, are ignored.

Family Law

From an economic perspective, marriage has two separate functions: (1) raising children and (2) division of household labor. Traditionally, the first of these has been a primary reason for considering marriages exclusively in heterosexual terms, but this is not a foregone conclusion. There is no evidence homosexual unions are incapable of being any less loving a familial unit than heterosexual ones. Recognition of same-sex partnerships is welfare-enhancing for the same reason that removal of a prohibition on any economic transaction benefits parties involved. The only other economic argument to deny equal protection to same-sex marital partners is the external benefits society receives from procreation and raising of children (to the extent there are any).

There is a serious problem with this approach. The first is procreation is not an exclusive outcome of heterosexual marriage. Nearly half of all children in the United States are born out of wedlock and, although single parenthood is a definite hindrance to the ability of children to thrive (since children require a considerable investment in terms of time, effort, and resources to reach full potential), this is no reason why heterosexual marriage needs to be the solution. We already have an effective means of dealing with this issue: adoption. As there is no evidence same-sex couples are any less able to provide a nurturing family environment, this objection is not cogent. When you consider we do not deny the right to marry to those incapable of procreation (such as couples in their 60s), the sanctity of traditional marriage argument becomes significantly weakened.

Therefore, while procreation has been used as an argument in favor of traditional marriage, it no longer is a legal justification for denying benefits to those who cannot procreate. Thus, the Supreme Court decision in *Obergelfell v. Hodges*, 576 U.S. ____ (2015), (Docket No. 14-556) that

same-sex marriage is the law of the land in all 50 states was not only economically sound in its reasoning, but also almost inevitable given societal trends.

Still, although marriage has existed for thousands of years, it is quietly being eroded by two attacks on these separate functions. First, the cost of raising children has gone down considerably due to rapid declines in infant mortality, the availability of universal education and widespread child care, and a generally more favorable attitude toward women in the workforce that has made women less dependent on men for their livelihoods.

Second, the need for traditional division of labor no longer exists due to widespread adoption of labor-saving devices. The washer, dryer, dishwasher, microwave, vacuum, and ready-to-serve meals has reduced the need for household production. Rather than employ someone in the home to make nontraded goods and services (the traditional "housewife") and have the other earn money outside the home (the traditional "breadwinner"), both parties in a marriage can seek employment outside the home, increasing joint economic welfare in the process. With widespread urbanization, children are sent out of the home to attend school and learn new skills rather than stay on the family farm or engage in the family business. Finally, society no longer denigrates divorcees, which made remarriage difficult in earlier times.

There have also been legal changes that have reduced the cost of divorce for the stay-at-home spouse. Imagine you bring a case for divorce against your spouse in a state where adultery was a crime. In such a case, the spouse accused of adultery could invoke their Fifth Amendment protection and refuse to testify on the grounds of potential self-incrimination. In states (or under prenuptial agreements) where a finding of adultery against a spouse could materially affect spousal support and division of assets, this had the unintended consequence of protecting the guilty party in a divorce settlement. As laws against adultery have gone by the wayside, this has made it less costly for spouses who are the victims of adultery to get justice for their claims.

The biggest difference is the movement first toward allowing divorce at all and then moving toward a system of "no-fault" divorce. It might seem strange to most readers to contemplate a society that does not

allow divorce but that was the reality in many countries until modern times and is still the case in the Philippines (at least for its Christian population). Husband and wife used to be literally joined until death did they part, which helps explain why both suicide and spousal homicide decline when divorce laws are liberalized,[10] but I digress.

Laws against divorce traditionally solved a problem known as "opportunistic breach." Imagine you were a woman who had given the best years of her life to a man, raised several kids to adulthood, and had worked hard as your husband climbed in the world of business. You denied yourself your own career to focus on the needs of your husband and children and now was time to reap your just reward as the children have left for their own households and your husband is finally bringing in significant discretionary income. However, your husband now experiences a midlife crisis and wants to dump you for a younger woman. If the law prohibits divorce, he cannot do so. This is even more important if husband wishes to leave and there are still young children in the house. Banning divorce guarantees two parents are supporting the children.

With "at-fault" divorce, the requirement for particular legal grounds generates additional transaction costs to end a marriage. Although not insurmountable (unlike when divorce is not an option), having one spouse be the 'plaintiff" and the other a "defendant" means "at-fault" is automatically antagonistic. This calls into question the first rationale for marriages: the raising of children. As time and money normally used in support of children now goes to lawyers and the courts and, as their father paints an increasingly ugly picture of their mother (and vice versa), the world of the child can become unhinged. Even before the divorce, seeds of discontent will be sown. If spouses must have *cause* to divorce, one spouse can make the other so miserable that the victimized spouse asks for a divorce and the mutual misery ends up harming the children as well.

Under our current system, a husband can divorce while paying only a fraction of the present value of his anticipated lifetime earnings. Since marital assets tend to be fairly modest until children leave the nest, and since divorce decrees are normally based on equitable division of *current* assets, as opposed to the present value of *anticipated* future income, women tend to be made worse off by divorce, while men tend to be

made better off. A law prohibiting divorce will serve to protect women still in traditional roles, at least from an economic perspective, which is one reason why advancement of women's interests had to occur *prior* to liberalization of divorce laws. As these produced the situation described earlier wherein the interests of children were no longer as central a preoccupation as before, another major reason toward movement toward a no-fault system of divorce is to return us to a situation where children's interests *are* protected. Thus, while no-fault divorce produces *more* divorces, it is a more optimal system for all parties than either no divorce or at-fault divorce in a more egalitarian society.

Discrimination Law

A frequent myth is that President Lincoln abolished slavery with the Emancipation Proclamation. He did not. The Emancipation Proclamation only freed slaves in 10 states then in active rebellion and did nothing to secure liberty for approximately 800,000 slaves in Missouri, Kentucky, Maryland, Delaware, Tennessee, the region that would later become West Virginia, and certain parts of Louisiana around the city of New Orleans, all of which were under union control at the time. What it did was free slaves as the Union army advanced to take control of Confederate areas and provided hope for a populace subjugated and treated as chattel. The last slaves to be legally freed were in Kentucky and Delaware, after passage of the 13th Amendment, several months after the conclusion of the Civil War brought a legal end to slavery in rebellious states.

Still, slavery was not abolished completely. Today, the only way one can be placed in such peril is to be duly convicted of a crime, which meant that everyone is born free and can only have their freedom taken from them for a legal transgression of their own making. Even still, the abolition of slavery did not make blacks citizens. That was left to the Civil Rights Act of 1866 (later reconstituted as the Civil Rights Act of 1870, after passage of the 14th Amendment that explicitly granted citizenship to the freed slaves), which provided:

> all persons born in the United States and not subject to any foreign power, excluding Indians not taxed, are . . . citizens of the United States [and] shall have the same right . . . to make and

> enforce contracts, to sue, be parties, and give evidence, to inherit, purchase, lease, sell, hold, and convey real and personal property and to full and equal benefit of all laws and proceedings for the security of person and property, as is enjoyed by white citizens . . .

Earlier U.S. Supreme Court cases, such as *Buchanan v. Warley*, 245 U.S. 60 (1917), which outlawed racial zoning ordinances, *Hurd v. Hodge*, 334 U.S. 24 (1948), which outlawed federal enforcement of racial covenants, and *Shelly v. Kraemer*, 334 U.S. 1 (1948), which outlawed state enforcement of those covenants, determined government actions could not be used to enforce racial discrimination. But it took more than 100 years for this statute to have an impact on private discrimination. In *Jones v. Alfred H. Mayer Co.*, 392 U.S. 409 (1968), the Supreme Court ruled the Civil Rights Act of 1866 "bars all racial discrimination, private as well as public, in the sale or rental of property." The Court found that the Civil Rights Act of 1964 was actually more narrowly constructed than this earlier civil rights act and thus a cause of action that might be unsuccessful under the later act could work under the earlier act, as suggested by the court in its determination the act also covered employment discrimination: "remedies available under Title VII [the 1964 Civil Rights Act] and under §1981 [the 1866 Civil Rights Act], although related, and although directed to most of the same ends, are separate, distinct, and independent."

The 1866 Act does not mention race, but covers all individuals, and thus encompasses far more than just racial discrimination. The 1964 Civil Rights Act made explicit these prohibitions with respect to that which are referred to as "protected classes" of individuals, namely sex, race, national origin, or religion. Title VII of the 1964 Civil Rights Act makes it illegal (in most cases) to discriminate against individuals based on those "protected classes" in the course of employment.

Over the past 50 years, other protected classes have been added, such as pregnancy, citizenship, age, veteran status, disability status, and genetic information. Discrimination takes the form of disparate treatment, when discrimination is intentional and based on membership in a protected class, or disparate impact, when there is a disproportionate adverse impact negatively affecting employability, rank, or pay of a protected class.

There might be a continuance in the presence of the effects of past discrimination (oftentimes remedied by "affirmation action") or, in the case of religious or disability discrimination, it might mean a failure to make "reasonable accommodations" to address religious or disability limitations of the employee.

To prove disparate treatment one need not find an actual codification of policy, merely evidence individuals, otherwise similarly situated, are treated differently based on a protected class. Thus, while an employer might have the right to fire someone for failing to comply with a particular work order, presentation of facts suggesting that women are fired after such a violation but men are not would constitute disparate treatment. Reasonableness of the work order is immaterial. A classic retort to the notion of disparate treatment was actually provided by Professor Henry Higgins to Eliza Doolittle in the movie, *My Fair Lady*: "You see, the great secret, Eliza, is not a question of good manners or bad manners, or any particular sort of manners, but having the same manner for all human souls. The question is not whether I treat you rudely, but whether you've ever heard me treat anyone else better."[11]

So long as all are treated equally, no claim of disparate treatment can be brought, even if the treatment is horrid, provided it is legal. This is not a defense against the denial of reasonable accommodations, because such a claim explicitly *requires* a form of disparate treatment under the concept of fairness detailed in the section on tax law: treat those equally situated in an equal manner and treat those unequally situated in an unequal manner (so long as the job can still be satisfied). Thus equality does not mean enforcement of the exact same rule. Gender-based grooming rules are allowed to take into account differences in social norms, so long as they do not generally favor one gender over the other in terms of strictness. Requiring men to wear suits and women dresses or skirts is not a violation of federal law, though it would run afoul of some state laws that specifically mandate women be allowed to wear pants in the workplace.

A bona fide occupational qualification may be used to justify discrimination on the basis of age, sex, religion, or national origin or if that requirement results in disparate impact. For example, a physical strength

requirement may be implemented even though it discriminates against women. However, if the level of physical strength is not necessary to fulfill the job, the discrimination cannot be justified. Mandatory retirement ages for pilots, requirements that faculty of religiously affiliated colleges be of the same religion, and the requirement Catholic priests be celibate males are examples of bona fide occupational qualifications rooted in explicit discrimination against that which would otherwise be protected class members.

In *Dothard v. Rawlinson*, 433 U.S. 321 (1977), the Supreme Court ruled 8-1 that minimum height and weight restrictions at a maximum security prison in Alabama were an impermissible discriminatory barrier to women applying to be prison guards. That it had disparate impact was demonstrated by statistics that showed a significant proportion of the female population when compared to the male population would not meet the requirements and the rationale given for the requirement (a strength requirement) was not directly measured. Under Title VIII of the Civil Rights Act that bars employment discrimination, such requirements, in the words of the Supreme Court decision in *Griggs v. Duke Power Co.*, 401 U.S. 424 (1971), "must measure the person for the job and not the person in the abstract." Yet, on the related question of whether the state of Alabama could continue to require guards be of the same sex as inmates for purposes of ensuring prison guard safety and maintenance of order in the prison, the Court ruled 6-3 that this was a legitimate job requirement, as female guards in an all-male prison population might be placed at greater risk and have less ability to control prisoners than a male guard would merely by virtue of their sex, especially since many males in the maximum security facilities were sex offenders.

But *why* does discrimination exist? Shouldn't competition eliminate disparate impact and award jobs to the most qualified? After all, if women or blacks are paid less than what they provide in services, I could hire the victims of discrimination and offer goods and services for less, thus driving discriminatory firms out of business. It would seem as though where discrimination existed, market power must be present, or might there be another explanation?

"Taste" for Discrimination Model

Gary Becker posited individuals might have a "taste" for discrimination, which provides a psychic cost if they are forced to associate with certain individuals and a psychic benefit if they are allowed to discriminate. If individuals have such tastes, they are willing to pay a price in order to be able to discriminate so as to avoid these costs or realize these benefits.[12]

While this model is used to examine racial discrimination, nothing precludes it from being used to study other types of discrimination (including perfectly legal forms of discrimination, like Disney's grooming rules for employees at its theme parks). It can also be used as a justification for continuing discrimination as equality generates negative utility for such individuals. This, of course, points to why economic theory needs to be tempered with a sense of morality. Once you consider people's feelings with regard to the behavior of others as a legitimate source of asserting the presence of an externality, you have opened a huge can of worms.

Let us concern ourselves only with labor market discrimination and look at employer, coworker, and customer discrimination. We will define wage discrimination as occurring when members of some group being discriminated against (or being discriminated in favor) have a wage differing from what would be present if members had been part of the reference group. In so doing, we define discrimination as being either positive or negative depending on the preferences of the individual. The discriminating person is willing to pay or penalize others for being members of the targeted group based on characteristics that are not relevant to the individual's productivity.

The presence of a large number of discriminating individuals or firms leads to reductions in compensation offered even by firms that do not explicitly desire to discriminate. This is because the demand for labor in the targeted group is downward slopping (D_0) relative to demand (D_3) for the reference group (see Figure 6.3). Where there is a lot of discrimination present and the intensity of discrimination is great, wages (W_0) will be generally depressed for the group against whom discrimination is present and employment will be lower ($Q_0 < Q_3$).

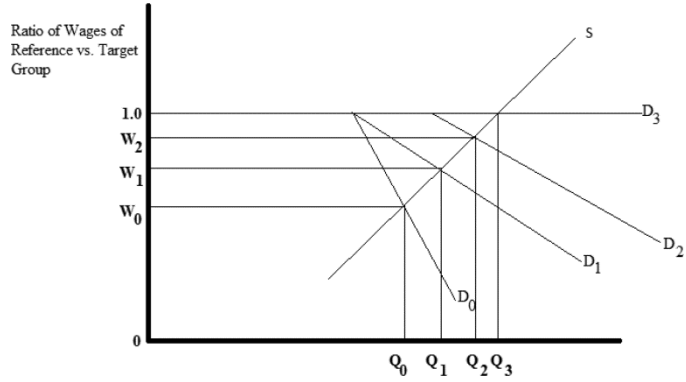

Figure 6.3 Labor market discrimination

If discrimination is reduced, this will result in a rotation of the demand curve, so it will become less steep (D_1) and both wages (W_1) and employment (Q_1) will rise. If the number of discriminating firms is lessened, this can be seen by an outward shift of the kinked demand curve (D_2) and both wages (W_2) and employment (Q_2) will again rise.

This analysis tells only a static side of the story. Since employees in both groups are equally productive, firms that hire the victimized group will find that they are more profitable than those that are discriminatory and that means they can undercut the discriminatory firms on price, driving discrimination out of the market in the process. On the other hand, discrimination can persist when companies have market power since they can give up profits that accrue due to their position as monopolists or oligopolists for far longer than can perfectly competitive or firms.

Discrimination in which customers or coworkers are the discriminatory force, rather than employers, is far more difficult to eliminate. If a large percentage of coworkers refuse to work with a group against whom discrimination is present, a company can find that profitability is negatively affected as a result, since productivity of others is reduced. If customers are discriminatory, sales can be lost and discrimination against others becomes a characteristic that customers seek and pay a premium price to receive. As such, these types of discrimination are far less likely to be cured through the free market process and require the force of law to ensure compliance, if reducing or eliminating discrimination is a public policy goal.

Housing Discrimination

With housing discrimination, if enough individuals in a society have discriminatory tastes, financial harm results and an equilibrium may cause discrimination to persist. Valuation of property is based on personal beliefs and social mores. If a large majority of the population is biased against blacks and are willing to pay a larger price not to have to live near to them, the average price of property in enclaves devoid of blacks will tend to rise, while property values where blacks congregate will tend to fall. This was the economic rationale behind the *City of Ladau v. Horn* (1986), 720 S.W.2d 745 (1986) in which an unmarried couple, who did not wish to be married, alleged discrimination on the basis of violation of their freedom of association, their right to privacy, and the 14th Amendment's equal protection clause that served to discriminate against them because they were not married. The court did not accept their argument and they were considered to have violated a legitimate government interest in using zoning restrictions in order to "maintain traditional family values and patterns."

We can contrast this ruling with *Braschi v. Stahl Associates*, 74 N.Y.2d 201, 544 N.Y.S.2d 784 (1989), in which the court found that a homosexual couple could not be evicted under rent control statutes for violating the parameters of that which constituted a family, though there are two key differences between the two cases. The homosexual couple could not legally be married at the time in New York and the decision by the court explicitly stated it was not overturning existing zoning regulations, but rather was limited in scope to rent control questions. In the aftermath of same-sex marriage, these two cases may be concurrently upheld since the choice not to get married versus being married is now available equally to opposite and same-sex couples.

Similar to employment discrimination, housing discrimination can be found in cases of disparate impact. In *Texas Department of Housing and Community Affairs v. Inclusive Communities Project, Inc.*, _____ (2015), No. 13-1371, the Supreme Court ruled 5-4 that private and public policies perpetuating discrimination are illegal even if they lack discriminatory intent. Thus, zoning policies, bank lender and insurance

"redlining" (the practice of charging different rates to loans or insurance rates in different zip codes), and the building of low-income housing in segregated neighborhoods may be subject to challenge.

Tax Law

Although a full discussion of tax law is beyond the scope of this book, given that perhaps no activity of government is universally hated despite its necessity, at least some discussion herein is warranted. Every tax, with the exception of a single tax on unimproved land,[13] alters the efficient functioning of markets. Yet government would find it difficult, if not impossible, to carry on the myriad of tasks we assign if it could not raise revenue from the population at large. It is a function of a person's desire and ability to avoid being taxed that results in misallocation of resources when taxes are present. Any avoidable tax will cause a reduction in the overall value of transactions for the item taxed. A sales tax results is fewer taxable sales, an income tax results in less taxable income, and a death tax results in fewer deaths.[14] Yet, with a head tax, we end up with the same amount of revenue, since one cannot avoid the tax without losing one's head! Well, not exactly. A head tax tends to create fewer children unless it were imposed solely on emancipated adults, as some would avoid having children in order to avoid the tax burden.[15]

The key is the phrase avoidable tax, for there are a variety of avoidance techniques that leave the person just as well off as before, or nearly so. A tax alters the relative cost of an item when compared to untaxed items and it is relative cost that determines why we choose one item over another. For example, individuals might decide to grow their own crops rather than purchase them from the market, thus reducing overall sales without reducing consumption of crops. Workers may overload on non-taxed fringe benefits, such as health insurance, in order to reduce taxable income. A subsidy is simply a negative tax and thus works in precisely the same fashion with an opposite effect: a subsidy for one item is a tax on all others not similarly subsidized, while a tax on one item is a subsidy for all others not similarly taxed.[16]

As for death, the third item, it can be avoided or sped up, if only temporarily, at the margin when inheritance taxes change. If, on December 27th, Uncle Joe, a billionaire, has a terrible automobile accident, homicide investigators might wish to look at inheritance taxes when determining if his heirs are making decisions in his best possible interest. A reduction in the tax rate on January 1st means the family has an interest in arguing Uncle Joe would want any and all possible methods to extend life as long as possible—or at least enough to make into the new year—whereas, a tax rate increase coming into effect 5 days hence portends for the family to argue Uncle Joe never wanted to be kept alive via artificial means!

Income Taxation

Ideally, a tax system will be both equitable and efficient. While a perfectly efficient tax system, other than one that taxes solely unimproved land, is simply not feasible, some taxes are more efficient than others. One major issue with respect to income taxation is the excess burden that is imposed based on the complexity of the tax code. As of the 2014 tax season, the U.S. tax code ran nearly 75,000 pages in length,[17] while filling out the standard Internal Revenue Service Form 1040 required instructions that ran some 207 pages in length.[18] Just following the directions costs Americans billions of dollars in terms of the value of their lost time and that does not count the tens of billions spent each year on tax software, tax preparers, and the ubiquitous Internal Revenue Service that must administer the tax code. Thus if we could somehow come up with a tax code that allowed everyone to file their taxes on a postcard and pay a flat percentage of their income without any deductions or exemptions, it would go a long way to making the system far more efficient. However, there would be a trade-off in terms of it not being considered equitable.

Whether something is equitable is somewhat in the eyes of the beholder. Is it equitable to tax people more if they have more money? The ability-to-pay principle would suggest as much. The more money you have, the more you can afford to pay, but the market does not work that way. Your ability to pay has nothing to do with the cost of this book. It is set at a specific price and my publisher does not charge Bill Gates

more than a college student. Still, if you are a college student, you might want to find out if your library subscribes to the Business Expert Press Digital Library, so you can read it online for free (hint: it isn't really free since in order for you to read it online for "free," your library pays for the subscription and the cost is hidden in the tuition you pay to your school, but I digress and, if you are reading this section, the question is more relevant to my other book, *The Economics of Crime*, also available from Business Expert Press, since you have already either bought this book or are reading it online through your library anyway).

The ability-to-pay principle simply implies that as income rises, you ought to pay more—but *how* much more? Should it be the *same* percentage of your income (a proportional tax), a declining percentage of your income even though it might be a larger overall amount (a regressive tax), or an increasing percentage of your income (a regressive tax)? To answer this, we can apply the law of decreasing marginal utility to income. It stands to reason a billionaire would derive less satisfaction than a college student from an extra dollar of income. This isn't exactly something we can know for certain, since we cannot make interpersonal comparisons of utility. Still, given that people first allocate their scarce dollars to those items that provide the greatest happiness, it stands to reason that even if we cannot know for certain that an equal dollar reduction in both groups would generate a greater overall satisfaction if we take from the wealthy rather than the poor, the utility of an extra dollar for any one individual person should be decreasing as their income increases. If this were not the case, we would generate all sorts of strange results. Unless you are Scrooge McDuck, a Disney cartoon creation who loves money solely for the sake of having it, the value of having money is the ability to purchase goods and services with it. Since you would naturally purchase those items that provide the greatest utility *first*, it would imply the value that you would have on obtaining an additional dollar of income would decline as your income rose. Thus, if there is a decreasing marginal utility to income, we might want to impose a progressive income tax system, rather than a proportional one.

On the other hand (what would an economist do with only one hand?), high marginal tax rates often as a result of progressive taxation

can lead to a dramatic reduction in risk-taking among those who are most able to undertake risk. If people are risk-neutral, they will agree to any bet that has a positive expected value. An example of this would be a coin flip with a 50 percent chance of winning $100 and a 50 percent chance of winning nothing. In this case, I would take a bet provided it cost me no more than $50 since I would expect to win $50 on average (50 percent of $100 is $50).

Suppose for a 10-year period, you could receive $90,000 each year *or* receive either $200,000 or nothing based on a coin flip each year (heads you win, tails you lose). Since the amount, on average, for the coin flip is $100,000, which is greater than the guaranteed amount of $90,000, if you were risk-neutral, you would agree to the coin flip. This decision would not be altered if taxes were proportionate since it would reduce both the guaranteed sum and the sum won on the bet by an equal percentage. However, progressive taxation alters that calculation. If there are two marginal tax brackets with the first $100,000 being taxed at 20 percent, and all money above $100,000 being taxed at 50 percent, the guaranteed income would be $72,000 after taxes, while variable income would be either $0 or $130,000 after taxes (the person receiving $200,000 would keep $80,000 of his or her first $100,000 but only $50,000 of the next $100,000, resulting in $80,000 + $50,000 = $130,000 in overall after-tax income). Over 10 years, assuming coin flips came out half heads and half tails, if you took the guaranteed sum, you kept $720,000 but, with the coin flip, you kept only $650,000. When looking at the progressive income tax over time, the result may be an effective marginal income tax rate that exceeds 100 percent! Over 10 years, the person with the guaranteed sum made $900,000 in income and paid $180,000 in taxes but the person with the variable income made $1,000,000 but paid $350,000 in taxes—an effective marginal tax rate of 170 percent as the extra $100,000 in income generated $170,000 in additional taxes.

With progressive taxation, when you have two individuals, one with a steady guaranteed income stream and the other with a variable income stream, but with the *same expected income*, the person who takes the risk ends up paying a much higher marginal tax rate than the person who does not take risk. Is it really fair to tax people more simply because they

choose a more risky form of income? Yet that is *precisely* what happens under progressive taxation.

Progressive income taxes, when combined with tax deductions, mean high-income individuals are *subsidized more* than low-income individuals through the tax code. Thus, while home mortgage interest deductibility supposedly increases home ownership, it actually does the *opposite*. Since home mortgage interest deductibility effectively reduces the interest rate on home loans based upon the borrower's marginal tax rate, wealthier individuals effectively pay *less* for loans simply because they make more money. Suppose we have two individuals looking to buy a house with equal credit scores and their only difference is their incomes. Each is looking to take out a mortgage with an interest rate of 4percent. The person in the 50 percent tax bracket ends up paying an effective interest rate of just 2 percent, while the person in the 20 percent tax bracket pays an effective interest rate of 3.2 percent because their deduction is worth less. If we eliminate home mortgage interest deductibility, they both end up paying 4 percent. It might appear that this second option would make homes less affordable but that may not be the case. Remember that the person paying the lower effective interest rate already has a higher income. All home mortgage interest deductibility does is encourage a greater reliance on borrowing among higher income individuals, which, in turn, *increases* home prices and thus *reduces* home affordability.

High marginal tax rates decrease government incentives to combat inflation. If inflation pushes people into higher tax brackets, the government can collect more revenue without explicitly altering the tax code. It also encourages rich people to value leisure more by making it relatively less expensive as one increases in income.

On the other hand (oops! I think I have run out of hands), the wealthy tend to benefit more from certain public goods, such as police, fire protection, and national defense, perhaps it makes sense to tax them more. After all, isn't it equitable to tax people more if they use more public goods? That is the idea behind the benefits-received principle, the notion one should pay taxes in proportion to the benefits received. However, this too will have some issues with progressive tax systems since the

poor receive a large share of benefits without paying much of the costs. Then again, one could argue the welfare state is an extension of police protection as individuals who are provided basic needs by government do not need to go and steal from others to acquire them (whether taxation is a form of theft is a question for the reader to decide).

The best argument against progressive taxation is its inefficiency. High marginal tax rates generate incentives for tax avoidance and the natural tendency is to shelter of income through an increasingly complex tax code that ends up not delivering the progressive tax system promised in the first place. If the effective tax rate is much lower than the advertised rate, it is probably time to flatten the tax rate and eliminate the tax preferences, thus reducing deadweight losses. The Laffer curve (Figure 6.4), based on a simple observation, illustrates this principle: tax revenue generated at a 0 percent or a 100 percent tax rate is the same—nothing. If I cannot keep any of my revenues, why should I work at all? Yet, if I am allowed to keep some of my income, I am willing to work but if we do not tax at all, the government will not receive any income either. There must exist some tax rate that maximizes tax revenue and it must lie between 0 percent and 100 percent, which we will call the "optimal tax rate." If the current tax rate is below that rate, increasing the tax rate will increase tax revenues. If the current tax rate is above that rate, decreasing the tax rate will increase tax revenues. Conservatives tend to believe the optimal tax rate is lower than whatever the current tax rate happens to be, while liberals tend to believe the opposite.

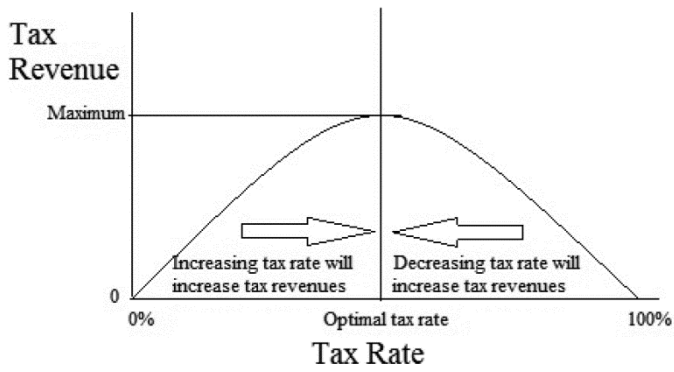

Figure 6.4 Laffer curve

One interesting court decision regarding income taxation is *National Federation of Independent Business v. Sebelius*, 567 U.S. ___ (2012), 132 S. Ct 2566, in which the Chief Justice Roberts, writing for the 5-4 majority, upheld the Affordable Care Act by classifying the penalty collected by the Internal Revenue Service from those who fail to purchase adequate health insurance as a tax, rather than a criminal penalty. Many decried this decision by arguing that it meant that the government could tax individuals for *not* purchasing a particular good or service. However, the U.S. government already does *precisely that* and no one complains about it. When we provide tax expenditures, such a deductions for home mortgage interest, child care expenses, or charitable contributions, we are effectively taxing everyone who *fails* to purchase a home or child care or who fail to donate to charity. As noted earlier, a tax on one item is simultaneously a subsidy on all others, while a subsidy on one item is a tax on all others. The tax expenditure ends up altering the relative cost of the goods in question. To understand this clearer, suppose we raised everyone's taxes by $900 but let you receive a $900 tax credit if you purchased "adequate health insurance." It should be clear that the two methods are functionally equivalent. If you are taxed $900 if you fail to purchase adequate health insurance, you are $900 poorer under both systems and if you purchase adequate health insurance, you are no worse off under both systems.

Payroll, Sales, and Excise Taxes

Social Security Tax is a regressive tax, paid only on the first $118.500 of wages or self-employment income (as of 2015) at a rate of 12.4 percent. The Medicare tax is 2.9 percent on wages and self-employment income (without limit) but there is an additional 0.9 percent surcharge to the Medicare tax that applies to high-income earners and a 3.8 percent unearned income tax on the investment income of high-income earners. Thus the Medicare tax is closer to a proportional tax, though it does have a minor amount of progressivity to it. Legally, both payroll taxes are half paid by the employer and half by the employee.

Sales taxes are often regressive: the poor tend to spend a greater proportion of income on consumption goods than the rich. The regressive nature of sales taxes is reduced by exempting basic goods such as food but it will not eliminate it. Legally, sales taxes are charged to the purchaser of the good with the seller acting as a collection agent for the government.

Excise taxes may be regressive or progressive depending on the nature of the good in question. Excise taxes on luxury goods (defined in economic terms as those goods with an income elasticity of greater than 1, thus people spend a larger percentage of their income on the good as their income rises) are progressive in nature, while excise taxes on other goods are regressive in nature, similar to sales taxes. Legally, excise taxes are paid by the seller of the good.

Yet, the incidence of each of these taxes has little to do with legal dictum of who pays. Who *actually* pays will depend on the relative elasticity of demand and supply as well as the level of government that imposes the tax. The more local the government, the greater the possibility of tax avoidance by one or both of the parties to the transaction, since individuals can choose where the transaction will occur. The more inelastic the demand (the more quantity demanded fails to change when price is changed), the more the incidence of the tax will fall on the buyer. The more inelastic the supply (in other words, the more that quantity supplied fails to change when price is changed), the more the incidence of the tax will fall on the supplier (Figure 6.5).

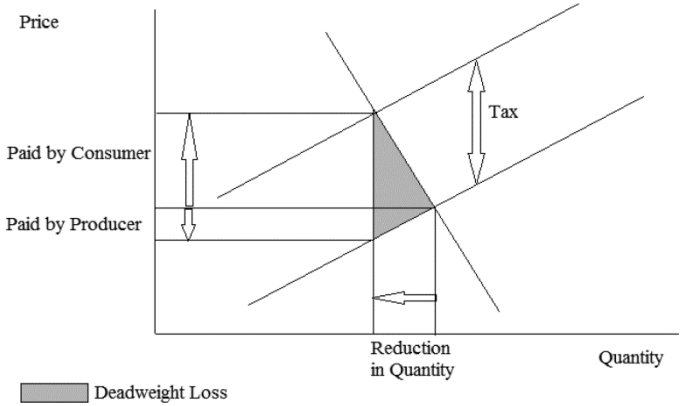

Figure 6.5 Tax incidence

If either the supply or the demand is highly inelastic, there will be less of a deadweight loss from the tax as well. The deadweight loss measures lost production and consumption occurring as the result of a tax change. In other words, the less behavior is altered, the more efficient the tax and the greater the incidence falls on the party whose behavior does not change.

Questions for Review

1. Where is the tax incidence likely to be for each of these taxes and why? (a) a national excise tax on cigarettes; (b) payroll tax imposed by a local government on a small business that sells products nationally; (c) a national excise tax on luxury yachts.

   The tax incidence for an excise tax on alcohol will likely fall on the consumer since cigarettes are addictive and thus consumers do not typically change their behavior much in the face of an increase in price. While consumers might avoid a local excise tax by purchasing in other jurisdictions, a national excise tax is much more difficult to get around since one would have to order the product internationally. Traveling to another country just to purchase cigarettes is cost prohibitive given that cigarettes are fairly low-priced goods accessible to everyone. Furthermore, since sellers would have to declare their products when they ship internationally and duties would apply to the cigarettes that were shipped, it is difficult to avoid. The payroll tax will typically be paid by the employees of the firm since the firm has no market power to change prices. As such, it likely cannot afford to raise its wages and thus employees will pay for the increase in the payroll tax by receiving reductions in other forms of compensation such as wages or fringe benefits. Alternatively, the firm could reduce its supply of labor. A national excise tax on yachts might, at first, seem to be similar to a national excise tax on cigarettes, but they are quite different. Yachts are movable assets that can be purchased and registered overseas and need never actually enter the country. While cigarettes tend to be purchased by lower-income consumers, luxury yachts are the exclusive purview of the wealthy and the price of a yacht is far greater than even a first-class airline ticket to another country.

2. What would be the effect on the quality of wine purchased within a state if a lump-sum tax of $10 per bottle were imposed assuming the entirety of the tax were passed on to consumers in the form of higher prices?
   The quality of wine purchased in the state would increase. The quantity demanded of a good demands on its relative price. Suppose that before the excise tax is imposed there are two bottles of wine available for purchase: a high-quality wine priced at $20 and a low-quality wine priced at $5. That means that one can buy four low-quality wines for the price of one high-quality wine. After the tax is imposed, one can now purchase a high-quality wine for $30 and a low-quality wine for $15. Thus, now we can only purchase two low-quality wines for the price of one high-quality wine. Since the price of the high-quality wine has been reduced relative to the price of the low-quality wine, more high-quality wine will now be purchased. This result is known as the Alchian–Allen Theorem.[19]

Questions for Discussion

1. If customers discriminate against businesses by refusing to patronize establishments that hire African Americans, what, if anything, can the government do to address this?
2. Currently, birth mothers must give up their children without receiving any type of payment since selling babies is illegal. At the same time, abortion has been legal nationally since 1973 and, in many states, is relatively inexpensive. What would be the impact on the number of adoptions, what would happen to the number of abortions, and what would happen to the number of maltreated children if selling babies to prospective adoptive parents were legalized? What would be the impact on the number of adoptions, what would happen to the number of abortions, and what would happen to the number of maltreated children if abortion became illegal once again?

Glossary

Key Economic Concepts

ability-to-pay principle: The idea that taxes or fees should be higher for wealthier individuals.

administrative cost: The cost associated with administering a law.

adverse selection: The idea that parties who can successfully hide negative information about themselves or their products will seek to transfer that risk to others. Thus, if an insurance company offers the same price to everyone, the worst insurance risks will seek to purchase the insurance. Similarly, if a car owner has a "lemon" (a bad car), he or she will be more likely to try to sell it if it is difficult for buyers to accurately determine the quality of the cars before they purchase them.

antitrust: A branch of law that seeks to reduce the negative impact of anticompetitive measures undertaken by companies with market power either on their own or in collusion with other companies.

arbitrage: The practice of exploiting for financial gain differences in prices between two markets. In an arbitrage, a trader buys in the low-cost market and then resells in the high-cost market, pocketing the difference and, through competition, eventually causes the prices in the two markets to converge, differing only by the transaction costs associated with transporting the product between the two markets.

benefits-received principle: The idea that taxes or fees should be related to the benefits received by the individual.

Coase theorem: The theorem proves that if there are no transaction costs, well-defined property rights, externalities can be efficiently alleviated through negotiation regardless of the initial allocation of property rights.

control: Holding decision-making authority in a company.

cooperative game theory: A theory that examines how individuals and companies can strategically interact with each other to arrive at a mutually beneficial solution through cooperation rather than competition.

deadweight loss: The lost value of production that arises due to an inability to achieve optimal results, oftentimes due to taxes, monopoly power, or legal impediments.

efficiency: A market condition characterized by optimal results and no deadweight losses. There are two types of efficiency: (1) allocative efficiency, which occurs when all buyers and sellers who wish to make trades at the market price are able to do so; and (2) productive efficiency, which occurs when producers produce at the lowest possible cost.

efficient breach: A voluntary refusal to perform a contract that occurs when the cost of performance exceeds the cost of paying the aggrieved party for failing to fulfill the contract.

equitability: A condition that occurs when all market participants believe a transaction is "fair."

externality, negative: The imposition of costs on a party that is not part of the transaction and that are not paid for by one of the transacting parties.

externality, pecuniary: The imposition of purely financial costs or gains on a party that is not part of a transaction. For example, when I choose to buy from one seller of stock, rather than another, I have imposed a pecuniary externality on the seller of stock from whom I did not purchase. However, since the loss to one seller is precisely balanced by the gain from the other, there is no real impact on the market, merely a financial cost to one of the potential sellers.

externality, positional: An externality that merely alters the relative ranking of participants. For example, the first place winner of a contest imposes a positional externality on the second place winner since the second place winner would have been in first place had the first place winner not participated.

externality, positive: The provision of benefits to a party that is not part of a transaction and that are not received by one of the transacting parties.

General Theory of the Second Best: When one cannot achieve an optimal solution because one or more conditions cannot be satisfied, the General Theory of the Second Best demonstrates that the best possible (Second Best) solution may be to deliberately refuse to satisfy other conditions. For example, while perfect competition typically results in economic efficiency, the introduction of externalities, specifically pollution, may mean that it will be preferable to have a monopoly rather than a perfectly competitive market if the efficiency losses associated with higher pollution levels resulting from higher production levels exceeds the efficiency gains associated with perfect competition rather than monopoly.

information asymmetry: A market condition that exists when one party in a transaction has information pertinent to that transaction that the other party does not have.

insurance: A market mechanism to transfer risk from individuals or companies who are willing to pay for the privilege of refusing risk to those who are willing to accept that risk.

international enforcement problem: The problem that exists because countries cannot enforce their laws in other countries without the consent of the other country.

Laffer curve: The idea that tax revenue is maximized at some point between a 0percent tax and a 100 percent tax, while the two extremes will result in identical tax collections of $0.

litigation cost: Costs associated with lawsuits, specifically the court costs and lawyer fees involved.

Lorax Problem: An environmental issue that may appear to be caused by capitalism but actually results from a lack of adequate property rights.

marginal benefit, private: The extra benefit obtained by a private party from an additional good or service being provided.

marginal benefit, social: The extra benefit obtained by society as a whole from an additional good or service being provided.

marginal cost, private: The extra cost incurred by a private party from an additional good or service being provided.

marginal cost, social: The extra cost incurred by society as a whole from an additional good or service being provided.

medical malpractice: Incompetent or negligent care provided by a health care worker to a patient.

monopoly grant: The right to a monopoly granted by government to a private individual or company.

moral hazard: The idea that a party to a contract may alter his or her behavior patterns in a way that would negatively affect the other party after entering into a contract. For example, a consumer, knowing that she will be reimbursed for loss, may not act in as careful a manner as she would if she were not eligible for such a reimbursement.

natural monopoly: A market condition that exists when, due to economies of scale, the most efficient producer of a product will be a monopolist.

opportunity cost: The value of what one gives up to pursue an opportunity. For example, the opportunity cost of reading this line is the time that you could have spent doing something else.

optimal punishment theory: The amount of punishment in which the benefits from the punishment inflicted precisely balance the costs.

ownership: Holding the residual claim to a share of the profits in a company.

Pareto optimal: A market condition in which no one can be made better off without making someone else worse off.

Pigouvian tax: A tax set equal to the social cost of an externality so as to cause the socially optimal quantity to be produced.

political transaction costs: Political costs inflicted upon government officials, especially those associated with reductions in campaign contributions or with electoral losses.

price discrimination: The action of charging different prices to different people for the same product or service.

principal–agent problem: An issue that occurs when people who are required to act on behalf of another individual or entity fail to do so because incentives to do so are not aligned with the interests of the party for whom the required action is undertaken.

rationality: A condition in which an entity acts in its own best interests.

regulation: Actions undertaken by government to align the behavioral patterns of individuals or companies with the desires of wider society.

rent-seeking: An attempt to secure private benefits for conducting public action.

socially optimal quantity: The quantity that would prevail in the market if there were no externalities or impediments.

"taste" for discrimination: An economic theory that suggests individuals receive pleasure from discriminating against others.

tax, progressive: A tax with a rate that rises with income so that richer individuals pay a greater percentage of their income than poorer individuals.

tax, proportionate: A tax whereby all individuals pay the same percentage of their income.

tax, regressive: A tax whereby the rate falls with income so that poorer individuals pay a greater percentage of their income than richer individuals.

tax incidence: A determination of who actually, as opposed to legally, pays a tax in the form of higher prices or lower receipts.

Theory of the Firm: A theory that describes companies as collections of contracts that are designed to minimize transaction costs.

tradable emission permits: Usually associated with a cap on emissions, these permits allow company to trade their permission to pollute to other companies so that the cost of reducing pollution falls on those companies best able to reduce costs.

transaction costs: Costs associated with bringing about a successful conclusion to a transaction.

Vickrey auction: Also known as an English auction, it is an auction in which the highest bidder pays the price offered by the second-highest bidder (plus the bid increment) in an effort to induce every bidder to reveal the price above which they will no longer be willing to pay.

X-inefficiency: The deviation from efficiency that results when full competitive pressures are not present.

Key Legal and Political Concepts

accident: An unintentional action that could have been prevented and that results in injury.

Act of God: An external event (such as an earthquake or flood) that cannot be avoided and that cannot be traced to an identifiable person.

adjudication: A legal dispute resolution process.

affirmative action: The policy of granting preferential treatment to individuals within an identifiable group that has previously suffered from discrimination.

anticipatory repudiation: A declaration by one party to a contract that he or she does not intend to fulfill contractual obligations.

assumption of risk: A tort defense that bars recovery of damages from a tortfeasor when the victim assumed the risk associated with an action that gave rise to the tort.

bailee: A person who takes possession of a good for purposes of repair or transport without transferring ownership to that person.

bankruptcy: A condition whereby an entity finds it impossible to fully repay the debts it owes to its creditors.

bona fide qualification: A defense to alleged discrimination based on an argument that a failure to hire resulted from an inability of the person alleging discrimination to fulfill a necessary qualification for the job in question.

breach of contract: An action that causes one or more of the terms of a contract to be violated.

cause, probabilistic: A determination that a tortfeasor is liable with a certain degree of probability, rather than certitude.

cause, proximate: A determination that a tortfeasor's actions were sufficiently closely related to the incident causing the injury so as to ascribe those actions as the cause of the injury.

caveat emptor: Let the buyer beware.

Corpus Juris Civilis: Body of Civil Law. An ancient Roman text providing their civil statutes.

collateral: The offering of something of value to a creditor to be held in trust until a loan is paid back or a promise that the item of value may be seized by the creditor if the loan is not paid back in a timely fashion.

Consideration: The provision of something of value in exchange for a good or service to be rendered.

copyright: A monopoly grant that gives to the creator of intellectual property of an artistic or literary nature certain exclusive rights for a fixed period of time.

damages: A monetary payment in lieu of contract fulfillment or as compensation for injuries sustained in a tort.

damages, compensatory: Damages necessary to compensate a victim for a loss.

damages, expectation: Damages resulting from the loss of future potential steams of income.

damages, punitive: Damages above and beyond compensatory damages designed to punish tortfeasors who act in bad faith.

damages, statutory: Damages of a fixed amount set by statute.

damnum absque injuria: Damages without injury.

disparate impact: When a rule disproportionate impacts in a negative manner a group that is identifiable by age, race, gender, national origin, religion, disability, or other protected characteristic.

disparate treatment: When an individual is singled out for discrimination on the basis of an impermissible criterion.

duress: Pressuring another through violence, threat, or other form of coercion to do something they otherwise would not do.

duty: A legal requirement to act or to abstain from acting depending upon the obligation that has been imposed.

eminent domain: A compulsory sale to the government in order to put the property to public use or for a public purpose.

estate, subsurface: Property rights accorded to the owner of a property to the area below the surface designated by the deed.

estate, surface: Property rights accorded to the owner of a property deed to the surface area designated by that deed.

evidentiary standard: A legal burden of proof for a side in a court case to be victorious. In criminal law, the standard is "guilty beyond a reasonable doubt," while the standard for state termination of parental rights is "clear and convincing evidence," which is a lower standard of proof. In most civil cases, the standard for one side to win is "preponderance of the evidence," which means "more likely than not."

ex ante: Before the fact.

ex post: After the fact.

export control requirements: Rules that govern the transfer of knowledge, goods, or services to foreign nationals or countries.

"fair market" value: The price that prevails in the market between a willing buyer and a willing seller. This is often the price set for eminent domain purchases even though the nature of a forced sale means that the seller is anything but willing to sell.

fair use: An exception to the exclusive rights granted to copyright owners that allows for limited legal transgressions of these rights without the permission of the copyright holder.

fiduciary duty: A requirement to act in the financial interest of another.

fraud: Deliberate deceit so as to cause injury to another or benefit for oneself.

frustration of purpose: A defense against breach of contract when both parties knew of the purpose at the time of contract formation and unforeseen circumstances occurred that made it impossible to fulfill that purpose.

gift: Legal transference of ownership without precondition or the receipt of anything of value in return.

Good Samaritan defense: A legal defense that holds that individuals who are making a good faith effort to help another cannot be sued or prosecuted as a result of injuries sustained during their activity.

housing discrimination: Discrimination that occurs in the course of renting or purchasing housing.

impossibility: In contract law, a legal defense that it is not possible to fulfill the terms of the contract and thus the contract should be rescinded.

inalienable rights: Rights that cannot be bought, sold, traded, or otherwise transferred to another.

incompatible use: When the enjoyment of property by one individual manifestly interferes with the enjoyment of property of another in such a manner that the two uses cannot occur simultaneously without interference.

indefinite lifespan: An ability for a company to continue with the same structure after the death of its founders.

indemnify: To hold legally harmless.

inducement: An offering made to persuade someone else to do something.

inferior jurisdiction: A court over which another court can hear an appeal.

intentional tort: A civil wrong that is intentionally inflicted as opposed to being a matter of mere negligence.

"judgment proof": An individual who, due to a lack of financial resources, will not have to pay a judgment rendered against him or her.

jurisdiction, personal: The authority of a court to hear cases brought to it by particular parties.

jurisdiction, subject-matter: The authority of a court to hear cases of a particular type or within a particular subject area.

key money: In Japan, nonrefundable money used to acquire the key to the apartment.

labor market discrimination: The act of treating some labor market participants worse than others for reasons having nothing to do with the ability to perform the actual job.

liability: The condition of being responsible for payment to rectify a civil wrong.

liability, strict: A requirement the tortfeasor pay the victim regardless of culpability or other mitigating factors.

limited liability: A financial limit on potential liability for the actions of a company that does not exceed the value of the shares that the person has in the company.

medical malpractice: Improper, negligent, or substandard care offered to a patient by a health care professional.

misrepresentation: Presentation of facts in such a manner as to induce another to sign a contract.

mistake, mutual: In contract law, an identical error made by both parties with respect to a material fact that, if known, would have caused the contract to not be made.

mistake, unilateral: In contract law, a mistake made at contract formation by one party with respect to a material fact that, if known, would have caused the contract to not be made.

negligence: Failure to exercise due caution.

negligence, comparative: A tort defense that reduces the damages ascribed to the tortfeasor based upon the relative negligent contribution of the victim to the injuries sustained.

negligence, contributory: A tort defense that bars recovery of damages ascribed to the tortfeasor based upon the idea that the victim's negligence caused, even if only partially, the injuries sustained.

opportunistic breach: A willful breach of a contract that aids the breaching party to the detriment of the nonbreaching party.

***pacta suet servanda*:** "Agreements must be kept"

patent: A monopoly grant that allows a company the exclusive right to sell an invention for which they hold the patent for a specified number of years.

per se rule: In antitrust law, those types of behaviors that are in and of themselves ("per se") considered antitrust violations.

police power: The power of the government to reasonably curtail liberties in order to protect the health, safety, lives, and property of the populace.

possession, adverse: The open and continuous occupation of the land owned by another private party with the intention of claiming it as one's own.

possession, constructive: The legal responsibility for a good that is not under physical control.

possession, involuntary: Possession of something you neither ordered nor wanted.

possession, unconscious: Possession of something without knowledge thereof.

precedent, binding: A legal opinion that must be followed by a court because it is issued by a court to which an appeal could be lodged.

precedent, nonbinding: A legal opinion that may be considered by a court because it is not issued by a court to which an appeal could be lodged.

property, abandoned: Property that the owner has deliberately left in a location not under his or her control and which he or she does not intend to retrieve.

property, intellectual: Creatively produced property, such as books, inventions, music, film, and other unique creations of the mind for which a monopoly grant is issued to the creator by the government.

property, lost: Property that cannot be found and that has neither been stolen nor deliberately placed in a location by the owner and then forgotten.

property, mislaid: Property that the owner has deliberately left in a location and then left it without realizing this mistake.

property, personal: Property that can be moved from location to location.

property, public: Property owned by the government.

property, real: Property that is fixed in location, such as land and buildings.

property rights: A collection of rights that represent what one can do with one's property, such as sell, rent, gift, develop, mortgage, etc.

public domain: Those creatively produced items that are no longer subject to copyright.

public interest: An undertaking that provides for the general welfare of the community or nation.

public nuisance: Something that generally interferes with the enjoyment by the public at large of their liberties.

public–private partnership: A type of legal entity that mixes public and private ownership and resources to accomplish something that is in the public interest.

public purpose: Something used to benefit the public at large, such as economic development.

public use: Something put to use by the government, such as a highway or a school.

***qui tam*:** A legal writ allowing an individual bringing an action to the government's attention to share in the penalty imposed by that government on a third party.

racial covenant: A requirement to sell only to a particular race or ethnicity or to not sell to a particular race or ethnicity as the case may be.

reasonable accommodation: An accommodation to allow someone to work, who would otherwise not be able to do so without causing them an undue hardship, that does not impose a severe financial penalty on the firm.

"redlining": The setting of prices, fees, or loan rates by insurance companies or lenders based upon geographic boundaries.

regulatory taking: The taking of value from a property owner by means of regulation.

remedy: A legal mechanism that allows a party to have his or her legal rights enforced or, in the case where they have been violated, to have them restored or compensated.

rent control: Government regulations that limit the amount that can be charged to a renter of a property.

required performance: A decision by the court requiring the person breaching the contract to fulfill the contract.

resale price maintenance: The requirement for a retailer to abide by a manufacturer's or distributor's pricing rules.

rescission of contract: A deliberate unwinding of a contract so that the two parties are back in the same position that they occupied before the contract was put in place.

rule of reason: In antitrust law, the rule of reason looks at certain types of behaviors to determine whether they are unreasonable restraints of trade or whether they serve some other reasonable purpose.

servicemark: A trademark used to denote a service brand.

sovereign immunity: The right of the government to not be sued for actions committed within its legal purview.

stare decisis: 'Let the decision stand" is the principle that courts should abide by prior decisions on a matter in other similar cases.

state of nature: That which would naturally occur in the absence of government.

statute of limitations: A limitation on the time available to bring forward a legal case.

subnational sabotage: Actions of a subnational government undertaken within their legal sphere of control that make it impossible or impractical for a national government to honor its treaty obligations.

tax, excise: A tax that is specific to a particular good or service and that may be levied either an ad valorem (value) basis or on a unitary (per item) basis.

tax fairness: The idea that similarly positioned individuals should be taxed similarly (called horizontal equity) while those who make more should be taxed more (vertical equity).

tort: A civil wrong that causes injury to another.

tortfeasor: The individual who instigates a tort.

trade secret: A commercial formula, design, invention, process, or information that is not generally known and that conveys an economic advantage over competitors.

trademark: A monopoly grant that allows a company the exclusive use of it as a brand or company identifier for as long as it is continuously used.

unconscionability, procedural: A legal argument that a contract should be rescinded based upon the fact that the conditions between the two parties during the initial formation of the contract were such that it placed the aggrieved party in a position whereby they were unfairly taken advantage of to an extent that no reasonable person would accept the contract.

unconscionability, substantive: A legal argument that one or more substantive parts of a contract are so objectionable that to enforce those provisions would be unfair.

undue influence: Using a position of power or authority over someone to cause them to do something they would not do under normal circumstances.

unlimited liability: The lack of a financial limit on potential liability for losses.

warranty of fitness: An implied guarantee that the product in question can be used for the specific purpose for which it is sold.

warranty of habitability: An implied guarantee that a property meets certain standards that afford it a reasonable living standard.

warranty of merchantability: An implied guarantee that the product in question can be used for the purpose for which it was made. It differs from warranty of fitness in that it is more general in scope. For example, a car that cannot tow another car even though the specifications suggest that it should be able to do so violates the warranty of fitness but if the car can still be driven it will meet the standard of the warranty of merchantability.

warranty of title: An implied guarantee that the seller has the legal right to sell the item in question.

zoning: Rules put in place by government that limit the types of uses of a property.

Notes

Chapter 1

1. For a thorough discussion of criminal law, see Madjd-Sadjadi (2013).
2. Wilkinson (2000, pp. 90–91).
3. Morschauser (1995).
4. Madjd-Sadjadi (2013, pp. 6–7).
5. Bane (2012, pp. 36–37).
6. Roensch (2007, p. 13).
7. Gee (2007, p. 117).
8. Hammurabi (1904).
9. For a thorough discussion of optimal punishment theory, see Madjd-Sadjadi (2013, pp. 168–171).
10. Merryman (1985, pp. 6–13).
11. Anderson (2009, p. 15).
12. Rhode (2004, p. 449).
13. *Frothingham v. Mellon*, 262 U.S. 447 (1923).
14. Meiners (2013, p. 261).
15. Kaplowitz (2003).
16. Posner (1998).
17. Priest (1977); Rubin (1977).
18. For a further elaboration of this point, see Block (2003).
19. Block (2003) does attempt to do so from a libertarian perspective. However, the libertarian perspective is a normative one that presupposes that liberty is somehow superior to other ideals such as fairness or equality.

Chapter 2

1. Locke (1821. pp. 209–210).
2. This is also similar to the reason why Iraq invaded Kuwait in 1990. Iraq was upset that Kuwait was drilling for oil in a vast oil field that lay mostly within the borders of Iraq. Iraq invaded because it had no legal case. When countries have the law on their side, they appeal to the law. When they have the facts on their side, they appeal to the facts. When they have neither on their side, they appeal to their militaries.
3. Martin (1883. p. 355).

4. Johnson (2012).
5. Reichman (2009).
6. Woolfolk, Castellan, and Brooks (1983).
7. Pilon (2015); Anspach (1998).
8. Lord Macaulay (1871, p. 613).

Chapter 3

1. *Hamer v. Sidway*, 124 N.Y. 538, 27 N.E. 256 (N.Y. 1891).
2. Akerloff (1970).
3. Richardson (2012).
4. New York Daily News (2014).
5. Richardson, *op. cit.*
6. Heath and Heath (2013, pp. 27–28).
7. *Hochster v. De La Tour,* 2 E&B 678 (1853).
8. *Palmer v. Connecticut Railway & Lighting Co.*, 311 U.S. 544 (1941).
9. Posner and Rosenfield (1977, p. 117).
10. *Ibid.*
11. Jack Benny Show, March 28, 1948.
12. *Stambovsky v. Ackley*, 169 A.D.2d 254 (N.Y. App. Div. 1991).
13. *Ibid.*
14. Terms and conditions that are not assented to directly by the consumer or made clear to the consumer in plain language prior to purchase may be thrown out by courts, especially if these are buried in the website in a manner that it is unlikely that the customer could find them even if they were looking. See Groebner (2004).

Chapter 4

1. *In re Eastern Transportation Co. (The T.J. Hooper)*, 60 F.2d 737 (2d Cir. 1932).
2. *U.S. v. Carroll Towing*, 159 F.2d 169 (2d Cir. 1947).
3. Feldman and Kim (2005).
4. See Benson (1995) for a discussion of when economic loss may be considered in tort cases.
5. See Wright (1985) for a more complete discussion of these issues.
6. Glovin (2014).
7. Landes and Posner (1987).
8. Cohen and Dehejia (2004).

Chapter 5

1. Lipsey and Lancaster (1956).
2. Zivney and Marcus (1989).
3. Dunnigan (1992, p. 159).
4. Costikyan (1996).
5. Moore (1983).
6. *Spectrum Sports, Inc. v. McQuillan* 506 U.S. 447 (1993).
7. *In re Debs*, 158 U.S. 564 (1895).
8. Williamson (1968).
9. Vickrey (1961).
10. *Koire v. Metro Car Wash*, 40 Cal 3d 24 (1985).

Chapter 6

1. For an in-depth discussion, see Ely, Jr. (2008).
2. Dr. Suess (1971, p. 61).
3. *Ibid.*, p. 23.
4. Smith (2008, p. 22).
5. Dr. Suess, *op. cit.*, p. 49.
6. Pigou (1920).
7. Coase (1960).
8. For a complete discussion, see Madjd-Sadjadi (2008).
9. Karagiannis and Madjd-Sadjadi (2007).
10. Stevenson and Wolfers (2006).
11. Lerner (1956).
12. Becker (1971).
13. That a single tax on land does not distort economic activity is because land is not something created but rather comes as a bountiful gift from the Earth itself. However, taxing *improvements* to land creates distortions and, since a tax on land would normally require a prohibitively high tax rate to pay for all modern government services, the proposal is something that has not been seriously contemplated by governments for more than a century. For a different perspective, see Arnott and Stiglitz (1979) who argue that, under certain conditions, the provision of public goods using funds raised by the single tax on land can actually raise land values sufficiently to make the single tax not only efficient but also sufficient for government needs.
14. Kopzuck and Slemrod (2003).
15. Hilman (2009, p. 260).

16. Karagiannis and Madjd-Sadjadi (2007).
17. Russell (2015).
18. Ingraham (2015).
19. Borcherding and Silberberg (1978).

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Dr. Madjd-Sadjadi has a BS degree in computer science and a BA in economics from Sonoma State University. He holds a PhD in political economy and public policy from the University of Southern California and is a former Occidental Petroleum Canada-United States Fulbright Scholar to the Institute for Intergovernmental Relations at Queen's University in Kingston, Ontario.

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