



Veering Off the Rails: How the Recent Push to Reregulate Railroads Threatens Consumer Welfare

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Executive Summary

Since 1980 when private freight railroads were largely deregulated, the industry has thrived, with market forces pushing productivity higher and shipping prices down 44% from their peak in the late 1970s. Largely removing the government from routing, pricing and investment decisions has delivered well over \$10 billion in annual economic benefits to consumers.

Recent efforts to increase regulation, however, threaten to erode these successes by imposing burdensome rules that would force rail operators to accept competitors' traffic on privately-owned tracks at regulated prices. Though some claim these measures are needed to counteract anti-competitive practices, this study will show these arguments carry little weight. We document the historical turnaround of the freight railroad industry and the new regulatory threat it faces.

In our economic analyses, we consider market structure, conduct, and performance, and we find no empirical evidence of a market failure that would justify increasing regulations. Furthermore, the notion that rail competition is inadequate is misplaced. With freight rail accounting for less than 20% of tons shipped, those advocating for increasing rail regulations and costs or capping prices greatly underestimates the impact of intermodal rivalry and is more a reflection of rent-seekers using the regulatory process for personal gain.

In light of the consumer welfare benefits and competition that has materialized in the last 40 years since regulatory reforms, we conclude that regulations should provide clear and quantified evidence of costs and benefits. Absence that evidence, policymakers should not

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reverse the consumer welfare gains that have been achieved over the last decades since regulatory reforms were promulgated.

The Consequence of Rail Reforms

To understand what could be at stake if policymakers reinstitute onerous regulations on the railroad industry, it is helpful to understand the condition of the industry a half a century ago.

In the late 1970s, America's railroads faced a grim future. Nearly a century of overregulation by the federal government — including strict controls over the determination of rail routes, use of private investments, and setting of shipping prices — had become so onerous that the industry's financial viability was uncertain. Operators were forced to maintain unprofitable lines and had to navigate a complex approval process to change their rates or invest in new capital. Trucking had begun to erode significant freight volumes as intermodal competition intensified. As a result, several major carriers faced imminent bankruptcy, including Penn Central, the largest in U.S. history at the time. From 1962 to 1978, industry returns on investment averaged just 2.4%.²

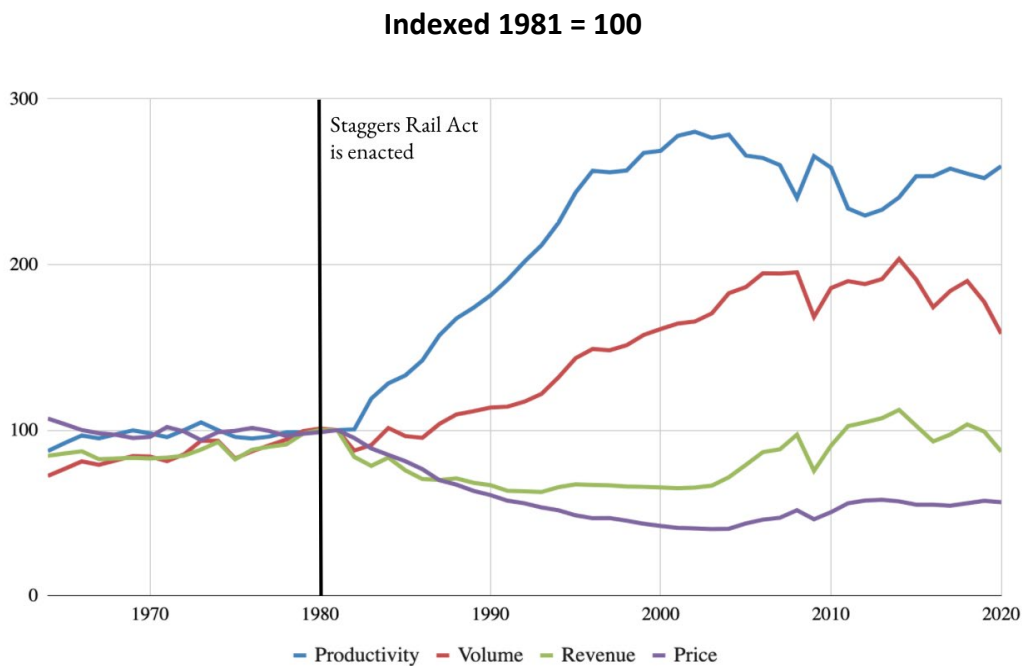
Faced with the possibility of costly bailouts, the Staggers Rail Act was passed by the Democratic-Controlled House and Senate in 1980, and it was signed into law by President Jimmy Carter. The law eliminated many of the regulations and mandates that had stifled market forces for so long. Under the new rules, carriers were allowed to abandon unprofitable routes and encouraged to adopt flexible and differential pricing. As a result, the industry rapidly rebounded.³ Increased competition brought higher freight volumes, vast productivity

² For a more complete discussion and references to railroad deregulation and the resulting market outcomes, see "Regulating Railroads is the Wrong Track for Consumers," The American Consumer Institute, 2017, <http://www.theamericanconsumer.org/wp-content/uploads/2017/03/RR-CG-Final.pdf>.

³ For a detailed history of U.S. railroad policy and its effects, see Fred Smith, Jr. and Marc Scribner, "Reviving Capitalism: Lessons from the Near-Death and Rebirth of American Railroads," Competitive Enterprise Institute, 2015, <https://cei.org/sites/default/files/Fred%20Smith%20and%20Marc%20Scribner%20-%20Reviving%20Capitalism.pdf>.

improvements, and decreased rates for shippers. From 1980 to 2020, taking account of inflation, the industry's productivity has increased 159%, shipping volumes have increased 57%, revenues have dropped 13%, and prices have plummeted 44% (see Figure 1).

Figure 1: The Success of Rail Deregulation



Published in Douglas Holtz-Eakin, "Railroads in the Bullseye," *The Daily Dish*, American Action Forum, July 9, 2021, <https://www.americanactionforum.org/daily-dish/railroads-in-the-bullseye/>.

Technological innovation flourished, making rail transport more efficient and safer. Train accident rates declined by 66% from 1981 to 2020.⁴ Economists estimate that American consumers enjoy more than \$10 billion in additional annual benefits because of these reforms,⁵ with some estimates as high as \$16 billion per year in just the first decade of reforms.⁶ In 2020,

⁴ Data downloaded at the Federal Railroad Administration, Office of Safety Analysis, September 2021, <https://safetydata.fra.dot.gov/OfficeofSafety/publicsite/Query/TenYearAccidentIncidentOverview.aspx>.

⁵ Steve Pociask, "Smart Rail Regulations Protect Consumers, Morning Consult, April 5, 2017, <https://morningconsult.com/opinions/smart-rail-regulations-protect-consumers/>.

⁶ C.C. Barnekov and A.N. Kleit, "The Efficiency Effects of Railroad Deregulation in the United States," *International Journal of Transport Economics*, 17:21, 1990, estimated annual benefits of \$9.7 to \$16.2 billion in the first decade.

in celebration of the Staggers Rail Act's 40th anniversary, more than 1,000 local and national leaders, policy experts, and economists issued a letter to federal regulators warning that re-regulating railroads could have serious negative consequences:

*We implore the Surface Transportation Board to preserve the delicate regulatory balance created by the Staggers Act, allowing freight railroads to innovate, adapt and reinvest in the rail network. Our communities, our businesses and our employees depend on it.*⁷

The Potential for New Regulations

While the economic facts provide compelling evidence of the link between the reduction in regulations and massive consumer benefits, there has been a recent push to re-regulate the rail industry. On July 9, 2021, the President issued an Executive Order, "Promoting Competition in the American Economy," that urges the Surface Transportation Board (STB) — the agency responsible for overseeing railroads — to "strengthen regulations pertaining to reciprocal switching agreements."⁸ This recent push to implement additional regulations ignores the lessons from the past and threatens the benefits that regulatory reforms delivered to the U.S. economy over the last four decades.

Reciprocal switching, also called "forced switching," "forced access," or "open access," would require a railroad operator to take competitors' traffic onto its privately-owned and maintained tracks at rates set by the STB. Under reciprocal switching, a railroad with physical access to a specific shipping facility is forced to accept rail traffic to the facility for another railroad without physical access. In addition, these regulations could lead to reduced rail traffic for the carrier and strand or underutilize embedded investments, leading to higher costs and undermine rail's intermodal competitiveness.

⁷ Letter to the Surface Transportation Board, GoRail, October 14, 2020, <https://gorail.org/wp-content/uploads/Staggers-Anniversary-Letter-to-STB.pdf>.

⁸ Executive Order No. 14036, 86 FR 36987, July 9, 2021, <https://www.federalregister.gov/documents/2021/07/14/2021-15069/promoting-competition-in-the-american-economy>.

Proponents of reciprocal switching argue that contracts between railroad operators sometimes include provisions for reciprocal switching, and that these provisions have not created major problems for the industry. It is crucial to distinguish, however, between reciprocal switching that is mutually beneficial for both parties — as expected with private contracts — and reciprocal switching that is forced by the government. Because bureaucratic decisions are often based on biased or incomplete information, mandating reciprocal switching could easily provoke network bottlenecks, delays, unrecoverable costs and investments, and other costly inefficiencies. Railroads are already free to enter into reciprocal switching agreements when they make economic and operational sense to both parties. The urging of the STB to mandate reciprocal switching more broadly is based on thin and outdated research and an inadequate understanding of how America’s railroads function.

Still, in some circumstances, reciprocal switching can be justified. Recognizing the possibility of rail operators using their market position to impose inflated prices on “captive shippers,” federal regulators adopted Competitive Access Rules in 1985 that allow the STB to invoke reciprocal switching as a regulatory remedy, but only if regulators were to find a market failure that demonstrated a competitive harm. Over the years, however, only a few complaints by captive shippers resulted in regulatory investigations, and none found sufficient reason to grant reciprocal switching. To be clear, since 1985, regulators have not found a *single* incident of anticompetitive actions by railroads that justified reciprocal switching. So, what market failure exists that requires a regulatory remedy to fix it? This question and the evidence by Christensen and others will address later in this paper.⁹

Despite the lack of anticompetitive actions found by investigation, in 2012, the STB opened a proceeding at the behest of a lobbying group, the National Industrial Transportation League. In its petition, the group called on the STB to weaken the anticompetitive standard, thereby making it easier for shippers to demand reciprocal switching. The proposal applied to only Class I railroads operating in a market with limited competitive alternatives and where railroads had a working exchange within a reasonable distance to a shipper. Under this

⁹ Christensen Associates, Inc. “A Study of Competition in the U.S. Freight Railroad Industry and Analysis of Proposals that Might Enhance Competition,” 2008, <https://prod.stb.gov/reports-data/reports-studies/>.

proposal, if regulators found switching to be feasible and not overly disruptive to the railroad's services, reciprocal switch could be mandated.

Despite no evidence of market failures to warrant revisions to the Competitive Access Rules, in 2016, the STB released an order on reciprocal switching along the lines advocated by the lobbying group. For its justification, the STB cited the lack of forced switching by regulators as an indication of a problem, although that same information demonstrates a lack of a problem. Equally troubling is that the order uses vague terminology – like feasible, reasonable distance, unduly hamper and potential benefits – inviting wide discretion to regulators and broadening the potential for increased and unbounded regulatory intervention in the future. Gone would be the well-established competitive harm and market failure standards that would possibly trigger a regulatory remedy, and potentially lost would be the consumer gains from historical regulatory reforms.

While the 2016 order by the STB never took effect, it could consider similar rule changes soon, considering that the chairman of the five-member agency did participate in the panel that created the President's Executive Order recommendations.¹⁰

Not only is there no evidence that reciprocal switching is needed to correct market failures, but the practice would introduce a host of bad incentives and bureaucratic inefficiencies. Reciprocal switching would limit negotiation between the parties and allow regulators to arbitrarily set prices – potentially below market rates. Shippers granted relief would be advantaged by lobbying for artificially low rates, while railroads would be potentially impacted by declining cash-flows that are necessary to pay for operations, maintenance, and investment. In other words, shippers would have an incentive to make the most of the regulatory process in search of below market rates. The new rules would return the railroad industry to its disastrous past when regulations nearly put the railroads out of business.

If deregulation provides more than \$10 billion annual consumer benefits, as economists have concluded, then instituting an open access regulatory regime jeopardizes consumer

¹⁰ Ted Mann, "Railroads Brace as Regulator Signals Willingness to Take on Industry," *The Wall Street Journal*, September 2, 2021, <https://www.wsj.com/articles/railroads-brace-as-regulator-signals-willingness-to-take-on-industry-11630584002>.

welfare. On the surface, the new threat of re-regulating the railroads is not in the public's interest, despite claims to the contrary in the Executive Order.

Before the STB proceeds with these changes, it has a public obligation to demonstrate the presence of a market failure and lay out how reciprocal switching is the least intrusive remedy.¹¹ To do this, the STB needs to fully analyze the market structure, conduct and performance. Without some evidence of systematic market failure, implementing new competitive rules would amount to regulatory malpractice – regulating for the sake of regulating. As economist Douglas Holtz-Eakin, former director of the nonpartisan Congressional Budget Office, recently observed:

Justification for the STB's 2016 reciprocal switching proposal seems to stem from the fact that the agency has not forced reciprocal switching on railroads since 1985. This fact alone does not necessarily warrant regulatory action. Accordingly, the STB should conduct a thorough analysis ... before it acts to restrict the market by making it easier for the Board to impose switching requirements on freight railroads.¹²

Structure, Conduct and Performance Paradigm

Regulations are typically justified as efforts to address market failures. Externalities, market power, imperfect information, and public goods are the main culprits identified by economists as sources underlying market failures. To determine if a market failure exists and produces anticompetitive harms, this study explores the railroad's market structure, conduct and performance, including reviewing market indicators of concentration, competition, prices, profits, and investment.

1. Market Structure

The economic literature is inconclusive on the notion that market structure results in higher prices or exorbitant profits. Markets characterized by high fixed costs often benefit from

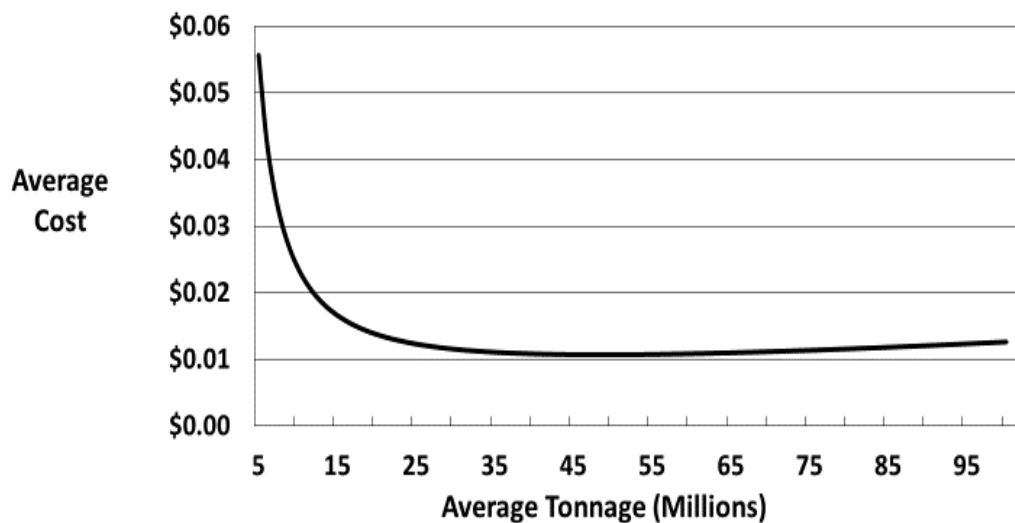
¹¹ Patrick A. McLaughlin, "Rail Regulation Highlights Need For Required Economic Analysis, *The Hill*, October 4, 2017, <https://thehill.com/opinion/finance/353794-rail-regulation-highlights-need-for-required-economic-analysis>.

¹² Douglas Holtz-Eakin, "Railroads in the Bullseye," American Action Forum, July 9, 2021, <https://www.americanactionforum.org/daily-dish/railroads-in-the-bullseye/>.

sizable economies of scope and scale, which in turn enable concentrated markets to set prices lower and to expand market output more than atomistic markets would. At the optimal scale of production, lower prices and increased output, by definition, enhance consumer welfare, and this should be the goal of regulatory policy. Because policymakers do not know what the optimal number of producers in any given market should be, regulations designed to create more competitors can work to misallocate resources, create market inefficiencies and unintentionally increase consumer prices. Therefore, creating artificial competition should not be the role of regulators.

The railroad industry is capital-intensive, which helps explain the nature of its market structure. While there are 582 short line railroad operators (Class III) and 21 regional operators (Class II), there are only seven large railroad operators (Class I) in the U.S. However, as shown in Figure 2 below, these few large railroad operators have lower direct operating costs per mile compared to smaller railroad operators. Declining average cost provides strong evidence of the industry's significant economies of scale. This means that high market concentration is necessary to achieve lower per unit costs, which ultimately yield lower consumer prices.

Figure 2: Economies of Scale Produce Lower Prices



Source: Association of American Railroads analysis of R-1 report data on Class I railroads, 1987-2016.

Even with higher market concentration, competition in the industry is significant. While Class I railroad operators frequently compete head-to-head with other railroad operators, they also face substantial intermodal competition. In 2018, the distribution of transported freight was 61% by truck, 18% by pipeline, 9% by rail, 6% by water and 7% by multiple modes. Rail represents only 3% of revenues among all modes of freight transportation, and its share of freight (in tons) was less than 30% for all of the top 10 major commodities listed by the U.S. Department of Transportation, apart from coal, now in decline.¹³ In general, trucks dominate the intermodal market with unsurpassed geographic accessibility, giving shippers the flexibility to relocate their operations based on a host of considerations. By contrast, most railroad routes have been in place for many decades and are not easily moved or extended.

In summary, the economic literature provides no definitive empirical evidence to conclude that markets should be regulated solely because they are concentrated. Based on the evidence of economies of scale and intermodal competition, there is no obvious market failure that would warrant government remedies.

2. Investment, Prices and Profits

The railroad industry is a major investor in U.S. infrastructure. From 1980 to 2020, America's freight railroads invested nearly \$740 billion — averaging nearly \$19 billion a year, or \$5.3 million per mile of track — on capital expenditures and maintenance. These include locomotives, freight cars, tracks, tunnels, bridges, and other infrastructure. Unlike trucks that travel on publicly-owned and financed roads, however, rail operators are responsible for building and maintaining the industry's privately-owned transportation system.¹⁴ In addition to 100,000 bridges, the rail network consists of 140,000 miles of track. The healthy rate of capital

¹³ U.S. Department of Transportation, "Transportation Statistics Annual Report," 2020, <https://www.bts.gov/tsar>.

¹⁴ In 2017, rail transportation accounted for only 1.6% of total public spending (including federal, state, and local governments) on transportation infrastructure. See "Public Spending on Transportation and Water Infrastructure, 1956 to 2017," Congressional Budget Office, October 2018. Available at: <https://www.cbo.gov/publication/54539>.

formation makes the industry dependent on economies of scale, as previously noted, but it also requires differential pricing to recover the costs of infrastructure and equipment.

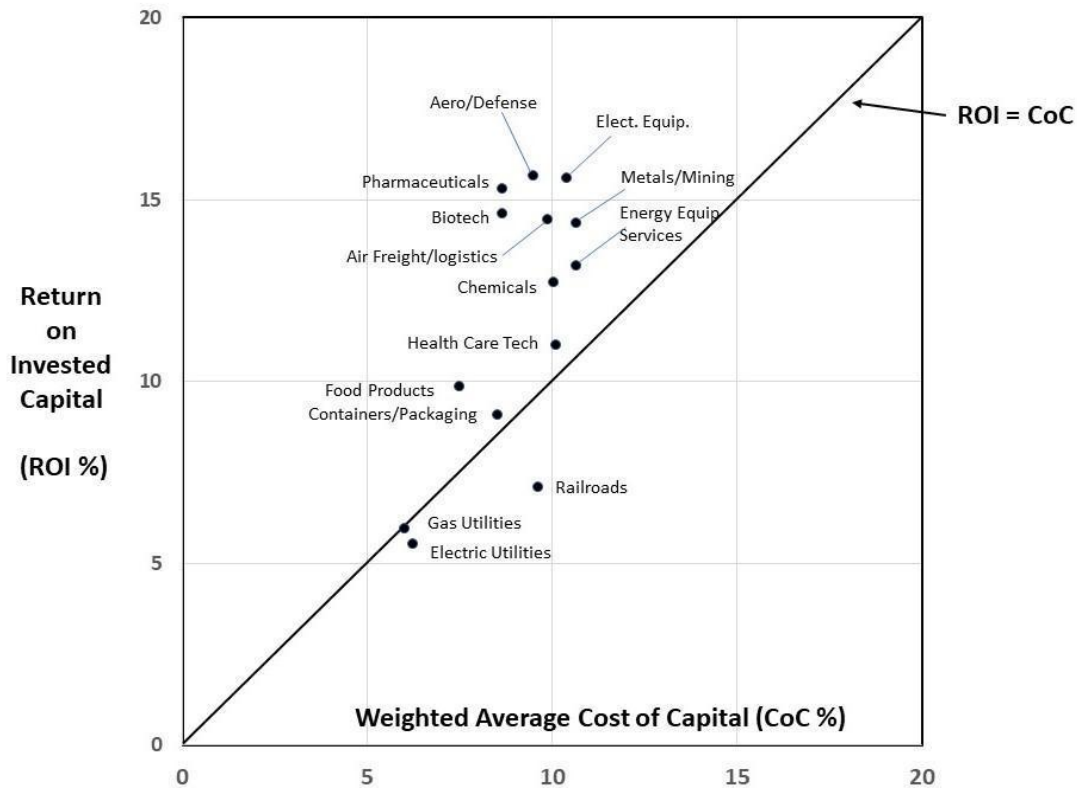
Despite the capital-intensive nature of the industry, average railroad prices have not increased as fast as the prices of other goods, and generally have increased less than prices for other modes of transportation. Since railroad deregulation, as noted above, freight rates have decreased by 44% in inflation-adjusted terms. A slight uptick in prices in the early 2000s led the STB to commission an independent economic review, the Christensen Report. The analysis concluded that the increase in price had been strongly correlated with increases in energy prices, rather than abuses of market power. The report also noted that, compared to the performance of electric utilities and the S&P 500 composite index, railroad operators' earnings "do not appear to be excessive from a financial market perspective."¹⁵

In fact, empirical evidence demonstrates that railroads are not more profitable than most other industries. For example, looking at a 10-year period of financial results, industry profitability in terms of "over-adequacy" – that is, the weighted average cost of capital minus return on invested capital – railroads would appear to fall short of those industries most publicly seeking regulation. At the same time, other industries, except electric and gas utilities, would appear to be over-adequate.¹⁶ The results, depicted in Figure 3, shows that the rail industry has relatively lower returns on investment and similar to regulated public utilities, compared to other major industries. The data in Figure 3 also suggest that using the STB's definition of acceptable returns on capital would find over-adequacy to be the norm across many industries.

¹⁵ Christensen Associates, Inc. "A Study of Competition in the U.S. Freight Railroad Industry and Analysis of Proposals that Might Enhance Competition," 2008, <https://prod.stb.gov/reports-data/reports-studies/>.

¹⁶ Joseph P. Kalt and Raymond Atkins, "Hearing on Railroad Revenue Adequacy," Before the Surface Transportation Board, Docket No. EP761 & 772, On Behalf of Association of Railroads, December 12, 2019, citing Parthenon analysis and Bloomberg data. Hearing memo available here: <https://prod.stb.gov/news-communications/transcripts-statements/>.

Figure 3: By STB's Definition, Most Industries are Over-Adequate



Source: Adapted from Joseph P. Kalt and Raymond Atkins, "Hearing on Railroad Revenue Adequacy, Docket No. EP 761 & 722, December 12, 2019, citing Parthenon and Bloomberg data. Note: 10-Year Averages, 2004 to 2013)

In addition, a review of the change in Producer Price Indexes covering the last twenty-five years shows that railroad prices have increased slower than all major modes of freight transportation, apart from trucking. While real rail prices have declined, shipping costs have soared.¹⁷ Moreover, if freight truck operators were required to build and maintain their own roads and bridges without taxpayer support, it is safe to expect trucking prices would be substantially higher today.

¹⁷ Paul Page, "Container Shipping Prices Skyrocket as Rush to Move Goods Picks Up, *Wall Street Journal*, July 5, 2021.

In light of these facts, the Christensen Report warned against plans to force competition through government intervention. The report stated: “Current market circumstances imply that providing significant rate relief to certain groups of shippers will likely result in rate increases for other shippers or threaten railroad financial viability.”

Based on our review of market structure, conduct and performance, the railroad sector does not appear to have any obvious market failures. Investment is healthy, profits are normal, and prices have increased far less than prices in other competitive markets and are in line with costs. The STB’s interest in exploring new regulatory schemes comes without any supporting empirical evidence of a market failure. Without a problem to fix, there is no need for regulations as a government remedy.

Market Failure vs. Regulatory Failure

As noted earlier, economic regulation is typically justified based on the presence of some market failure. Yet determining if a market failure exists is only the first step in evaluating whether government intervention is worth pursuing. Although markets are sometimes imperfect, so too are government regulatory processes. The fact is that imperfect markets can, in some cases, outperform government failure.

Regulations can have a host of shortcomings, including regulatory lag, regulatory creep, asymmetric and imperfect information, regulatory capture by vested interest groups (rent-seeking), the absence of regulatory commitment, and the inability of policymakers to forecast regulatory impacts in a dynamic, rapidly-changing market. Given that bureaucracies might not have the same incentives for efficiency, cost minimization, and welfare maximization as private markets do, their actions often come at twice the cost.¹⁸

¹⁸ K. Hayes and L.L. Wood, “Utility Maximizing Bureaucrats: The Bureaucratic Point of View,” *Public Choice*, Vol. 82, Issue 1-2, pp. 69.83, January 1995; and James T. Bennett and Manuel H. Johnson, “Better Government at Half the Price: Private Production of Public Services,” Jameson Books, Inc., 1982.

Fixing market failure is like shooting at a moving target. Markets solve imperfections through competition and private contracts. Regulations move at glacier-like speed to correct imperfections and are slow to expire when outmoded; bureaucracies take time to adapt to new information, changing market conditions, changes in consumer preferences, evolving technologies, or maturing market strategies. Alas, regulatory errors can have significant impacts on markets. Citing examples like the botched federal response to Hurricane Katrina and the ongoing mismanagement of veterans' health care, Paul Light, a scholar at the Brookings Institution, noted in a 2014 study:

[The] federal government[’s] failures continue to accelerate. Just when one breakdown recedes from the headlines, another pops up, often in a totally unexpected place. Federal failures have become so common that they are less of a shock to the public than an expectation. The question is no longer if government will fail every few months, but where. And the answer is “anywhere at all.”¹⁹

In short, the presence of imperfect markets is not a sufficient condition for appropriate government intervention. Regulations should only be imposed if they can outperform imperfect markets. Yet, the STB’s deliberations over reciprocal switching in 2016 — and the discussions surrounding potential action in 2021 — have produced no empirical evidence showing the net social benefits of these proposed regulations over the status quo. Reinstating these regulations would undercut the significant gains and lose the more than \$10 billion in annual consumer welfare resulting from the reforms of the 1970s and 1980s. It is uncertain whether simply transferring surplus between buyers and sellers would increase or decrease social welfare. Thus, it is to pure speculation whether these regulations fix a market problem or not. Empirical evidence is needed to demonstrate there is a market failure in the first place, and then additional evidence is needed to demonstrate whether the unintended consequences of implementing a government regulatory solution produces a less costly outcome than a market failure.

¹⁹ Paul Light, “A Cascade of Failures: Why Government Fails, and How to Stop It,” Brookings Institution, July 2014, https://www.brookings.edu/wp-content/uploads/2016/06/Light_Cascade-of-Failures_Why-Govt-Fails.pdf.

Resurgence of Rent-Seeking is Not in the Consumers' Interest

While it is tempting to accept the idyllic notion that legislative and regulatory bodies are comprised of altruistic government officials that act only in the interest of public well-being, public choice theory presents a more pragmatic view. For the public choice perspective, the decision-making of these government bodies is often swayed by self-interest and political calculations influenced by special interest groups, lobbyists, or other vested interests – all at the risk of sacrificing social welfare.

For example, some special interest groups may lobby regulators for a policy that delivers narrow benefits to themselves while spreading the costs widely across society. Such policies, by concentrating their benefits and diffusing their costs, often go unnoticed by the electorate. Similarly, companies may expend time and other resources lobbying for policies that transfer wealth from other companies to themselves, while creating no added wealth to society as a whole. These activities are referred to as *rent-seeking*, and they provide a rational explanation for why legislative and regulatory proposals by groups with vested interests may not act in the public interest and may do more harm than good to society. Gordon Tullock and Nobel Prize economist James Buchanan describe this phenomenon:

The organized pressure group thus arises because differential advantages are expected to be secured through the political process, and, in turn, differential advantages for particular groups are produced because of the existence of organized activity.²⁰

These insights help to explain the actions of the Biden administration and potential action from STB when it comes to open access or other measures. One group stands out as a major proponent for increasing the regulation of railroad carriers: the American Chemistry Council (ACC). The group – predominantly made up of companies that ship goods, often using rail – has actively engaged in lobbying for these regulations. Because expanding reciprocal switching could put downward pressure on rail prices, there would be a short-term benefit to

²⁰ James M. Buchanan and Gordon Tullock, “The Calculus of Consent: Logical Foundations of Constitutional Democracy,” Ann Arbor Paperback, University of Michigan, 1965.

shippers that rely on rail for transportation. This all begs the question: do shippers really need this help?

Shippers Are Not in Need of Financial Assistance

As previously stated, the proposed STB regulations, if approved, would lead to lower earnings and prices for Class I railroads. Because these regulations would effectively transfer producer welfare from railroads to shippers, it would result in an exclusive financial benefit for shippers. This raises the question of whether these regulations are needed at all to assist shippers financially.

Using STB's own method to calculate revenue adequacy (median return on investment minus cost of capital), a recent analysis compared Class I railroad carriers to ACC members in the S&P 500, and found that rail carriers were just below adequacy, while ACC members were extraordinarily profitable.²¹ Hence, those advocating to impose reciprocal switching on railroads enjoy a much better financial performance than the companies they seek to regulate.

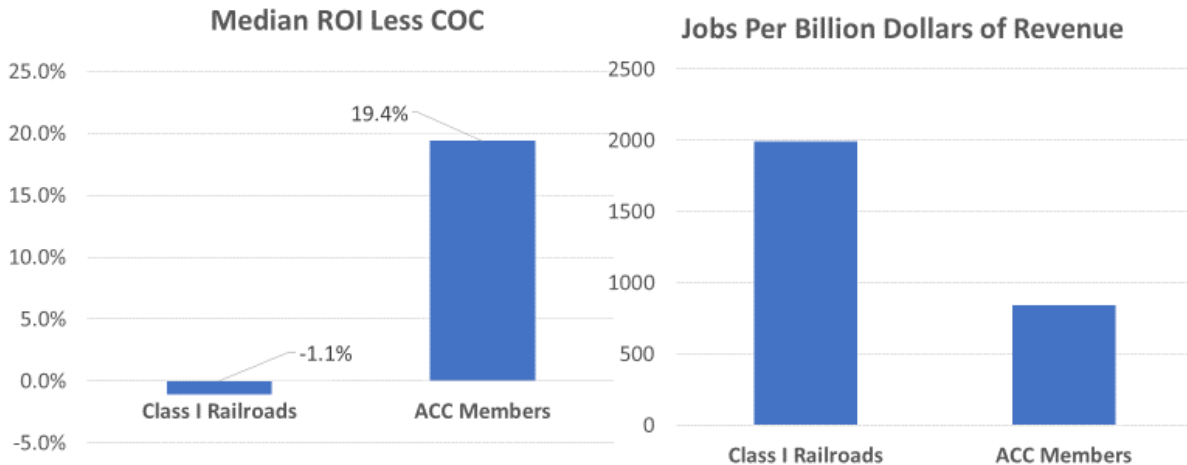
We separately looked at the financial data for the same set of ACC companies and Class I railroad carriers and found that the railroads produced twice the cash flow per dollar of revenue and that higher cash flow produced a higher percent of investment.²² In other words, there is no evidence that shippers, collectively, are converting their superior profits into additional investment. Moreover, there is no evidence that these firms utilize more labor. Specifically, we found that railroads create more than twice as many jobs per dollar of revenue than shippers.

Figure 4 shows these stark differences. From a financial perspective, there is no need for shippers to be subsidized by railroads. In fact, such a transfer would lead to fewer jobs and less railroad investment. As revenue decreases, workers are hurt by these regulations.

²¹ See Joseph P. Kalt and Raymond Atkins, "Hearing on Railroad Revenue Adequacy," Before the Surface Transportation Board, Docket No. EP761 & 772, On Behalf of Association of Railroads, December 12, 2019, citing Parthenon analysis and Bloomberg data.

²² Financial data was collected from Yahoo Finance and the STB's RE&I reports, as well as the Report on Railroad Employees, Service, and Compensation. All data were downloaded on January 28, 2020 and were for the year 2018. For more information, see www.STB.gov and <https://finance.yahoo.com/>.

Figure 4: ACC Members Produce More Profits and Fewer Jobs than Class I Railroads



Source (left): Kalt and Atkins, 2019, citing Murphy and Zmijewski; *source (right):* Yahoo Finance and STB Filings, downloaded 01/28/2020

Overall, comparing shippers and Class I railroad earnings, we find that the ACC members enjoy superior profits. Thus, by all fair reckoning, those well-informed should be left to wonder why and how the public interest would be served by imposing government controls on the prices and services for the benefit of mostly profitable, giant corporations? Ironically, some of the ACC members, specifically energy producers and pharmaceutical manufacturers, are on record as opposing price regulations on their own products, even as they demand that similar policies be placed on railroads.

Given a lack of evidence supporting the need for regulatory protections, and the evident profitability of shippers, the need for an increase in regulations seems to be absent of any empirical support. While rent-seeking may make sense for shippers, it does not serve the public interest, and the STB should resist the temptation to expand the practice of reciprocal switching.

Long-Term Implications on Capital Investments

There is no doubt that, in the short-term, shippers would benefit from lower rates. However, by reducing the profitability of railroads and discouraging new capital investments, the long-term impacts of reciprocal switching could be harmful to shippers, workers, consumers, and the environment. Insufficient investment could reduce the operational efficiency of railroads — meaning less revenue and social welfare for the same quantity of productive inputs.

This point is corroborated by an analysis conducted by economist George Ford, who found a statistically strong relationship between rail industry revenues and its returns on infrastructure investment and concludes that the imposition of these regulations will adversely impact rail investment.²³ Simply put, falling revenue will force carriers to reduce capital investments and operating expenses. Over time, these actions will likely impact volumes of business and, therefore, revenues, which will lead to further cuts in spending, and so on. The longer-term impact of this downward spiral will undermine rail infrastructure and provide a competitive edge to other modes of freight transportation, especially the trucking industry.

1. Divestment Impacts on Consumers and Shippers

Capital expenditures on railroad equipment have very long lives, and the decision to invest is significantly affected by uncertainty. Regulatory changes can create ambiguity and a lack of transparency, lead to rent-seeking and gaming by competitors, and take away opportunities of value. All of these sources of risk can be found in the White House's reciprocal switching proposal.

Skeptics of the existence of regulatory uncertainty and the effects of financial risk should consider the glacial pace of regulatory decision-making, where a single ruling can lag many years, and administrative procedure requirements can dictate long pleading cycles, all contributing to added costs and delays in review and analysis. Regulatory history establishes

²³ George S. Ford, "Infrastructure Investment in the Railroad Industry: An Econometric Analysis," Phoenix Center for Advanced Legal & Economic Public Policy Studies, December 9, 2019, <https://www.phoenix-center.org/perspectives/Perspective19-07Final.pdf>.

that the greater the economic stakes are, the greater the financial or political strengths of stakeholders (rent-seekers) are.

For railroad investment managers and financial market investors, this regulatory uncertainty will undermine efforts to forecast operating costs and revenues, thereby increasing investment risk and raising capital costs. Microeconomic theory suggests that as production cost increases, quantity (and quality) produced decreases and consumer welfare decreases.

Higher regulatory costs and risks will mean that rail carriers will invest less and that consumers will pay more for less. Therefore, while rail carriers are worse off, so are consumers. And as mentioned earlier, the transfer of producer welfare from railroad carriers to shippers will undermine the basic infrastructure that provides consumer goods, increase the earnings of shippers that have (collectively) superior profits, and lead to fewer jobs for workers.

2. Environmental Effects

As rail investment falls, demand for trucking will increase. This, however, raises a number of environmental issues. America's roads and highways are rapidly becoming more congested and structurally deficient. In 2017 alone, federal, state, and local governments spent nearly \$177 billion to build, operate, and maintain highways.²⁴ Past and current investments have proven to be insufficient to keep up with a deteriorating system, much less to finance the upgrades and expansions needed to accommodate the growing demand for surface transportation. As of 2021, citing the fact that 43% of our public roadways are in poor or mediocre condition, experts estimated that \$2.3 trillion would need to be spent on surface transportation systems before the end of the decade.²⁵ Nationwide, deteriorating roads are forcing motorists to spend nearly \$130 billion each year in additional vehicle repairs and operating costs.²⁶

The enormous amount of heavy trucking in the U.S. provides a stark example of how social costs are not aligned with private costs:

²⁴ "Public Spending on Transportation and Water Infrastructure, 1956 to 2017," Congressional Budget Office, October 2018, <https://www.cbo.gov/publication/54539>.

²⁵ "2021 Report Card for America's Infrastructure," American Society of Civil Engineers, 2021, https://infrastructurereportcard.org/wp-content/uploads/2020/12/National_IRC_2021-report-2.pdf.

²⁶ Ibid.

Engineers estimate that a fully loaded truck – a five-axle rig weighing 80,000 pounds, the interstate maximum – causes more damage to a highway than 5,000 cars. Some road planners say that the toll is even higher, that it would take close to 10,000 cars to equal the damage caused by one heavy truck. When the trucks are overloaded, as quite a few of them are, the damage is exponentially worse. Increasing a truck’s weight to 90,000 pounds results in a 42 percent increase in road wear. Pavement designed to last 20 years wears out in seven.²⁷

There are other costs as well. Compared to trains, trucks create three times more pollution per ton.²⁸ The bottom line is that these regulations will negatively impact shippers, consumers, workers, taxpayers, and the environment. As reciprocal switching disrupts rail networks and reduces cashflow, the industry could suffer serious consequences. Shippers will need to rely more on trucking at a cost estimated to be as high as \$1.4 trillion, and taxpayers will incur increased maintenance costs for highway and bridge improvements from the wear and tear of more trucking.²⁹

Conclusion

History shows that ending onerous rail regulations was an indisputable success, proving the railroads could thrive (and deliver sizable economic benefits to shippers and consumers) when allowed to operate in a competitive environment. Efforts to reimpose reciprocal switching — a move that would create bottlenecks on rail networks, reduce efficiency, and put bureaucrats in charge of setting rates — is not based on informed economic analysis. In fact, robust evidence indicates that the rail industry functions competitively and that needless regulations would constitute a net loss for society.

²⁷ Zach Patton, “Too Big for The Road,” *Governing Magazine*, July 2007, <http://www.governing.com/topics/transportation-infrastructure/Too-Big-The-Road.html>.

²⁸ According to a University of Wisconsin-Madison study, see “Freight Trains a Clear Winner Over Trucks in CO2 Emissions Stakes,” *Sci GoGo*, December 12, 2011. Also see Bay Rail Alliance, citing California High-Speed Train Final Program EIR/EIS, CSX estimates, and a 1984 AASHTO Report, http://www.bayrailalliance.org/why_trains.

²⁹ Marc Scribner, “Bait and Reciprocal Switch: Forced Access Regulation Threatens the Rail Renaissance,” *Competitive Enterprise Institute, OnPoint*, No. 190, March 24, 2014, p. 2.