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Fixing the Rate of Return After *Duquesne*

Stephen F. Williams†

Messrs. Kolbe and Tye perform an important service in their critique[1] of *Duquesne Light & Power Co. v. Barasch.*[2] Especially valuable is their exploration of the two different types of risk faced by a regulated utility—first, the risk of being unable to recover its investment in a plant, no matter how prudently incurred, and second, the risk of retroactive changes in the regulatory policy. The second risk appears to be far more of a problem. As Kolbe and Tye point out, it engenders a peculiar type of instability. If the risk is reflected in a higher cost of capital, as it should be, regulators may feel bound to exercise the freedom of maneuver for which ratepayers will have paid.[3]

I have some doubt, however, whether the Pennsylvania rule's apparent asymmetry creates as great difficulties as they project, apart from the rule's retroactive application. Their analysis builds on the premise that a bondholder's promised rate of return represents the upper bound on the rate he or she will ultimately realize[4] and that the bondholder's rate of return is necessarily lower than the promised rate.[5] They regard the regulatory practice of using the bondholders' promised rate of return as the cost of debt capital as necessary to permit the bondholders to realize the expected rate.[6] They then extend that analysis from debt to equity, arguing that, in the presence of asymmetric risk, regulators must similarly include a premium above the cost of equity capital.[7] I believe they have identified a problem in articulating the allowable rate of return, but perhaps a soluble one.

To examine the theory, we may start by considering a semi-practical example. Suppose a regulatory agency employed the now-rare "comparable earnings" method for estimating cost of capital and found an unregulated industry with a risk profile similar to that of a specific utility. For simplicity's sake, assume that in this industry (widget manufacturing, as always) each year 19 out of every 20 firms generate profits averaging 15%, while the 20th goes bankrupt in a total loss. The regulators believe the utility faces a parallel 5% risk (1 in 20) that its plant may not prove used and useful. Should they allow

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†Judge, United States Court of Appeals for the District of Columbia Circuit. I am indebted to Messrs. Kolbe and Tye for their comments on an earlier draft.

[1] Kolbe & Tye, *The Duquesne Opinion: How Much "Hope" is There for Investors in Regulated Firms?* 8 YALE J. ON REG. 113 (1990).

[2] 488 U.S. 299 (1989):

[3] Kolbe & Tye, *supra* note 1, at 145-46.

[4] *Id.* at 123.

[5] *Id.* at 123-27.

[6] *Id.* at 138-40.

[7] *Id.* at 139-40.

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the utility 15% on plant that proves used and useful (and thus enters the rate base), or a lower figure, adjusted down from 15% by averaging in the total loss?

The classic definition of the cost of capital—"expected rate of return . . . on alternative investments of equivalent risk"[8]—may seem to require the lower figure. The expected return ex ante in the widget industry is clearly less than 15%. But, as Kolbe and Tye make clear, if utilities are allowed only the lesser figure *when they succeed*, i.e., when they make it past the "used and useful" post, they will be markedly less attractive investments than widget makers. By contrast, if utilities are allowed 15% when they manage to get their plant included, utility returns will track those in the widget industry.

Does the latter solution fit the principle underlying the standard definition of the cost of capital? I would suggest it does. The return that the utility is *in fact* being allowed under this approach includes two components: the 15% allowed if the plant proves "used and useful," and the total non-recovery if it does not. The average is the expected rate of return on alternative investments of equivalent risk, i.e., the average enjoyed in the widget industry.

If I am right here, two consequences follow: First, the principle of looking to the "expected return on alternative investments of equivalent risk" is sound, but only if the regulators recognize the *parallel* rate base that they are addressing. Thus, if the regulators exclude plant from rate base under the used and useful doctrine, they should look only to expected returns for successful firms in a comparable industry (if using the comparable earnings method). Second, the comparable earnings method can be used to obtain the appropriate figure, though of course it presents the daunting challenge of estimating the risk of total loss for the utility and for the control group, as well as independent problems of its own.[9]

Whether the discounted cash flow (DCF) method can handle the problem is another matter. Certainly the risk of total loss does not fit with the assumption of steady dividend growth that is evidently used in its practical application,[10] though not in its underlying theory. And it may well be that the circularity implicit in the DCF method—the price of the utility's stock is a key term, but it depends on investors' expectations of how the regulators themselves will act—becomes fatal when risk of disaster becomes non-trivial. Given these practical difficulties, the theoretical point identified by Kolbe and Tye may be lost in the noise.

If Kolbe and Tye are correct that regulatory calculations of the cost of equity capital cannot handle asymmetric risk, some special remedy may be needed to enable utilities to attract capital for construction of risky plants. If risky plants are not constructed, and if energy demand is volatile, there will be at least short-term energy shortages, for capacity that is just enough for demand that is 100% certain will not be enough for the expected demand (i.e., the average of estimated demands, weighted according to probability). If regulators simply prescribed an artificial regulatory risk premium for a new rate base, the premium itself would elicit investment in somewhat risky plants—the higher the premium, the riskier the plants that would be feasible investments.[11] If instead regulation stifles all construction of risky plants, the likely result will be cries that private industry is unable to supply electricity, and pressure for the state—which need not fret over whether its investments will earn a return equivalent to competing alternatives—to do it.

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[8] *Id.* at 138.

[9] See L. KOLBE, J. READ & G. HALL, THE COST OF CAPITAL 41-52 (1984).

[10] *See, e.g.*, R. MORIN, UTILITIES' COST OF CAPITAL 121-23 (1984); L. KOLBE, J. READ & G. HALL, THE COST OF CAPITAL 66 (1984); C. PHILLIPS, THE REGULATION OF PUBLIC UTILITIES 376 (1988).

Kolbe and Tye dispute the Supreme Court's methodology for determining what sort of retroactive change may qualify as "slight" and thus be constitutionally permissible.[12] Their first attack seems to me to go astray. That aggregate losses from canceled nuclear plants may reach $30 billion does not increase Duquesne's loss or make Pennsylvania's conduct more reprehensible. If the Supreme Court's notion of "slight" is not otherwise defective, it merely suggests the likelihood that other firms may win relief under *Duquesne*.

Far more powerful is the argument that the Court should have considered the loss as a proportion of the shareholders' portion of the rate base, not its entirety. The shareholders will in all probability bear the entire direct loss—the reduction in earnings due to the denial of any recovery for the abandoned plant. But in defense of the Court one should recognize that by increasing perceived regulatory risk, Pennsylvania's retroactive shift must also have reduced the security of Duquesne's bonds and thus their capital value. That portion of the loss cannot also have fallen on shareholders. After *Duquesne*, the firm's previously issued bonds will still carry their old interest rate, a rate lower than that necessary to attract debt capital under the newly revealed risk levels; thus shareholders' claims on earnings will, after the decision, be greater than they would have been if the firm had had to issue the bonds in a market aware of the higher regulatory risk. However, as the Court purported to be speaking only of the direct loss,[13] Kolbe and Tye's criticism is on the mark.

The consolation here is that the parties never really joined issue on choice of the proper denominator in a comparative test. Duquesne understandably responded to Pennsylvania's analysis of the scope of the loss with a complete rejection of any comparative standard, arguing that such a standard would effectively apply one rule to small companies and another to large ones.[14] Thus, the matter evidently remains open.

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[11] *Cf.* King v. Palmer, 906 F.2d 762, 769-70 (D.C. Cir. 1990) (concurring opinion) (offering similar analysis of enhancements for contingency under fee-shifting statutes).

[12] Kolbe & Tye, *supra* note 1, at 148-50.

[13] *See Duquesne*, 488 U.S. at 310-12.

It may be hard to draw the line between the "petty larceny"[15] of slight changes and the grand larceny of drastic ones, especially as "[m]any small losses could add up to a large one in a hurry,"[16] but the alternatives are also troubling. Jurisdictions constantly experiment with regulatory change—adopting "CWIP" over "AFUDC,"[17] "normalization" over "flowthrough," etc.—and we should rejoice that they do. A judicial requirement of compensation for every adverse change, no matter how slight, would freeze the system. While one can imagine a regime in which the state pays for all adverse changes and recovers for all favorable ones, the computation costs would likely block most change. Even though purely prospective changes would not be affected, I suspect they would often represent an awkward device for regulatory adjustments, as they would require continual vintaging of assets. Supreme Court imposition of a single solution on the entire country is worse, as the courts' sad experience with *Smyth v. Ames*[18] indicates. If there is a clearly preferable solution—and a revived fair value rule, relying on the value of a plant's output in a decontrolled bulk power market, may fit the bill[19]—a requirement of compensation for non-"slight" retroactive changes may provide enough incentive for most or all states to adopt this rule.

I cannot resist the temptation to propose a research program. Assuming there are jurisdictions where regulatory risk has been comparatively stable over several years, it should be possible to compare the cost of capital in these relatively "safe" jurisdictions, that is, ones that follow the prudent investment rule and allow CWIP and normalization, with the cost of capital in jurisdictions that force higher risks on utilities. Of course, the allowed cost of equity capital is a function of the regulators' decisions, so it would be necessary to use some more objective, external gauge. One possibility would be interest rates on newly issued bonds, though the effects here must be muted by the bondholders' relatively secure position.

Second, what of volatility in regulatory treatment? Can the cost of this be segregated? Jurisdictions that make adverse retroactive changes in regulation must increase the cost of utilities' capital, and thereby their citizens' rates. How large are these increases, particularly in comparison to the ratepayers' short-term gains? If there were evidence that jurisdictions engaging in de facto but not de jure wealth confiscations pay in full for their self-indulgence,[20] states would presumably take heed.

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[14] Reply Brief for Appellant at 5, Duquesne Power & Light Co. v. Barasch, 488 U.S. 299 (1989).

[15] Justice Oliver Wendell Holmes referred to the "petty larceny of the police power" in a draft opinion, but his colleagues required him to excise it. *See* 1 HOLMES-LASKI LETTERS 457 (M. Howe ed. 1953).

[16] Kolbe & Tye, *supra* note 1, at 148.

[17] CWIP is the acronym for Construction Work in Progress; AFUDC is the acronym for Allowance for Funds Used During Construction.

[18] 169 U.S. 466 (1898).

[19] *See* Kolbe & Tye, *supra* note 1, at 156; *see also* McConnell, *Public Utilities' Private Rights*, REGULATION, 1988, no. 2, at 35.

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[20] *See* Kolbe & Tye, *supra* note 1, at 144 n.96.