BOOK REVIEWS

REGULATORY RISK: APPLICATIONS TO NATURAL GAS PIPE-LINES AND OTHER INDUSTRIES by A. Lawrence Kolbe, William B. Tye and Stewart C. Myers.

Reviewed by Christopher J. Barr*

This book addresses the timely and important subject of whether natural gas pipeline risk has changed since the 1980s. The authors provide a useful discussion of the theory of "regulatory risk," although their ultimate conclusions regarding the gas industry have been overtaken by the restructuring of the industry after the book went to press.

In the first half of the book, the authors present a detailed evaluation of the treatment of risk in regulation. Their predicate is the theory of "regulatory risk." In the authors' view, in addition to business risks, regulated companies need compensation for the threat that a portion of their expenses or investments will be disallowed by changes in regulatory rules. Thus, investors in regulated companies face "asymmetrical risks": at most they may recover 100% of their actual costs and expenses, but they also face a significant risk of being denied a portion of their return on, or of, their investment because it is found not to be "used and useful," or based upon similar grounds.¹

To account for this risk, the authors contend that utilities need a compensatory overall return that will account both for assets that are successful and assets that are unsuccessful. The authors analogize this problem to the need of firms in risky, competitive industries (e.g., pharmaceutical companies and oil exploration companies) to charge higher prices for successful products to compensate for the overall cost to the enterprise of failures (e.g., unmarketable drugs and dry holes). The authors respond in some detail to a number of theoretical and practical objections which might be raised to their theory. For example, the book maintains that asymmetry is not remedied under traditional rate of return methods, such as the DCF or CAPM.

To highlight this problem, the authors address the recent Supreme Court decision in *Duquesne Light Co. v. Barasch*, 488 U.S. 299 (1989)—one of the original catalysts for writing the book. In *Duquesne*, a Pennsylvania statute had prohibited rate base treatment of utility facilities that were not used and useful before they were put in service. Enactment occurred on the eve of hearings in the *Duquesne* rate case involving recovery of the utility's investment in

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^{1.} In fact, companies can exceed their allowed rate of return given the right circumstances: low projected volumes, cost-cutting after the rate goes into effect, reductions in the cost of capital, for example. These ratemaking variables can cut both ways, of course.

an abandoned nuclear project—long after the original investment. The Pennsylvania Utilities Commission and Pennsylvania State Court denied recovery of the plant costs, and the U.S. Supreme Court affirmed under the *Hope* "endresult" test. The Court recognized both the regulatory risks presented and the potential unfairness to utilities caught between changing recovery standards. The Supreme Court rested its affirmance on the grounds that impact on the utility was slight and its presumption that regulatory risk had already being compensated by higher utility returns prior to the change in law. The authors conclude that, although the Court's factual premises were in error, its acceptance of the concept of regulatory risk compensation supports addressing that issue in future utility proceedings.

Presumption of regulatory risk forms a predicate for the second half of the book: an assessment of risk in the natural gas industry. The work incorporates large portions of a 1991 study on gas pipeline risk by the same authors, commissioned by the Interstate Natural Gas Association of America. The book presents a surprising conclusion: the risks faced by interstate pipelines of today are comparable to the risks they faced during the turmoil of the take-orpay fiasco of the 1980s. The authors further contend that the current regulatory system is not sustainable in the long run; unless gas pipelines are compensated adequately for the risks they face, they will experience a long-term decline analogous to the long, slow decay of the railroads and the nation's road infrastructure. Moreover, the authors warn of inefficient investment, as pipelines expand only to meet known markets, rather than build optimal pipelines with an adequate capacity for market growth in the future. As in their preliminary risk analysis, the authors anticipate and rebut a number of expected criticisms.

In 1991, these dire warnings might have been subject to lively debate between pipeline interests and the more skeptical. Unfortunately, the bulk of the analysis predates issuance of the Mega-NOPR,² with only limited efforts to incorporate the proposed rule into the earlier work. The authors' detailed, though somewhat partisan, analysis of pipeline risks is therefore largely overcome by intervening events, although it raises a number of interesting points.

The fundamental risk identified by the authors is the pipelines' dual function of providing a transportation service at regulated rates, while providing a "flow-through" gas sales service for which no profit could be made (no upside potential), but substantial losses were possible. In addition, the authors identified a number of historical sources of risk, including: (1) the varying percentage of fixed costs in the demand component of pipeline rates; (2) a growing reliance by gas purchasers on interruptible transportation; (3) discounting of interruptible rates; (4) concentration of sales on peak days; (5) pipeline liabil-

^{2.} Pipeline Service Obligations and Revisions to Regulations Governing Self-Implementing Transportation Under Part 284 of the Commission's Regulations, IV F.E.R.C. STATS. & REGS. ¶ 32,480, 56 Fed. Reg. 38,372 (Aug. 13, 1991). Order No. 636 was apparently issued after the book went to press. Pipeline Service Obligations and Revisions to Regulations Governing Self-Implementing Transportation Under Part 284 of the Commission's Regulations; and Regulation of Natural Gas Pipelines After Partial Wellhead Decontrol, Order No. 636, III F.E.R.C. STATS & REGS. ¶ 30,939, 57 Fed. Reg. 13,267 (April 16, 1992).

ity for shipper imbalances; (6) the growth of transportation versus sales; and, (7) regulatory lag. The authors identified "competitive access" and a catch-all category, the "unknown unknowns," the uncertainties (such as the 1970's oil shock, 1980's oil collapse) that cannot be predicted as new competitive risks. In addition, the authors include a list provided by INGAA of "primary risks" and 27 "related risks."³

In contrast, the authors pose three potential counter-forces that would lower future risk: (1) primary take-or-pay risks are now in the past; (2) industry is compensated for all risks by a being granted a rate of return equal to the cost of capital; and, (3) regardless of risks in the past, the combination of the shift from sales to carriage in the new FERC rules will shift risks to producers or customers. The authors evaluate these forces and find them wanting; hence the ultimate conclusion that gas pipeline risks remain high. Indeed, even in light of the Mega-NOPR, the authors maintain that a number of risks remain significant. For example, the authors see the benefits of Straight Fixed Variable rate design (SFV) as being offset by the increasing amount of fixed costs recovered by interruptible rates and consider the move towards an unbundled merchant function as risky in light of the FERC's original proposal to require some absorption of transition costs.

Order No. 636 and its implementation therefore certainly requires revisiting this risk analysis. Following restructuring, the key asymmetry in pipeline risk — the merchant role that forces risk without an upside profit potential has been eliminated. Pipelines wishing to eliminate merchant risks have simply offered above-market unbundled merchant service prices during restructuring, ensuring an absence of future sales customers.⁴ Pipelines retaining the unbundled merchant service have done so using market-based proposals of their own devising, in which they have placed as much risk premium as the market would bear. On the related question of transition costs, the Commission reversed its proposal in the Mega-NOPR and will not require any pipeline absorption of prudently-incurred costs, including the "gas supply realignment costs" of terminating the old bundled sales portfolios, as well as "stranded" investments. A finding of imprudence could result in pipeline absorption, but the Commission's actions thus far provide no basis for deep pessimism about transition cost recovery.⁵

Fixed cost recovery is now clearly less risky. Pipelines will recover all fixed costs under SFV rates, guaranteeing cost recovery except for the now de minimis amount of fixed costs recovered through interruptible rates. Because firm transportation customers have the ability to release and reassign their capacity, pipelines have drastically reduced projected interruptible transporta-

^{3.} The book provides yet a third list of future risks as well, ranging from environmental clean-up, changes in regulation, bypass of pipelines by local distribution companies and new entrants, loss of system control, discounting, and additional competition for the pipeline merchant function.

^{4.} The requirement of continued sales for one year to small customers poses no real risks, in light of the small volumes and limited time commitment.

^{5.} The only blanket disallowance of GSR costs thus far, involving Columbia Gas Transmission Corporation, was premised upon the pipeline's voluntary agreement to a Gas Inventory Charge settlement. Columbia will certainly be the exception rather than the rule.

tion volumes. Some major pipelines will recover less than 1% of their cost of service from interruptible transportation. Loss of interruptible transportation volumes or failure to recover IT discounting can no longer be considered major risk factors.

Order No. 636 did not give customers any right to reduce their firm transportation entitlements. Most pipelines therefore remain fully subscribed and have had the ability to lock-in their customers for additional lengthy contract periods. Furthermore, elimination of the triennial rate review gives pipelines an option to "stay out" and reap the benefits of any cost savings, or to file for rate increases if costs rise.

Restructuring therefore does shift major risks downstream from the pipelines to their customers. What are the risks for pipelines? In the short term, and in some geographic areas (notably California and parts of the Midwest), excess capacity is very likely to lead to some discounting of firm capacity. In the long term, customers' rights to leave the pipeline at the end of their contracts will lead to some losses of business for high-cost pipelines where excess capacity exists — although how the Commission will treat that potential cost shortfall is not yet known. The Commission has also loosened entry restrictions by its more pro-competitive certificate policies, although it is unlikely that many new pipelines will be built for the purpose of attracting existing pipeline business. As the book notes, "regulatory risk" in some form will still exist, as well as the "unknown unknowns," though by definition the unforeseeable future cannot be taken into account in the ratemaking process.

The full impact of these developments is certain to be debated by pipeline interests. The relative level of pipeline risk will undoubtedly continue to attract controversy without resolution until the next major industry readjustment. Nonetheless, the authors' dire scenario of decay and under-investment appears unsupported in the post-Order No. 636 world. Given the speed with which change has undermined the authors' premises, "regulatory risk" may apply not only to pipelines but also to publishing books on regulation.