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Regulatory Theory

MATTHEW D. ADLER

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"Regulatory theory" is hardly a well-developed area of philosophical scholarship – by contrast with tort theory, contract theory, property theory, and criminal law theory, to give some examples of substantive legal domains that have attracted much attention from legal philosophers. A partial explanation for this under-development may be that providing an illuminating conceptual analysis of "regulation" is quite difficult. Further, the nonconsequentialist normative views that have been the core of tort, contract, property, and criminal law theory, and to which legal philosophers are generally sympathetic, may not prove very fruitful in thinking about rate-making for natural monopolies, the licensing of pharmaceuticals, or anti-pollution laws – paradigmatic examples of regulation.

However, outside philosophy, a substantial body of theoretical work concerning regulation has developed – despite the lack of a clear definition of "regulation." This work has been undertaken by economists and law-and-economists, and includes such topics as "market failure" rationales for regulation, the Coase theorem, the optimality of redistribution through the tax system rather than regulation, and the choice between alternative regulatory modalities, such as "command control" regulation versus tradeable permits. Debates about cost-benefit analysis and Kaldor-Hicks efficiency also should be mentioned, since these debates concern the criteria that regulatory bodies should use to evaluate possible regulations.

This chapter surveys a variety of matters concerning the justification for regulation and (if justified) its appropriate design. It draws upon the economic scholarship just described, but also attempts to connect the discussion to normative ethics and, more generally, to identify questions of philosophical interest. The chapter is a plausible blueprint for an as-yet-undeveloped jurisprudential field of "regulatory theory," rather than a survey of existing philosophical work.

The focus of the chapter is normative – more precisely, *morally* normative, focusing on the moral justification for regulation and on morally optimal legal responses.

A large literature in economics and political science, under the rubric of "positive political theory," seeks to describe and explain how governmental actors (including regulators) behave. Normative theorizing about regulation surely cannot ignore this literature. For example, whether externalities of some sort morally justify the creation of a regulatory body depends on the extent to which the body would be "captured" by

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industry and therefore fail to address the externality. Still, the attempt here is to delineate the range of issues that scholars concerned to determine when regulation is morally justified should address – which is different from delineating the range of issues that a scholar interested in *explaining* regulation should address.

What Is Regulation?

Defining "regulation" proves to be very difficult. Stephen Breyer states frankly at the beginning of his very influential book on *Regulation and Its Reform* that "no serious effort is made [in the book] to define 'regulation'" (Breyer, 1982, p. 7). Anthony Ogus commences *Regulation: Legal Form and Economic Theory* by conceding that "regulation" is "not a term of art, and unfortunately it has acquired a bewildering variety of meanings" (Ogus, 1994, p. 1).

Intuitively, the following are instances of regulation: directives limiting air pollution issued by an environmental protection agency; the licensure of pharmaceuticals by a food-and-drug agency; the setting of permissible rates for a firm that has a natural monopoly on the provision of some sort of good or service. Intuitively, the following are *not* instances of regulation: tort law; criminal law; contract law; public education; national defense; the income tax. (For surveys of different types of regulation, see Breyer, 1982; Ogus, 1994; Baldwin & Cave, 1999.)

We might try to define regulation as public rather than private law. Regulation occurs, we might say, when a public body issues directives and enforces them, rather than private parties seeking relief from courts – as with tort, contract, and property law. Yet criminal law consists of statutory prohibitions issued by a legislature and enforced by prosecutors. To be sure, the legal norms prohibiting crimes are typically issued by legislatures, not administrative agencies. But much of what is taken to be regulation is also issued by legislatures. For example, federal antipollution laws in the United States are a mix of regulations enacted by the Environmental Protection Agency, and statutory provisions – often highly detailed – enacted by the Congress.

Nor is it particularly successful to define regulation as "ex ante" control of private behavior – by contrast to the "ex post" imposition of damages for wrongful conduct by tort law. Regulatory directives can be just as open-ended as the "reasonable man" standard of tort law. This definition is also problematic in suggesting that regulation necessarily takes the form of duty-imposing norms. The directives issued by regulatory bodies can, in fact, create a wide range of Hohfeldian positions: duties, to be sure, but also liberties, powers, and so forth.[1] Consider governmental licensure of professional services or pharmaceuticals, which takes the form of a background prohibition on the performance of certain conduct, coupled with legal directives (licenses) granted to actors on a case-by-case basis and permitting them to engage in the conduct.

Finally, identifying regulation as law animated, or justified, by a certain kind of value or goal is problematic – because the whole thrust of the law-and-economics movement is that the very same goals (namely, Pareto-efficiency, or Kaldor-Hicks efficiency, or the maximization of a social welfare function) are as relevant to tort, contract, property and criminal law as they are to regulation. In particular, to define regulation as that

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body of law that should be evaluated with reference to consequentialist considerations, as distinct from those bodies of law that should be evaluated with reference to nonconsequentialist considerations, presupposes a kind of hybrid moral view – for example, a morality which instructs actors to maximize overall well-being within deontological constraints. Consequentialists, including law-and-economists, will not find this to be a useful definition, since they deny that morality includes deontological constraints or other nonconsequentialist elements.

This chapter will define regulation as nontax, noncriminal, public law: legal directives (of some sort) that are issued by governmental bodies; that are enforced by governmental bodies, rather than by private litigants; that are principally enforced through sanctions or incentives other than criminal penalties; and that are not taxes (more specifically, not taxes principally designed to raise revenue, such as the income tax). A legal directive can be general or addressed to a particular person, as in the case of a license or rate-making order. It can confer any kind of Hohfeldian position. Note that this definition excludes spending programs, insofar as they involve government's market purchases of goods and services – hiring teachers, for example – rather than the issuance of directives of any sort.

The definition is jury-rigged, meant to capture most of the cases commonly counted as regulation, and exclude most that are not. A better definition, like any good piece of conceptual analysis, would do that reasonably well, but would also illuminate the similarities between those items that fall within it.

How Should We Morally Evaluate Regulation? Welfarism; the Pareto Principle; Kaldor-Hicks Efficiency versus Social Welfare Functions

What are the appropriate moral criteria for evaluating regulation? Normative scholarship by economists has, almost invariably, been *consequentialist* and *welfarist*. What it means to be consequentialist has been thoroughly explored by philosophers. Roughly, a consequentialist conception of morality evaluates actions (including governmental actions, such as the issuance of regulatory directives) with reference to an agent-neutral ranking of outcomes. Welfarism is the species of consequentialism that sees well-being as the sole intrinsically morally relevant feature of outcomes. More precisely, if each person's well-being in outcome x is the same as her well-being in outcome y, then x and y are equally morally good outcomes. This is just what economists call the Pareto *indifference* principle. It is also just the same as saying that moral goodness supervenes on well-being: no difference in the moral ranking of outcomes without a well-being difference.

Welfare consequentialism, of course, is a controversial moral position. More specifically, traditional economic wisdom about regulation has been strongly criticized, and some of the criticism seems to involve a foundational criticism of welfare consequentialism – as illustrated by the heated debates about regulatory cost-benefit analysis, a technique favored by many economists but vigorously opposed by numerous

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legal scholars (Ackerman & Heinzerling, 2004; Adler & Posner, 2006). One strain here is civic republican. It has been suggested that cost-benefit analysis is problematic because it displaces citizen deliberation. Another strain is deontological. It has been suggested that cost-benefit analysis would license environmental, health and safety regulation that violates individuals' moral rights not to be put at risk of death or physical harm.

However, the perspective adopted in this chapter will be welfarist – not merely because of the author's own sympathies, but because plausible and reasonably comprehensive nonwelfarist normative accounts of regulation have not yet been developed with any rigor. By "comprehensive," I mean an account that enables us to evaluate the full range of regulatory interventions. A critical issue which deontologists have not yet satisfactorily resolved is to specify the deontological constraints governing risk-imposition – without which a deontological account of environmental, health and safety regulation (let alone regulation more generally) is a nonstarter. Civic republican views, by their nature, help us to evaluate the procedures for regulatory choice, but not the substance of regulation – since that is supposed to be a matter for citizen deliberation. But, we can then wonder, what moral criteria should citizens themselves bring to bear in evaluating regulations? And the only plausible, reasonably comprehensive, and rigorously developed answer to *that* question is welfarist.

Welfarists, necessarily, accept the Pareto indifference principle – but they also, almost without exception, accept the principle of Pareto-superiority. That principle says: If each individual is at least as well off in outcome x as she is in outcome y, and at least one individual is better off in x, then x is a better outcome than y.[2]

A key issue in welfarist theory has been developing criteria to rank "Pareto-noncomparable" outcomes. Outcomes x and y are Pareto-noncomparable if x is not equally good as y by virtue of Pareto-indifference, but neither is x Pareto superior to y, nor is y Pareto superior to x. Economists tend to assume that any morally attractive ranking of outcomes will be *complete*: all outcomes, including all pairs of Pareto-noncomparable outcomes, will be ranked as better, worse, or equally good. This assumption is problematic (as the literature on incommensurability shows),[3] but surely it is true that there are *some* pairs of Pareto-noncomparable outcomes, x and y, such that x is better than y. Imagine that in x one person gets a slight headache which she avoids in y, but in y millions die painful deaths which they avoid in x (Adler & Posner, 2006, pp. 24–61, 158–66).

Efforts to rank Pareto-noncomparable outcomes have proceeded in two directions. Many applied economists believe that outcomes should be ranked using the criterion of "Kaldor-Hicks" efficiency or "potential Pareto superiority." Outcome x is Kaldor-Hicks efficient relative to y if there is a hypothetical costless lump-sum transfer of resources, from those individuals who are better off in x than y, to those individuals who are worse off in x than y, which would make everyone at least as well off as in x as in y and at least one strictly better off. But it is deeply problematic to think that a Kaldor-Hicks efficient outcome is, as such, a morally better outcome. The Kaldor-Hicks criterion turns out to be vulnerable to "reversals" and intransitivities, hence not a good candidate for the betterness relation over outcomes (which is asymmetric and

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transitive).[4] Yet more fundamentally, it conflates potential with actual betterness. Let us call x' some outcome produced from x by combining x with a costless lump-sum transfer that makes everyone at least as well-off in x' as in y, and some strictly better off. Then x' is Pareto superior to y, hence better than y. But why does this show that x – which is a different outcome than x', and which is Pareto-noncomparable with y – is morally better than y (Boadway & Bruce, 1984, 96–102; Ng, 2004, pp. 47–64; Adler & Posner, 2006, pp. 9–24)?

A more attractive route to ranking Pareto-noncomparable outcomes involves "social welfare functions" (SWFs). (For a review of the SWF construct, with citations to the literature, see Adler, 2007, 2008, 2010; Adler & Sanchirico, 2006) This approach finds much favor in theoretical economics, and is used to some extent by applied economists too. The SWF framework use a utility function $u(.)$ to map a given outcome, x, onto a list or "vector" of utilities – representing the well-being of each individual in the population in that outcome. An SWF $s(u(.))$ then maps this vector onto a single number – such that $s(u(x)) > s(u(y))$ if and only if x is a better outcome than y. SWFs are invariably structured to rank a Pareto-superior outcome as better, and also to rank x as better, worse, or equal to y even though x and y are Pareto-noncomparable outcomes; but many questions can still be asked about their appropriate structure. In particular, one can ask whether the most attractive SWF is the utilitarian SWF (which simply adds up utilities), or whether the best SWF is "equality regarding" – and, if so, what precisely that means. Contemporary debates in moral philosophy about the nature of equality – between prioritarians, "sufficientists," and those who believe that equality concerns comparative fairness – have much relevance for the structuring of SWFs (Clayton & Williams, 2000; Crisp, 2003).

The SWF approach, unlike the Kaldor-Hicks approach, presupposes the possibility of interpersonal welfare comparisons. Again, the $u(.)$ function produces a list or "vector" of utility numbers for each outcome, one for each individual. It therefore produces an individual utility number for each individual in each outcome. These individual utility numbers represent, not merely whether a given individual is better off in one outcome than another, but also whether a given individual in some outcome is better off than a different individual in some outcome.

Economists who employ SWFs also adopt what might be called the "simple preference-satisfaction" account of well-being: Individual i is better off in outcome x than outcome y if and only if i prefers x to y. However, the SWF approach to welfarism is perfectly compatible with alternative accounts of well-being. A rich philosophical literature investigates the nature of well-being, with three distinct families of positions having substantial support: preference-satisfaction views; mental-state views; and objective-good views (Adler & Posner, 2006, pp. 28–39). The preference-satisfaction family consists of views which say that x is better for individual i than y if and only if i has the right sort of preference for x over y. The simple preference-satisfaction view is one variant of this first family of views, but not the only such variant.[5] Mental-state views of well-being say that x is better for i than y if and only if i's mental states in x are better in some stipulated way. Objective-good views say that x is better for i than y if and only if i realizes a better bundle of objective goods in x. All three families might allow for well-being to be interpersonally comparable and measurable by utilities that are, in turn, the input for an SWF.

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The Two Fundamental Theorems of Welfare Economics and the Market Failure Framework

Most normative scholarship about regulation uses a "market failure" framework: regulation is justified only if certain failures of a free market occur, with externalities, public goods, monopolies, and imperfect information seen as the paradigmatic failures (Breyer, 1982; Ogus, 1994; Mas-Colell, Whinston, & Green, 1995, pp. 307–510; Baldwin & Cave, 1999; Salanie, 2000). Why a perfectly functioning market should be seen to vitiate the case for regulation, and what exactly "market failures" consist in, can be understood with reference to the two "fundamental theorems" of welfare economics (Mas-Colell, Whinston, & Green, 1995, pp. 545–77).

The setting for the two fundamental theorems is an idealized economy. Each individual's well-being consists in the satisfaction of her preferences. Each individual is fully informed and fully rational, in the sense that she acts to maximize her preference-satisfaction. There are a variety of consumption goods. In each outcome or final "state" of the economy, an individual consumes one or another bundle of the goods, and her ranking of the outcomes depends solely on which bundle she consumes. The idealized economy also contains firms, each of which possesses some production technology, allowing it to transform combinations of goods or other productive factors into bundles of goods.

The economy starts with an initial total stock of goods and productive factors. An outcome – consisting of an allocation of a bundle of consumption goods to each individual – is "feasible" if the total stock of consumption goods in the outcome can be produced from the initial stock of goods and productive factors via some combination of the technological processes of the different firms. If an outcome x is feasible, and there is no feasible outcome y which is Pareto-superior to x, then – and only then – do we say that x lies on the "Pareto frontier" for the economy. In other words, the Pareto frontier consists of all feasible outcomes that are not Pareto-inferior to any feasible outcome.

In this set-up, a "free market equilibrium" consists of the following. Each individual is allocated some initial endowment, meaning some share of the initial stock of goods and productive factors, plus some ownership share in each firm. Given a set of possible prices for the goods and factors, it is assumed that each individual sells factors to the firms and sells and purchases consumption goods so as to maximize her preference satisfaction within her budget constraint (her budget being defined by her initial endowment and the prices), and each firm maximizes its profits. Individuals and firms act as "price takers": Each individual believes that the amount she buys or sells will not change the price of a good or factor, and ditto for each firm. A set of possible prices is "market clearing," an equilibrium, if the supply for each consumption good or factor at those prices equals the demand for that good or factor at those prices.

The first fundamental theorem shows that, given this idealized setup, together with very minimal assumptions about the structure of individual preferences and the production technology of the firms, every free market equilibrium produces an outcome that lies on the Pareto frontier. The second fundamental theorem shows that, given this setup plus somewhat stronger assumptions about the structure of individual

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preferences and the production technology of the firms, *every* outcome on the Pareto frontier corresponds to some free market equilibrium. For every such outcome x, there is *some* set of initial endowments[6] for the individuals, plus a set of market-clearing prices, that produces a free market equilibrium whereby individuals consume exactly the bundles comprising x.

It bears noting how these theorems relate to the SWF framework which – I have argued – represents the most attractive variant of welfarism. Any plausible SWF – be it the utilitarian SWF or an equality-regarding SWF – respects Pareto-superiority. Therefore, the outcome ranked as the best feasible outcome by the SWF will lie on the Pareto frontier. The SWF, like free market equilibria, leads us to the Pareto frontier.

The SWF will *never* say that some off-frontier outcome is the best feasible outcome. To be sure, the SWF will also choose among outcomes lying on the frontier. But this is where the second fundamental theorem comes into play. The second fundamental theorem says that, whichever outcome on the frontier the SWF may choose as best, that outcome can be reached as a free market equilibrium.

In short, given the premises of the two fundamental theorems, government can always produce the morally best outcome through a free market.

The premises of the fundamental theorems are, of course, counterfactual. Still, the theorems represent a useful idealization. By identifying different ways in which the premises of the fundamental theorems can fail to hold, we identify distinct grounds that might justify government in taking actions other than maintaining the conditions for market exchange, that is, protecting endowments of goods and factors and enforcing contracts. This is exactly what the "market failure" framework does. As we shall now see, the paradigmatic "failures" – externalities, public goods, monopolies, imperfect information – are just distinct ways in which the premises of the two fundamental theorems may fail.

Externalities

How should we analyze the concept of "externality"? The question is ripe for philosophical attention, given the importance of the concept to theorizing about regulation, and the variety of conflicting usages and definitions of "externality" in the existing literature. (For definitions of "externalities" and discussion of how they undermine the fundamental theorems, see Boadway & Bruce, 1984, pp. 110–17; Mas-Colell, Whinston, & Green, 1995, pp. 350–9; Ng, 2004, pp. 144–63; Salanie, 2000, pp. 89–105; Varian, 2006, pp. 626–48). Without purporting to survey that literature systematically, or to provide a nice conceptual analysis myself, let me suggest that two, quite different phenomena are often referred to as "externalities."

One such phenomenon concerns the logical or conceptual structure of individual well-being. Imagine that John's well-being depends, in part, on whether he is happy; and that Jim's well-being depends, in part, on whether John is happy. Then there is a kind of externality, here. By making himself happier, John enhances not only his own well-being, but Jim's.

To formalize a bit, let us say that the well-being of each individual i generates a ranking of the set of possible outcomes (for each pair of outcomes x and y, x is better, worse, or equal for i's well-being to y). From this ranking we can generate a set of

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i-relevant propositions[7], where each such *i*-relevant proposition consists of outcomes that are equally good for *i*, and outcomes belonging to distinct *i*-relevant propositions are not equally good for *i*. Then each individual's well-being is *logically independent* of every other individual's well-being just in case: for every *i* and *j*, the combination of every *i*-relevant proposition and every *j*-relevant proposition is logically possible.

In the Jim-John case, well-being is *not* logically independent in this sense. By contrast, imagine a case in which each individual's well-being supervenes on his mental states. Because, for any two individuals *i* and *j*, any specification of *i*'s mental state is logically compossible with any specification of *j*'s mental state, individual well-being *is* now independent.

One of the assumptions of the two fundamental theorems is that individual well-being is logically independent. Well-being consists in preference-satisfaction, and the degree of each individual's preference-satisfaction depends solely on which bundle of goods he consumes. Given different types of goods *a*, *b* ... *g*, any specification of *i*'s consumption of the goods is logically compossible with any specification of *j*'s consumption of the goods. To be sure, these joint specifications might not be *technologically* compossible in a particular economy, given the limited initial stock of goods and productive factors and the firms' production technologies. Scarcity and technical limits may make it physically infeasible to realize some joint specification of *i*'s consumption and *j*'s consumption. However, there is no conceptual or logical sense in which *i*'s satisfaction of his preferences frustrates or enhances *j*'s satisfaction of his preferences. (For examples of how the logical interdependence of individual well-being can undermine the fundamental welfare theorems, see Boadway & Bruce, 1984, pp. 112–17; Mas-Colell, Whinston, & Green, 1995, pp. 352–9.)

So much for the *first* sense of "externality": logical interdependence of the sources of well-being. But "externalities" in a second and distinct sense can arise even where the sources of well-being are independent. Imagine, once more, that each individual's well-being supervenes on his mental states. However, in pursuing his well-being or other goals, Fred has a causal impact on George's mental states, affecting George's well-being. More precisely, this causal impact is not mediated by the market system. If Fred makes George happy by selling George a widget, then Fred has caused an impact on George's mind via the market system. Economists would not call this an "externality" – or at least not the kind that amounts to a market failure. Rather, an "externality" possibly justifying regulation occurs if Fred physically collides with George and hurts him, or makes noises that annoy George.

Generalizing, an externality in the second sense occur when: some individual's or firm's activities have a causal impact (not mediated by the market) on some individual's well-being, or on some individual's or firm's stock of productive factors, or on some production process.

It is very plausible that the best theory of well-being allows for logical interdependency between the sources of individuals' well-being, and therefore gives rise to externalities in the first sense.[8] However, the externalities that motivate existing regulatory schemes[9] are typically externalities of the second sort. Consider environmental law: the standard example of an externality-targeting scheme. The externalities, here, are the physical effects of pollution: death, illness, property damage. A concern for such impacts is quite consistent with a theory of well-being where individual well-being is

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logically independent (e.g., the theory which says that well-being supervenes on mental states).

Why do externalities in the second sense amount to market failures? Let us return to the two fundamental theorems. Imagine a very simple case. There are three consumption goods, apples, bacon, and cheese, and two individuals, Nate and Owen. This is a pure exchange economy: there is an initial stock of apples, bacon, and cheese, with no possibility of producing more. Nate has an initial share of the three goods, as does Owen. Each cares only about his consumption of the three goods (so well-being is logically independent). The endowments of apples and bacon are perfectly protected by the state – for simplicity, in the strongest kind of way, by a force field. It is physically impossible for Nate to get at Owen's apples or bacon except by Owen's consent, and vice versa. However, the endowments of cheese are not protected by the state.

Owen is much stronger than Nate and will physically seize and consume Nate's cheese (nor has any way of committing not to do so). A market system is set up, whereby each individual can buy or sell his apples and bacon. Each individual does so, maximizing his preferences, and acting as a price-taker, on the assumption that Owen will consume all the cheese. Note that in this case, Owen's consumption of cheese involves an externality in the second sense: By consuming the cheese, Owen causes Nate not to consume cheese, and has this impact on Nate's well-being outside the market system – not by virtue of Nate' decision to buy or sell cheese to Owen. And it is clear that a system of market-clearing prices for apples and bacon will not, necessarily, produce an outcome on the Pareto frontier. Why? By hypothesis, the market equilibrium for apples and bacon will leave Owen with all the cheese. But (depending on the structure of the individuals' preferences) it could well be the case that it would be mutually beneficial for Owen to give some of his cheese to Nate in return for more apples and/or bacon than the market equilibrium leaves Owen.[10]

Public Goods and Monopoly Power

In the setup for the fundamental theorems, the sources of well-being are not merely independent, but they are also *rivalrous*. If some individual consumes a particular, token, consumption good, it is impossible for any other individual to consume that particular, token, good. Note that rivalrousness in this sense is *not* the same as the logical interdependence of well-being. Individuals care about which *types* and quantities of goods they consume, not which good-*tokens* they consume; and so any consumption bundle for any individual is logically compossible with any consumption bundle for any other individual. Note also that rivalrousness is not the same as externalities, although both have to do with the causal structure of the world. If Jim buys a particular, token, good from John, and consumes it, then Jim has affected John's well-being – by preventing John from consuming the token – but he has done so via the market system, with John's agreement.

Sorting out these distinctions, and generalizing to the case of nonconsumption goods, is an obvious task for philosophical analysis.

Public goods are nonrivalrous. The classic example is national defense. My "consumption" of a unit of national defense does not prevent your consuming that unit. If

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the air force sets up a missile defense system, reducing our risk of nuclear attack by some amount, then we jointly benefit from that reduction.

Nonrivalrous goods undermine the fundamental welfare theorems, which can be seen intuitively as follows: in paying a firm for the production of a unit of some nonrivalrous good, rather than some other good, I consider only the extent to which that unit advances my preferences. But (given nonrivalry) its production would benefit others as well (see Mas-Colell, Whinston, & Green, 1995, pp. 359–64; Salanie, 2000, pp. 67–88; Ng, 2004, pp. 164–86; Varian, 2006, pp. 670–93.)

Standard discussions see public goods as paradigmatic market failures, but do not emphasize regulation as the optimal response. Rather, scholars tend to think of state spending programs (defense, education, parks) as the normal mechanism by which the state provides public goods. However, there is often a public-good aspect to environmental, health, and safety regulation, in the following sense. Often, such regulation prohibits particular acts which (if left unregulated) would cause harm to multiple individuals. Consider the release of a toxin into a workplace, or water pollution, or the failure to build a safe building, airplane, or industrial plant. In such cases, the individual benefits from the nonperformance of the act are nonrivalrous. All the individuals who would have been harmed by the act jointly benefit when it is not performed. This means that an agreement between any one individual and the actor may not yield the optimal result: in considering how much reduction to bargain for,[11] the individual would simply consider his own benefit, not the collective benefit, while the actor simply would consider his cost of reduction.

Monopolies are yet another failure of the fundamental theorems. More generally, the failure here occurs when firms or individuals do not act as price-takers but determine how much to buy and sell with a view to influencing the price and, thereby, their profits or preference-satisfaction (Mas-Colell, Whinston, & Green, 1995, pp. 383–435).

Monopoly power is addressed, in part, through antitrust law. Given the definition of regulation offered earlier, antitrust law can be regulatory or nonregulatory – depending on whether legal enforcement is initiated by private actors or the states. In the United States, the federal government does have a role in enforcing the antitrust laws, but private individuals or firms can also sue a firm for a violation of the antitrust laws, and frequently do. (For a full discussion of antimonopoly regulation, see Viscusi, Harrington, & Vernon, 2005.)

So-called "natural monopoly" has, historically, been an important rationale for regulation. A "natural monopoly" occurs when production technology is such that it is cheaper to satisfy the demand for a good or service by concentrating production in a single firm; and where (relatedly) a system of competitive pricing, with multiple firms and marginal-cost pricing, would be unstable because the price for the good would be too low to cover the firms' costs. A clear example of a natural monopoly is the supply of electricity, water, and cable television to households. It is considerably cheaper to have a single network of electric wires, water pipes, or television cables providing these services to a given neighborhood, rather than multiple networks for multiple firms.

The standard regulatory response to natural monopoly is to permit the existence of a firm with monopoly power (and even to mandate one, by barring entry from other firms) but to regulate the monopolist's prices and terms of service. Such regulation is

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commonly known as "economic regulation." A significant trend, at least in the United States, has been to reduce the scope of "economic regulation" – both because of change in production technologies, and because of the realization that certain markets covered by "economic regulation" were not in fact natural monopolies. Airlines, interstate trucking, and railroads are important examples of previously regulated markets that are now deregulated (Viscusi, Harrington, & Vernon, 2005, pp. 362–8).

The Coase Theorem

Ronald Coase's hugely influential article, "The Problem of Social Cost" (1960), revolves around examples such as the following. (For a review of the literature on the Coase Theorem, see Medema & Zerbe, 2000.) A railroad's train emits sparks, causing $1000 in crop damage to fields along the tracks. Installing a spark-preventer would cost the railroad $750. The farmers can bargain with each other and the railroad, and can bring suit to enforce whatever legal entitlements they may have, at zero cost. If the railroad is liable for the crop damage, then it will install the preventer – since the costs of doing so are $750, while the costs of paying damages to the farmers for burned crops are $1000. Conversely, if the railroad is *not* legally liable for the crop damage, then the farmers and railroad will bargain to an agreement – whereby the railroad agrees to install the spark-preventer, in return for a payment from the farmers equaling some amount between $750 and $1000. In either event – regardless of whether the farmers are legally entitled to undamaged crops – the "efficient" outcome, namely installing the spark preventer, will result.

What exactly do these sorts of examples show? Coase never provided a formal statement or proof of his "theorem," and there are a variety of possible formulations of his insight. The "Coase Theorem" might be expressed as a proposition concerning Kaldor-Hicks efficiency. However, since Kaldor-Hicks efficiency is itself a dubious criterion for morally ranking outcomes, the Coase Theorem thus formulated would not be of moral significance. A better formulation is in terms of Pareto optimality. A given total stock of productive technologies and physical resources, existing in some society, defines a "feasible" set of outcomes: all outcomes that could be produced from those resources, using those technologies, if the physical resources and the outputs of productive processes could be costlessly reallocated between different holders, firms or individuals.[12] The Pareto frontier (again) consists of those, and only those, feasible outcomes that are not Pareto inferior to any feasible outcome.

The Coase Theorem can be understood as saying the following: If legal entitlements to the resources and technologies are clearly defined; and if individuals can costlessly enforce those entitlements and bargain to exchange them; and if individuals are perfectly informed and rationally maximize their preferences; and if the simple preference-satisfaction account of well-being holds true; then no outcome lying off the Pareto frontier will occur. If x lies off the Pareto frontier, then (by definition) there are some outcomes $y_1, y_2, \ldots$, such that: at least one individual is better off in y_i than in x; no individual is worse off in y_i than in x; and y_i can be produced from x *without expanding society's stock of physical resources or technological possibilities*, simply by shifting resources or outputs among individuals. Therefore, absent transaction costs, perfectly informed

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and preference-maximizing individuals would bargain their way away from x to some y_i.

The Coase Theorem is often discussed with reference to externalities, but it equally applies to public goods and monopolies. Imagine that, given a stock of physical resources, and an allocation of individual endowments to the resources, and a set of technological possibilities, a market-clearing set of competitive prices would produce some outcome x lying off the Pareto-frontier – in virtue of externalities or public goods. Then the logic of the Coase Theorem shows that, absent transaction costs, individuals would bargain away from x toward some outcome on the frontier. Similarly, absent transaction costs, monopoly power would never produce an outcome off the frontier.[13]

The Coase Theorem is a vital supplement to the two fundamental theorems, which helps to sharpen our sense of the nonideal conditions that justify regulation. The two fundamental theorems show that, given certain idealized assumptions, regulation is unnecessary to implement a SWF, since any point on the Pareto frontier can be reached via competitive markets plus some set of individual endowments. The Coase Theorem shows that, even if some of the idealized assumptions of the fundamental theorems fail – namely no externalities, public goods, or monopolies – a different kind of idealization, that is, zero transaction costs, will still ensure that outcomes lie on the frontier.

Of course, in reality, nonzero transaction costs may well frustrate the beneficial exchange of legal entitlements. There may be large numbers of parties involved, or the parties may engage in strategic behavior – to give two paradigmatic examples of "transaction costs." And, with nonzero transaction costs, the optimal state response to exernalities, public goods, or monopolies – whether in light of a utilitarian SWF or some equality-regarding SWF – may be some sort of regulatory intervention. Still, like the fundamental theorems themselves, the Coase Theorem is very important in facilitating normative deliberation about regulation. It both draws our attention to the level of transaction costs as part of the normative rationale for regulation; and invites us to consider whether the optimal response to market failures might be a clearer definition of legal entitlements and/or measures to facilitate the exchange of such entitlements, rather than more traditional command-and-control regulation.[14]

Information and Paternalism as Rationales for Regulation

Much contemporary regulation is targeted at potential harms to consumers or workers from market transactions – rather than at harms to third parties, at public goods, or at monopoly power. For lack of a better term, let us call this "first party" regulation. The licensure of pharmaceuticals and professional services; the regulation of foods, consumer products, and securities; and the regulation of workplaces are obvious examples of first-party regulation.

Is first-party regulation justifiable? To begin, let us keep in place the simple preference-satisfaction view of well-being traditionally held by economists. Even on this account of well-being, a system of competitive market prices may yield a suboptimal outcome if actors are imperfectly informed or imperfectly rational.

As already noted, the two fundamental welfare theorems presuppose (among their various idealizing premises) that all actors are fully informed and rational. Each

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consumer and each firm knows everything about the various consumption goods, productive factors, and productive technologies; consumers maximize their preferences; firms maximize their profits. Analyzing the effect of competitive markets when the assumptions of full information and rationality are relaxed raises a host of difficult issues, including difficult issues regarding the implementation of an SWF under conditions of uncertainty (Adler & Sanchirico, 2006). But, however these issues are resolved, it is clear that a system of competitive prices can *sometimes* produce a morally problematic outcome given uninformed or irrational actors. For example, imagine that a stock of resources can be used to produce 1000 widgets, yielding 5 units of utility for each consumer; or 1000 gizmos, each of which may malfunction, yielding 0 utility for the consumer if it malfunctions and 10 units if it functions well. Would-be gizmo consumers believe that the chance of a gizmo malfunctioning is .1; the regulator believes that the chance of a gizmo malfunctioning is .9. Then a system of competitive prices may well lead to the resources being used to produce the gizmos; but the regulator employing a utilitarian SWF (to use the simplest example) would conclude that shutting down the gizmo market, and using the resources for widgets instead, increases overall well-being.

Note also that imperfect information and irrationality vitiates, not just the two fundamental theorems, but the Coase Theorem as well. For example, assume that sparks from the railroad will cause $1000 in damage to the farmers' crops; that the railroad is not legally liable for the damage; that spark preventers cost $750; and that the farmers believe the damage will only be $300. Then the railroad will end up running its trains without the preventers – even though an outcome in which the railroad is paid $800 to install the preventers would, in fact, be Pareto superior to this outcome.

Indeed, economic scholarship recognizes imperfect information as a kind of market failure potentially justifying regulation, distinct from externalities, public goods, or monopoly power (Mas-Colell, Whinston, & Green, 1995, pp. 436–510; Varian, 2006, pp. 694–715).

One important question here concerns the optimal regulatory response given poor information or irrationality. Should the good or service be barred outright, or licensed, or alternatively, should producers be required to provide consumers or workers with information, for example, by placing informational labels on goods? Actual regulatory regimes employ both sorts of strategies, and the appropriate choice between them obviously depends on the sort of information at issue, the cost of providing it, the cost of debiasing individuals, and so forth.

A different, more philosophical, issue is whether first-party regulation is justifiable even absent poor information or irrationality. Economists tend to say "no," characterizing regulation of this sort as unwarranted paternalism. However, this response trades on a simple preference-satisfaction account of well-being. Once we shift to a different account of well-being – be it a modified preferentialist account, a mental-state account, or an objective good account – the possibility emerges that competitive markets and Coasean bargaining can fail to produce optimal outcomes quite apart from externalities, public goods, monopoly power, poor information, or irrationality.

Imagine that consumers, with full information and rationality, prefer gizmos to widgets; but widgets are actually welfare enhancing (e.g., because some kind of perfec-

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tionist, objective-good account of well-being is correct, and widgets are, in fact, more perfect for humans than gizmos). Then if the resource cost of producing gizmos and widgets is the same, a system of markets will yield gizmos; but producing widgets is actually better.

The extent to which the divergence between well-being and preference-satisfaction in fact justifies regulation is a topic that scholars in the "happiness" literature have begun to explore (Frey & Stutzer, 2002; Kahneman & Sugden, 2005; Layard, 2005). Note that individual *i*, with the fullest of information and rationality, can prefer outcome *x* to *y*, even though *i*'s mental states would be such that he is happier in *y*.

Regulatory Forms and Regulatory Choice Criteria

The discussion to this point has focused on the potential market-failure rationales for regulation: externalities, public goods, monopoly power, poor information and irrationality, the divergence between preference-satisfaction and well-being. However, the *modality* of regulation and *regulatory choice criteria* are also questions of normative interest, each of which has generated substantial scholarly literatures.

By *modality* of regulation, I mean different generic legal structures for responding to market failure (Breyer, 1982; Ogus, 1994; Freeman & Kolstad, 2007). One such structure consists of "command and control" regulation: namely, issuing legal directives prohibiting or requiring certain activities, described with a high degree of specificity and in terms of easily observable characteristics of activities. Another consists of "performance standards": issuing less specific legal directives, framed in terms of the consequences of activities. Others consist of licensure, regulatory taxes, and "tradable permits." To illustrate these differences using the example of pollution, imagine that factories of some sort produce a particular type of toxic air pollutant – a classic case of an externality. The legislature or environmental protection agency might respond to this externality by requiring the factories to implement certain specified technologies that remove toxins from emissions (command-and-control regulation); by requiring each factory to reduce the amount of the toxin in its emissions to a particular level, using whatever technologies it chooses (performance standards); by requiring each factory to have a license before emitting the toxin (licensure); by taxing each unit emitted, with the tax set at a level to reflect the external costs of the toxin (taxes); or by issuing a stock of permits, each allowing a certain amount of emission of the toxin, then allocating these permits to the factories and allowing the factories to exchange them, and requiring that no factory emit a toxin beyond the amount allowed by the permits it ends up holding (tradeable permits).

Yet a different type of regulatory modality, already noted in the discussion above of first-party regulation, is informational: firms may be allowed to sell products, conditional on their providing consumers various types of information; or, firms may be required to inform workers about the risks of certain workplace conditions.

The question of *regulatory choice criteria* is this. What are the optimal legal mechanisms for structuring the activities of regulatory bodies themselves? One such mechanism is statutory specificity: the legislature itself mandates some type of regulatory response to a market failure (be it command-and-control regulation, performance

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standards, tradeable permits, etc.), and outlines this response in a fairly specific way in a statute, which an agency is then instructed to implement. Another mechanism is delegation-plus-cost-benefit-analysis: a regulatory agency is delegated broad legal discretion to combat some type of market failure, and is instructed to use cost-benefit analysis to decide how to do so. Another mechanism, seemingly attractive given an equality-regarding SWF, is to delegate legal discretion to agencies, but instruct them to employ some non-cost-benefit procedure that is sensitive to equality considerations.

Two important and philosophically interesting points are relevant to the question of regulatory choice criteria. The first point is that the optimal legal structure for controlling regulatory choices, in light of a given SWF, certainly need *not* be a legal instruction to regulatory agencies to employ that very SWF. For example, a legal regime in which regulators are legally instructed to maximize overall well-being might not, itself, be the overall welfare-maximizing regime – given that regulators may make mistakes about what welfare-maximization requires, that they may end up pursuing their own interests rather than welfare-maximization, or that they may be "captured" by regulated parties (Adler & Posner, 2006, pp. 62–123).

A second point is that it may be morally optimal to require regulators to employ Kaldor-Hicks efficiency or the closely related criterion of cost-benefit analysis[15] in choosing between regulatory options even though the appropriate moral criterion for ranking outcomes is some utilitarian or equality-regarding SWF, *not* Kaldor-Hicks efficiency. This point has been pressed by Louis Kaplow and Steven Shavell in their work on the optimality of channeling distributive considerations through the income tax system (Kaplow & Shavell, 1994). Imagine that policy 1 is preferred by an equality-regarding SWF to policy 2, but policy 2 is Kaldor-Hicks efficient. Then – Kaplow and Shavell argue – there is some change to the income tax system which, implemented together with policy 2, is Pareto-superior to policy 1. Policy 2 plus the change to the tax system is therefore better than policy 1, in light of the SWF – since the SWF respects the Pareto principle.

The upshot of the argument is that even the legal system designer who adopts an equality-regarding SWF, and cares about distribution, should issue a legal instruction requiring non-tax bodies to ignore distributive considerations, and should make such considerations the sole province of the tax system. A similar line of argument shows that even the utilitarian system designer, who cares about overall well-being rather than Kaldor-Hicks efficiency, should issue a legal instruction requiring non-tax bodies to use a Kaldor-Hicks or cost-benefit criterion in choosing among policies.

The Kaplow-Shavell argument, which relies on some technical assumptions about the structure of individuals' preferences and the workings of the income tax system, cannot be reviewed in detail here. A substantial literature engages this argument and related work by other scholars (Sanchirico, 2001; Avraham, 2004; Johansson-Stenman, 2005). Whatever the ultimate cogency of the argument, it forces us to think clearly about the appropriate moral role of tax versus regulatory bodies in implementing a SWF and, more specifically, about whether it might be morally justified to require (some or all) regulatory bodies to choose their interventions with reference to Kaldor-Hicks efficiency, even though Kaldor-Hicks efficiency is not, itself, a basis for morally ranking outcomes.

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Notes

1 By "directive," then, I simply mean some kind of legal utterance that changes individuals' legal positions in some way.

2 An important point, relevant at various junctures later in the chapter, is that I define Pareto-indifference and -superiority in terms of well-being – which, on many accounts of well-being, is not the same as preference-satisfaction.

3 However, to simplify the presentation, in particular the discussion below of SWFs, the remainder of this chapter will assume that the moral ranking of outcomes is indeed complete, and that the ranking of outcomes for each individual's well-being is complete as well. This is done for presentational reasons; the substantive claims made here generalize to the more plausible case of incompleteness (see Adler, 2010).

4 If outcome x is better than y, then y is not better than x (asymmetry); and if x is better than y, which is better than z, then x is better than z (transitivity).

5 A different variant might say that x is better for i than y if and only if i has a self-interested preference for x over y (Adler and Posner, 2006, pp. 28–39).

6 Strictly, an endowment here may be a wealth endowment, not necessarily a set of goods and factors and ownership shares (see Mas-Colell, Whinston, & Green, 1995, pp. 548–58).

7 A standard view in philosophy, which I am drawing on here, is that propositions are sets of possible worlds.

8 In other words, the best theory is not a mental state theory, but is either some objective good or some preference-based theory. While mental state theories make well-being logically independent, many variants of objective good and preference-based theories do not.

9 This is at least true in the United States, with which the author is most familiar.

10 This example shows, not merely how externalities undermine the first fundamental theorem, but how they undermine the second as well. Presumably there are *some* outcomes on the Pareto frontier that have Nate consuming some cheese. Because Own will seize whatever cheese Nate has, none of these will be reached in a free market equilibrium.

11 Either in the case where the actor is entitled to perform the harmful activity, or the case where the actor is subject to liability, but litigation is costly, and the individual is considering settlement offers.

12 The resources and production technologies should be understood to include individuals' bodies and individuals' abilities to exert causal effects on the world through activity. The Coase Theorem applies, inter alia, to the question of optimizing harmful and beneficial physical impacts on individuals, and to optimizing the choice of individual activity.

13 In the case of natural monopoly, for example, setting a single price for the good or service will yield too much or too little production. But the monopolist and consumers would bargain to produce the good or service up to the point where marginal costs and benefits are equal, perhaps by agreeing to differential prices for different units of the good, or perhaps by agreeing to have the monopolist set a single price at the level where marginal cost and benefit are equal, together with a lump-sum subsidy from the consumers to the monopolist sufficient to allow it to make a profit.

14 See the discussion, below, of tradeable permits.

15 Although often taken to be identical, cost-benefit analysis and Kaldor-Hicks efficiency can diverge. See Boadway and Bruce, 1984, pp. 263–71. E1

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References

Ackerman, F., and Heinzerling, L. 2004. *Priceless: On Knowing the Price of Everything and the Value of Nothing*. New York: New Press.

Adler, M. D. 2007. Well-Being, Inequality and Time: The Time-Slice Problem and Its Policy Implications. *Scholarship at Penn Law*, Paper 169.

Adler, M. D. 2008. Risk Equity: A New Proposal. *Harvard Environmental Law Review* 32:1–47.

Adler, M. D. 2010. *Well-Being and Equity: A Framework for Policy Analysis*. Oxford: Oxford University Press (forthcoming).

Adler, M. D., and Posner, E. A. 2006. *New Foundations of Cost-Benefit Analysis*. Cambridge, MA: Harvard University Press.

Adler, M. D., and Sanchirico, C. W. 2006. Inequality and Uncertainty: Theory and Legal Applications. *University of Pennsylvania Law Review* 155:279–377.

Avraham, R. 2004. Revisiting the Roles of Legal Rules and Tax Rules in Income Redistribution: A Response to Kaplow & Shavell. *Iowa Law Review* 89:1125–1158.

Baldwin, R., and Cave, M. 1999. *Understanding Regulation: Theory, Strategy, and Practice*. Oxford: Oxford University Press.

Boadway, R., and Bruce, N. 1984. *Welfare Economics*. Oxford: Basil Blackwell.

Breyer, S. 1982. *Regulation and its Reform*. Cambridge, MA: Harvard University Press.

Clayton, M., and Williams, A., eds. 2000. *The Ideal of Equality*. Houndmills: MacMillan Press.

Coase, R. H. 1960. The Problem of Social Cost. *Journal of Law and Economics* 3:1–44.

Crisp, R. 2003. Equality, Priority, and Compassion. *Ethics* 113:745–763.

Freeman, J., and Kolstad, C. D., eds. 2007. *Moving to Markets in Environmental Regulation: Lessons from Twenty Years of Experience*. Oxford: Oxford University Press.

Frey, B. S., and Stutzer, A. 2002. *Happiness and Economics: How the Economy and Institutions Affect Human Well-Being*. Princeton, NJ: Princeton University Press.

Johansson-Stenman, O. 2005. Distributional Weights in Cost-Benefit Analysis – Should We Forget about Them? *Land Economics* 81:337–352.

Kahneman, D., and Sugden, R. 2005. Experienced Utility as a Standard of Policy Evaluation. *Environmental and Resource Economics* 32:161–181.

Kaplow, L., and Shavell, S. 1994. Why the Legal System Is Less Efficient Than Income Tax in Redistributing Income. *Journal of Legal Studies* 23:667–681.

Layard, R. 2005. *Happiness: Lessons from a New Science*. New York: Penguin Press.

Mas-Colell, A., Whinston, M. D., and Green, J. R. 1995. *Microeconomic Theory*. New York: Oxford University Press.

Medema, S. G., and Zerbe, R.O., Jr. 2000. The Coase Theorem. In *Encyclopedia of Law and Economics*, vol. 1: *The History and Methodology of Law and Economics*, eds. B. Bouckaert and G. De Geest, pp. 836–92. Cheltenham: Edward Elgar.

Ng, Y.-K. 2004. *Welfare Economics: Towards a More Complete Analysis*. Houdmills: Palgrave Macmillan.

Ogus, A. 1994. *Regulation: Legal Form and Economic Theory*. Oxford: Clarendon Press.

Salanie, B. 2000. *The Microeconomics of Market Failures*. Cambridge, MA: MIT Press.

Sanchirico, C. W. 2001. Deconstructing the New Efficiency Rationale. *Cornell Law Review* 86:1003.

Varian, H. R. 2006. *Intermediate Microeconomics: A Modern Approach*, 7th ed. New York: W. W. Norton.

Viscusi, W. K., Harrington, J. E., Jr., and Vernon, J. M. 2005. *Economics of Regulation and Antitrust*, 4th ed. Cambridge, MA: MIT Press.

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