

## Chapter 1

### The Unfulfilled Promise of the Regulatory Contract

In Summer 2003, a massive blackout left much of the Northeast and portions of the Midwest without electric power. The blackout affected an area extending from New York, Massachusetts, and New Jersey west to Michigan, and from Ohio north to Toronto and Ottawa, Ontario. Approximately 50 million customers were affected. The economic costs it imposed are staggering.<sup>1</sup> Media accounts were quick to blame the blackout on the deregulatory policies the electric power industry had embraced through the 1980's and 1990's.<sup>2</sup> Efforts to blame deregulation for the problem fail utterly to explain the mechanism by which deregulation might have contributed to the problem. To be sure, traditional regulation itself probably would have been unable to avoid the 2003 blackout. Indeed, for many Americans over the age of 45, the blackouts of 2003 were reminiscent of the blackouts of the 1965, which left millions in eight states in the Northeast without power for almost 24 hours, or the blackout of 1977 which plunged New York City into darkness and brought about violence in several communities.<sup>3</sup>

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<sup>1</sup> [http://www.electricity.doe.gov/2003\\_blackout.htm](http://www.electricity.doe.gov/2003_blackout.htm). Some estimated the costs of the 2003 blackout to be as high as \$5 billion. Nancy Gibbs, *Lights Out*, TIME MAGAZINE, Aug. 5, 2003, at 30.

<sup>2</sup> On one account, "The current industry-centered deregulation of the national power grid has created market-driven chaos, with electric bills skyrocketing as high as 300 percent in California while power systems become less and less reliable--all at a time when the shrinking cost of renewable energy should be providing lower costs and a more reliable system." Michael I. Niman, *Why the Lights Went Out*, THE HUMANIST, Nov. 1, 2003, at 4.

<sup>3</sup> For comparison between the 1965 blackout and the 2003 blackout, see John O. Sillin, *Why We Fell into the Heart of Darkness*, PUBLIC UTILITIES FORTNIGHTLY, Sept. 15, 2003, at 30. The analogy between the blackout of 1977 and the 2003 blackout is discussed in Goodman, 2003.

How, if at all, as deregulation failed? Has it made industries such as electric power better (cheaper, more reliable, etc.), or worse, for consumers, investors and firms? There is a conventional account of deregulation's weakness. As the conventional story goes, deregulation enhances competition between firms, sometimes – perhaps even frequently – leading to predatory market conduct that harms consumers (Kuttner, 1999). As much as deregulation in any other sector of the economy, this story could be told about electric power deregulation. In California's newly deregulated electric power market in the late 1990's, energy supply firms were able to manipulate supply and prices, seeking short-term gain at a cost to consumers and others (Weaver, 2004). Similarly, in deregulated wholesale power markets (structured primarily by federal as opposed to state regulators), private greed certainly contributed in part to a serious shortage in generation supply and transmission capacity, contributing to the blackouts that left New York City and much of the northeastern U.S. in the dark in Summer 2003.<sup>4</sup> On this account of deregulation's weakness, private greed is the core cause of failures in competitive markets.

This account is controversial. It may or may not have merit, but it is not the full story. Deregulated markets face another weakness, under-explored in the popular and academic press. Most economists believe that properly designed markets can curtail the negative impacts of greed in the competitive process. Yet changes to regulatory structure not only influence how private firms compete with each other in the unregulated sphere of the marketplace. They also affect how firms interact with the government in the

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<sup>4</sup> Matthew L. Wald, *A Question Still Unanswered: How Did the Blackout Happen?*, NEW YORK TIMES, May 10, 2004 (online edition) (quoting Robert Blohm, an electricity consultant questioning whether deregulation impaired reliability and caused the blackout to spread).

formulation and implementation of regulatory law. This firm-government interaction has serious consequences for the regulatory process and for regulatory law.

For example, failure of electric power deregulation in California was largely a consequence of ill-conceived government competition policies. Wholesale power supply markets, deregulated by the federal government in the 1990s, were driven by market conditions and were subject to market-based supply decisions by private firms and large price swings. Retail markets, on the other hand, were subject to a price cap imposed by California lawmakers. When wholesale prices skyrocketed, California utilities were prohibited from passing on prices to their customers and were forced to absorb monumental losses, leading to the bankruptcy of several key utilities in the state. No doubt, these policy decisions were influenced by strategic lobbying and other regulatory maneuvers on the part of private firms in the California lawmaking process – and this consequence could be as significant as, or even eclipse, private abuse of competitive markets.<sup>5</sup>

Likewise, the blackout in Summer 2003 left large portions of the Northeast and Midwest without power, but private behavior was certainly not the immediate reason the blackout spread from Ohio to New York and other states. The 2003 blackout may have been triggered by individual negligence (and perhaps even greed), but it was made far worse for areas like New York City due to both public and private failures to expand transmission – many of which have been influenced by private conduct in the political process – as much as in deregulation itself. As one author observes, “[e]lectricity consumption increased by 35 percent in the 1990s alone (and is twice the level of the

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<sup>5</sup> Accounts of California’s failed deregulatory scheme focuses on tensions, and gaps, between state and federal deregulatory policies (Rossi, 2002; Joskow, 2001).

early 1970s), with transmission carrying capacity increasing by only 10 percent.”<sup>6</sup>

Private utilities – owning both transmission, the natural monopoly network, and generation, which is competitive – frequently resist the expansion of transmission where it is not in the interest of their own profits, and the regulatory process has failed to create adequate incentives to expand this crucial network facility against the will of this strong private interest group. As electric power transmission illustrates, private behavior is not only relevant in the market sphere, but also for the regulatory process that implements the constitutive governance of deregulated markets.

Focus on firm-government interaction is not a new insight for regulatory lawyers and economists. Since public choice theory came into its own in the 1960’s, economists and political scientists have increasingly paid attention to how private firms interact with the government. Most applications, however, focuses attention on a specific moment of change – *e.g.*, a regulator’s decision to regulate or deregulate, the passage of a major piece of legislation, the repeal of previous regulatory approach – and much public choice theory is downright cynical about the ability of regulation to enhance social welfare. Apart from condemning capture of the regulator, the literature rarely focuses attention on the continuing and recurring interactions between private firms and the government in a deregulatory environment. However, since deregulation rarely entails the complete dismantling of government – the general literature on regulation defines deregulation broadly, as including restructuring initiatives that depend on government for some

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<sup>6</sup> John O. Sillin, *Why We Fell into the Heart of Darkness*, PUBLIC UTILITIES FORTNIGHTLY, Sept. 15, 2003, at 30, 34.

oversight (Hirsh, 1999: 271)<sup>7</sup> – such interactions regularly occur in the adoption and implementation of policies designed to enhance competition.

## **I. The Extremes of the Regulatory Contract in American Law**

Focus on the firm-government interactions can be made explicit by analogizing regulation to a contractual bargain. Imagining regulation as contract is hardly a new insight for regulatory law. Is it not unexplored terrain for law and economics or political science scholars. Indeed, the view of regulation as a type of contract has a long tradition in regulatory law, cutting across several regulatory eras. Yet the contractual concept is ignored in most legal treatise discussions of regulation, nor is it something that courts devote much attention to discussing in modern regulatory disputes. Perhaps this is because contract has always occupied space at the fringes of regulatory law. The extremes of the regulatory contract – what I will describe as the “express regulatory contract” and the “implied regulatory contract” – look to contract largely as a substantive theory of regulation. Despite their strong rhetoric, they have not held much sway in legal circles.

The extremes of regulatory contract are seeped in the history of American regulatory law. The classic Charles River Bridge case, decided in 1836, provided American courts one of the first opportunities to elaborate on the legal implications of the regulatory contract. The case rejected a claim that the proprietors of the Charles River Bridge were entitled to compensation by the Commonwealth of Massachusetts. The

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<sup>7</sup> Throughout, I follow this convention, using “deregulation” to refer to a variety of government competition policies regarding utility industries – e.g., lifting restrictions on entry and exit, mandating open access to networks, and unbundling vertically integrated services – few of which require complete dismantling of regulation even though with deregulation prices are no longer determined under traditional cost-of-service standards and may be left entirely to the market.

Charles River Bridge Proprietors were given a grant by the Commonwealth to operate a toll bridge, but the Commonwealth later approved a competitor, the Warren Bridge, which was obligated by law to become free once its proprietors had recouped their investment and a return. The Charles River Bridge lost three-quarters of its tolls as soon as the Warren Bridge opened for traffic (Hovenkamp, 1991: 111), and its proprietors sued to recover some of its losses. In the words of Chief Justice Taney, who wrote for majority rejecting the proprietors' claim for compensation, "in grants by the public, nothing passes by implication."<sup>8</sup> Since the Charles River Bridge charter did not contain a specific and express provision granting a monopoly that protected against competing bridges – let alone any provision that would have promised compensation if operation of the bridge were to become unprofitable – a breach of contracts claim against the Commonwealth could not be sustained.

Justice Taney's majority opinion reflects a view of the regulatory contract that has had an impact, if only subtle one, on regulatory law. In Justice Taney's view, a regulatory contract between a firm and the state is only enforceable to the extent its terms are expressly negotiated. This classical approach envisions courts enforcing regulatory contracts only where terms are clear – a judicial approach that reverberates in modern arguments that courts ought to limit contractual enforcement to plain meaning or ought to use "clear statement rules" in complex regulatory cases.<sup>9</sup> The main role of courts under the classical approach is to enforce clear statements in regulatory law, but beyond this Justice Story's regulatory contract does not envision much role for the judiciary in the

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<sup>8</sup> *The Proprietors of the Charles River Bridge v. The Proprietors of the Warren Bridge*, 36 U.S. 420, 465 (1837).

<sup>9</sup> For reference to this literature, see Eskridge & Frickey, 1992.

regulatory process. Indeed, the express regulatory contract approach gives enormous power to the state in the bargaining process, and leaves private firms without any remedy unless they have negotiated for express terms (Hovenkamp, 1991: 112).

In a famous dissent to the Charles River Bridge case, Justice Story invoked an alternative view – the “implied regulatory contract.” He used memories of the financial ruin of the Confederacy, and ensuing drafting of the U.S. Constitution, to lay down the premise for an alternative account of regulation. Justice Story wrote:

I maintain, that, upon the principles of common reason and legal interpretation, the present grant carries with it a necessary implication, that the legislature shall do no act to destroy or essentially to impair the franchise; that (as one of the learned judges of the state court expressed it) there is an implied agreement that the state will not grant another bridge between Boston and Charleston, so near as to draw away the custom from the old one; and (as another judge expressed it) that there is an implied agreement of the state to grant the undisturbed use of the bridge and its tolls, so far as respects any acts of its own, or any persons acting under its authority . . . .<sup>10</sup>

Consistent with this concept, in a concurrence, Justice McClean stated that there is no reason charters granted by the state “should not be construed by the same rule that governs contracts between individuals. . . .”<sup>11</sup>

While perhaps born of Justice Story’s dissent or Justice McClean’s concurrence, this “implied regulatory contract” has had staying power in American courts for over 150 years, although it too has largely operated on the fringes of regulatory law. In 1987, Kenneth Starr, then sitting as a judge on the U.S. Court of Appeals for the D.C. Circuit, wrote:

The utility business represents a compact of sorts: a monopoly on service in a particular geographic area (coupled with state conferred rights of eminent domain or condemnation) is granted by the utility in exchange for a regime of intensive

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<sup>10</sup> 36 U.S. at 646.

<sup>11</sup> Id. at 557 (McLean, J., concurring).

regulation, including price regulation, quite alien to the free market. Each party to the contract gets something in the bargain.<sup>12</sup>

The general notion of an implied regulatory contract is clearly an idea that has survived throughout many historical and political eras of economic regulation.

Those who invoke the idea of the regulatory contract are polarized around – and sometime oscillate between – the two extremes, which find their seed in the Charles River Bridge case. With deregulation, the regulatory contract takes on renewed importance in debates about the scope and nature of regulatory law, but its advocates still have not left their extremes in making contractual arguments. Writing in the 1990's, J. Gregory Sidak and Daniel F. Spulber invoked the regulatory contract as a premise to their account of the state's obligations in introducing competition to industries such as telecommunications and electric power. According to them, the regulatory contract between the firm and the regulator is comprised of reciprocal burdens and benefits:

The regulated utility submits to various regulatory restrictions including price regulations, quality-of-service requirements, and common carrier regulations. In return the regulated firm receives a protected franchise in its service territory, and its investors are allowed an opportunity to earn revenues subject to a rate-of-return constraint. Without the expectation of earning a competitive rate of return, investors would not be willing to commit funds for establishing and operating the utility . . . Once the utility invests these funds, the long depreciation schedules typical in electricity and telecommunications regulation credibly commit the utility to performing its obligations under the regulatory contract by denying it the opportunity to recover its capital before the end of its useful life. (Sidak & Spulber, 1997: 109)

Sidak and Spulber represent a modern application of the implied regulatory contract.

Their critics (Hovenkamp, 1999B; Chen, 1999; Rossi, 1998) stake out a view of the explicit regulatory contract, allowing regulators to changes the terms and conditions of the regulatory contract with little or no attention to the costs this may impose on

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<sup>12</sup> Jersey Central Power & Light v. FERC, 810 F.2d 1168, 1189 (D.C. Cir. 1987).

incumbent firms. On this account, courts only intervene to enforce a regulatory contract where the terms of the bargain are explicit.

Both views have attracted the attention of the leading jurists and legal theorists over the last two centuries. Yet neither view has really had much of an impact on regulatory law or its content in debates about regulation of deregulation; instead, the extremes represent advocacy positions that private incumbent firms (who tend to favor the implicit view) or government litigants and new entrants (who tend to favor the explicit view) embrace. In the debate over the transition to deregulation, for example, advocates of what is known as “deregulatory takings” support the agenda of incumbent utilities by embracing the implied regulatory contract (Sidak & Spulber, 1997). Legal and policy advocates for new entrants, by contrast, generally take an express regulatory contract position which allows government substantial discretion to change regulatory approach. Neither set of advocates holds out any hope of, or makes any attempt at, persuading the other.

As economists studying regulated industries have recognized, it is useful to analogize regulation to long-term bilateral contracts (Joskow & Schmalensee, 1983: 109-27; Goldberg, 1976). The contractual basis of regulation is fundamental to capital-intensive industries, such as telecommunications and electric power, more than other regulated activities. For these infrastructure industries, capital investments make up a large portion of the firm’s costs, and the firm is only able to pay for these investment over a sustained period of time, making contract a useful way of approaching the finance issue firms and regulators face (Gómez-Ibáñez, 2003: 8-11). In the realm of litigation,

however, discussion of the regulatory contract is polarized and only enters into serious discussions of regulatory law at its fringes.

## **II. The Limits of Legalistic Contracts**

Predominant accounts of utility regulation focus on three interrelated projects. Traditional progressive accounts view regulation as ensuring that private markets do not ignore the public interest (Mitnick, 1980; Posner, 1974). Neoclassical economic approaches view regulation as correcting for market failure in the interest of promoting economic efficiency or enhancing social welfare (Posner, 1974). Public choice theory focuses on the incentives and consequences of regulation (Mashaw, 1997; Farber & Frickey, 1991; Quirk, 1981). The more cynical strand of public choice embraces a “capture” thesis which cynically sees regulators as beholden to the powerful firms they are charged with regulating (Stigler, 1971). All of these approach emphasize the ends of regulation first, and pay attention to process only insofar as useful to achieving these ends.

More than ten years ago, George Priest argued that the project of two of the predominant accounts of the origins of regulation – “public interest” theory, which sees regulation as a solution to market failure, and “public choice” theory, a strand of which views agency regulators as operating under the dominant influence of (or “captured” by) the private firms subject to regulation – are misplaced. Rather than attempt to identify a singular theory of the origins of regulation, or of exogenous ends, Priest imagined a research agenda in which scholars make an effort “to understand the mechanics of a change in regulatory regime before deriving a theory of it” (Priest, 1992: 323). Implicit to this project is the recognition that theories of regulation place inordinate attention on

the substance of regulation. By contrast, a research agenda that focuses on mechanism of evolution and change in regulated industries asks a fundamentally different series of questions than conventional accounts.

The incomplete contracts account, which I draw on throughout this book, places more emphasis on such questions than conventional accounts of regulation, such as public interest or public choice theories of economic regulation. My point is not to dismiss ends – they are important – but to recognize that they are not necessarily prior or exogenous to the theory of regulation. Process can matter as much as ends. Rather than begin with externally generated ends, analysis of economic regulation might realize fresh insights from starting with process.

To take an example, regulation as contract is not a new insight for regulatory law, although most discussion of regulatory contracts assumes that the terms of the contract are complete, or ignores the implications of incompleteness for the regulatory process. The contract, and the regulatory ends it reflects, is assumed to exist independent of the mechanism for regulatory enforcement. For example, Sidak and Spulber take Priest's invitation seriously to observe that regulation might be analogized to a "contract," which they interpret in a legalistic manner to rely on third party enforcement (typically courts) to deter or compensate renegotiation (Sidak & Spulber, 1997). This approach leads to numerous recommendations for regulatory law, most of which rely on judicial enforcement. Most prominently, Sidak and Spulber argue that courts have a primary role to play in enforcing regulatory commitments, under both contract law principles and the Takings Clause of the U.S. Constitution.

Yet simple analogies between regulation and contract also can lead to misleading explanatory and normative suggestions. For instance, as Daniel Cole observes, regardless of whether a contract exists, the practical obligations and remedies contract law would afford do not give rise to meritorious claims for compensation for industry transitions, such as a decision to deregulate (Cole, 2003). Debates over judicial enforcement of regulatory contracts fail to confront that regulatory history is often partial or incomplete, presenting complex contract interpretation issues. As regulatory lawyers are well aware, contracts are frequently renegotiated in the regulatory process. If these realities with incompleteness in the regulatory contract are acknowledged, courts and other institutions of government might take on a very different role than that suggested by traditional accounts of regulation as contract.

In the legal literature, it is commonly acknowledged that deregulation of industries such as telecommunications and electric power poses a fundamental challenge to theories of regulation and doctrines of regulatory law (Kearney & Merrill, 1996). Yet scholars of regulatory law have failed to fully engage Priest's invitation in this context either. We have yet to completely explore the implications of the regulatory contract for the regulatory process and for deregulated industries. A regulatory law that draws from literatures on incomplete contracts and institutional governance would ask different questions – and generates different conclusions for regulatory law – than conventional analogies between regulation and judicially-enforced, or legalistic, contracts.

There are some obvious reasons that the regulatory contract has had a propensity to serve as a mobilizing concept for advocates in regulatory law and policy debates, rather than as a primary organizing principle for theories of regulation. The account of

regulation as contract challenges us to provide a more complete history of regulation and the process of its enactment -- a project law and economic scholars have largely shunned in exchange for the pursuit of a grand theory of regulation's ends rather than its process. An emphasis on the contractual nature of regulation provides important insights for understanding the legal rights and obligations of regulation itself, but regulation is not explicitly approached by firms or the government as a negotiation or contract. Too, over-emphasizing the legalistic nature of the contractual basis of regulation presents many problems and pitfalls. It can lead to misguided explanatory and normative suggestions for regulatory law.

The major operational challenge presented by any contractual account of regulation is interpreting the contract (Cole, 2003). A contract's terms rarely detailed and complete, as the express regulatory contract approach would require in order for the concept to have any use. Often the parties to the regulatory contract dispute its meaning, particularly where exigencies are many and complex. At its best, the regulatory contract represents a long-term contract with poorly-specified terms – what the legal literature has recognized as a “relational contract” (Macneil, 1978). If we are to take contract seriously as a substantive theory of regulation, some interpretive creativity is thus necessary.<sup>13</sup>

An empirical history of events in the process of contracting is perhaps the least controversial of these interpretive tools, and thus it should come as no surprise that

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<sup>13</sup> Elsewhere in political and legal theory, scholars have looked to the social contract as a way of understanding the substantive rights and obligations of the state and citizens across a variety of different contexts. While normatively appealing to the extent that respect for private choice is valued (Goodin, 1982: 73-75), such accounts are challenged to provide an interpretive tool to complete the contract on which they purport to base coercive actions by the state. Is the contract based on an empirical account of history? Or an empirical account of current preferences? Or, like the Rawlsian theory of justice, is it based on a set of philosophical assumptions regarding citizenship and the state?

advocates of the contract approach to regulatory law explicitly base their accounts of regulatory commitment on history. But this hardly ends the search for interpretive guides in completing the contract. For instance, in developing rate regulation, did regulatory authorities promise to compensate utilities for all approved investments, however obsolete they may become in the future, or did authorities retain some discretion to relieve consumers from paying for obsolete technology and allow them to benefit for new innovations? As the extreme in the regulatory contract debate present, there are two sides to this story. While the contractual account challenges us to complete the history, it often fails to provide a determinate account which can complete the terms of the contract. Just as social contract theory cannot generate a determinate account of issues such as affirmative action and fair housing, so too does the regulatory contract fail to generate a determinate account of the regulated firm's rights and obligations.

A further problem with the legalistic account of regulation, particularly as it is articulated by many courts and legal commentators, is that it assumes that rights and obligations are static and fixed over time. In fact, the relationship between regulators and firms in industries such as electric power, natural gas and telecommunications is highly complex and dynamic. As Priest recognized, municipal franchises, which resemble legally-enforceable contracts, are subject to regular renegotiation and reissuance (Priest, 1992: 311). The problem of renegotiation challenges any effort to fully articulate the rights and obligations of the parties to the regulatory contract at any given time.

A final fault of the legalistic contract model, particularly as embraced by modern commentators such as Sidak and Spulber, is that it assumes that courts are the primary institutional enforcer of the regulatory contract. This invites a type of judicial arrogance

in completing the terms of the contract; judges, perhaps juries, become the final arbiters of empirical history in filling in the contract's gaps. To the extent the regulatory contract embraces certainty as one of its virtues, courts are unlikely institutions to provide it. Further, courts often have nothing to do with how a contract's terms are enforced, if at all. The parties to the contract – private firms or a regulatory agency -- or a legislature will often play as much of a role in working out a regulatory contract as will courts.

### **III. The Law and Economics of Incomplete Contracts**

The legalistic contract model of contract enforcement places enormous emphasis on the commitment represented by the regulatory contract, along with third party enforcement of this commitment by courts.<sup>14</sup> This quest for substantive contractual completeness has the advantage of reducing the transaction costs of the political process, but it also misses some important aspects of the contracting process. Over the last twenty years an alternative account of contractual obligations – what is often referred to as “incomplete contracts” – has emerged in the law and economics literature. Instead of focusing on whether courts should limit their enforcement to express or implied contractual terms, an incomplete contracts informed account of regulation can provide a fresh way of returning contracting to the core of debates about regulation and deregulation.<sup>15</sup>

Early law and economics scholars, such as Ronald Coase, recognized the importance of transactions costs in framing discussion of organizational form (Coase,

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<sup>14</sup> Third party enforcement of the commitment by courts does not mean that every bargain, or even most bargains, will be litigated in court. As is suggested in Chapter 2, with iterated bargains between a firm and regulator, firms may look to the regulator as much as courts for relief from undesirable terms – much as private firms in ongoing commercial relationships rely on self-enforcement mechanisms.

<sup>15</sup> For an application of this framework to regulated industries, see Gómez-Ibáñez, 2003.

1937) and legal rules (Coase, 1960). Few debates in law and economics stray far from issues raised in Ronald Coase's two seminal works, "The Problem of Social Cost" (Coase, 1960) and "The Nature of the Firm" (Coase, 1937). While "The Problem of Social Cost" dominates many modern discussions of legal rules, the impact of Coase's earlier work, "The Nature of the Firm," is equally important. Coase set out to explain why the private firm emerges at all in a market economy. The main reason the firm emerges, according to Coase, is that there is a cost to external exchange using the price mechanism of the market. Taking inspiration from Coase, law and economics scholars have systematically favored discussions of private law – corporations, torts, contracts – over larger-scale legal problems, such as the nature and scope of public law and the processes which lead to its enactment. Within the context of these discussions, the incomplete contracts framework – viewing legal rules as a response to incompleteness in contractual bargaining -- is an undeniably important theoretical development in the law and economics of corporations and contracts.

A second set of framework tools for evaluating incompleteness in contracting comes from decision theory. Herbert Simon, an early decision theorist, tempered traditional assumptions of self-interest with the notion of bounded rationality: that actors are "*intendedly* rational, but only *limitedly* so" (Simon, 1961, p. xxiv, emphasis in original). If human rationality is bounded, it is impossible to know every possible state of affairs at the time of contracting. Under circumstances where there are substantial transactions costs or where rationality is bounded, comprehensive bargaining – in design of the firm's organization and in its private and public governance – is not feasible.

Drawing on this insight, in the 1970's Oliver Williamson sketched a transactional framework for a new approach to industrial organization. Williamson's transactional cost framework acknowledges the relational nature of the enterprise of contracting while also recognizing the comparative institutional task of assessing transaction costs in the contracting process. For Williamson, markets – an endless cycle of private transactions – and hierarchies are the two main institutional options for facilitating the integrity of a transaction (Williamson, 1975). Williamson recognizes that transaction-specific governance rules would be likely to be more developed in contexts in which transactions are recurrent, entail idiosyncratic investment, and are executed under greater uncertainty (Williamson, 1979).

Within the economics literature, the incomplete contracts framework has been most rigorously, if not exhaustively, applied to the economics of the firm. Oliver Hart has looked to incomplete contracts – that there are transactions costs to writing contracts – to explain how residual rights of control over the corporation are related to its ownership (Hart 1988; Hart 1995). Hart's approach emphasizes how renegotiation is almost endemic to most intra-firm transactions, let alone inter-firm and firm-government transactions. In other words, the incomplete contracts model is based on the assumption that, due to limited knowledge about future states of affairs, the parties to the contract cannot commit not to renegotiate the contract in the future (Hart & Moore 1998).

In addition to recognizing the importance of renegotiation and its implications for the firm, the incomplete contracts literature has made two other important contributions that this book applies to the project of regulatory law: it puts an emphasis on

comparative institutional questions, and by focusing on reasons for incompleteness is pays attention to reciprocity and incentives in the contracting process.

To varying degrees, scholars using the incomplete contracts approach have emphasized the comparative institutional aspects of governance decisions. Oliver Williamson, for example, draws on incomplete contracts to address the “mechanisms of governance” – the institutional arrangements within which contracting occurs (Williamson, 1996). Williamson warns against placing exaggerated emphasis on judicially-enforced ordering. This effort converges with the contributions of other legal theorists, who eschew an approach to legal analysis that is focused on a single decisionmaking institution (Komesar, 2001).

In addition, the law and economics of “default” rules for contracts and corporations highlights the relevance of reciprocity and incentives to the incomplete contracts account of regulation. Where the contracting parties are in a truly reciprocal relationship – each possessing equal access to information – the incomplete contracts literature says little about how to address the problem of incompleteness, if it is a problem at all. In a nonreciprocal situation – where there is an asymmetry of information – incompleteness presents a more substantial problem for both contract law and the theory of the firm.<sup>16</sup> Incompleteness may exist for benign reasons, but it may also exist due to strategic behavior, such as one contracting party’s nondisclosure or preservation of discretion to act in the future. In their effort to devise optimal rules for information disclosure at the time of contracting, Ian Ayres and Robert Gertner illustrate the

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<sup>16</sup> The problems presented for corporate organization and contract law differ. In contrast to the Hart/Williamson approach to incompleteness, which emphasizes how incompleteness influences ex ante incentives to invest in firm-specific capital, Ayres and Gertner focus on how incompleteness influences ex ante incentives to reveal information.

connection between information asymmetry and ex ante incentives (Ayres & Gertner, 1992). The legal literature focuses predominantly on “gap filling,” but the incomplete contracts literature also advances other insights, such as emphasizing the effect of ex post incompleteness on ex ante incentives. As Eric Posner has observed, the literature reveals a tension between efficient trade and efficient relationship-specific investments (Posner, 2003). In the parlance of regulatory law, there is a tension between efficient levels of participation in the regulatory process and efficient investment; parties to the regulatory process may overinvest if the law protects commitment at all costs.

#### **IV. Looking at Regulatory Law Through the Lens of Incompleteness**

When looked at as a whole, the incomplete contracts literature presents three main themes that are of fundamental importance to any account of regulation as contract. First, as Hart’s work illustrates, incomplete contracts recognize that parties to a contract cannot commit not to renegotiate the contract in the future. Second, as Williamson’s work emphasizes, assessment of the contracting process must take place in a comparative institutional context. Third, as the law and economics of contracts has increasingly noted, the reasons for incompleteness matters. Reciprocity and incentives are key variables in any analysis of incompleteness in regulatory law. An account of regulation as incomplete contract acknowledges how commitment relates to incentives for investment and influences ex ante behavior in the bargaining process.

An incomplete contracts account of regulation – which takes a neutral position towards contracts renegotiation – also reveals how deregulation creates new opportunities for opportunistic private behavior vis-à-vis the government in the deregulatory environment. Put simply, if it is acknowledged that regulation is subject to constant

renegotiation, at any point in time regulation is likely to be incomplete. Its terms will not be fully specified, particularly in ways that a third party – *i.e.*, a court – might enforce by looking to the bargain itself. Courts will need to look outside of the regulatory bargain for advice about gap filling terms. One solution to regulatory incompleteness is for regulators or courts to fill in the terms of the bargain with efficient or fair substantive default terms,<sup>17</sup> as courts historically have looked to fairness and efficiency in attempting to complete the express or implied regulatory bargain. Contract law scholars look to “majoritarian” default rules for incomplete bargains as gap filling measure that mimic what most participants in the regulatory system – consumers, firms, etc. – would prefer (Posner, 2003: 839). Majoritarian default rules have the advantage of reducing transaction costs in the bargaining process; if parties expect courts to fill in the gap with the term they would likely select, there is little need to bargain over this term. Courts could readily accomplish this goal by choosing a gap filling term that is expected to produce efficient results in most cases. In this sense, majoritarian default rules may converge with efficient terms, although the efficient term may be case-specific specific whereas the majoritarian term applies across a general class of similar cases (Posner, 2003: 840).

At the same time, it is important to recognize that the ex ante incentives for private firms in the regulatory process (defined broadly, to include courts and the legislature, as well as federal and state agencies) have ex post consequences for social welfare. Looking to incomplete contracts can provide a counter-juxtaposition to other

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<sup>17</sup> “Default” rules – gap filling measures which parties can contract around – are frequently contrasted with “mandatory” rules, which parties generally may not voluntarily waive within the legal system.

accounts of regulatory law, which frown on renegotiation, downplay the role of the political process and largely ignore ex ante incentives. Judicially-applied doctrines of constitutional, regulatory and administrative law shape these interactions, but little serious attention has been paid to their role in the deregulatory environment.

Deregulation provides an opportunity to evaluate the relevance of firm-government interaction to these doctrines in the new regulatory environment facing traditionally regulated industries. The optimal default rule may well diverge from the majoritarian defaults when incentive effects are taken into account. Sometimes, it may even be appropriate for a regulator or court to impose a “penalty” default: selecting a term that one or more parties to a bargain – perhaps even a majority – may not necessarily prefer in order to improve the bargaining process (Posner, 2003: 839). Law and economics scholars see penalty defaults as desirable for two reasons. First, they discourage the parties to a bargain from externalizing the costs of enforcement on courts. Second, they discourage parties from opportunistically withholding information from each other and from enforcement parties. How often and under what circumstances non-majoritarian defaults, such as penalty default rules, should be invoked by courts in the context of regulatory law is the primary subject of this book.

Extension of the insights from incomplete contracts to regulation and the regulatory process provides several new research insights for regulatory law and has particularly important -- but under-examined -- implications for deregulated industries. An incomplete contracts approach recognizes that regulation is the beginning, not the end, of an inquiry into legal ordering. It also concedes that regulation is never exhaustive – nor should it be, as there is an optimal amount of specificity to rules and at some level

precision comes at a serious cost to regulatory flexibility (Gómez-Ibáñez, 2003: 15-17; Diver, 1983: 103; Goodin, 1982: 59-72). By contrast, the traditional regulatory contract approach frowns on renegotiation and, by given contract a legalistic status, invites a type of judicial arrogance; it empowers courts to revise history, filling in gaps with terms that may or may not reflect what was actually promised, often based on a narrow definition of efficiency.

Unlike legalistic contracts, which see the primary task of courts as enforcing substantive commitments, incomplete contracts approaches are agnostic towards contract negotiation. Such a renegotiation-neutral approach leads to a very different focus for the goals of regulatory law. Instead of protecting contracts – which even many legalistic contracts commentators acknowledge to be incomplete – regulatory law might broaden its agenda by paying attention to the behavioral incentives and welfare consequences of renegotiation, distinguishing between ex ante and ex post incentives and welfare states. Process is as just as important as substance an incomplete contracts analysis of regulation. By focusing on bargaining incentives, such an analysis could introduce an insurance perspective to the study of regulation. Much as the insurance perspective reveals problems for the torts system, such as moral hazard, ex post compensation or liability for regulatory change – advocated by those who embrace legalistic contracts – influences regulated firms’ ex ante interactions in the regulatory process and has consequences for ex post welfare (Posner & Rosenfeld, 1977). Courts will have an important role to play for regulated industries but merely protecting regulatory commitments is not their primary task, to the extent it is relevant at all.

#### **A. Some Analytical Observations**

At the outset, some analytical observations about the approach of this book are in order.

First, throughout this book, I supplement incomplete contracts insights with comparative institutional analysis of the governance of deregulated markets. An incomplete contracts analysis treats regulation not just as a “tool” responding to a context-specific problem (Breyer, 1982), but an institutional alternative to market-based ordering. Within the market, such ordering can be external, in the form of inter-firm contracts, or internal, in the form of intra-firm transactions.

Gómez-Ibáñez, 2003 makes a substantial advance in the application of incomplete contracts to regulated industries by focusing on the conditions under which private contracting will fail and emphasizing the relationship between monopoly regulation and procurement contracting. As he suggests, where private contracting fails a need for discretionary government regulation, often by an administrative agency, will be necessary. Even where discretionary governmental regulation is chosen, however, contract retains its relevance as a conceptual tool. It can be relevant to public governance issues as well as private governance within the market. In the public governance sphere, rather than look to judicially-enforced contracts as the default mechanism for governance, courts should compare the effectiveness of contract to other institutions, such as federal or state courts, federal or state agencies, the legislature, and the firm itself.

While the comparative institutional approach is not a necessary feature of incomplete contracts analysis of regulation, an incomplete contracts approach brings into light many possibilities for analysis that other approaches obscure or ignore. The literatures on incomplete contracts – primarily in economics – and on institutions –

primarily in political science -- are largely distinct, but there is an important conceptual convergence between the two projects. Transaction costs is one of the primary reasons for contractual incompleteness. Similarly, institutional theorists focus on how transaction costs affect the efficiency of alternative institutional arrangements (Eggertsson, 1996: 8). Although the institutional literature is less formal in approach to modeling than much of the literature on incomplete contracts, incompleteness may be understood within the institutionalist framework, perhaps most prominently identified with the work of Douglass North (North, 1996). While much of the institutionalist literature treats contracts as a “theoretical fiction” (Eggertsson, 1996: 9 at n. 3) the bargaining framework can provide an important analytical focus for institutionalist insights.

Second, and related, this book takes a broad approach to the definition of regulatory law. The scope of regulatory law includes not merely substantive regulation itself, but the structural decision rules and networks – the political process -- which generate regulation and changes to it. Regulatory law defined broadly includes not only what agencies and legislatures do, but also the constitutional order that defines the mechanisms for public governments, both state and federal, as well as the antitrust laws that, when properly enforced, frame the private ordering of the marketplace. This broad definition of regulatory law, much like the comparative institutionalist strand of the incomplete contracts literature, distinguishes between “institutions” (defined broadly as “formal and informal rules that constrain individual behavior”) and “institutional environment” (which are subject to longer-term modification) (Eggertsson, 1996: 7). Some political scientists have referred to this as the distinction between “ordinary” and

“constitutive” decisions (Laswell, 1971: 77), a dichotomy that perhaps maps more directly onto a legal ordering.

Third, while this book sets out to imagine an agenda for regulatory law that draws on incomplete contracts insights, this book does not attempt an independent, systematic defense of the formal incomplete contracts model. To be sure, among economists the model is not universally accepted. As Eric Posner astutely observes,

Why would rational parties choose noncontingent contracts when more sophisticated contracts would enable parties to obtain better results? And if parties did choose more sophisticated contracts, why would courts need to do anything other than enforce the terms of these contracts? If courts only enforced the terms of contracts, much of contract doctrine, and much of the law-and-economics literature, would be irrelevant. (Posner, 2003: 855)

Indeed, as the distinguished economists Eric Maskin and Jean Tirole argue, under certain assumptions transactions costs do not necessarily prevent the formation of complete contracts (Maskin & Tirole, 1999; 1995). The argument in this book does not depend on a formal articulation of the incomplete contracts model, but instead is exploratory of the model’s implications if and where the model applies. In this vein, the book attempts to generate questions and hypotheses, rather than provide formal answers regarding the implications of an incomplete contracts model.

The formal incomplete contracts model, commonly attributed to Maskin and Tirole, has its limitations. Where the state and private parties both have access to information and have mobility to exit relationships, completeness could evolve in regulatory relationships. Where parties do not have the mobility to exit relationships, however, as may be the case in the context of the process of contracting for government regulation, even incomplete contracts critics such as Maskin and Tirole concede that

contracts may be incomplete.<sup>18</sup> The iterated nature of regulation against the backdrop of judicial review – firms contracting with the state know that they will have future opportunities to influence the regulator or courts, and the regulator knows that it may need to preserve discretion to change course in the future – also make incompleteness a likely, if not necessary, result in the context of regulation.

Further, under what network sociologists refer to as the “small-world assumption,” actors are able to understand all of the consequences of their actions and to assign probabilities to each state of nature (Savage 1972; Watts 2003). Much of this literature emphasizes the communication network between agents (and there is no necessary affinity between a small number bargaining agents and the number of communication nodes), but there is some also similarity to small world conditions and the idealized bargaining conditions of low transactions costs and perfect information. When bargaining occurs in complex situations with multiple parties whose rationality is bounded, the small world assumption is more questionable. As W. Bentley Macleod has argued, in situations in which the small-world assumption does not hold, complete contracts may be even more difficult than is ordinary, if they are not altogether impossible (Macleod, 1996).

Indeed, in the context of regulation, incompleteness is not only conceptually possible. It may be desirable. It is not feasible to write legislation or regulations with such detail that they will take care of most, let alone every, issue that contracting parties might provide for in a bilateral commercial setting. In fact, detailed specifications can be costly if they are under- over-inclusive. Detailed specifications may also prohibit

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<sup>18</sup> For the more general argument that the Maskin & Tirole critique does not undermine the transaction costs literature, see Hart & Moore, 1999.

experimentation and flexibility. Any system of public law will require an optimal degree of precision, but at some point the costs of precision in the bargaining process exceed their benefits. A system that anticipates renegotiation may be more efficient and hence desirable – so long as litigation costs do not become exorbitant.

Finally, this project has both explanatory and normative dimensions. At the explanatory level, the book explores the promise of research ideas from incomplete contracts and institutional analysis that fit extant legal doctrine concerning regulation in ways that equal, if not exceed, their conceptual competitors. Recognizing that the key questions are fundamentally empirical ones, the approach of the book is to use a case study approach. In theory, economics or political science might suggest a certain approach to understanding regulation, but how does this play out in practice? Throughout the book, the electric power industry is used as a primary example for illustrating the interplay of economics, politics and law in contractual bargaining. On occasion, telecommunications is addressed as well. It is hoped that the case study approach will give a focused opportunity for examining the implications of a specific legal doctrine on a specific type of firm and institutional structure. Of course, the risk of the case study approach is that any generalization developed from it is misleading, due to unrepresentative selection. While large data sets across industries would be ideal for drawing such generalizations, such data is not readily available. Until it is, a case study examination of similarly structured industries – such as electric power and telecommunications – is well-suited to generate tentative hypotheses for further empirical study, if not to call into question conventional attitudes and beliefs about regulatory law.

There is also a normative dimension to the project, as becomes clear in the later chapters of the book. This book is not concerned so much with the substance of regulation in any given context so much as with the process that produces – the bargaining conditions for -- regulation. Although the focus of this book is not to answer every normative question posed by regulation, the approach has a fundamentally different normative focus, and thus leads to different questions and recommendations, than competing accounts of regulation as contract. While applying the contractual account to public governance issues is predicated on a basic pluralist vision of politics as incorporating the vector of competing interest groups, I do not always see the protection of industry rents as a legitimate end for regulation. To that extent, my normative analysis rejects thin pluralism as a solution to bargaining problems for every case. A challenge for regulatory law is to recognize when social welfare might require overriding thin pluralism. In some instances, such as in evaluating regulatory tariffs, I argue that informational asymmetries in bargaining make a compelling case for rejecting thin pluralism in favor of a more robust substantive account of regulation, such as a thick (public interest-oriented) pluralist account of regulation.

### **B. Unmasking the Core of Regulatory Law**

Several different dimension of regulatory law implicate incomplete contracts. Economists routinely look to incomplete contracts to analyze the structure of the firm and markets. In political science, game theorists and rational choice modelers have made efforts to understand lawmaking as an activity which occurs in bilateral and multilateral bargaining spaces. Sociologists focus on the network interactions of groups, which political scientists also increasingly address in their efforts to understand and model

interest group behavior and influence. Bargaining space in the lawmaking sphere readily lends itself to contracting analysis. Regulations and laws themselves can be analogized to contracts between firms in an industry and different governing bodies. So too can interactions between governments, such as interactions between federal and state governments, or interactions between states.

The incomplete contracts literature provides an umbrella framework for applying the insights of these various disciplines to the various doctrines and processes of regulatory law. The fundamental project of regulatory law is organized around interactions between private firms, interactions between firms and the government, and interactions between different government entities. Each of these interactions gives rise to a type of behavior – contracting between private firms, private firm or interest group participation in the political and regulatory process, or inter-jurisdictional gaps and conflicts – with which regulatory law may concern itself. Each type of behavior may yield benefits for social welfare, but also may reduce overall social welfare. The point of regulatory law is to respond to the types of interactions which lead to overall reductions in social welfare, such as inefficient private contracting, interest group capture or manipulation of the regulatory process, or inefficient regulation or ossification in the inter-jurisdictional context. Antitrust law, regulation, and traditional federalism are the primary ways regulatory law attempts to respond to these welfare reducing interactions.

Regulatory law can be understood as responding to several different types of incompleteness, on which the remaining chapters of this book focus. While it is well-accepted that the problem of firm and industry structure can be understood as an incomplete contracts problem, an account of regulation informed by incomplete contracts

provides more than a description of industry structure. It also provides a robust account of regulatory law and the process leading to its enactment. It explains the obligations of the firm towards other market actors. It sheds light on the obligations of government towards the firm. It provides a way to assess the limits and effects of specific regulatory instruments, such as tariffs. Further, it helps us to understand the inter-jurisdictional conflicts and gaps between states and federal and state regulators. This book addresses the implications of each of these types of incompleteness for regulatory law.

The subject matter of the book thus differs from many other accounts of regulatory law, which focus exclusively on firm-government interactions; the account provided here goes beyond focus on the history of regulation or on its substance. Instead, my account is much more process-oriented – focusing on the institutional implications of regulatory doctrine -- and defines the core of regulatory law more broadly than traditional accounts of regulation. Although some have defined regulatory law broadly to include law, policy and politics (Tomain & Shapiro, 1997), regulatory law traditionally focuses on regulation and the intersections of the overlapping spheres of antitrust and federalism with regulation. This book urges a more extended framework for regulatory law, particularly as industries are deregulated. What goes on in the realms of antitrust law and federalism, even outside of the realm of conventional regulation, is of fundamental importance in deregulated industries.

In addition, the framework of this book shed important light on industries in regulatory transition, where institutional instability and conflict replaces the traditional norm of coordination. Contracts are rarely explicit. Often they are implicit agreements between firms and governments. Sometimes they evolve from interactive norms. As

Part I of this book suggests, in a traditional environment governing regulated industries, the boundaries between antitrust law, regulation and federalism are largely stable. In part this is due to clear legal rules, but in part it is also due to the voluntarily coordinated behavior of public and private stakeholders within the industry. In the era of natural monopoly regulation, a relatively small number of homogenous private stakeholders, along with government actors, worked out cooperative, stable solutions to regulatory boundary problems. In the era of natural monopoly regulation, the combination of legal rules, implicit contracts, and cooperative solutions provided a relatively stable framework for regulatory law. However, as traditional regulation is dismantled new firms begin to compete in deregulated industries, regulatory boundaries are increasingly uncertain. In the parlance of contracts, they are increasingly subject to renegotiation, but shifting boundaries is not something regulatory law has played much attention to.

As the chapters in Part II of this book suggest, this has implications for courts and judicial review. The approach, however, envisions a more modest approach for courts in a deregulatory era than many conventional contractual accounts of regulation, such as the legalistic implied contract approach. The role of courts is not, as advocates of deregulatory takings suggest, primarily to enforce regulatory bargains. Nor is the judicial role limited to clear statement rules, as advocates of the express regulatory contract might suggest. Instead, drawing on incomplete contracts insights, the role of courts is primarily aimed at providing the bargaining conditions that are likely to assist the political process in developing stable regulatory commitments in a competitive market. Along these lines, default rules are a way of facilitating legitimate political solutions to regulatory commitment problems. In addition, regulatory law is mindful of how institutional

enforcement choices affect regulatory law. Traditionally, these enforcement choices were determined by fairly clear legal rules, given the structure of price jurisdiction and clarity in regulatory territories. With deregulation, enforcement choices are increasingly influenced by private stakeholders, raising serious problems for regulatory law. Courts must referee such choices in the regulatory process in order to safeguard the public interest.

Traditionally, applications of incomplete contracts to regulation focus on the type of incompleteness that is internal to a firm. As Part I of his book argues, insights about the role of regulatory law can be gained by extending incompleteness beyond just the firm to encompass public governance. Chapter 2 is a short chapter that sets the stage for later discussion by applying incomplete contracts to the natural monopoly structure of the electric power industry and its regulation by the state during the twentieth century. Discussion focuses on vertical integration of the industry and the concomitant stability of rate regulation. Cost-of-service regulation is firm-specific. For over 50 years, it worked as a firm-specific forum for negotiating any tension between public and private interests; individual firms were deterred from engaged in conduct that undermined the regulator, as this could have negative implications for their approved rates. During the era of natural monopoly regulation, which focused its attention on the outputs of the firm (in the form of service prices and quality), regulatory law formulated doctrines to constrain private actors, such as service obligations, as well as doctrines to constrain public actors, such as the takings clause (constraining federal and state regulators), the filed tariff doctrine (constraining courts), and the dormant commerce clause and antitrust immunities

(constraining state regulators). Given the rate regulation process, however, these structural constraints were largely hidden and explicitly invoked only rarely.

Chapter 3 argues that an incomplete contracts approach can also shed light on the movement toward deregulation in electric power. By creating strong *ex ante* incentives for investment, the natural monopoly model encouraged over-investment in certain sectors of the industry. Moreover, the rate making and regulatory process – which historically focused on regulating the firm-specific outputs of the firm – worked to foreclose competition and new innovation by existing and potential competitors. In contrast to the traditional regulatory approach, the movement toward deregulation places its focus on the regulation of inputs (*e.g.*, network access) for certain sectors of the industry and increased reliance on competition for other sectors, rather than on regulation of outputs (*e.g.*, service prices and quality). It also changes the number and diversity of private actors interacting in markets and with the state. These firm-government interactions are more frequent and less visible, and thus less likely to lead to a convergence of private and public interests. The traditionally formulated constraints of regulatory law thus may be more frequently invoked in a deregulatory environment.

The remaining chapters apply incomplete contracts and institutional insights to traditional doctrines of regulatory law and explore how these legal constraints, if improperly applied, can have adverse consequences for social welfare in a deregulatory era. Should the doctrines of regulatory law be embraced, reformed, or abandoned, given deregulation's more salient tension between private and public interests? By taking a neutral stance towards regulatory renegotiation, an account of regulation informed by incomplete contracts provides some insight into these questions. Given the increased

scope and intensity of private behavior in the deregulatory environment, reform or clarification of these legal constraints on the regulatory process will be necessary for deregulation to fulfill its promise. Specifically, regulatory law must approach more carefully ex ante behavior by private firms.

In Chapter 4, it is argued that universal service obligations – a classic “public good” – must be more carefully approached in the deregulatory environment than under natural monopoly regulation. Universal service goals can be implemented in a deregulatory environment, notwithstanding the elevation of private interests over public welfare in the everyday working of deregulated markets. Chapter 4 suggests a tax on power distribution to pay for universal service in a deregulated power market, but also argues that universal service would best be approached through a voucher system for low income customers rather than an ex ante service mandate imposed by regulators or courts.

Part II of this book extends insights from incomplete contracts and institutional analysis to explore the role of courts for deregulated industries and related public governance issues. In contrast to those who conceptualize regulation as a “regulatory contract,” particularly Sidak and Spulber, Chapter 5 cautions against strong constitutional takings or breach of contract constraints on government actors in the deregulatory environment. Regulatory contract advocates envision the government paying damages for regulatory and deregulatory transitions; by contrast, an insurance perspective illustrates how the ex ante incentives created by such compensation can be harmful. Chapter 5 argues that recovery for utility’s stranded costs, whether based on constitutional or policy arguments, creates perverse ex ante incentives by encouraging over-investment in infrastructure and might also discourage competition and innovation.

Drawing from an incomplete contracts framework, Chapter 5 also proposes a default rule for courts to evaluate breach of contract claims against the government.

Chapter 6 takes on a steadfast doctrine of regulatory law – the filed tariff doctrine. This doctrine is frequently invoked by federal courts as a basis for refusing jurisdiction over cases involving utility conduct. The filed rate doctrine is not a single rule, but is a legal amalgam of several independent objectives, including protecting against price discrimination, federal preemption-related concerns, and nonjusticiability concerns. An incomplete contracts analysis exposes a serious problem with the filed rate doctrine. Since tariffs are rarely complete, courts must fill in the gap regarding their enforcement mechanism. By default rule, the filed tariff doctrine designates the regulatory agency, not courts, as the enforcement institution for tariffs. Such a default rule, however, gives private firms the ex ante choice of institutional forum for governance of the industry. The conventional account views the filed tariff doctrine as an impediment to deregulation. In contrast, Chapter 6 argues that the default rule of the filed tariff doctrine encourages firms to engage in strategic behavior in tariffing, leaving courts powerless and even resulting in more radical deregulation than either Congress or agencies would prefer. If the filed tariff shield is lowered, federal courts could increasingly play a role in steering the enforcement of deregulatory policies.

Chapter 7 examines the dormant commerce clause, which constrains state regulators from adopting protectionist policies that impede interstate commerce. It relates this doctrine to an independent rule: state action immunity from antitrust enforcement, which precludes antitrust challenges to private conduct that is consistent with certain state regulatory schemes. The dormant commerce clause will play a far

more important role in the deregulated environment than under natural monopoly regulation, limiting the ability of state regulators to impede competition, especially from out-of-state suppliers. I focus on the similarities between this goal and antitrust immunity for state regulation. Specifically, courts must more carefully evaluate state action immunity in order to guard against private actors' ex ante use of state regulation to shield their conduct from antitrust law, limiting the gains to social welfare from competition.

Many of the problems that plague electric power deregulation arise due to jurisdictional gaps and overlaps in enforcement that can be traced to the dual-jurisdictional approach to the regulation of electric power in the U.S. For example, where states, like California, have deregulated retail power markets, the behavior of firms in wholesale power markets, deregulated by federal authorities, may allow for manipulation of downstream prices and supply in ways that escape the scrutiny of both state and federal regulators. Even where states have not deregulated electric power at the retail level, strategic use of deregulated wholesale markets may harm consumers and escape the scrutiny of regulators. In the Telecommunications Act of 1996, Congress endorsed cooperative federalism, an alternative regulatory regime. But in other contexts, such as electric power, Congress has failed to act. In Chapter 8 it is argued that judicially-imposed cooperative federalism could help to improve the regulatory solution for network industries such as electric power. A judicial imposed cooperative federalism would embrace a presumption against preemption of state regulation while simultaneously endorsing a presumption in favor of state or local agencies acting on behalf of federal goals.

Chapter 9 concludes by reflecting on the promise of this broader framework for understanding regulatory law vis-à-vis the competing predominant accounts of regulation: public choice theory, public interest theory, and collaborative governance. Regulatory incompleteness is a reality of complex industries. The economic literature on the economics of the firm has produced multiple insights for the substance of regulation itself. But, by bringing contractual relationships to bear for problems of public governance, incomplete contracts insights and institutional analysis can also help to inform the doctrines of regulatory law that constrain private and public actors in the regulatory process, thus helping to improve the functioning of competitive markets.