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Defining Our Subject

Regulation is a hot topic of conversation these days. The financial crisis of the last decade and the subsequent economic downturn have sparked all sorts of categorical statements on "regulation" generally. Progressives often blame the financial crisis on a lack of regulation; conservatives complain that excessive regulation has held back the economic recovery. All this talk suggests that one must be either "pro" or "anti" regulation.

Regulation, though, is no monolith. Some regulations are good. Some are bad. Governments overregulate in some areas, underregulate in others, and many times "misregulate" by imposing rules that do not really fit the problems they are ostensibly aimed at correcting. Surely we can do better.

Part of the problem is that the two groups most involved in crafting the substance of regulations – lawyers and economists – have blind spots. Lawyers, who typically write the rules governing private conduct, receive precious little training in policy analysis. Most lawyers study administrative law, the body of law governing the administrative agencies that set forth most complex regulations. But administrative law courses tend to focus almost exclusively on the process of regulating, not the substance of the rules being adopted. Accordingly, the lawyers tasked with writing rules are often in a poor position to assess the substantive merits of the rules they are writing and to consider alternative regulatory approaches.

Economists, who are trained in policy analysis, often augment the work of the lawyers drafting the rules. They regularly provide testimony and analysis to legislatures and regulatory bodies, and interest groups lobbying for or against rules frequently enlist them to provide intellectual support for a favored policy position. Academic economists, though, tend to have little exposure to regulatory, enforcement, and litigation processes. They do not have a good sense of how their textbook models may become corrupted in the regulatory process or for how imperfect (over- or under-) enforcement of a rule may occur, thwarting the rule's effectiveness.

This book aims to improve regulatory performance by providing some relevant economic education to the lawyers (and law students) who write (or will write) rules, and an understanding of the "limits of law" to the economists and other policy wonks who advise on the substance of regulations. Of course, anyone with an interest in regulation – and, given the prominent role regulation plays in all our lives, that should be a great many people – may benefit from the ideas set forth herein.

At the outset, we need to define our subject. It's easy to tick off examples of regulations – emission limits for coal-fired power plants, registration requirements for companies selling stock to the public, workplace safety rules – but what exactly *is* regulation? We know that it involves some sort of rule or order coupled with an "or else" – a sanction for noncompliance. But that is too broad a definition. We're constantly being subjected to threat-backed commands in contexts that don't seem to involve "regulation." Examples of a directive plus a threat of sanction for noncompliance would include:

1) your spouse telling you to pick up your dirty laundry or else he won't make the morning coffee;
2) your boss telling you to finish a report by Monday or else you'll get a bad review that will reduce your bonus;
3) your favorite ski mountain telling you not to ski too fast or else you'll lose your lift ticket;
4) the Securities and Exchange Commission (SEC) telling you not to share your spouse's confidential work information with your stock broker or else you'll be penalized for insider trading;
5) your state legislature telling you to buckle your seatbelt when driving or else you'll have to pay a ticket;
6) the Internal Revenue Service (IRS) telling you to pay your federal taxes or else you'll face fines and eventually jail time;
7) a court in your state telling you not to operate a smelly pig farm on your property or else you'll have to pay damages to your neighbors;
8) a federal court telling you not to agree with your business rivals on the prices you will charge for your products or else you'll have to pay three times the amount of the overcharge.

Each of these eight directives sets forth a behavioral norm and is backed by a threat of sanctions, but they don't all comport with our intuitive understanding of regulation. The first three, in particular, don't seem regulation-like. For one thing, they're not imposed upon you without your consent. You assent to be in a spousal relationship with certain norms of reciprocity, to obey

your boss's orders in exchange for a paycheck, and to follow the rules of a ski resort in exchange for the right to ride its lifts and ski down its slopes. Regulation, by contrast, tends to be imposed from the "top down," even absent the assent of the regulated. We might therefore think that imposition *regardless of assent* is an essential aspect of regulation.

But what about government-imposed rules governing professionals? Physicians, for example, choose to become doctors knowing that their right to practice medicine is conditioned on their compliance with certain state-imposed rules. They have in some sense "assented" to be governed by those rules and to suffer punishment for noncompliance, just as you assent to refrain from reckless skiing (and to suffer a punishment for noncompliance) when you purchase a lift ticket at your favorite ski mountain. Yet our intuitions, as well as common parlance, tell us that physicians are "regulated." An absence of assent, then, does not seem to be part of the essence of regulation.

Examples 1–3 above also share another feature: Your failure to comply with the directive cannot legitimately result in your being physically locked up. While your noncompliance may cause you to lose your morning coffee, annual bonus, or skiing privileges, the command-giver could not legitimately confine you because of your noncompliance with the directive or the assented-to penalty.[1] By contrast, you may legitimately be thrown in jail for insider trading (4); for repeated refusal to pay driving citations, taxes, or nuisance damages (5–7); or for price-fixing (8). This is because directives 4–8, unlike directives 1–3, are government-imposed rules, and the government is the only institution in society that may legitimately use physical coercion to enforce its directives. It possesses, as Max Weber famously put it, "a monopoly of the legitimate use of physical force within a given territory."[2] Our intuitions tell us, then, that for a directive to count as regulation, it must be government-imposed – i.e., it must ultimately be backed by a threat of legitimate physical force if the one being regulated flat-out refuses to comply.

The fact that force is a legitimate penalty for noncompliance is not sufficient, however, to turn a directive into a regulation – at least as defined for purposes of this book. Every governmental directive involves an explicit or implicit threat of legitimate physical coercion for noncompliance, but not

[1] With respect to example 3, one might respond that a speeding skier who loses his lift ticket and refuses to leave the ski area may legitimately be confined. But that is because remaining on the property after having been legitimately ordered to leave is itself a tort – trespass – not unlike the tort in example 6 (nuisance). It is failure to comply with a state-imposed tort duty that would create the right to confine the violator.

[2] Max Weber, *Politics as a Vocation*, in *From Max Weber: Essays in Sociology* 77, (eds. & trans. H. H. Gerth and C. Wright Mills, New York: Oxford University Press, 1958), 78.

every law or governmental command is a "regulation." To segregate those that qualify as regulations, we could focus on the source of the directive. Expert agencies such as the SEC, Environmental Protection Agency (EPA), and Federal Communications Commission (FCC) promulgate many regulations, so we might think that a regulation must come from an expert agency with an acronym. That would cover example 4 (the SEC's command not to misappropriate your spouse's confidential information in connection with a stock trade), but it would not cover example 5 (a state legislature's command to buckle your seatbelt when driving). Surely, though, the legislature is "regulating" citizens' driving behavior when it mandates seatbelt usage. It seems, then, that a regulation need not arise from within the alphabet soup of administrative agencies; some legislative directives should count.

Some, but not all. Legislatures pass laws to cover all sorts of matters. They may seek to police the conduct of individuals or businesses, to redistribute wealth from rich to poor or from disfavored to favored groups, to raise money for public goals (defense, a social safety net, etc.), to express official support or condemnation for a cause or behavior, or to accomplish some combination of these or other ends. Legislation need not be regulatory in nature.

A workable definition of regulation would be any threat-backed governmental directive aimed at fixing a defect in "private ordering" – the world that would exist if people did their own thing without government intervention beyond enforcing common law rights to person, property, and contract[3] – where the defect causes total social welfare (i.e., the aggregate welfare of all citizens) to be lower than it otherwise would be. Such a definition would count as regulation of the seatbelt mandate in example 5, but would exclude statutes aimed solely at raising revenue for the government (example 6), redistributing wealth, or expressing official favor or disfavor. It would include some judicial directives, such as the court ruling not to engage in naked price-fixing (example 8), but it would deem the traditional common law of torts, property, and contracts to be part of the scheme of private ordering and would therefore exclude judicial directives, such as example 7, that simply state the long-recognized background rules on rights to person, property, and contract.

[3] These "common law" rights are those that do not arise from statute, an express vote of a legislature, but have instead arisen as judges throughout the centuries have decided discrete disputes among individuals and have created a body of precedent that sets forth rights and duties. The common law rights that appear in the law of torts, property, and contract are so well established that they may well be deemed part of the private order. Indeed, many of the rights first appeared when judges were not public officials but were instead acting as private "law merchants" whom individuals would engage to settle disputes.

It is important to note a couple of things about this definition of regulation. Observe first that the precise source of a governmental directive is not determinative of whether it is a regulation. Regulation can come from any branch of the government – executive, legislative, or judicial (or, of course, from an independent administrative agency, such as the SEC, that may not fit cleanly within any of the branches).

Second, note that only those threat-backed governmental directives that are aimed *solely* at raising revenue, redistributing wealth, or some other objective besides correcting welfare-reducing defects in private ordering are excluded from the definition of regulation. Many governmental directives raise revenue, redistribute wealth, or express legislators' views *but also* seek to mitigate a wealth-reducing defect in private ordering (a "market failure"). A gasoline tax, for example, might raise revenue *and* attempt to correct for negative externalities – carbon emissions – associated with gasoline consumption. (As we'll see, such externalities may reduce overall social welfare, and are properly deemed defects in private ordering.) Similarly, a penalty for failure to carry health insurance may be aimed at raising revenue, redistributing wealth from the young and healthy to the older and sicker, *and* preventing adverse selection, a result of the market failure we'll consider in Chapter 8. Given that correction of a market failure is one – though not the only – apparent aim of both the gasoline tax and the penalty for failure to carry health insurance, laws or rules imposing such taxes or penalties would be considered regulation for purposes of this book. Most aspects of the basic federal income tax, by contrast, have only revenue-raising and redistribution aims and therefore would not be considered regulation.

One may wonder why the redistribution of wealth is not included as a "regulatory" objective. After all, an inequitable distribution of wealth might be deemed a defect in private ordering, the sort of thing regulation seeks to fix. Why limit regulation (for purposes of this book) to efforts to correct those private ordering defects that reduce overall social welfare?

There are several reasons for drawing the line like this. As an initial matter, observe that doing so in no way impugns redistributive efforts. To say that governmental directives aimed solely at redistribution are not regulatory is not to say that they are illegitimate or even ill-advised. This book takes no position on the propriety of redistributive governmental commands; it just wouldn't label them "regulation."

Limiting regulation to threat-backed governmental directives aimed at correcting private ordering defects *that reduce overall welfare* offers several practical benefits. For one thing, it helps maximize this book's appeal by focusing on the policy objective that commands the greatest overall support. Most people agree that private ordering defects that make society poorer are generally bad and

should be remedied if the cost of correction is less than the wealth saved. There is much less consensus on governmental efforts to pursue equality of end-states among citizens. Allowing creative and productive individuals to accumulate wealth creates a socially desirable incentive to be productive and creative, and, for that reason, many people think government should limit its redistributive efforts. Defining regulation as this book does allows us to focus on how the government should pursue a goal that nearly all people believe it should seek. Doing so also makes our inquiry – how to regulate? – much more manageable. If we deem equality of end-states a regulatory objective, then we must answer a nearly intractable question: How should policymakers trade-off an increase in equality against a decrease in overall social welfare? Limiting our inquiry to how to regulate *so as to maximize social welfare* saves us from having to compare incommensurable values (efficiency and equity). Finally, there is great benefit in knowing how to regulate to maximize welfare *even if* one chooses to pursue another objective. Policymakers who decide to implement a policy that furthers end-state equality at the expense of social welfare should at least have a sense of what they are sacrificing. They must decide whether it is better to command specific behaviors aimed at equalizing end-states or to regulate to maximize social welfare and then just engage in direct redistribution. This book could assist them with that inquiry.[4]

Once we define regulation as threat-backed governmental directives aimed at correcting private ordering defects that diminish total social welfare, four questions naturally arise. Three are obvious: (1) What are the well-recognized defects in private ordering?; (2) How do they diminish social welfare?; and (3) What tools are available for correcting them? The fourth arises as soon as one realizes that corrective efforts, like medical treatments, often have "side effects" that may overwhelm their benefits. Given that fact, we should ask (4) How might our corrective tools themselves decrease social welfare?

The bulk of this book focuses on these four questions. We will consider six conditions that may cause problems for private ordering, and we will examine how each may generate welfare-reducing outcomes. We will also catalogue the major tools available for addressing the various conditions and the potential maladies those tools may occasion.

Before we get to all that, though, we will set up an overarching model through which we may process our learning about private ordering defects, the social harms they cause, the available corrective tools, and their possible side effects.

[4] The book's conclusion revisits the trade-off between maximizing social welfare and achieving a more equal distribution of wealth. Readers who are put off by the efficiency focus announced here might wish to give the book's last few pages a quick read.

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The Overarching Model

Virtually every harm-causing human action creates some benefit for someone – usually the actor, at least. Some types of conduct, though, always or nearly always create more harm than benefit. Take, for example, battery – the intentional, offensive touching of another's body. Even if the batterer derives some perverse pleasure from punching his victim, we can confidently assume that his action causes a net harm because any fleeting pleasure the batterer experiences is likely to be outweighed by the physical and emotional pain experienced by the victim, her loved ones, and other potential victims whose anxiety increases with the prevalence of battery. This is not to say that the net harm occasioned by an instance of battery is what makes battery wrong; ethical theorists have long disputed whether and to what degree the morality of an action turns on its consequences, and we need not address that matter here. We need only recognize that some actions always or almost always occasion net reductions in human welfare. Within that group are intentional torts such as battery, assault, and false imprisonment, as well as most of the traditional crimes (murder, rape, larceny, etc.).

Other types of harm-causing human behavior, by contrast, may sometimes reduce but sometimes enhance net social welfare. Suppose a rancher delays mending a broken fence in order to upgrade his barn. If there is no rush on the barn improvements, they are of relatively low value, and the likelihood that escaped cattle will cause extensive damage to a neighbor is great, then the rancher's delay is probably a net "bad." By contrast, if an immediate barn improvement is necessary for the rancher to secure an otherwise unobtainable benefit, and if the likely harm to the neighbor from delayed fence-mending is minor because a cattle escape is improbable or the neighbor's property is of low value, then the rancher's conduct likely results in a net "good." Similarly, a singer who disappoints you by breaking her promise to sing at your wedding seems to have acted badly, but if the singer reneged

because she recently became a YouTube sensation and has been asked to perform at the Super Bowl halftime show, her promise-breaking likely enhances net social welfare.

The common law – the body of precedent that has emerged as judges over time have decided discrete cases – has long afforded different treatment to "always-bad" conduct such as battery and "mixed-bag" conduct such as negligence and promise-breaking. Because we need not worry about overdeterring always-bad conduct, the punishments for crimes are often, though certainly not always, more severe than the harms suffered by the victims. Similarly, courts frequently award punitive damages – money damages in excess of the monetary value of the victim's loss – for intentional torts such as battery. By contrast, if one causes harm by acting in a manner that is merely negligent (e.g., failure to repair a fence restraining cattle), he will be required to compensate any injured persons for their loss, but he won't have to pay punitive damages. And if a person breaches a contract, she will have to pay the breach victim only an amount that will leave him as well off as he would have been had the broken promise been kept. These rules prevent overdeterrence by preserving a person's incentive to act in a risky manner or to break a contractual promise if the likely benefit of doing so exceeds the cost the mixed-bag action is likely to create.

It is useful to consider the common law's disparate treatment of always-bad versus mixed-bag behavior for two reasons. First, doing so helps us see that most regulation, at least as defined in this book, addresses mixed-bag conduct. At the outset, we defined regulation to include directives aimed at correcting welfare-reducing defects in private ordering, and we stipulated that common law rules protecting persons and property are part of the scheme of private ordering. Since the common law of crimes and torts has long forbidden and imposed punishment for most forms of always-bad behavior, prohibitions on such behavior (including subsequent legislative codifications of common law rules, such as the larceny and rape provisions of state criminal codes) are beyond the ambit of this book. That implies that our focus will be on statutes, rules, and judicial decisions, adopted primarily in the twentieth century and beyond, that govern *mixed-bag* behavior.

A second reason for beginning with the common law's disparate treatment of always-bad versus mixed-bag conduct is that it highlights the central problem this book seeks to address: How should policymakers craft legal directives so as to prevent the bad aspects of mixed-bag behavior without simultaneously forbidding or discouraging the good aspects? Common law courts grappled with that issue in fashioning

remedies for wrongs. Always-bad conduct could be punished beyond making the victim whole (because there's little reason to worry about overdeterring such conduct), but for mixed-bag conduct, the defendant was typically required merely to compensate his victim for her loss (so future actors wouldn't be dissuaded from engaging in similar conduct when the harm from doing so, borne by the victim, was less than the benefit received by the actor). Because regulation tends to be explicitly forward-looking and often involves some detailed, prescriptive order rather than just a general obligation to pay if you cause harm, the need to avoid overdeterrence of mixed-bag conduct is particularly great in the regulatory context.

Consider a few examples of conduct subject to regulation:

- Hoping to raise money for her next project, a producer of documentary films sets up a website and sells interests in her next film's proceeds. Investors may read about the proposed project, view some of the documentarian's prior work, and make modest payments for small shares of the film's profits.
- A petroleum exploration company develops a new, seemingly cheap extraction technique. The technique involves shooting high-pressure vapor deep into the earth to dislodge trapped deposits of oil and natural gas. The spent vapor, accompanied by a good bit of subterranean material, is then exhausted from the ground.
- A dominant producer of computer microchips offers a 20 percent discount on all the chips a computer manufacturer buys from it as long as the manufacturer purchases at least 70 percent of its microchip requirements from the producer. The discounted price is above the producer's cost, so it could be matched by an equally efficient microchip producer. But if the "loyalty discount" succeeds in winning too many sales from the discounter's rivals, it might cause their scale of production to fall so much that their average cost per unit rises and they become less formidable competitors.

These examples have several things in common. In each, an adverse outcome is possible: investors could be duped into funneling money into an unsound project; air and groundwater contamination could occur; the market for microchips could become less competitive so that prices rise. Each example also involves (as we will discuss) a classic market failure – information asymmetry, an externality, market power. Given the potential adverse outcomes stemming from market failures (i.e., welfare-reducing defects in private ordering), each example is a prime target for regulation.

More pertinent to the discussion at hand, the three examples also involve the sort of mixed-bag behaviors that present a challenge to policymakers. In each case, failure to restrict the behavior at issue could allow a bad outcome, but imposing restrictions that are too strict could thwart arrangements that are, on net, socially beneficial. If anyone claiming to be a filmmaker (or other creator/entrepreneur) can set up a website and sell shares of future proceeds, all sorts of charlatans are likely to appear. And if that happens, legitimate creators and entrepreneurs may have a harder time raising money for their endeavors. At the same time, if the government were to impose an all-out ban on soliciting investors for projects-in-progress, many worthy projects might not be funded. The key is to select a policy that prevents the bad without thwarting the good.

The same goes for the second and third examples. With respect to the second, if the government were to allow use of the new extractive technology with no restrictions, environmental contamination would surely result. But if the government banned all underground injections aimed at extracting petroleum, the current North American energy boom, largely the result of hydraulic fracturing, would come to a quick end. With respect to the third example, if the microchip producer were given free rein to offer any discounts it wanted, it might squelch existing competition and prevent new competitors from getting established, thereby precluding consumer-friendly competition. But if the government restricts discounting too much, it may deprive consumers of the immediate "bird in the hand" of lower prices, even when the discount at issue doesn't really threaten the "bird in the bush" of market competition.

The point here is a simple but important one: Because regulation restricts mixed-bag behavior, it will always involve trade-offs. The $64,000 question is how policymakers should proceed to ensure that they strike those trade-offs in a manner that creates as much social welfare as possible.

THE ULTIMATE GOAL

The previous discussion showed that regulations may err in two directions. They may prohibit or dissuade conduct that should be allowed or encouraged, or they may fail to condemn activities that should be precluded. Economists refer to the former sort of error – inappropriate condemnation, a false positive – as a "Type I" error. The latter sort of error – inappropriate failure to condemn, a false negative – is a "Type II" error. The social losses from Type I and Type II errors, taken together, are "error costs." (To keep things simple, we'll refer to inappropriate condemnation of good behavior as a "false conviction" and inappropriate failure to condemn bad behavior as a "false acquittal.")