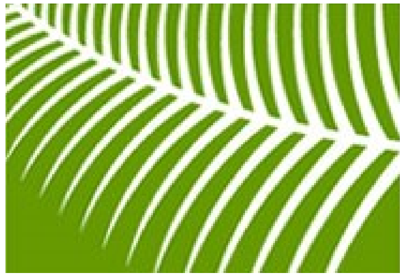

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The Theory of Contestable Markets: Applications to Regulatory and Antitrust Problems in the Rail Industry

by William B. Tye
New York: Greenwood Press, 1990

In a rather short 138 pages, Tye attempts to discredit both Baumol's theory of contestable markets and Commission's policy of reducing economic regulation of the U.S. railroad industry. The book provides some interesting and compelling arguments which highlight inconsistencies in the application of contestable market theory. Tye's primary contribution is to highlight the incongruence between hit and run entry (contestability) and firm viability when there are sunk costs and economies of production. In terms of the railroad industry, this conflict is framed as the tension between revenue adequacy, on the one hand, and increased competition on the other. According to Tye, however, this conflict is ignored by a regulatory policy which is based exclusively on Contestability Theory. This type of policy, it is argued, could undermine the growth in intramodal competition which initially led to regulatory reform. The proposed alternative to a regulatory structure based on contestability is one based on "contractual equilibrium." The objective of the contractual equilibrium, according to Tye, is to replace transitory regulation with contracts that would have been in effect had they not been superseded by regulatory institutions.

Tye's analysis of ICC decision making, as well as his conclusion regarding the wisdom of public policy in this area, however, ascribe too much importance to contestability theory in Commission decision making. While he claims that his concerns relative to the regulatory reforms of the late 1970's and early 1980's are limited the transition problems for "captive shippers", the issues raised extend to virtually all aspects of rail regulation. Tye's assertion that every aspect of ICC regulation is driven by contestability theory, i.e. that recent ICC policy is exclusively based and tied to the theory, simply credits Baumol et.al with having more influence at the ICC than they actually have. Most ICC decision making since the Staggers Rail Act of 1980 has been based on traditional economic and financial theories, as well as specific Congressional directions to limit regulatory oversight to areas where it is essential.

For example, the book argues that the Commission's definition of revenue adequacy is based on the theory of contestable markets because it recognizes "opportunity cost" as the basis for a railroad's earnings requirements. Tye's notes that: "Incredulous members of Congress wondered how railroads found to be grossly revenue inadequate and without any captive traffic were nevertheless able to acquire pipelines and shipping companies." While this statement makes it appear that the Commission simply ignored the railroads' tremendous earnings, the facts --as those familiar with the Commission's revenue adequacy standard recognize-- were simply that the Economic Recovery Act of 1980 gave the railroads a one time write down of their frozen investment base which provided a temporary cash flow but no real improvement in earnings from rail operations. Since the revenue adequacy test is one which measures return from rail operations rather than temporary tax benefits, the findings of revenue inadequacy were not inconsistent with the large cash flows which the railroads experienced during the write off period.

Tye's criticism of the ICC's merger policy in the 1980's also appears to leap to the conclusion that the Commission bought off entirely on Baumol's theory of contestability without an independent assessment. The Commission's decisions were, in fact, based on a "structural competitive analysis", not "assumed contestability," in spite of Tye's assertion that "the ICC initially took a very permissive approach to possible anti-competitive consequences of these proposals citing the essence of contestability theory ... and the newly unleashed forces of competition as sufficient safeguards." Importantly, Tye's conclusion that "... the ICC was approving the elimination of the very competition that was the rationale for regulatory reform" is not supported by the facts.

To illustrate this point one can examine Tye's example of the CSX-ACBL merger. Tye asserts that this was a vertical merger which

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reduced competition through vertical foreclosure. In his opinion, ICC approval was based exclusively on the assumption that the barge industry is contestable and, thus, the Commission, as a matter of theory ruled out vertical foreclosure. His conclusion that approval was bad public policy is tied to the claim of private benefits which CSX asserted it would derive from the merger. The presence of such benefits, Tye correctly points out, is inconsistent with the notion of high contestability. (Simply put, you cannot have both high contestability and significant profit gains from a merger.) Tye then concludes that the merger must have degraded contestability and that Commission approval allowed CSX to cash in on its market power.

The Commission's decision, however, focused on competition in the market. Based on the staff's analysis of market forces, the Commission concluded that the merger would not materially degrade competition. Thus, to the extent there were any synergies from the merger, existing competition was adequate to protect the public interest.

If we look at the facts some six years after the merger, it is clear that the Commission did look at the structural competition within the barge market and did arrive at the correct conclusion. The CSX-ACBL merger has not had any material impact on competition in the barge industry.

The only regulatory activity which per se relies on the assumption of contestability is the stand-alone cost test used to judge maximum rate reasonableness. Tye incorrectly assumes that application of the test is a circular evaluation of the incumbent's joint costs. This is not the case.

Constrained market pricing and the SAC test culminated years of searching for a maximum rate methodology which met the statutory requirements set forth in the Staggers Rail Act. Specifically, the methodology had to balance the carriers financial needs against the shippers' need for reasonable maximum rates. The SAC test relies on the assumption of a contestable railroad market which operates under almost absolute efficiency. The test asks the question "what rates would an efficient new entrant have to charge for the same transport services to cover all if its costs including the opportunity cost of capital?" Note that these are costs of a new competitor rather than the incumbent.

Here the role of contestable markets is paramount. Without the assumption of costless entry and exit, the computed costs would incorporate barriers to entry and exit. However, to determine maximum rates for an efficient competitor these costs must be excluded. Once total SAC net of barrier costs is computed, it is compared to the actual revenues of the incumbent for the same service(s). This permits the ICC to determine whether shippers using the specified facilities, as a group, have paid more than SAC. Allocation of joint costs in the SAC analysis is based on relative demand elasticities which are implicitly derived from revenues of non-issue traffic under the assumption that the incumbent Ramsey-priced competitive traffic. This assumption is of course subject to challenge. If actual revenues are less than the computed SAC, it must be concluded that all rates are reasonable. If the SAC is less than the actual revenues, it must be concluded that rates are unreasonable and the Commission can order reductions.

As can be seen, the SAC test represents a very limited application of contestability theory and by assuming perfect efficiency, the test is more demanding than traditional regulatory approaches.

Tye concludes that "An overarching achievement of contestability theory has been to demonstrate that sunk costs underlie most equilibria in economics in ways that were previously poorly understood." His conclusion focuses on the inconsistency between hit and run entry and revenue adequacy. While such inconsistency may exist, and may indeed be harmful in captive markets, this rather skeptical view detracts from the positive contribution which the whole notion of contestability has made. Tye fails to credit the theory with helping regulators focus attention on the pervasiveness of competition, not its absence. By encouraging policy makers to re-examine the need for comprehensive regulation, the theory has resulted in changes which overall have proven to be very beneficial. The notion of contestability--even if poorly understood and improperly applied--has forced regulators and policy makers to re-evaluate the conventional wisdom.

In conclusion, I agree that there are some inconsistencies in contestability theory and that Tye has raised some interesting arguments which must be addressed. Nonetheless, his conclusions regarding the application of the theory to surface transportation regulatory policy are factually deficient.

Leslie J. Selzer
Interstate Commerce Commission
Washington, DC

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