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# The Good, the Bad, and the Ugly: Policy Prospects for Applications of Revenue Adequacy

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## NOTE

In this excerpt, we offer policy reflections that identify prospective good, bad, and ugly applications of revenue adequacy. For the full paper (the abstract of which follows), please see, “Revenue Adequacy: The Good, the Bad, and the Ugly,” Transportation Law Journal, Volume 41, Number 2, 2014, pp. 85-127.

**Abstract:** This paper examines the concept of revenue adequacy, a benchmark of United States railroad firms' financial performance calculated annually by regulatory oversight bodies. The paper addresses questions around the origins, measurement, informational provisions, value and policy benefits and costs of revenue adequacy. An examination of the historical origins, measurement, and informational provisions of revenue adequacy generates insights into the motivations for and limitations of this concept. A financial benchmarking exercise assesses revenue adequacy in the rail industry relative to both a narrowly defined set of comparable industries and a broader set of publicly-traded non-financial companies operating in the U.S, and indicates little differentiates railroads from these comparison sets over the past dozen years. A nonfinancial examination assesses whether the railroad industry has made continued rail transportation system improvements given its regulatory governance structure, and concludes that significant strides toward the goal of achieving a “safe, adequate, economical, efficient, and financially stable Rail transportation system” as established in the Staggers Rail Act have been made. The paper concludes with policy reflections that identify prospective good, bad and ugly applications of revenue adequacy.

## *The Good, the Bad, and the Ugly:*

### **Policy Prospects for Applications of Revenue Adequacy**

In 1966, Clint Eastwood starred in a spaghetti Western long forgotten by most, but the title, “The Good, the Bad and the Ugly,” has survived and is generally well known. The title for those who recall the film evokes an indelible image of Clint Eastwood draped in a poncho chomping on a half-smoked cigar. For us it also provides a particularly apt taxonomy for the policy prospects for revenue adequacy.

#### **The Good**

As originally conceived revenue adequacy had and still has the potential to provide two useful or “good” functions. First, if properly measured and interpreted, as a metric revenue adequacy can convey useful information on an important economic dimension of the railroad industry. In particular, given the critical role of the industry for facilitating and promoting commerce, quantitative indicators of the industry’s financial health may prove useful in any policy discussions of the larger state of the economy. A healthy rail industry is likely to be a catalyst for economic growth in a number of industries that rely on rail transport to deliver their goods to markets. In the late 1970s when the concept of revenue adequacy was fashioned, the industry was suffering from both physical and financial infrastructure deterioration. The result was not only poor financial returns to investors (leading to diminished ability to attract financial capital), but also poor service and safety performance that were well documented. While not a cure-all, adequate revenues were then seen – and may still be usefully seen – to be the lifeblood for enabling the rail industry to attract capital and to provide high-quality services.

Second, and related, should the metric of revenue adequacy indicate widespread shortfalls across a number of firms for a protracted period, policymakers may properly raise questions regarding the appropriateness of policy governance of the industry. Given the clear consumer demand for high-quality rail services in the United States and the potential efficiencies of rail transport for a host of goods traveling to markets throughout the world, widespread and protracted indications of revenue inadequacy may provide a signaling value of a flawed governance structure for the industry. This certainly was the case for the rail industry in the 1970s. Aside from a variety of other indicators of

economic failure, early calculations by the Interstate Commerce Commission (ICC) revealed that revenue inadequacies were widespread. This metric, together with other readily observable metrics of economic failure, provided a powerful message to Congress that the long-standing policy of granularly regulating rail rates was economically harmful and a more market-oriented system of directing railroad resources was warranted. Improvements in revenue adequacy following the Staggers Act have been slow, but these stronger indicators properly can be taken (together with other economic metrics) as signals to policymakers that the post-Staggers governance structure has proven successful.

### **The Bad**

Revenue adequacy was meant as a tool for informing regulators and the larger public about the financial health of the industry and therefore the prospects of fulfilling the goals of the Staggers Act. The passage of time has permitted a sometimes less than subtle morphing of revenue adequacy from a benchmark of rail industry health to a backdoor regulatory tool, which creates the prospect of “bad” policy. This is not to say that regulatory oversight of the industry is bad *per se*. To be sure, while competition for rail shipments is widespread through intermodal and intramodal alternatives, particular circumstances require regulation to ensure captive shippers are not exploited. The necessity for this residual regulation should not be permitted to extend its reach beyond the minimal amount necessary to fulfill the Staggers Act’s goals.

The morphing of revenue adequacy from an instructive metric to a regulatory tool, however, has proceeded over several years without serious notice or awareness of these potential consequences. As early as the introduction of the Revenue Adequacy Constraint in 1985, the possibility emerged that railroad profitability as judged by the revenue adequacy measure might be used as a trigger for determining the reasonableness of rates on particular rail shipments. While this potential regulatory constraint had relatively little practical effect when it was introduced because of the widespread revenue inadequacies at the time, the prospect for this construct to be turned into a binding regulatory constraint has become significantly more likely as railroads are increasingly deemed revenue adequate. More recently, Surface Transportation Board (STB) introductions of regulatory mechanisms (such as RSAM in 1996 and the R/VC Limit Price Test) exacerbate the potential linkage for specific regulatory constraints to turn directly upon the observed financial health of particular railroads.

If the STB were to allow explicitly the revenue adequacy concept to evolve from a primarily information-producing role into an active and ongoing regulatory constraint, it would represent a significant expansion of rail industry regulation. However, the linking of regulatory constraints to observed accounting profit measures, such as those captured in the revenue adequacy metric, lacks economic foundations. Even if the industry cost of capital is counterfactually assumed to represent a social ideal, history provides a clear indication that the imposition of such rates through regulatory fiat is extremely costly and laden with harmful side effects when applied in the rail industry. While it is tempting to pit an idealized notion of regulatory outcomes against observed market imperfections, the actual choice that policymakers must confront is rooted in the reality that both markets and regulation are imperfect governance structures. From this perspective, policymakers should appropriately be wary of introducing expansive regulatory tools in situations where market-based governance is producing palatable economic outcomes. This perspective is especially true in industries, such as rail, in which the costs of poor regulatory design have been made so apparent.

### **The Ugly**

While an inadvertent morphing of revenue adequacy from an information-producing role into a regulatory capacity creates the prospect for bad policy, a truly “ugly” prospect for revenue adequacy also emerges from an examination of the evolution of rail industry regulation. The end aim of revenue adequacy has at times been interpreted to be an explicit limitation on the ability of firms to earn economic profits. For instance, in the Coal Rate Guidelines, the ICC declared a desire to use the concept of revenue adequacy as a regulatory vehicle to explicitly constrain the profits of railroads to be, as an upper bound, the industry-wide cost of capital:

“Carriers do not need greater revenues than ... [the Revenue-Adequacy level which equals the industry-wide cost of capital] ... and we believe that, in a regulated setting, they are not entitled to any higher revenues. Therefore, the logical first constraint on a carrier's pricing is that its rates not be designed to earn greater revenues than needed to achieve and maintain this "revenue adequacy" level. Our concept is simply that a railroad not use differential pricing to consistently earn, over time, a return on investment above the cost of capital.”<sup>1</sup>

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<sup>1</sup> Coal Rate Guidelines, Nationwide, 1 I.C.C. 2d 520, 535-36 (1985).

In the Non-Coal Guidelines, the STB later states “the statutory objective is for railroads to attain *only* the level of revenues that would be adequate...” (emphasis added).<sup>2</sup>

Our reading of the Staggers Act and its legislative history finds no such Congressional intent to restrict railroads’ earnings to be only those deemed adequate. As noted, the cost of capital upon which the revenue adequacy concept is predicated serves in competitive markets as a minimal floor for successful firms. Firms operating in competitive markets routinely aspire for greater earnings and, indeed, it is this aspiration that compels such firms to a number of salubrious behaviors including cost reductions, productivity enhancements, quality of service enhancements, and so on. Firms across the country – in a variety of industries and over extended periods of time – can and do generate adequate revenues without the need for profit-based regulation.

In contrast, were regulators to utilize the revenue adequacy provisions of the statute to constrain rates with the purpose of limiting railroads’ profitability to be only equal to the industry cost of capital, profound economic incongruities and problems would obtain. Primary among these is the creation of a knife-edge turning point between the clear Congressional mandate for regulators to “assist” carriers in achieving adequate revenue levels and a regulatory policy to ensure that railroads are unable to earn anything more than exactly this level. Such an interpretation of revenue adequacy appears to be directly contrary to the aim of the Staggers Act to rely upon (1) competition and market forces to the maximum extent possible, and (2) regulation to the corresponding minimum extent necessary to accomplish the goals of the Act. Aside from arguably “going off the tracks” laid out by Congress, such a policy is troubling from an economic perspective for several reasons.

First, such a policy ignores the economic reality that the vast majority of rail traffic is provided in competition with other railroads, other transportation service alternatives, and other geographic and product alternatives. As recognized by Congress – and widely embraced throughout the U.S. economy – such market-based allocation drives firms to reduce costs, innovate, and more generally, better serve the U.S. economy. Firms do not undertake these activities for altruistic reasons but for the pursuit of economic profits in excess of the firm’s cost of capital. Regulatory policies that restrict firms to earn only the industry cost of capital effectively eliminate profit motives that drive innovative, cost-reducing and value-enhancing activities. Regulatory policies that are more concerned with protecting competitors – rather than competition – through notions of equity or fairness between carriers and between shippers and receivers have similar deleterious effects. Indeed, this is exactly the sort of regulatory regime that

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<sup>2</sup> Rate Guidelines–Non-Coal Proceedings, S.T.B. Ex Parte No. 347 (Sub-No. 2), 1 S.T.B. 1004, 1027 (Dec. 27, 1996).

existed prior to the Staggers Act and that, in hindsight, is universally regarded as a principal source of the physical and financial deterioration of the industry in the 1970s.

The foundation of such a policy also errs in presuming that the source of returns in excess of adequate levels is differential pricing of dominant routes when, in fact, the source of such profits may spring from a variety of sources. This prospect creates the potential for regulation to substantially misalign incentives in the industry. For example, suppose a firm reduces its costs of providing service for a set of shipments that are not subject to regulatory review (because their prices are less than 180 percent of their variable costs). For such a firm, when it is at or near the revenue adequacy threshold, the consequence of this otherwise desirable cost reduction would be the prospect of an enhanced regulation of shipments that are within the regulators' purview. That is, efficiency enhancements would be "rewarded" by compensating increases in regulation. Similar "rewards" would emerge from innovations that enhance consumer demand, reduce product-specific or firm-wide fixed costs or even reductions in costs for any shipment made by the firm. The result is that the regulatory structure would create perverse incentives to avoid these efficiency enhancements. Consider, for instance, the prospect of a firm-wide substantial innovation that could be introduced immediately or, alternatively, introduced more slowly. With profit regulation operating as a binding constraint on the firm, the firm may benefit (though society will be harmed) by "slow-rolling" the introduction of the innovation.

Finally, such a policy is neither efficiently targeted nor free of regulatory costs. That is, the regulatory tool of profit-based regulation applies a "dull axe" of firm-wide profit-triggered regulation to a far more specific issue of residual market power abuses on specific shipments. Apart from the perverse incentives created by such a policy, this profit-based regulation has proven to be sufficiently costly in a variety of industries to warrant substantial movement away from this tool over the past quarter century.

## **Conclusion**

Congress in 1980 declared that the goals of the Staggers Act were to: (1) assist the railroads in rehabilitating the rail system; (2) reform Federal regulatory policy to preserve a safe, adequate, economical, efficient and financially stable rail system; (3) assist the rail system to remain viable in the private sector of the economy; (4) provide a regulatory process that balances the needs of carriers, shippers and the public, and (5) assist in the rehabilitation and financing of the rail system. It is now possible in 2015 to state that the governance structure established by the Staggers Act has been

successful in accomplishing these goals. The rail industry is healthy, with benefits flowing to both rail carriers and shippers alike and to the larger economy. With these benefits in-hand, some industry observers have implicitly if not explicitly suggested that the industry's financial progress should presage policy reconsiderations if not reformulations. This perspective essentially argues that the Staggers Act has been too successful and that now, with a financially stable industry that is increasingly earning "adequate" revenues, it may be possible to use that "adequacy" as a trigger for enhanced regulation.

When we examine the concept of revenue adequacy with an economic lens – by exploring the origins of revenue adequacy, the evolution of the concept, its practical applications, and its prospects – we find that the concept was in the first instance well-motivated by the dire financial situation facing the rail industry in the 1970s, and that the concept was designed to serve as a benchmark for assessing the ability of the evolving regulatory structure in the post-Staggers industry to assist rail carriers in achieving financially secure footing. From this relatively straightforward beginning, revenue adequacy has subtly morphed from an informative concept to a regulatory tool. Beyond a deviation from the original legislative intent of the concept, we find that this transition is unwarranted on both conceptual and practical grounds. Moving forward, we argue that policymakers have the opportunity to use revenue adequacy an instrument for good, bad or ugly policy. Revenue adequacy calculations can provide "good," useful, information on the financial health of the U.S. rail industry, a vital infrastructure industry supporting the larger economy. If permitted to drift in the direction of creating additional links between railroads' general profitability and regulatory stringency, however, the use of revenue adequacy will create the real prospect of "bad" or even outright "ugly" economic consequences.