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The State of Competition in the US Rail Sector

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I. Introduction

Building on earlier International Center for Law & Economics (ICLE) research[1] into railroads and common-carrier obligations—highlighting how the U.S. rail industry's competitive structure has evolved beyond common assumptions, with intermodal rivals, contractual arrangements, and capital-market discipline now central to constraining service and pricing—this issue brief offers an update on the state of rail-industry competition in 2025. In particular, it examines how the federal courts' statutory interpretation in the wake of the 2024 *Loper Bright* decision are likely to intersect with the economic realities of modern rail markets, and how that intersection might reshape the analysis of regulatory authority.

Three focal points structure the discussion. First, the law's treatment of market dominance requires a return to the statutory and economic foundations of the Staggers Act—an approach that recognizes product and geographic substitution, consistent with Congress' original intent, rather than freezing competition analysis in a 1980s procedural mold.[2] Second, and in the same vein, the concept of revenue adequacy under §10704 must be understood as a floor designed to attract capital and network investment, not a ceiling that caps profitability. Third, the broad preemption provisions of the Interstate Commerce Commission Termination Act of 1995 (ICCTA) continue to function as pro-competitive infrastructure by preventing state and local overlays that would otherwise balkanize operations, raise costs, and shrink the effective competitive frontier.

Taken together, these themes show how the economically oriented frameworks of the Staggers Act and ICCTA remain relevant but must be applied with renewed textual discipline and contemporary evidence of competition. Statutory fidelity—sharpened by post-*Loper Bright* jurisprudence—and economic recognition of intermodal and geographic rivalry both point toward the same conclusion: regulatory interventions should be tightly bounded by text and justified only where competitive forces fail. In a networked industry such as rail, uniformity and competition are not opposing values; indeed, uniformity is what makes competition possible.

II. Statutory Text as First Principle: *Grand Trunk* in the Post-*Loper Bright* Era

The U.S. Supreme Court's 2024 decision in *Loper Bright Enterprises v. Raimondo* marked a watershed moment in the history of U.S. administrative law.[3] In overruling *Chevron U.S.A. v. Natural Resources Defense Council*,[4] the Court abandoned the doctrine of complete judicial deference to "reasonable" agency interpretations of ambiguous statutes. While it remains premature to make definitive

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[1] Kristian Stout, Common Carrier Reforms *to Promote a Healthy Market in the Rail Industry*, INT'L CTR. FOR LAW & ECON. (2025), https://laweconcenter.org/resources/common-carrier-reforms-to-promote-a-healthy-market-in-the-rail-industry.

[2] *See* H. Rep. 96-1430 (1980), at 96-97, https://www.congress.gov/bill/96th-congress/senate-bill/1946.

[3] *Loper Bright Enterprises v. Raimondo*, No. 22-451, 603 U.S. 369 (2024), *available at* https://www.supremecourt.gov/opinions/23pdf/22-451_7m58.pdf.

[4] *Chevron U.S.A., Inc. v. NRDC*, 467 U.S. 837 (1984).

predictions about the post-*Loper* regulatory landscape, what is clear is that federal agencies will have to work harder to justify their own interpretations of relevant statutes.

In *Chevron*'s place, the Court has reaffirmed the Administrative Procedure Act's command that "the reviewing court shall decide all relevant questions of law," which ostensibly leaves a gap that will be filled by the pre-*Chevron Skidmore* deference.[5] The practical effect is that agencies may no longer rely on interpretive leeway to advance broad policy objectives untethered from statutory text. For regulated industries such as rail, which has historically operated under a densely detailed statutory framework, this shift places renewed emphasis on statutory fidelity and the limits of delegated authority.

The 7th U.S. Circuit Court of Appeals' decision earlier this year in *Grand Trunk v. STB* demonstrates how courts are approaching rail regulation in the wake of *Loper Bright*, even without explicit reliance on that case.[6] At issue was the Surface Transportation Board's (STB) reciprocal-switching rule, which would have compelled carriers to interchange traffic without a threshold finding that the incumbent's service was inadequate.[7] For decades, both the Interstate Commerce Commission (ICC) and its successor, the STB, had construed 49 U.S.C. § 11102(c) to require such a predicate—phrased in earlier decisions as a showing of "actual necessity" or a "compelling reason," and operationalized as a finding of inadequate service.[8]

The STB's rule dispensed with this longstanding requirement, substituting a broader "public interest" inquiry.[9] The 7th Circuit vacated the rule, holding that the statutory text and history compelled the conclusion that inadequate service remained an indispensable prerequisite.[10] By treating that condition as optional, the STB was found to have exceeded its statutory authority. What's notable is that the 7th Circuit reached this conclusion without invoking *Loper Bright*.

The court's reasoning, however, exemplifies the post-*Loper* mode of review: a refusal to defer to an agency's policy preferences where they are untethered from statutory language. *Loper Bright* made clear that ambiguity in a statute does not authorize agencies to create new regulatory regimes,[11] and *Grand Trunk* shows the application of this principle in practice—although under the guise of traditional statutory interpretation. Together, the two decisions underscore that the relevant inquiry

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[5] Daniel Deacon, *Loper Bright, Skidmore, and the Gravitational Pull of Past Agency Interpretations*, NOTICE & COMMENT (Jun. 30, 2024), https://www.yalejreg.com/nc/loper-bright-skidmore-and-the-gravitational-pull-of-past-agency-interpretations.

[6] *Grand Trunk Corp. v. Surface Transp. Bd.*, No. 24-1811 (7th Cir. 2025), *available at* https://www.govinfo.gov/content/pkg/USCOURTS-ca7-24-01811/pdf/USCOURTS-ca7-24-01811-0.pdf.

[7] *Id.* at 2.

[8] *Id.* at 12.

[9] *Id.*

[10] *Id.* at 30.

[11] Loper Bright, *supra* note 3.

is no longer whether an agency's policy is "reasonable," but whether Congress has authorized it expressly.

This shift is particularly significant for the economics of rail competition. It raises a heightened risk of invalidation for regulatory structures designed to reengineer market dynamics by administrative fiat, rather than by reference to statutory commands. In the rail market, a disciplined return to statutory text would also align with sound economic reasoning: statutes such as the Staggers Act[12] and the ICCTA[13] embody deliberate tradeoffs between competition and stability, and between rate flexibility and minimum service guarantees. Treating those compromises as pliable invitations to agency policymaking not only distorts the legal framework but unsettles the economic equilibrium that Congress sought to maintain.

III. Improving Competition Analysis: Statutory Tradeoffs and Economic Realities

The statutory compromises struck in the Staggers Act of 1980 and the ICCTA reflect a deliberate balance between deregulation and the choice to retain limited safeguards. On the one hand, Congress sought to restore competitive market dynamics by freeing carriers from pervasive rate and service controls that had pushed the industry toward insolvency. On the other hand, Congress preserved some tools—such as the common-carrier obligation and maximum-rate jurisdiction—to guard against the possibility of abuse where genuine market power persisted. These statutory tradeoffs are central to the economics of rail competition; they aim to promote efficiency and investment while preventing the reemergence of monopoly rents in captive-shipper markets.

Yet the STB's competition analysis has not kept pace with these foundational compromises. Rate cases currently treat markets as static and narrowly defined, in contravention of Congress' original intent. This is in tension with the reality that shippers today operate within far broader competitive environments.[14] Intermodal competition from trucking, pipelines, and even barges frequently constrains rail pricing, as does sourcing flexibility; shippers can alter production or distribution points to take advantage of regional rate differentials. By failing to incorporate these product and geographic alternatives into its analysis, the STB risks mischaracterizing the extent of rail-market power and, in turn, applying remedies that suppress efficient pricing or distort network investments.

This failure of modern competition analysis has emerged in rate cases where the STB refused to take account of many contemporary dynamics. In U.S. freight-rail regulation, a railroad's "market dominance" must be established before the STB will review a rate's reasonableness. Since 1998,

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[12] S. 1946, 96th Cong. (1979–80) (Staggers Rail Act of 1980), https://www.congress.gov/bill/96th-congress/senate-bill/1946.

[13] *Id.*

[14] *See* Stout, *supra* note 1.

however, the STB has refused to consider evidence of product or geographic competition when determining market dominance in rate cases.[15]

In other words, the STB examines only direct transportation alternatives (such as other rail carriers or modes) and ignores whether shippers could switch to other products or sourcing locations to avoid the challenged rail rate. This policy, affirmed in the early 2000s by the U.S. Circuit Court of Appeals for the D.C. Circuit,[16] was intended to simplify and expedite rate-dispute proceedings. But this narrow approach to market definition has become increasingly problematic in light of evolving competitive conditions. The STB's exclusion of broader competition evidence is increasingly problematic—particularly given evolving market conditions in the freight-rail industry.

A. Market Dominance in Rail Regulation: Statutory Framework and STB Policy

Under federal law, the STB cannot review the reasonableness of a challenged rail rate unless the shipper first shows the carrier has "market dominance," which is defined by statute as "an absence of effective competition from other rail carriers or modes of transportation to which a rate applies."[17] Congress introduced this market-dominance test as part of railroad deregulation in the late 1970s and early 1980s in order to ensure that regulation applies only where a railroad has monopoly power.[18]

Early on, the ICC limited market-dominance inquiries to direct transportation competition—*i.e.*, other railroads on the route (intramodal competition) or alternative modes like trucks, barges, or pipelines (intermodal competition).[19] The commission explicitly declined to consider "indirect" competition, such as product substitutes or geographic alternatives, and the D.C. Circuit upheld that limited approach as a reasonable and efficient reading of the statute.[20]

Soon after, however, the regulatory stance shifted. In the early 1980s the ICC reconsidered its rules and decided to include evidence of product and geographic competition in market-dominance determinations. For example, a railroad could fend off a market-dominance finding by showing that a captive shipper *could* avoid using its service by purchasing a substitute product (product competition) or by obtaining the commodity from or shipping it to a different location reachable by

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[15] *STB Stands by Its Decision to Exclude Product and Geographic Competition Considerations from Rate Complaints*, PROG. RAILROADING (Apr. 3, 2001), https://www.progressiverailroading.com/rail_industry_trends/news/STB-stands-by-its-decision-to-exclude-product-and-geographic-competition-considerations-from-rate-complaints--3366.

[16] *Ass'n Amer. R.R. v. Surface Transp. Bd.,* 237 F.3d 676 (D.C. Cir. 2001).

[17] 49 USC 10707(a).

[18] *See* Public Law 94-210, 94th Cong., 90 Stat. 31 (Feb. 5, 1976) (Railroad Revitalization and Regulatory Reform Act of 1976), *available at* https://www.congress.gov/94/statute/STATUTE-90/STATUTE-90-Pg31.pdf; Staggers Rail Act, *supra* note 12.

[19] *Ass'n Amer. R.R. v. Surface Transp. Bd.*, No. 01-1213 (D.C. Cir. Oct. 8, 2002), https://law.justia.com/cases/federal/appellate-courts/cadc/01-1213/01-1213a-2011-03-24.html.

[20] *Atchison, Topeka & Santa Fe Ry. v. ICC*, 580 F.2d 623 (D.C. Cir. 1978).

another carrier (geographic competition).[21] In upholding this approach, the 5th U.S. Circuit Court of Appeals opined that a fuller consideration of competition aligned with the Staggers Act's goal for market-based rate setting where that was possible.[22]

The STB was created in 1996 to replace the ICC, and that change brought another policy reversal. By 1998, the STB concluded that accounting for product and geographic competition was impractical and counterproductive. In its December 1998 order Ex Parte No. 627, the STB announced it would "no longer consider evidence of product and geographic competition" in market dominance determinations.[23] The new rule, finalized in 1999, categorically excluded these indirect competition factors from the market-dominance phase. In practical terms, this meant that after 1999, a railroad could not defeat a market-dominance claim by arguing that the shipper had outside alternatives, such as different inputs or sourcing regions.

This policy was promptly challenged by the rail industry. In *Association of American Railroads v. STB*, however, the court upheld the STB's discretion.[24] The D.C. Circuit found that the statutory definition of market dominance "does not require the STB to consider indirect (product and geographic) competition."[25]

B. Why Excluding Broader Competition Is a Mistake in Today's Environment

The STB's refusal to consider product and geographic competition rests on an economically impoverished view of how rail markets work. By drawing an artificial boundary around "indirect competition,"[26] the board effectively assumes away the competitive constraints that matter most to shippers in the real economy. The result is a regulatory framework that too easily finds "market dominance" where none exists, inviting unnecessary interventions that distort both pricing and investment.

The core problem is that ignoring product and geographic factors produces a caricature of market power. Antitrust law and modern competition economics insist that market definition must account for reasonable substitutes—whether those substitutes take the form of alternative products or alternative sources of supply.[27] If a buyer can avoid an alleged monopolist's rate increase by switching fuels or sourcing from a different region, the monopolist's leverage is limited.

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[21] *Western Coal Traffic League v. United States*, 719 F.2d 772 (5th Cir. 1983) (*en banc*).

[22] *Ass'n Amer. R.R. v. Surface Transp. Bd.*, 306 F.3d 1108 (D.C. Cir. 2002).

[23] Prog. Railroading, *supra* note 15.

[24] AAR, *supra* note 22.

[25] *Id.*

[26] AAR, *supra* note 22.

[27] *See, e.g., United States v. E. I. du Pont de Nemours & Co.*, 351 U.S. 377 (1956).

Yet the STB has chosen to exclude these very considerations. It treats the relevant market as confined to a single origin–destination pair and asks only whether another carrier or mode is available for that specific modality and geography. This narrow approach is at odds with the analytical frameworks applied by the U.S. Justice Department (DOJ) and Federal Trade Commission (FTC),[28] and it systematically increases the likelihood of false positives: findings of dominance in settings where real-world competition disciplines rates.

For example, in the 2023 Merger Guidelines, the federal antitrust agencies examine potential market concentration as follows:

> Absent price discrimination, a relevant market is described by a product or group of products and a geographic area. In determining whether a hypothetical monopolist would be in a position to exercise market power, **it is necessary to evaluate the likely demand responses of consumers to a price increase. A price increase could be made unprofitable by consumers either switching to other products or switching to the same product produced by firms at other locations.** The nature and magnitude of these two types of demand responses respectively determine the scope of the product market and the geographic market.[29]

In other words, to determine the presence of market power in an antitrust case, it is necessary to look at the reasonable substitutes that would discipline that power. A rate-case evaluation has a nearly identical disposition: the question is whether a rail provider is exercising market power with rate increases. But to exclude relevant product and geographic markets is essentially to assume the outcome: a rail carrier is a monopolist because the STB decides its market is, by definition, a monopoly.

Concrete examples abound of how these product and geographic vectors undermine the STB's position. In energy markets, railroads haul coal to power plants, but the rise of cheap natural gas and renewable alternatives has reshaped utility-fuel choices.[30] Abundant natural gas has transformed the generation mix, making coal a far less secure demand source. In practice, this means that even a railroad with sole access to a coal plant cannot raise rates with impunity; if rail delivery becomes too expensive, the utility can and will switch to gas-fired generation. The threat of substitution is a powerful competitive check. Yet under the STB's framework, such a railroad is still deemed "market dominant," and its rates subject to review and possible caps, as if no competition existed at all. Refusal to recognize product substitution is tantamount to automatically siding with shippers.

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[28] *See 2023 Merger Guidelines*, U.S. DEP'T OF JUSTICE & FED. TRADE COMM'N (2023), § 4, https://www.justice.gov/atr/2023-merger-guidelines (broadly describing the mission of the FTC and DOJ to police antitrust harms in markets, including through the tools of market definition to determine where actual competition takes place).

[29] *Id.* (emphasis added).

[30] *See, e.g.*, *Electricity Demand in the Eastern United States Surged from Heat Wave*, U.S. ENERGY INFO. ADMIN., (Aug. 5, 2020), https://www.eia.gov/todayinenergy/detail.php?id=65604.

Geographic flexibility exerts similar pressures. Shippers frequently have multiple sourcing or destination options.[31] A utility facing high rail rates from Mine A may shift to Mine B, served by a different carrier or accessible by barge. Grain and chemical shippers may reposition shipments through different terminals or transloading points to arbitrage rate disparities. The economic reality is that the railroad's residual demand curve is more elastic than it appears if one were to look solely at a single corridor. But because the STB bars geographic evidence, its decisions miss this elasticity and treat the carrier as more powerful than it is. In so doing, it risks intervening in markets that are already self-corrected through shipper substitution.

This critique goes further: by generating false positives, the STB creates significant dynamic inefficiencies. If a carrier is wrongly found to have market dominance, its rates may be capped below what competitive conditions would warrant. That misalignment can deprive railroads of revenues needed to recover high fixed costs and to invest in infrastructure. Over time, this undermines the revenue adequacy that Congress deliberately sought to restore through deregulation. Worse still, regulatory error can distort resource allocation—*e.g.*, prolonging coal shipments that would otherwise exit the market in favor of gas, simply because regulators suppress the rail rate below its market-clearing level. Such distortions are deeply inefficient; they keep uneconomic flows alive while discouraging efficient capital deployment.

The economic disconnect has only grown more pronounced with time. The freight market of 2025 bears little resemblance to that of 1998.[32] Trucking competition has intensified, global supply chains have become more flexible, and advances in data and analytics make it easier than ever to quantify substitution possibilities. Rail-dependent industries—from agriculture to manufacturing—have become nimbler in shifting routes and suppliers. In this environment, the STB's categorical refusal to acknowledge indirect competition looks increasingly anachronistic. What may once have been justified as a way to simplify cases now functions as a "myopic" view of competition that blinds regulators to the dynamics of a global, intermodal marketplace.

The inconsistency is striking when compared with the STB's own treatment of other sectors. In pipeline cases, for instance, the STB has allowed evidence of product and geographic substitution to determine market power.[33] This discrepancy underscores that the exclusion is more the product of

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[31] *See, e.g.*, *A Study of Competition in the U.S. Freight Railroad Industry and Analysis of Proposals That Might Enhance Competition: Executive Summary*, CHRISTENSEN ASSOCS. (Revised Final Report, Nov. 2009), *available at* https://www.stb.gov/wp-content/uploads/files/docs/competitionStudy/Executive%20Summary.pdf (concluding that access to transportation alternatives creates competitive pressure that lowers rail rates); Kevin McCoy *et al.*, *The Importance of Highways to U.S. Agriculture*, U.S. DEP'T OF AGRIC. AGRIC. MKTG. SERV'N (Dec. 2020), *available at* https://www.ams.usda.gov/sites/default/files/media/Main_Highway_Report.pdf (noting that shippers will switch to highway transport as a lower-cost substitute when rail transport rates increase).

[32] *See* Stout, *supra* note 1.

[33] *See* STB Docket No. 41685, *CF Industries, Inc., v. Koch Pipeline Co.*, LP, (May 3, 2000).

legacy procedural habits than of principled economic reasoning. For a regulator charged with relying on competition "to the maximum extent possible," that is a fundamental flaw.[34]

C. Vulnerability of the STB's Policy in the Post-*Loper Bright* Era

Ultimately, the courts originally upheld the STB's exclusion of product and geographic competition primarily by invoking *Chevron* deference. In *Association of American Railroads v. STB*, the D.C. Circuit rejected the AAR's challenge to the 1998 rule, not because it found the statute compelled the board's reading, but because—under *Chevron*—the agency retained discretion to interpret the ambiguous statutory term "transportation" in its definition of market dominance.[35] As the D.C. Circuit explained in a follow-up case, the court explained:

> Under *Chevron* the Board maintained discretion to interpret the market dominance definition so as to exclude indirect competition. Therefore, we deferred to its latest interpretation and accepted the Board's reasoning.[36]

In other words, the judicial imprimatur rested not on the strength of the statutory text, but on a doctrine of agency deference.

That doctrinal foundation has now collapsed. In *Loper Bright*, the Court held that the Administrative Procedure Act requires lower courts to exercise independent judgment in deciding all questions of law, and that no special deference is owed to agency interpretations of ambiguous statutes.[37] This means that if the STB's rule is challenged anew, the reviewing court cannot defer to the STB's administrative judgment about efficiency. It must instead ask whether the statutory text and structure authorize the categorical exclusion of relevant competition evidence.

On its face, the statute does not. Section 10707 defines market dominance as the absence of effective competition from other rail carriers or modes of transportation,[38] and Congress' broader policy directives stress reliance on "competition and the demand for services" wherever possible.[39] Those provisions would be difficult to square with the board's prohibition on parties presenting economically relevant evidence of competition. Thus, even setting aside the practical market realities that make product and geographic competition economically salient, the STB's position would be, at best, on tenuous legal footing in the post-*Loper* landscape. Federal courts must now scrutinize the statutory text directly, without deference to the STB's view that excluding such evidence reduces complexity.

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[34] 49 USC 10101(1).

[35] AAR, *supra* note 16.

[36] AAR, *supra* note 22.

[37] Loper Bright, *supra* note 3.

[38] 49 U.S.C. § 10707(a).

[39] 49 U.S.C. § 10101.

Once *Chevron* is stripped away, what remains is a rule that sacrifices substantive accuracy for administrative convenience—an approach courts are unlikely to uphold when the statutory policy tilts so heavily toward incorporating competitive forces. Put simply, the STB's blanket prohibition may have survived under the deferential regime of *Chevron*, but it faces a far tougher slog under *Loper Bright*'s command of independent judicial review. Indeed, the board has conceded that product and geographic competition can effectively constrain rail rates.[40]

To remedy this legal infirmity, the STB should revisit its 1998 rule and restore consideration of product and geographic competition in market-dominance determinations, aligning its procedures with both the statutory text and contemporary competitive realities.

IV. Revenue Adequacy as a Floor, not a Ceiling

In the rail context, the statutory concept of "revenue adequacy" was introduced by §10704 of the Staggers Rail Act as part of Congress' broader attempt to restore the financial health of an industry that had been brought to the brink of collapse by decades of pervasive rate and service regulation.[41] The statutory text instructs the STB to:

> maintain … standards and procedures for establishing revenue levels for rail carriers … that are adequate, under honest, economical, and efficient management, for the infrastructure and investment needed to meet the present and future demand for rail services and to cover total operating expenses, including depreciation and obsolescence, plus a reasonable and economic profit or return (or both) on capital employed in the business.[42]

The central purpose was clear: Congress wanted private railroads to have the ability to attract capital and to maintain, modernize, and expand their networks.

Yet in recent decades, some have attempted to repurpose revenue adequacy as a tool to constrain railroads' earnings, treating it as an implicit rate cap.[43] This view is in tension with both the statutory text and the economics of network investment. As Bernard Sharfman has argued, the text of §10704 links adequacy to the industry's health and ability to attract capital; nothing in the statute authorizes the STB to use adequacy as the basis to lower maximum rate levels.[44] Revenue adequacy was meant

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[40] See *Market Dominance Determinations–Product and Geographic Competition*, 3 S.T.B. 937, 945 n.49 (1998), *available at* https://www.stb.gov/wp-content/uploads/BV-3-Jan98-Dec98-937.pdf (acknowledging that "in certain circumstances product and geographic competition effectively limit railroad pricing").

[41] 49 U.S.C. §10704.

[42] *Id.* at § 10704(a)(2).

[43] *See*, *e.g.*, Russell Pittman, *Two Roads Diverged: Two Alternate Strategies for Protecting Captive Freight Shippers in the "Americas" Model of Freight Rail Restructuring*, U.S. DEP'T OF JUSTICE ANTITRUST DIV. (Expert Analysis Group Discussion Paper EAG 24-2, Oct. 2024), https://www.justice.gov/atr/media/1372596/dl?inline (framing "revenue adequacy" as a constraint (ceiling) in certain ratemaking contexts to prevent monopoly pricing by claiming it is used to establish "constrained market pricing" in rate cases with captive shippers).

[44] Bernard S. Sharfman, *The Significance of 'Adequate Revenues' Under the Staggers Rail Act of 1980*, TRANSPORTATION L.J. (forthcoming), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5236244.

to signal whether the system as a whole was capable of earning a competitive return on invested capital, not to set a ceiling for ratemaking in individual disputes. To invert adequacy from a floor into a cap is to treat a measure of industry health as if it were evidence of monopoly rents.

The economic problems with this inversion are significant. If regulators treat adequacy as a ceiling, they effectively punish railroads for achieving the very financial stability that Congress intended for them to attain. It also undermines market incentives to invest in long-lived, capital-intensive assets. Railroads face enormous, fixed costs in maintaining track, equipment, and safety systems, and their ability to fund these investments depends on sustained profitability.

Moreover, using adequacy levels as a *de facto* rate cap discourages carriers from pursuing efficiency gains or productivity improvements, since any financial gains will be clawed back through regulatory rate reviews. The result is a chilling effect on innovation and network expansion. As Sharfman emphasizes, this risks locking the industry into a "just enough to survive" equilibrium, when the statutory design was to ensure a robust, capital-attracting rail system.[45]

Instead, revenue adequacy should be treated as a health diagnostic, not as a lever for rate suppression.[46] In economic terms, adequacy is about dynamic efficiency: ensuring that the industry has sufficient resources to maintain and improve its infrastructure over time. Misusing it as a ceiling prioritizes short-term distributional gains for certain shippers at the expense of long-term system investment, a tradeoff that is both economically inefficient and contrary to congressional intent. Moreover, such a ceiling approach creates perverse incentives: railroads may avoid pursuing new efficiencies or cost savings, fearing that any margin will trigger more aggressive regulatory intervention.

In short, the proper reading of §10704 is that revenue adequacy functions as a threshold assurance—a guarantee that the system can attract the capital it needs. It is not a metric for determining whether railroads are "too profitable" or whether rates should be capped below levels permitted by competition and statutory maximum-rate standards. Using adequacy in this way violates both the statutory scheme and the basic principles of regulatory economics. As Sharfman concludes, adequacy should be viewed as a floor that protects the industry's viability, not as a ceiling that undermines the very incentives Congress sought to preserve.[47]

Further, read through a post-*Loper Bright* lens, §10704's architecture reinforces the reading that it was intended as a floor. The provision instructs the STB to assure adequacy so that private railroads can attract capital; it does not supply a freestanding mandate to cap earnings once that condition is met. Under *de novo* review, courts will ask whether Congress authorized the use the board proposes.

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[45] *Id.*

[46] *Id.*

[47] *Id.*

Treating adequacy as a ceiling is not a textual implementation of § 10704; it is a policy preference that reassigns the statute's investment assurance into an earnings constraint. That is precisely the kind of atextual gloss that *Loper* makes difficult to defend. The safer—and more faithful—reading of the statutory text is that adequacy sets the investment floor, while any limits on rates must be justified case-by-case under the separate maximum-rate provisions and on a record that demonstrates actual market power.[48]

V. Preemption and the Networked Industries

Rail is the paradigmatic network industry. It relies on sunk, interconnected assets and generates value from seamless interstate operations. Congress codified that reality in the ICCTA, which vests the STB with exclusive jurisdiction over "transportation by rail carriers" and expressly preempts state and local regulation "with respect to regulation of rail transportation."[49]

For nearly three decades, courts have read §10501(b) to bar state and local measures that seek to manage or govern rail operations, while tolerating truly general, neutral laws (*e.g.*, building codes, fire and electrical safety) that do not unreasonably burden rail service. Appellate decisions have repeatedly enshrined this division. This congressional choice to make federal regulation "completely exclusive" underscores that preemption was an essential component of the ICCTA's deregulatory design.[50] State or local schemes that function as rail-specific permitting, siting, or veto devices are preempted; truly general exercises of police power that do not intrude on operations typically survive.[51]

The doctrinal payoff of this express preemption is a single national baseline—not because uniformity is a value in itself, but because uniformity is part of what makes competition possible for a networked industry. It keeps assets fungible, schedules reliable, and intermodal/geographic substitutions viable.

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[48] There are other instances in the statute that support this view. *See* 49 U.S.C. § 10101(3) (stating U.S. policy is "to promote a safe and efficient rail transportation system by allowing rail carriers to earn adequate revenues, as determined by the Board"); 49 U.S.C. § 10707(a)(2) (requiring the board to "make an adequate and continuing effort to assist those carriers in attaining revenue levels prescribed under this paragraph"); 49 U.S.C. § 10704(a)(3) (directing the board to "annually determine which carriers are earning adequate revenues"); 49 U.S.C. § 10701(d)(2) (instructing the board to consider "the policy of this part that rail carriers shall earn adequate revenues" when evaluating rate reasonableness).

[49] 49 U.S.C. § 10501(b).

[50] *See* H.R. Rep. No. 104-311, at 95–96 (1995) (explaining that the ICCTA eliminated a limited state police-power exception "as unnecessary, in view of the Federal policy of occupying the entire field," and that "[a]lthough States retain the police powers reserved by the Constitution, the Federal scheme of economic regulation and deregulation is intended to address and encompass all such regulation and to be completely exclusive").

[51] *Green Mountain R.R. Corp. v. Vermont*, 404 F.3d 638, 643–46 (2d Cir. 2005) (ICCTA § 10501(b) broadly preempts state land-use permitting that functions as a rail-specific veto; notes that *generally applicable* health/safety codes may apply if they don't unreasonably burden operations); *N.Y. Susquehanna & W. Ry. Corp. v. Jackson*, 500 F.3d 238, 252–54 (3d Cir. 2007) (ICCTA preempts state efforts that regulate operations, while allowing neutral laws of general applicability that do not unreasonably interfere); *Friberg v. Kan. City S. Ry. Co.*, 267 F.3d 439, 443–45 (5th Cir. 2001) (Texas anti-blocking statute preempted because it directly regulates train operations/scheduling).

Congress itself confirmed this structure by carving out narrow, express exceptions—*e.g.*, the Clean Railroads Act of 2008,[52] which subjects certain solid-waste rail-transfer facilities to specified state and local oversight and gives the STB a tailored "land-use-exemption permit" role.[53] Thus, when Congress wants state overlay local rules within the rail domain, it does so explicitly. Absent such instruction, the ICCTA's default is federal exclusivity over rail transportation.

Two additional clarifications matter. First, preemption analysis under §10501(b) is statutory; it is not a free-floating balancing test. The question is whether the challenged measure regulates rail transportation or amounts to a rail-targeted impediment to operations, facilities, or services. Second, overlapping statutes (*e.g.*, the Federal Railroad Safety Act (FRSA))[54] have their own preemption/savings architectures; they do not diminish ICCTA's independent field of exclusivity over economic regulation of rail transportation.

States often invoke the FRSA to justify regulatory overlays where the Federal Railroad Administration has not acted, but that argument misreads the statutory framework. The FRSA and ICCTA address distinct spheres—safety versus economic regulation—and the presence of an FRSA savings clause does not dilute the ICCTA's field preemption over rail transportation. As the STB has explained, "when both the Board and FRA have jurisdiction, the later-enacted ICCTA preemption may impose restraints on state action even where the FRSA preemption does not."[55] The DOJ has taken the same position, emphasizing that:

> [T]he FRSA cannot be read to create a loophole in the ICCTA that would permit a patchwork of state and local regulation over rail transportation simply because the regulations also happen to touch on "safety-related" matters.[56]

While *Loper Bright* casts a long shadow here as well, in the case of ICCTA §10501(b), the statutory command is so clear, and the legislative intent so unmistakably deregulatory, that both the STB and the courts should interpret preemption broadly and consistently. Congress paired express preemption with exclusive federal jurisdiction precisely to prevent state and local interference with rail operations.

In that context, *Loper Bright* reinforces, rather than undermines, the STB's authority to articulate a uniform preemption policy grounded in the statute's text. Both the board and reviewing courts should therefore err on the side of preemption: neutral, generally applicable laws may apply only insofar as they do not manage or govern rail transportation or impose unreasonable burdens on operations, while policy-driven efforts to steer routing, scheduling, equipment, or facility use are

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[52] 49 U.S. Code § 10908.

[53] 49 U.S. Code § 10909

[54] 49 U.S.C. §20109.

[55] STB Amicus Br. at 6, 9, *Iowa, Chi. & E. R.R. v. Wash. Cnty.*, 384 F.3d 557 (8th Cir. 2004) (No. 03-3136), 2004 WL 6395939.

[56] Brief for the United States as Amicus Curiae, *Ohio v. CSX Transp.*, 144 S. Ct. 545 (2024) (No. 22-459), 2023 WL 8112708, at *13.

preempted at the threshold. The same textual discipline illustrated by *Grand Trunk* and the earlier market-dominance discussion applies no less to ICCTA preemption.

For a networked industry like rail, preemption is itself an infrastructure for competition. As discussed above, intermodal rivals and product/geographic substitutions provide discipline for modern rail markets. Patchwork regulation erodes those constraints in three predictable ways.

- Latency and uncertainty—state-by-state permits, facility-specific approvals, or rail-targeted fees—would lengthen cycle times and inject variance that shippers cannot hedge, dulling the price discipline of alternative routes or modes.
- Loss of fungibility—locomotive or equipment restrictions, conflicting emissions or crew mandates—reduces the interchangeability of assets across state borders, shrinking the practical option set for shippers.
- Cost layering—compliance costs accumulated across jurisdictions—raises delivered prices and compresses the competitive frontier that the STB should recognize in market-power analyses.

By contrast, the ICCTA's uniform baseline lowers search and compliance costs and preserves the reliability and asset mobility on which effective competition depends.

A. Renewed State Overlays, Familiar Fault Lines

Various familiar pressure points have resurfaced since our 2024 report because of recent state initiatives. Several jurisdictions have adopted environmental controls tailored to rail operations, most notably "waste-by-rail" regimes that single out putrescible or construction-and-demolition material moved by rail.[57] These laws typically require enclosure, impose throughput or dwell-time caps, mandate buffer zones, or condition movement on rail-specific permits; they function, in practice, as commodity-specific operational vetoes, rather than neutral health measures.

Some states have also imposed rail-only fees framed as safety or hazardous-materials assessments. Typically, these are keyed to train movements, railcars, or hazardous contents, and dedicated to rail-specific funds coupled with inspection or planning mandates. Such fees operate less like neutral taxation and more like targeted regulation of operations and throughput.

For example, in 2023, Minnesota revived and increased a railroad/pipeline safety assessment that funds hazmat readiness—$4 million annually, with 70% charged to railroads according to route-

[57] *See*, *e.g.*, N.Y. Environmental Conservation Law § 27-0712, https://law.justia.com/codes/new-york/env/article-27/title-7/27-0712 (requires railcars hauling putrescible waste to be sealed with hard lids and non-putrescible waste to be covered with hard tarps); N.J.A.C. 7:26-2D.1, https://www.law.cornell.edu/regulations/new-jersey/N-J-A-C-7-26-2D-1 (imposes operational standards on rail carriers that transfer solid waste to/from rail cars, including sealed containers at all times and time-at-facility limits (*e.g.*, a limit for putrescible waste of less than or equal to 72 hours)); New York City DSNY siting rules for putrescible and C&D transfer stations, *available at* https://www.nyc.gov/assets/dsny/downloads/about/adopted-rules/about-adopted-rule-siting-requirements-transfer-stations-0815.pdf (requires minimum buffer distances from residential/sensitive uses (*e.g.*, 400–700 feet) and throughput conditions, keyed in part to whether material is moved by rail or vessel).

miles—and with additional charges after "significant response" incidents. The state also created dedicated accounts for the hazmat rail-safety program.[58]

The California Air Resources Board's (CARB) 2023 In-Use Locomotive Rule would have required railroad operators to fund emissions-indexed spending accounts; comply with a 30-minute idling cap and detailed reporting; and meet age-based operational limits, with zero-emission milestones for switchers and line-haul locomotives.[59] In that case, litigation followed. After CARB represented it would not enforce the rule—pending Environmental Protection Agency (EPA) action—it withdrew its authorization request in January 2025 and noticed a repeal. This left the rule as a salient—but ultimately withdrawn—example of a state rail-specific equipment/emissions mandate.[60]

B. Preemption as Pro-Competitive Infrastructure

ICCTA preemption is not a peripheral doctrine; it is integral to the statutory and economic synthesis developed here. As *Loper Bright* underscores, the statutory text controls and §10501(b) provides a uniquely clear textual command: exclusive federal jurisdiction, paired with express preemption of state and local regulation of rail transportation.

Reaffirming that command serves two core functions. First, it keeps regulatory authority within the statute's bounds, ensuring that neither state overlays nor agency improvisations displace the structure Congress enacted. This was reflected in the jurisprudential theme running through *Grand Trunk* and beyond. Second, it preserves the conditions under which competition operates in a network industry. By blocking state interventions that would otherwise degrade reliability, raise delivered costs, and constrict product and geographic alternatives, ICCTA preemption protects the very competitive frontier the STB must recognize in its analyses.

In network industries, uniformity is not antithetical to competition; it is essential. Rail demonstrates this most vividly: only with a stable and uniform federal baseline can intermodal and geographic substitution discipline carrier pricing and investment choices. The ICCTA is the legal mechanism that delivers this uniformity, and in doing so, it ties the jurisprudential discipline of post-*Loper Bright* review to the economic realities of modern rail competition.

V. Conclusion

Read in context of the post-*Loper Bright* frame, the controlling question across rail regulation is no longer whether an agency's policy is "reasonable" but whether Congress authorized it. *Grand Trunk* supplies the template. Begin with the statute, its structure, and settled predicates; do not

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[58] Minn. Stat. § 299A.55 (2023), *available at* https://www.revisor.mn.gov/statutes/2023/cite/299A.55/pdf.

[59] *Final Regulation Order: In-Use Locomotive Regulation*, CAL. AIR RES. BD. (2022), Title 13, Cal. Code Regs. §§ 2478–2478.17, *available at* https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/locomotive22/fro.pdf.

[60] *Public Hearing to Consider the Proposed Repeal of the In-Use Locomotive Regulation: Staff Report, Initial Statement of Reasons*, CAL. AIR RES. BD. (Apr. 29, 2025), *available at* https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2025/locorepeal/isorlocorepealada.pdf.

creatively interpret around them. That same textual discipline requires that market-dominance and rate decisions must rest on the record's evidence of competition, rather than on assumptions that markets are captive or static.

The economic corollary is straightforward. Where product and geographic substitution exist, competition analysis must admit it. Moreover, revenue adequacy under §10704 must be treated as the floor that Congress designed to sustain investment, not as an *ad hoc* ceiling on earnings. Where rates are to be restrained, the work belongs under §10707 on a case-specific record of market power. This alignment—text first, evidence next—preserves incentives to maintain and expand a capital-intensive network, while targeting intervention to those narrow settings where true dominance persists.

Finally, ICCTA preemption is not peripheral; it is infrastructure for competition in a network industry. A uniform federal baseline lowers latency and compliance costs, preserves asset fungibility and reliability, and keeps intermodal and geographic rivalry viable. Reaffirming robust §10501(b) preemption, modernizing competition analysis, and maintaining the floor reading of revenue adequacy would together yield a coherent legal-economic program. Statutory fidelity is not at odds with rail competition; it is the precondition for it.