Analysis of Proposed Merger Between Union Pacific and Norfolk Southern Railroads

Prepared for the Rail Customer Coalition

Prepared by
Escalation Consultants Inc.

4 Professional Drive, Suite 129
Gaithersburg, MD 20879

301-977-7459
www.EscalationConsultants.com

September 2025

Contents

IMPACT OF PROPOSED RAILROAD MERGER BETWEEN UNION PACIFIC (UP) AND NORFOLK SOUTHERN (NS) ON RAIL SHIPPERS

Escalation Consultants was retained by the Rail Customer Coalition (RCC) to analyze the impact of the proposed rail merger between UP and NS on rail shippers. For this analysis we analyzed the change in Cass I railroads carloads, rates, costs, profit margins and other relevant information, over the 40-year time frame beginning in 1983 and ending in 2023.

Escalation Consultants' Analysis revealed that previous rail mergers have had far-reaching implications on railroads rates, profit margins, carloads as well as environmental impacts. A summary of the results of the analysis are as follows.

SUMMARY OF FINDINGS

After the number of Class I railroads reduced from 23 to 7 a fundamental change occurred in railroad's profit margins. The higher rate structure established for rail movements resulted in railroad's inflation adjusted profit margins increasing almost every year after 2004. **The percent increase in Class I railroad's inflation adjusted profit margin on a cents per ton-mile basis was a staggering 236.5% increase between 2004 and 2023.** For comparison, between 1983 and 2004 railroads profit margins fluctuated as they were down in some years and up in others. There was no consistent pattern of change in inflation adjusted profit margins in the 1983-to-2004-time frame.

Prior to the mega rail mergers, railroads essentially increased profits by increasing the number of carloads they moved. For example, there was an increase of eleven million carloads originating annually on railroads between 1983 and 2004, representing a 58% increase in carloads. The higher rate structure railroads established after 2004 caused railroads to start losing carloads after 2006. Between 2006 and 2023 railroad's annual carloads decreased by 19%, representing a six million reduction in carloads. As a result, **after 2006 railroads increased profit solely by increasing rates.**

Between 2004 and 2023 rail rates increased 67% more than Long Haul Truck rates and Inflation. As more traffic leaves the railroads it will therefore primarily go to an already congested highway system. There are environmental concerns with traffic moving from

railroads to the highway as truck moves are more fuel intensive than rail moves which makes this a bad change for the environment. **When rail rates increase 67% more than truck rates and inflation rail shippers look for alternative logistic options. This is contributing to a decrease in rail carloads and an increase in fuel intensive highway truck traffic.**

The fundamental change in railroad's rate making practices has substantially increased the amount of revenue railroads make from rates the Surface Transportation Board (STB) classifies as potentially Non-Competitive. Rates for Non-Competitive Revenue must have Revenue to Variable Cost Ratios (RVC's) greater than 180% and these rates can be challenged before the STB. This type of **Non-Competitive railroad revenue went from 27% of all revenue in 2004, for commodities in our Analysis, to 47.5% of all revenue (almost double) in 2023. This demonstrates that the STB is regulating a very different rail industry now than it regulated when the last mega mergers were before the STB i**n 1995 and 1997. At the time of these mergers rail rates that were considered potentially Non-Competitive by the STB were not the norm but now they are. In addition, **based upon the large 265% increase in Non-Competitive revenue, i**t would be logical to expect a large number of rate cases before the STB. This has not happened.

Many shippers believe that the existing regulatory process is weighted far too much in the favor of railroads. **The 265% increase in Non-Competitive revenue over the last 19 years indicates that railroads are not worried about regulatory pushback from generating Non-Competitive rates for a large portion of their rail traffic.** From a business perspective, **until the regulatory process allows shippers to effectively and inexpensively challenge Non-Competitive rates, a new rail mega merger is just illogical.**

We know what the negative results of past rail mergers have been. Railroad's current pricing practices along with the experience we have with large rail mergers demonstrate that **major reforms to the regulatory process that will allow shippers to have a viable check on railroads' rate making practices must occur before a merger between UP and NS can realistically be considered.**

DETAILS FROM THE ANALYSIS

Illustration 1 shows that between 1983 and the year 2000 the number of Class I railroads reduced from 23 to 7. During these years railroad's inflation adjusted profit margins fluctuated up and down in some years, but generally rail margins kept pace with Inflation. After 2004 everything changed and railroad profit margins, on an inflation adjusted basis, increased almost every year, resulting in a very large 236.5% increase.

Illustration 1

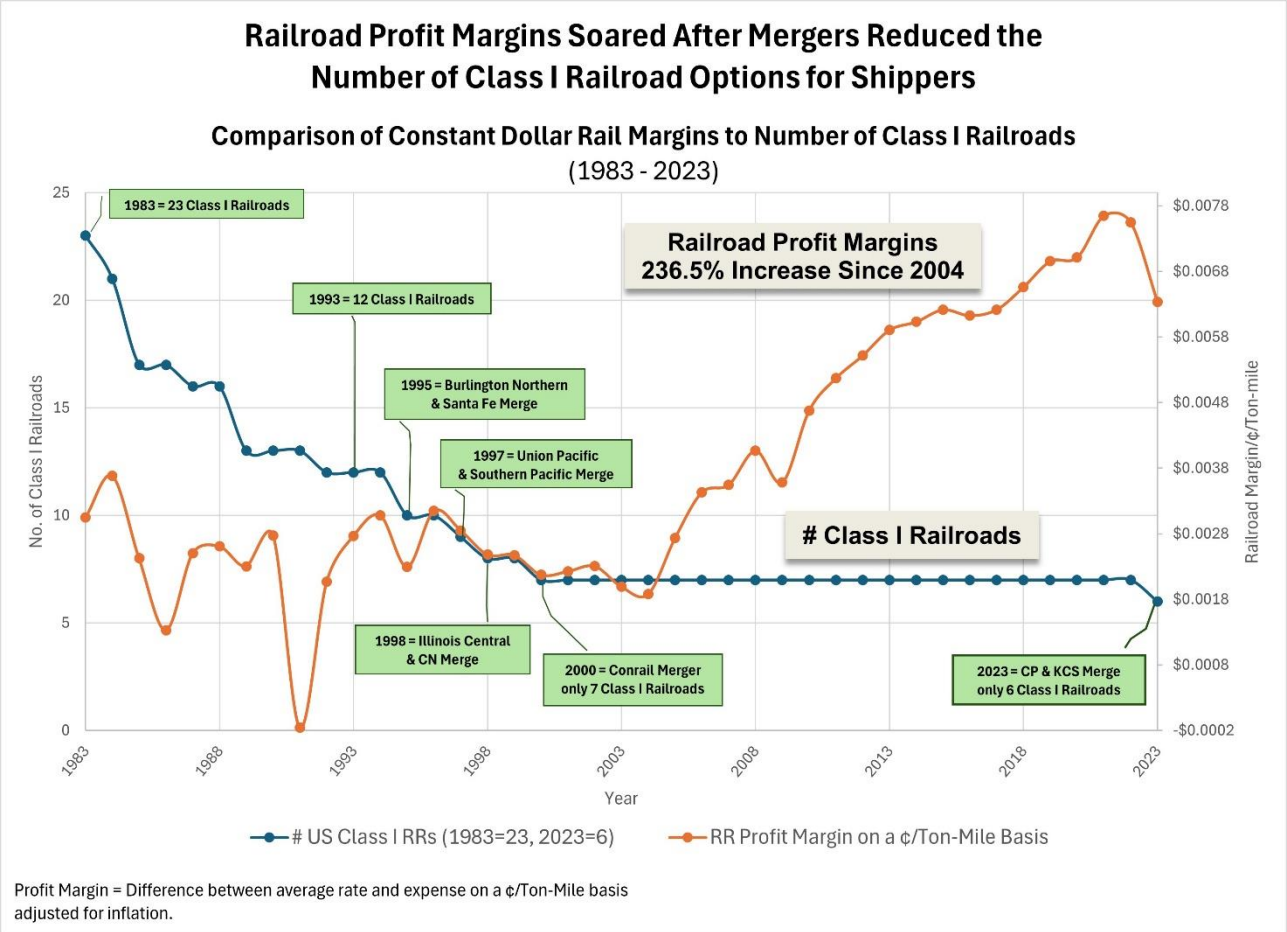
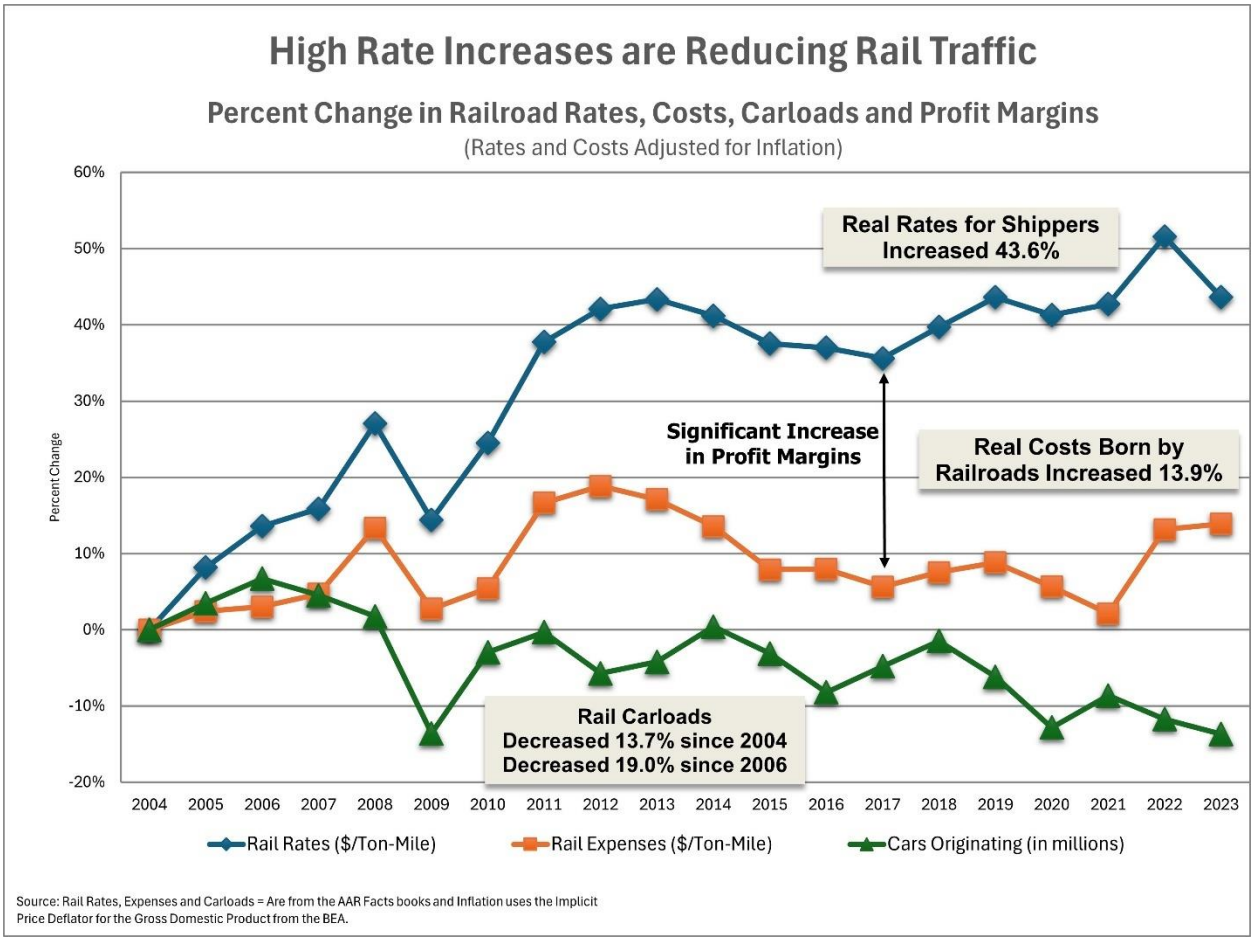


Illustration 2 shows that railroad inflation adjusted rates started increasing substantially more than railroad's costs after 2004. The large 43.6% increase in rail rate increases combined with a much lower 13.9% increase in costs borne by railroads, resulted in a very large increase in railroad profit margins. As the gap between railroads rates and costs widened between 2004 and 2023 Railroad profit margins on rail movements increased a whopping 236.5%.

Railroad's large rate increases, and profit margins are contributing to a reduction in rail traffic. Higher rates always have an impact on shippers' logistics decisions. Illustration 2

shows that railroad's large rate increases have resulted in a 19% decrease in carloads (6.1 million carloads) since 2006.

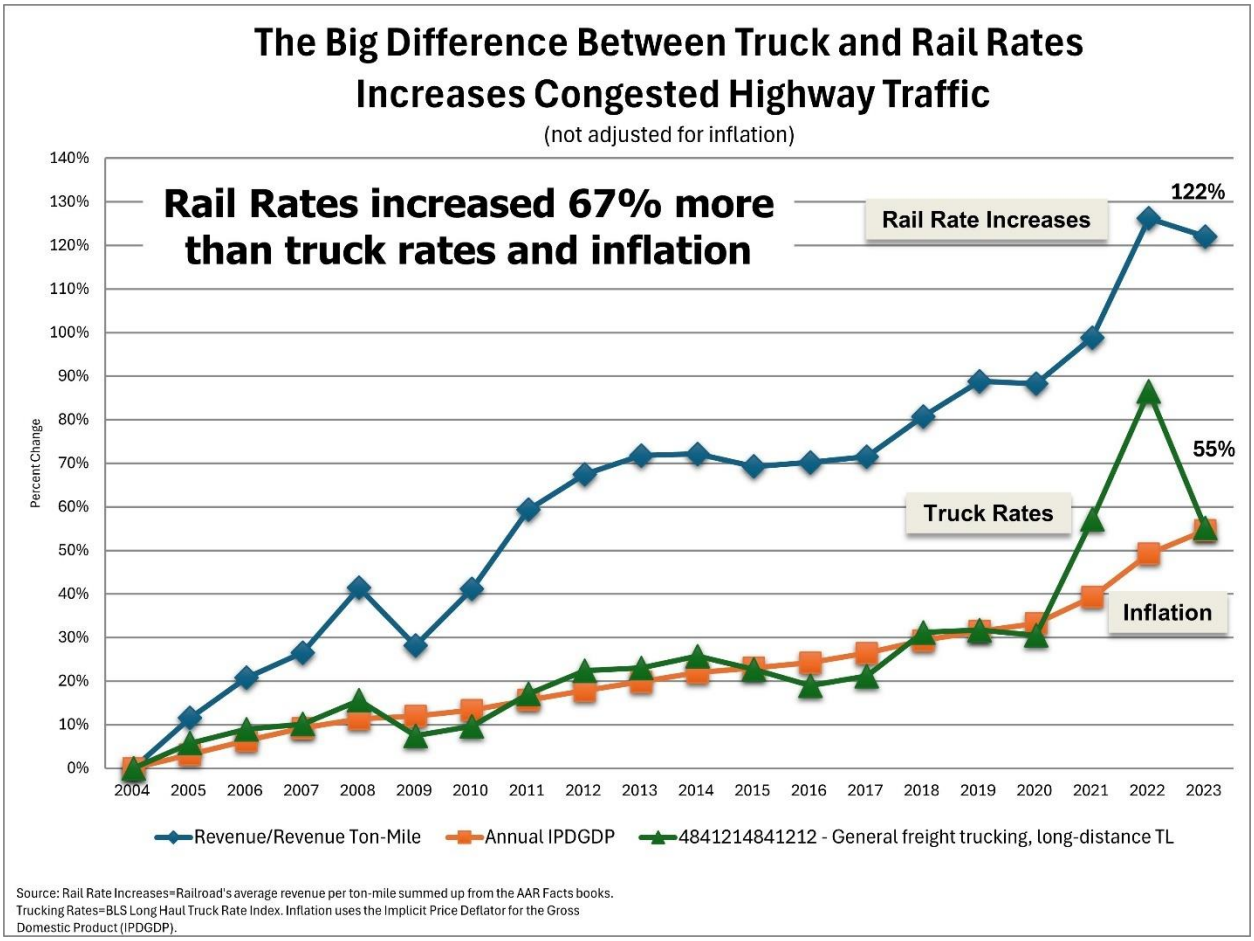
Illustration 2



Railroad's major competitor is highway trucking and Illustration 3 shows that between 2004 and 2023 railroad's rate increases have been 67% greater than rates for Long Distance Trucking and Inflation. As more traffic leaves the railroads it will therefore primarily go to an already congested highway system. There are environmental concerns with traffic moving from railroads to trucking as truck movements are more fuel intensive than rail moves which makes this a bad change for the environment. When rail rates increase 67% more than Truck rates and Inflation, rail shippers look for alternative logistic options. This is contributing to a decrease in rail carloads and an increase in fuel intensive highway truck traffic.

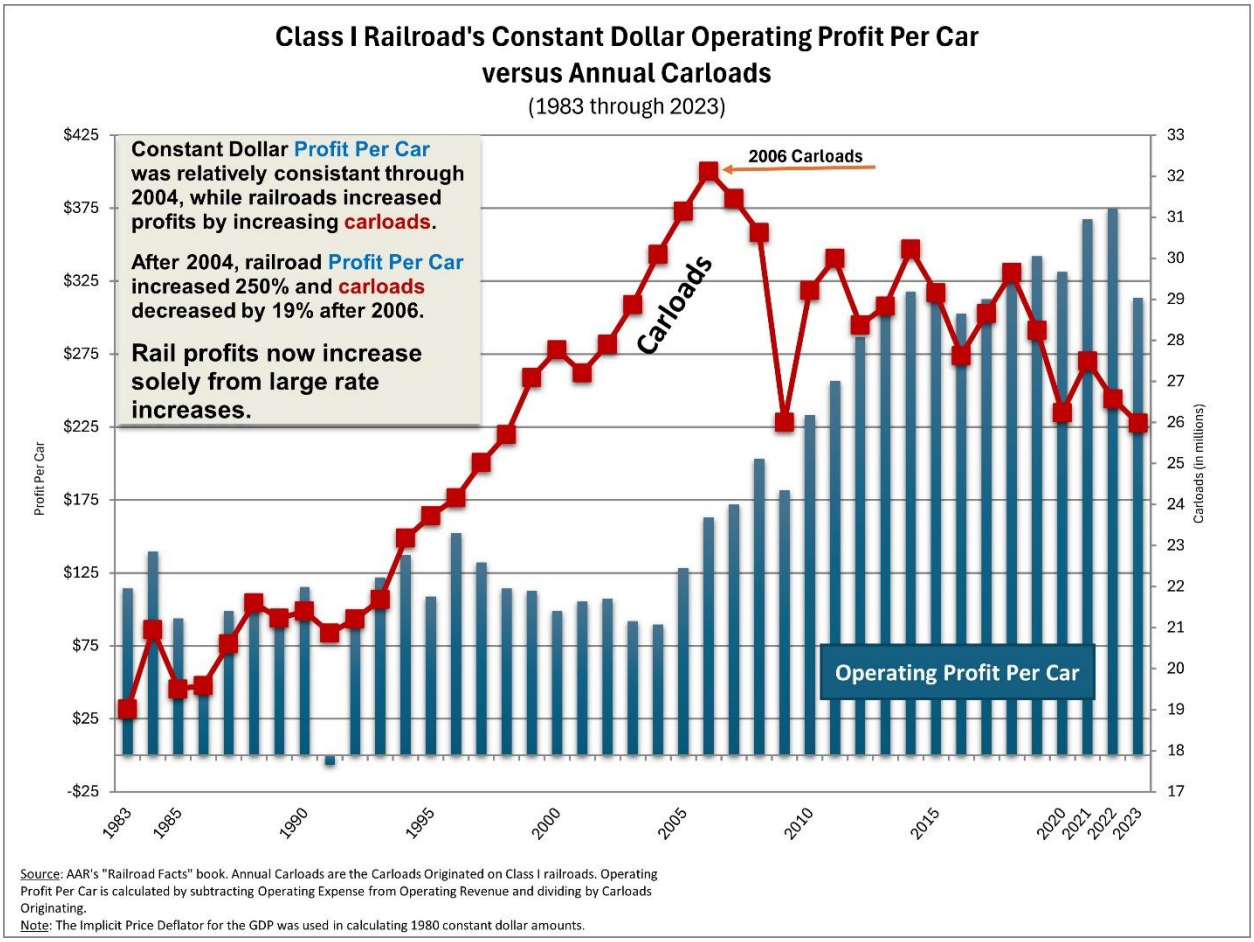
When something as important to the economy as rail freight has rate increases that are 67% greater than Inflation, as well as the cost of rail freight's primary competitor in the marketplace (trucking), this provides context for the problems created from railroads pricing practices following past rail mergers.

Illustration 3



A complete picture of the main issue with the change in railroad pricing practices is included in Illustration 4. This chart shows that between 1980 and 2004 railroads' constant dollar profit per car was up in some years and down in others. Railroads generally increased profit by increasing their carloads. After 2004 railroad profit per car was up 250% and carloads started decreasing after 2006. Now, because rail carloads are decreasing rail profits are increasing solely from large rate increases.

Illustration 4



The change in what happened internally at railroads to generate the large rate increase in profit margins after 2004 is shown in Illustration 5. This graph shows that since 2004 the revenue railroads get from rates that the STB classifies as potentially Non-Competitive increased 265.2%. This is revenue generated from rates that can be challenged at the STB for having monopoly level profit as they have Revenue to Variable Cost Ratios (RVC) greater than 180%.

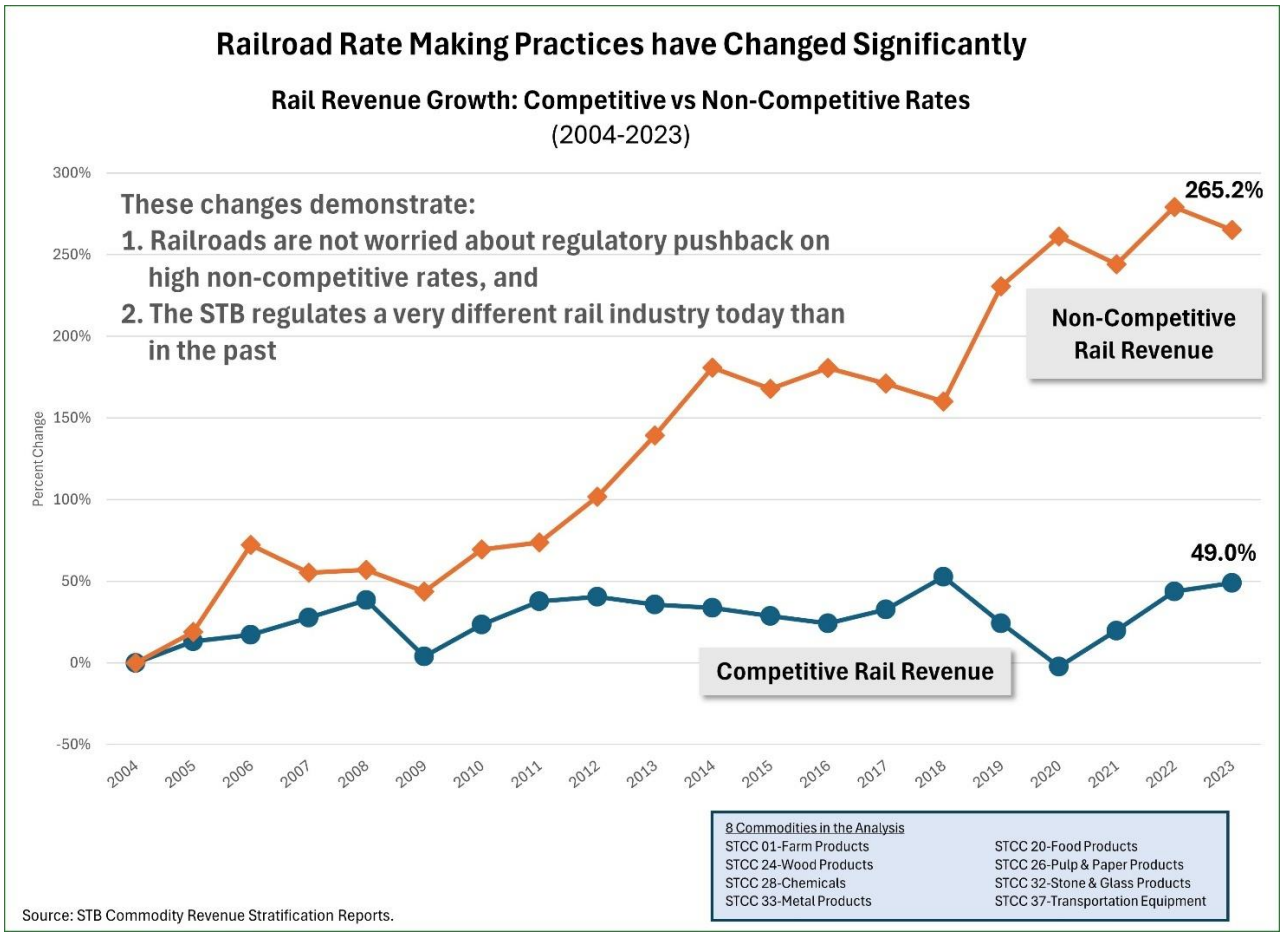
The revenue railroads get from rates that the STB classifies as Competitive increased only 49% since 2004. This is revenue generated from rates with RVC's below 180% and can't be challenged at the STB. As a result of the 265.2% increase in Non-Competitive revenue nearly half of all revenue (47%) came from Non-Competitive rates in 2023, almost double its share in 2004 (27%). As a result, rail movements with pricing considered potentially Non-Competitive by the STB have become the norm and are no longer the exception.

The answer to why railroads are collecting so much more of their revenue from Non-Competitive rates appears to be, because they can. Rail mergers normally result in a loss of competition and the number of large railroads (Class I railroads) in the U.S. went from

23 in 1983 to only 7 by 2000. Since this time rail rates have had very large increases, resulting in an unprecedented increase in revenue they obtain from Non-Competitive rates.

Details on the calculation of Competitive and Non-Competitive rates are contained in the attachment to this report.

Illustration 5



CONCLUSION

A major concern with another mega rail merger is that railroads will be in an even better position to make greater profits by moving less traffic. As a railroad controls more of the whole rail system in the United States it has greater leverage to substantially increase the rate structure for its movements. This means the railroad will be in a better position to tell shippers what is reasonable for their traffic regardless of the negative impact this can have on a shipper's business. History shows that this is what happened after previous mega rail mergers.

History also shows that the Surface Transportation Board was ill equipped to deal with the big change in railroad pricing practices following previous rail mega mergers. Without major reforms to the regulatory process, that will allow shippers to have a viable check on railroads rate making practices, a merger between UP and NS simply has too many negatives for rail shippers, the economy and the environment.

ATTACHMENT

DETAILS ON CHANGES IN RAILROAD PRICING PRACTICES

Calculation of Changes in Competitive and Non-Competitive Rail Revenue

The Analysis covered the change in railroad pricing for eight (8) major commodity groups. The 8 commodity groups are as follows:

Illustration 1

8 Commodity Groups Included in Analysis			
STCC	Description	STCC	Description
01	Farm Products	28	Chemicals
20	Food Products	32	Stone & Glass Products
24	Wood Products	33	Metal Products
26	Pulp & Paper Products	37	Transportation Equipment

All data in the Analysis of railroad pricing for Non-Competitive and Competitive revenue between 2004 and 2023 comes from the STB's annual Commodity Revenue Stratification Reports.

The determination of whether movements are considered potentially Non-Competitive or Competitive in this Analysis is based on the STB calculation of the Revenue to Variable Cost Ratio's (RVC's) for rail movements. RVC is calculated by dividing the rate for a movement by the railroad's long term Variable Cost for the move. The rates for movements are provided to the STB by railroads, and the STB calculates the railroad's long term Variable Cost for each move.

The STB provides a summary of the results from its calculations on all rail movements for each two-digit commodity code level in its Commodity Revenue Stratification Report. This is the data used in our Analysis to determine the change in railroad pricing practices between 2004 and 2023.

The calculation of RVC's is an important part of the regulatory process. For example, the STB has no authority over rates for movements with less than a 180% RVC. This is because moves with RVC's below 180% have less than an 80% markup above a railroad's long term Variable Cost. The STB considers moves with less than a 180% RVC as Competitive and not in need of regulatory assistance. These moves are presumed to be

Competitive by the STB and revenue from these moves is referred to as Competitive in this Analysis of Railroad Pricing Practices.

An RVC of 180% is referred to as the Jurisdictional Threshold as the RVC for a movement must reach this level in order for the STB to have any authority over the rate for a movement. Movements with RVC's at or greater than 180% are considered potentially Non-Competitive by the STB. Revenue from moves with RVC's of 180% or greater is referred to as Non-Competitive in this Analysis of Railroad Pricing Practices.

The STB Commodity Revenue Stratification Report breaks down the total revenue and cost for moves by RVC. Revenue and expenses are accumulated for moves:

- With RVC's at or above 180%,
- With RVC's Below 180%, as well as,
- Totals for each two-digit commodity code

The rail revenue in each RVC category was used to determine how Non-Competitive and Competitive revenue changed between 2004 and 2023.

It is emphasized that this report is based on numbers calculated by the STB. Escalation Consultants summarized the Commodity Revenue Stratification Report data each year for the eight commodity groups in this Analysis to determine the change in railroad's pricing practices between 2004 and 2023.

If the pattern of change in railroad pricing practices continues, most rail traffic will move under railroad rates which the STB considers potentially Non-Competitive. To reverse this pattern of continuous increases in the share of railroad revenue coming from Non-Competitive rates there will need to be an improvement in rail shipper's existing rate regulatory options.