Book Review

Regulatory Risk: Is the Subject Still Relevant or Do Markets Govern?

Regulatory Risk: Economic Principles and Applications to Natural Gas Pipelines and Other Industries, by A. Lawrence Kolbe, William B. Tye and, Stewart C. Myers. Boston: Kluwer Academic Publishers, 1993. 345 pages.

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Messrs. Kolbe, Tye, and Myers are highly skilled and thoughtful economists. Their thoroughness, analytical abilities, and appreciation for economic subtleties are well demonstrated in *Regulatory Risk: Economic Principles and Applications to Natural Gas Pipelines and Other Industries*. The authors present a lengthy and detailed argument that in setting rates of return, regulators must specifically recognize the risk of potential disallowances on the grounds that costs have been imprudently incurred or assets have turned out not to be "used and useful." In the context of the arcane world of regulated rate-of-return analysis, the work is professional, well documented, and quite systematic, particularly in regard to natural gas pipelines.

Also demonstrated, however, are the inherent limitations of a narrow, one-dimensional analysis of a very complex problem. Indeed, much of what the authors describe as "regulatory risk" is not a function of regulation at all. It is the inevitable result of a fundamental change in the markets of regulated utility companies. The central irony of the book is that three learned economists have spent their energy producing a monograph on rate-of-return analysis amidst a tide of economic change that threatens to render such analyses obsolete.

The book's approach is that of an accomplished expert witness responding at great depth to a carefully defined question. In the broader world of utility regulation, however, the theoretical underpinning of the work never moves beyond a narrow and somewhat controversial economic analysis. Such analysis is only a small piece of a much larger picture, critical to understanding the subject of "regulatory risk."

The authors' call for specific recognition of "regulatory risk" would have made for interesting hearing-room theatrics in the days of yore, when the issues at stake really were played out in front of utility commissioners or judges. Such narrowly crafted arguments, focused on specific outcomes, are

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of limited value in today's world of crumbling monopolies, market-driven prices and returns, marginal costs lower than embedded ones, and regulators who are no more able to hold back the tide than was King Canute. The hearing room for which the authors' arguments were tailored is no longer the forum for critical decisions regarding the minutiae of ratemaking. The market has become the forum and it is not a sympathetic setting for the type of equity (pun intended) arguments advanced by Messrs. Tye, Kolbe, and Myers. It seems likely from now on that economic performance and economic performance alone, not skillful lawyering and expert witnessing, will decide whether investors are adequately compensated for the risks they take. It is market risks, not regulatory risks, that will predominate in today's energy markets and they are likely to do so well into the future.

Such narrowness of focus and lack of timeliness is most disappointing coming from a trio of distinguished and deservedly well-respected economists and observers of the regulatory scene. The authors attempt to address some of the larger picture in regard to the natural gas pipeline industry, but leave it largely untouched in other sectors, rendering the book's applicability to such areas as electricity, telecommunications, and natural gas distribution exclusively theoretical. On behalf of a utility client, particularly a high-cost one, beset by regulatory disallowances, their expert testimony would, at one time, have been of interest to regulators. But given the sweeping changes in the industries they write about the book has an air of nostalgia about it, recalling the bygone days when these issues were argued in a reasoned, gentlemanly way that always culminated in decisional closure. Unfortunately, the testimonial nature of their work bears little, if any, resemblance to the rough-and-tumble of competition in today's utility markets. For this reason, a non-economist reading the book might be reminded of the economist who, when stranded on a desert isle with no apparent means of escape, exclaimed: "What's the problem? Assume a boat."

The three authors have argued for some time that regulation, as they perceived it being practiced in the 1980s, called for an increased focus on one category of risk, "regulatory risk," in establishing rates of return. This book constitutes an effort by them to elaborate on that theory, particularly as it applies to the natural gas pipeline industry. The authors contend that they have gone from being voices in the wilderness on the issue to having had their theory accepted to the point that anyone who espouses it today is accused of merely stating the obvious. Moreover, they contend that the Supreme Court recognized their theory in *Duquesne Light Co. v. Barasch*.[1]

While *Duquesne* does recognize the theory of "regulatory risk," the result of the case, namely the affirmation of the lower court's disallowance of non-

1. *See* Duquesne Light Co. v. Barasch, 488 U.S. 299 (1989).

"used and useful" assets, itself belies the significance of such recognition. The mere existence of an asymmetrical risk in regulation that results in a disallowance is not, in and of itself, grounds for reversing the disallowance. The Court, while noting the possibility of a regulatory anomaly, nonetheless chose to view the matter through the larger prism of the overall context of *Duquesne*. Thus, it found that the scale of the disallowance did not rise to constitutional dimensions. Such a finding calls into question the authors' claim of recognition of "regulatory risk." Indeed, it is not at all clear that the Court would find "regulatory risk" as being of constitutional import in any but the most egregious of cases. In an increasingly competitive industry, perhaps that is as it should be. Yet, in contrast to the Court's ruling and the realities of the competing marketplace, the authors contend that in recognition of "regulatory risk," it is now widely accepted that regulators should seek to establish rates such that investors can expect to earn the cost of capital on their investment instead of merely being afforded a reasonable opportunity to earn it, assuming that it is prudently made and "used and useful."

The "regulatory risk" in question, of course, is the possibility that some or all of the dollars invested by utilities for the purpose of meeting their service obligations, along with a reasonable return on those dollars, will not be recoverable because of the decisions of regulators. The denial could result from a finding of "imprudence," i.e. that a risk was an inherent part of the regulatory compact and therefore not compensable *ex post*, although prudence reviews were rare prior to the 1980s, when utilities began seeking to recover the massive cost overruns incurred in building nuclear power plants. More recently, the question has arisen as to who bears the risk of assets that are no longer "used and useful," either physically or, more likely, economically because of competitive pressures, elasticities of demand, and fissures in formerly monopolized markets. If investors' expectations concerning such risks were reasonable at the time they made their investment decisions, then the investors were presumably compensated for such risks in the rates of return that were set at that time. If the risks could not have been reasonably anticipated, then compensation for such risk-taking or for recovery of assets left stranded by prudence disallowances or market pressures might be the more appropriate regulatory path to follow, or so the authors maintain. It is their contention that the risk in question could not in fact have been reasonably anticipated by investors, whether because of the rarity of prudence reviews or because of the lack of significant market pressures in the past.

There are, according to the authors, two different kinds of "regulatory risk." The first is "the risk of some disallowance of the invested capital from the rate base or other event that negatively skews the distribution of returns

within a consistently applied ratemaking methodology."[2] The second is a "retroactive shift in the distribution of possible disallowances due to a change in regulatory oversight . . . ."[3] Even the first type of risk, they assert, requires an adjustment to the allowed rate of return. The idea that the probability of a finding of imprudence may not be zero calls into question the fundamental assumption that underlies the equation of the cost of capital with the allowed rate of return. Had investors expected anything other than minimal disallowances without explicit compensation for such a risk, they would not have invested their capital, the authors argue. In any event, they maintain, the traditional regulatory arrangement can no longer be sustained now that the probability of disallowance is greater than zero.

The problem of the "regulatory risk" defined by the authors, as they acknowledge, is not an easy one to remedy. Nevertheless, three options are suggested. One is for regulators, and presumably judges and legislators, to lay out the rules of the game, explicitly setting forth all of the risks on an *ex ante* basis. If regulators wish to reserve the right to change the rules in the middle of the game, then they should measure the risks objectively and implement them in a reasoned and principled manner that is free of any opportunistic urge to chop rates. The authors feel this option would not be feasible due to its imprecision. A second option would be to increase the potential for profit in a manner that is symmetrical with lowering the floor on the potential for loss. That could mean, for example, raising the cap on earnings, or providing other similar incentives. The third option for dealing with asymmetrical risk, the one most discussed in the book, is for regulators to set the allowed rate of return on assets that do get into the rate base at a level higher than the nominal cost of capital, so that the overall expected rate of return, adjusted for the "regulatory risk," will equal the true cost of capital. Unfortunately, the question of how any of these scenarios can be applied meaningfully in the face of rapidly developing competition (e.g., what does a higher allowed rate of return mean in practical terms in a world where prices are market-driven and not administratively derived?) is left largely unexplored.

All of the authors' suggested options involve highly subjective judgments and political calculations, requiring complicated assumptions regarding both capital markets and utility markets. While there is a strong, although by no means conclusive, logic behind the remedial courses that are suggested, it is purely internal to a regulatory regime that is rapidly disappearing. Indeed, one could argue that the old regulatory regime was premised on the existence of such economic parameters as economies of scale, declining costs, and vertical

2. A. LAWRENCE KOLBE ET AL., REGULATORY RISK: ECONOMIC PRINCIPLES AND APPLICATIONS TO NATURAL GAS PIPELINES AND OTHER INDUSTRIES (1993) at 37.

3. *Id.* at 38.

integration. It is those parameters, as most observers would argue, that are breaking down and bringing the old regulatory regime down at the same time. The risk is not "regulatory" at all; it is economic. Regulation may change, indeed it may attempt to redeem itself by toughening standards and demanding more efficiency in performance, but the fact is that it is the economics of the industry and not the logic internal to regulation itself that has been driving the regulatory regime. Indeed, it is the ultimate irony of the book that three distinguished economists have chosen to make lawyerlike arguments using the logic of a legal forum and regulatory regime whose economic context has been disappearing. One can label the disappearance of that context "regulatory risk," but to do so largely misses the point.

Within their obsolete theoretical framework, the authors analyze in considerable detail the experience of the natural gas pipeline industry. Their analysis is thorough, thoughtful, and professionally competent. At the risk of criticizing the authors for what they did *not* do, however, it is unfortunate that the industry whose experience they rely upon to support their theory is not at all typical of regulated industries in two areas that are absolutely central to the formation of "regulatory risk": the concentration of regulatory power in a single agency, and the preponderant role of policy makers (as opposed to market forces or technology) in creating the circumstances that the authors label "regulatory risk." Natural gas pipelines, for example, are regulated exclusively by the Federal Energy Regulatory Commission (FERC) in all areas relevant to the formation of "regulatory risk." Electric utilities, on the other hand, are subject to "regulatory risks" at the hands of state public utility commissions, FERC, the Nuclear Regulatory Commission, the Securities and Exchange Commission, the Environmental Protection Agency, Congress, and state legislatures. While one could argue that such diffusion of regulatory power increases the likelihood of an adverse regulatory result for a utility, a more compelling argument is that the existence of multiple fora offers the opportunity for forum shopping and gamesmanship that can mitigate "regulatory risk." For example, the disallowance of a plant from the retail rate base of an electric utility does not, in and of itself, strand an asset. If wholesale outlets for its power can be found, then the asset's productivity is preserved.

Another example of how diffusion of regulatory authority can benefit a regulated entity is given by the litigation surrounding the Grand Gulf (Mississippi) nuclear power plant, in which prudence reviews by state commissions were precluded by the FERC. Because Middle South Utilities (now Entergy) was a multi-state registered holding company and its Grand Gulf plant was to serve affiliates in three states, among whom the costs were to be allocated by the FERC, the Supreme Court held that the cost allocation by the federal agency in that circumstance precluded each retail jurisdiction from

doing anything other than passing on the entirety of the costs allocated to the jurisdiction by FERC. In the telecommunications industry as well, regulatory authority is far more diffuse than it is in the gas pipeline business.

Another unique aspect of the natural gas pipeline industry that renders it quite different from other regulated industries is that the regulatory changes it underwent were primarily, although not exclusively, related to its merchant functions, not to its fixed assets. Unlike the electric utility industry, where the "regulatory risk" scenario is likely to play out in the future, the largest part of the pipeline industry's financial commitment was for the purchase of a commodity. The significance of the difference is that the big dollars at risk in the case of gas pipelines were contractual obligations for future deliveries of commodities, rather than costs already sunk in fixed assets. Thus, the regulatory decisions by the FERC in the transition to competition took into account the interests of three large stakeholders—producers, pipelines, and distribution companies. Consumers were one step removed, in the sense that it was the state regulators who decided between local distribution companies (LDCs) and consumers on those "take or pay" costs that FERC passed on to the LDCs. Moreover, the gas itself was still in the ground, retaining its market value. In electricity, the choices are far more stark. The costs are sunk. The market value of the fixed costs may be negligible and there are only investors and consumers to take the risks.

The argument for recognition of "regulatory risk" inherently assumes that a regulator or policy maker is in a position to make choices that would pose risk for the investor. But if the regulator is himself being driven by market dynamics, or some other external set of circumstances, then "regulatory risk" is a misnomer. The risk is derived from the exogenous forces which drive the regulator as much as, if not more than, from what the regulator actually chooses to do.

Regardless of the limited applicability of the natural gas pipeline experience to other regulated industries, it is worthwhile to scrutinize the validity of some key arguments advanced by the authors for the recognition of "regulatory risk" in establishing rates of return. The book itself addresses much of the criticism the authors have received on their theories and makes an effort to refute countervailing arguments. Some of what they say is quite convincing, some less so. For example, on the question of why investors would have put their money on the table if the risks were so asymmetrical the authors make a valiant, but ultimately unconvincing, argument that investors did so based on a historically valid perspective that the risk of disallowance was *de minimis*. While there may have been little in the way of significant disallowances prior to the 1980s, the simple fact is that the principles upon which those disallowances were based, namely prudence and "used and useful," are hardly novel ideas. It is worth noting that the authors have lumped

the two concepts together despite their fundamental differences. Prudence, of course, is a concept that seeks to evaluate management's performance, while "used and useful" is a largely economic concept used to reflect market circumstances. From a purely asymmetric-risk point of view the difference may be trivial, but from the point of view of "regulatory risk," the difference is most vital. Both concepts have always been an important part of the regulatory bargain, a fact that is reflected in the statutes and court decisions of many jurisdictions. Indeed, their very existence was central to the triangular relationship among regulators, investors, and management. Without the prospect of disallowances or lower returns than initially anticipated, investors would have little or no incentive to hold management's feet to the fire. Without vigilant investors, the only accountability to which utility executives would have been subjected was direct regulatory intervention in management, a circumstance viewed almost universally as undesirable.

The centrality of that regulator-investor-management triad to the traditional regulatory bargain indicates that prudence or "used and useful" requirements were far from new ideas in the 1980s. The claim that specific compensation should be afforded investors for "regulatory risk," from the viewpoint of a lawyer (although perhaps not from that of an economist), comes perilously close to categorizing the return on a utility's investment as an entitlement, a notion not only entirely antithetical to the triad concept, but perhaps a greater *ex post* change to the regulatory compact than anything the authors complain about. The fact is that the utility that suffers from the greatest degree of "regulatory risk" is the one that is likely to be performing poorly. As the authors themselves suggest, to reward it with a higher return seems contrary to any sense of appropriate incentives.

In the same context, the fact that there had been little in the way of disallowances in the heady days of declining costs, economies of scale, unquestioned monopoly, and steady growth rates, is not a very useful guide to the world of the 1970s and 1980s with its volatile fuel prices, slow growth, environmental demands, decline of scale economies, extraordinary cost overruns in construction programs, and increased competition. No reasonably alert investor—or manager—could have expected a static regulatory environment amidst an otherwise radically altered energy landscape. Indeed, as noted earlier, once could reasonably argue that the subset of risks that the authors describe as "regulatory risk" are not regulatory at all. Rather they are market, political, social, management, and other types of risks that investors face all of the time.

Messrs. Kolbe, Tye, and Myers would likely respond that capital is mobile and its cost equals the returns found elsewhere for similar levels of risk. The problem with that idea is that the traditional and profound dilemmas which constitute the regulatory conundrum go largely unrecognized in a book

that seems doggedly determined to retain a narrow focus—one which time has been passing by.

A reader of the book, without independent knowledge of regulated industries, would come away with the belief that every major financial or economic event in those industries is driven by regulators who operate in a vacuum devoid of demand elasticities, emerging competition, social needs, varying degrees of management capability among regulated companies, and local economic development considerations, among other factors. The fact that most regulators are themselves market-driven in the sense that they try to set prices and make decisions in a manner that simulates what a competitive market would have produced, is given only limited attention in the book. Indeed, the very existence of an increasingly competitive market is only barely mentioned. The authors seem oblivious to the extraordinarily difficult task faced by regulators: to stimulate competition where little exists and to cope with it where it does exist, a circumstance that has driven many of the "used and useful" disallowances the authors complain about. That is particularly unfortunate because it is difficult to understand how higher rates can be imposed by administrative fiat on customers who have lower-priced alternatives. In evaluating the "fairness" of disallowances, we should ask ourselves a fundamental question: Would the regulated entities have fared better in a fully competitive market? In some senses the authors cannot be fully blamed for failing to address the problems posed by competition. To the extent that they are writing about the historical events of the 1980s, competition was merely in the birthing process in gas and electricity, although telecommunications and transport competition were a little further along. Nonetheless, by failing to adequately consider competition, the value of the book is substantially reduced to either a historical review or, perhaps, to a discussion of the treatment of stranded assets.

The authors' emphasis on *ex post* changes in the regulatory rules of the game, its tight focus on capital markets to the neglect of the markets for the products of the regulated industries and the limited recognition that regulators do not operate in a vacuum that enables them to do as they please, all sound more like the familiar whining of traditional utility managers trying to resist the changes confronting them. Completely overlooked, for example, is the possibility that risk may be *symmetric* in that *ex post* changes can *favor* the utility. The passing of new laws or rules allowing for recovery under Construction Work in Progress (CWIP) after construction has already been undertaken on major projects, and FERC or SEC preemption of prudence reviews (as in the case of the Grand Gulf power plant or where the market value of assets exceeds their book value) are examples of *ex post* changes that *benefit* utilities. In a similar vein, in their discussion of the theoretical underpinning of the book, the only specific risk that the authors propose be

singled out for reference in determination of the cost of capital is the "regulatory risk" to the utility. A more balanced opening discussion might have called for weighing a variety of specific risks that are more truly representative of what confronts both investors and regulators as they make their decisions. That lack of balance, coupled with the failure of the authors even to consider the possibility of symmetrical changes in the rules of the game, reveals a strong bias that casts a shadow over the work.

On a general note, the authors sometimes have the unfortunate habit of getting in their own way when making a point. There are frequent analogies to other matters such as game theory and "moral hazards" in insurance that serve more to create controversy on the margin than to make the point at hand. For example, analogies to the "moral hazard" theory in insurance, an economic theory which is at best highly suspect as a predictor of behavior and bears no real applicability to the subject of the book, are not helpful to either the reader or the authors themselves.[4] In a similar vein, the reader's task would be greatly facilitated if much of the substance contained in the footnotes were woven into the primary text. Dividing substantive material between text and footnotes makes it far more difficult for the reader to follow the authors' line of reasoning.

In conclusion, the authors have written what amounts to a theoretical justification for an added element of expert testimony in utility rate cases. Within those confines, it is the work of competent craftsmen. Limiting, although certainly not eliminating, the book's relevance, however, are the fundamental changes occurring in regulated industries which seem likely to do away with the notion of administratively derived returns on assets. Any broader value of the work is greatly diminished by the authors' failure to address this larger context within which regulatory decisions must be made.

4. It is true as a matter of economic theory that an insured value of real property, for example, in excess of market value provides a perverse incentive for the insured. In practice, however, such non-economic variables as honesty, criminal penalties, sentimental attachments, and a variety of other factors render the theory largely meaningless. Unfortunately, the existence of the theory, even absent actuarial validation, has led to such pernicious practices by insurers as redlining entire inner-city neighborhoods where the replacement value of houses exceeds the market value.