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BEFORE THE SURFACE TRANSPORTATION BOARD

Docket No. FD 36873

UNION PACIFIC CORPORATION AND UNION PACIFIC RAILROAD COMPANY
—CONTROL—
NORFOLK SOUTHERN CORPORATION AND NORFOLK SOUTHERN RAILWAY COMPANY

OPENING COMMENTS AND EVIDENCE OF THE JOINT SHIPPER ASSOCIATIONS

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Dated: November 18, 2026

These comments contain highly confidential material, which is enclosed in double braces (e.g., {{…}}). This material is subject to the protective order in this proceeding.

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The Alliance for Chemical Distribution ("ACD"), American Chemistry Council ("ACC"), American Fuel & Petrochemical Manufacturers ("AFPM"), The National Industrial Transportation League ("NITL"), and The Fertilizer Institute ("TFI") (collectively, "Joint Shipper Associations" or "JSA") hereby submit these "Opening Comments and Evidence" to the Surface Transportation Board ("STB" or "Board"), in which they ask the Board to deny the Amended Railroad Control Application filed by Applicants[1] on April 30, 2026, as supplemented on July 7 and 27, 2026 (collectively the "Application"). The JSA also submit the Joint Verified Statement of two economists, Dr. Hal J. Singer and Mr. Ted P. Tatos ("Singer/Tatos V.S.") and the Verified Statement of Karen M. Burchfield ("Burchfield V.S."), a consultant who recently retired from BNSF after 35 years of experience in the rail industry.

STATEMENT OF INTEREST

The Joint Shipper Associations are trade associations representing rail customers across multiple industries that power the American economy, including the manufacturing of chemical products and fertilizer, and the refining of petroleum. The JSA's members rely on rail transportation extensively. Together, they ship millions of carloads annually and generate billions of dollars in freight revenue for the Class I railroads.

[1] Applicants are Union Pacific Corporation and Union Pacific Railroad Company (collectively "UP"), and Norfolk Southern Corporation and Norfolk Southern Railway Company (collectively "NS").

The proposed merger will inflict direct and substantial harm on these shippers. Many JSA members operate facilities that are captive to a single railroad and ship products that are primarily, if not entirely, dependent on rail transportation. This merger will deepen that captivity, eliminate the limited competitive options that remain, and expose JSA members to service deterioration and rate increases with little or no recourse. JSA members will bear the consequences of this transaction. They have a vital interest in preserving a competitive freight rail network.

As trade associations, the Joint Shipper Associations provide their members with a collective voice in public affairs and policy debates before governmental bodies, a role that has never been more important than in this proceeding. For a long time, the heavy dependence of JSA members on rail transportation with few, if any, alternatives has made our members aware that they risk retaliation if they complain too loudly or advance pro-shipper policies too forcefully to the Board. They are acutely aware that the market power of railroads can pose existential threats to a captive shipper's business and bottom line. But to date, those threats have been mostly implicit. In this proceeding, that threat has been made explicit and very public.

In a speech to approximately 900 rail shippers at the Southwest Association of Rail Shippers ("SWARS") 2026 annual meeting, UP's CEO, Jim Vena, "made remarks . . . threatening to retaliate against stakeholders who" voice opposition to

the proposed merger with adverse commercial consequences.[2] His closing words to the audience: if you oppose the merger, I will "probably increase [your] rates . . . by three or four extra percent to teach you a lesson."[3] JSA members who already were sensitive to potential retaliation had their worst suspicions confirmed. Many of those members have said that they will not submit comments in this proceeding despite having concerns about the proposed merger. For those JSA members who fear retaliation, this is precisely why they belong to their trade associations. The JSA give their members a voice without exposure to retaliation.

Subsequently, after Mr. Vena threatened shippers who might oppose the merger into silence, UP's EVP, Marketing & Sales, Kenny Rocker, issued a public letter asserting that "[a] customer who has stayed quiet, or who has taken a neutral position publicly, is not a customer who opposes this transaction – even if they belong to an association who has."[4] Coming on the heels of Mr. Vena's threats, Mr. Rocker's letter blatantly attempts to deny concerned shippers any voice at all in this proceeding. First, threaten shippers into silence and then attempt to devalue their trade associations' voice.

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[2] Letter from U.S. Senator Tammy Baldwin to Chairman Patrick J. Fuchs, Vice Chairman Michelle A. Schultz and Members Karen J. Hedlund & Richard J. Kloster, Surface Transportation Board (July 16, 2026).

[3] UP_3217794 at 52:30-52:41.

[4] Kenny Rocker, *Silence is Not Opposition* (Oct. 6, 2026), https://www.up-nstranscontinental.com/letters/rocker-customer-support.

The JSA appreciate the Board's November 4, 2026, decision and the steps it has taken to address these serious concerns. If the Board's admonishment that it "will not tolerate retaliation and will ensure that its processes are fair, transparent, and open to all stakeholders" is to have credibility, additional meaningful and decisive actions are required.[5] Likewise, should these proceedings continue, the Board must view the record and comments submitted as having been negatively affected by Mr. Vena's threats. This is not a collateral dispute over access to a conference video. It goes directly to whether shippers feel free to speak candidly when deciding whether to participate publicly in the most consequential railroad merger proceeding in decades. Despite UP's attempts to dismiss it as an "offhand" comment, Mr. Vena was sending a clear message: shippers that oppose the merger will pay a heavy price.

"Retaliation," unfortunately, is difficult to prove. A railroad usually doesn't explicitly say that its actions are retaliation, but its market power gives it the ability to do so and then compel the shipper to "prove" there is a connection as opposed to a legitimate commercial justification. In this proceeding, Mr. Vena has stated the usually implied threat out loud. Based upon UP's statements, any UP act adverse to a shipper who opposes this merger could be perceived as retaliation. For example, many JSA members are in active contract negotiations with UP right now as part of their ordinary course of business. Is it merely coincidence when these

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[5] Decision No. 45, FD 36873, slip op. at 2 (served Nov. 4, 2026), *quoting* Decision No. 28, FD 36873, slip op. at 4 (served July 22, 2026).

contracts expire just after the proposed oversight period or when UP slow-walks the finalization of a contract until after the November 18, 2026, comment deadline in this proceeding? JSA members also fear that, if they submit comments, UP will retaliate through a deluge of burdensome discovery requests that, even if potentially relevant to the issues, will be of marginal, if any, value to UP or the Board. The damage from UP's behavior has been done; individual shipper voices have been chilled.

The Board must emphatically reject intimidation tactics and protect the integrity of its process. For manufacturers, refiners, fertilizer producers, chemical distributors, and other rail shippers, freight rail service is vital to their business operations. At facilities that are captive to UP or Norfolk Southern, there often is no practical alternative and those facilities will remain commercially dependent on those railroads long after this proceeding ends. As Mr. Vena noted in his SWARS remarks, "[UP] will still be here." In that environment, statements reasonably understood to threaten adverse commercial consequences for opposing the transaction chill participation and undermine the completeness of the record before the Board.

The Joint Shipper Associations represent the views of their members; they do not have independent agendas. Major decisions, including taking a position on this merger, are made by Boards and committees composed of engaged member companies. Contrary to assertions made by UP, the JSA's advocacy is the collective voice of its members, not the individual voices of the association. Accordingly,

attempts to discredit the role of trade associations in this proceeding are misguided. To the extent that any individual member holds a different position, they are free to express support for the merger without any retaliatory fear from their trade associations. Therefore, the Board should treat the views expressed by the JSA as being those of their members because they are.

Congress entrusted the Board with assessing whether a transaction of this magnitude serves the public interest. That responsibility depends on meaningful stakeholder engagement and a complete record from those who will experience the potential consequences firsthand, both of which have been undermined by UP's chilling behavior. While the Board's actions related to retaliation to date are important, significant damage already has been done. Despite its best efforts, the Board cannot fully remedy the chilling effect that already has discouraged participation and compromised the completeness of the record. This is precisely why significant weight should be given to the JSA comments, given that it is the only avenue through which many shippers feel safe to express their serious concerns with this merger.

ARGUMENT

I. Summary of Argument.

This merger is not in the public interest and should be denied. The benefits are negligible and the harms are substantial. The Application is replete with unsubstantiated and overstated benefit claims, conclusions presented as facts, analyses that ignore reality, meaningless promises, and inherent contradictions. Conversely, it is bereft of competitive enhancements, meaningful service assurance

standards, and effective conditions. In sum, the evidence shows that the harms of the merger far outweigh the benefits, and the application fails to meet its burden to clearly demonstrate that the proposed merger is in the public interest.

This merger does not solve any problem or fill any critical needs in the rail industry. The problems conjured in the application are strawmen, post-hoc creations to cloak expanded market power as public benefits. The Applicants claim that this merger solves the so-called "watershed gateway problem," provides the single-line service that shippers prefer, and enhances competition against trucks. Their merger solution for the watershed problem, however, merely shifts the alleged problem to other Class I carriers and their customers. The merger is unlikely to improve service reliability. The fault lines for reliable service primarily occur at the first and last mile, which this merger will not address. And further consolidation will not drive network resiliency. In fact, consolidation consistently has resulted in significant service disruptions and reduced the ability of the national rail network to recover from any service disruption regardless of the cause. Lastly, to the extent that this merger enhances competition versus truck, the benefits flow to traffic that already is competitive at the expense of traffic that is the most rail dependent. In sum, this merger is neither necessary nor desirable.

Moreover, this merger would enhance the existing market power of the largest railroad in North America, which also has been the rail industry's worst offender when it comes to shipper-unfriendly actions. For example: (1) UP was at the forefront of industry efforts to shift liability to shippers of toxic inhalation

hazards through contract and tariff indemnity requirements;[6] (2) UP was at the vanguard of industry efforts to require its customers who provide tank cars to pay for movements to repair facilities, despite the fact that the common carrier obligation places that responsibility upon rail carriers;[7] and (3) UP's unprecedented use of broadly applicable "congestion embargos" that "did not appear to fully account for carrier-caused problems and did not factor in relevant conditions of a yard or line…."[8] Notably, NS has not followed UP's lead in the first two examples and UP is virtually certain to expand those policies to the NS network upon consummation of their merger. In sum, the Board must be cognizant of how the proposed merger will make the industry's biggest player even bigger and facilitate actions that are hostile to its customers or could be employed in a retaliatory fashion.

A. This merger fails the standards set in the "2001 Rules".

This merger is the first to be considered under the "2001 Rules" adopted in *Major Rail Consolidation Procedures*.[9] Those rules impose a "heavier burden" on merger applicants and significantly change how the Board applies the statutory

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[6] *E.g., Union Pac. R.R. Co. – Pet. For Decl'ry Order*, FD 35504, slip op. (served April 30, 2013).

[7] *North America Freight Car Assoc. et al. v. Union Pac. R.R. Co.,* NOR 42144, slip op. (served Jan. 15, 2025), *reconsideration pending*.

[8] *Oversight Hearing Pertaining to Union Pac. R.R. Co.'s Embargoes*, EP 772, slip op. at 5 (served April 17, 2024). *See also, id.* (without deciding in this proceeding, noting that "the excessive use of embargoes over an extended period to address problems on a carrier's network could weigh in favor of a finding of a statutory violation.").

[9] *Major Rail Consolidation Procedures*, 5 S.T.B. 539 (2001).

public interest standards to major rail mergers.[10] The Applicants pay "lip service" to the 2001 Rules but fail to address them seriously.

First, although the Board declared that "provisions for competitive enhancement will be given substantial weight as merger benefits and are likely to be extremely important to us in determining whether to approve a particular application,"[11] the Applicants have offered nothing except Committed Gateway Pricing ("CGP"), which is a temporary (*i.e.*, expires with Board oversight) rate cap that will be available to less than 12% of traffic and benefit even less. The Applicants promise improved rail-to-truck competition (an empty promise, as will be shown in our full comments), but the STB's mission is to preserve and protect the American rail industry and shippers. STB's powers and its menu of possible conditions are over intramodal competition. The Applicants themselves may come out of the merger more competitive, but rail-dependent shippers will clearly suffer. If this merger doesn't trigger the Board's contemplated need for rail-to-rail competitive enhancements, then no merger could. In the absence of serious proposals for enhancing intramodal competition, the Applicants essentially are seeking approval under the pre-2001 rules.

Second, the Applicants flagrantly ignore a new directive in the 2001 Rules to identify "which of the claimed benefits are obtainable only through a merger."[12] It is

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[10] *Id.* at 539, 546.

[11] *Id.* at 554.

[12] *Id.* at 559.

essential that the Applicants do that so the Board "can fairly weigh them against potential harms."[13] The Applicants, however, merely assert that they cannot achieve the entirety of their claimed benefits without a merger. This evasion allows them to credit all their claimed public benefits to the merger and prevents the Board from assessing the marginal public interest impact that specifically and only originates from the merger, which is what the 2001 Rules require.

Third, the Applicants give short shrift to a significant addition in the 2001 Rules that requires them "to explain how additional Class I mergers would affect the eventual structure of the industry and the public interest."[14] The Board explained the need for this addition "[b]ecause from this point on any proposed major transaction would have a significant effect on the structure of the entire industry . . . ."[15] The most obvious structural change is a consequence of the Applicants' newly acquired ability and incentive to bypass the major gateways for transcontinental interchanges with their new single-line moves and extended long-haul opportunities. As legacy infrastructure, including affected line segments, terminals and interchange locations experience volume reductions, the assets and fixed operating costs for the base level of service remain. This reduced density raises the remaining fixed cost per unit and may cause the non-merging carriers to increase rates, reduce service frequency, or both. Although the potential

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[13] *Id.*

[14] 49 C.F.R. § 1180.1(i).

[15] *Major Rail Consolidation Procedures*, 5 S.T.B. at 582.

consequences for the remaining Class I carriers and their customers who rely upon those gateways are substantial and likely to generate responsive actions from those carriers, this is barely acknowledged by the Applicants, much less evaluated. Yet this is precisely the type of structural change that the 2001 Rules require the Applicants to address.

Fourth, the Applicants treat the 2001 Rules' service assurance requirements as a formality. The Board adopted those requirements so that applicants would address service uncertainties "to the maximum extent possible, during the application process."[16] Yet the Applicants' Service Assurance Plan assigns every legacy UP yard, and every legacy NS yard, identical dwell and on-time ranges rather than the facility-specific estimates the rules require, and it triggers contingency action only when a network-wide threshold chosen "for manageability purposes"[17] is exceeded for a full month. And the Applicants' arbitration program does not make up for this, because it excludes traffic moving under contract or as exempt commodities, which is the vast majority of all rail traffic. Such a plan cannot "promptly restore adequate service levels."[18]

The foregoing deficiencies indicate that the Applicants are not seriously engaging with the 2001 Rules and are openly flouting them in some instances. That

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[16] *Id.* at 579.

[17] Rev. Appl. 2-1037 (Turner V.S. (2d Errata) ¶ 419).

[18] 49 C.F.R. § 1180.10(i).

attitude has been reinforced by recent remarks from UP's CEO, Jim Vena, that he views the merger approval process as a poker game:

> I'm aggressive against the side that says, "What are we going to give?" But there's always deals to be made. Okay. Let's listen, let's wait, because time is real important. If you're playing poker, you don't put everything down before you see the last card or the third card coming out. Bottom line is, I'm waiting to see what they put in on November 18th that has to be factual, has to show what their concerns are and how we move ahead. Then at that point, we'll reexamine.[19]

The Board's public interest assessment is not a poker game. The Applicants must put their best case forward in their Application, not "hold their cards" until the public responds. That approach is contrary to the public interest because stakeholders get one opportunity to present evidence in response to the Application, which means that any new evidence and argument that the Applicants might withhold until they see what stakeholders "put in on November 18th" will not be subjected to the same rigorous scrutiny as the initial Application. STB Member Kloster characterized the Applicants' approach to this proceeding as "an apparent strategy of 'letting the line out slowly.'"[20] The Board has a responsibility to prevent that from occurring.[21]

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[19] Union Pac. Corp. Q3 FY2026 earnings call transcript, at 1:20:21, https://finance.yahoo.com/quote/UNP/earnings/UNP-Q3-2026-earnings_call-713922.html (last visited Nov. 13, 2026).

[20] Decision No. 37, at 5 (Kloster, concurring).

[21] *Cf., Oversight Hearing Pertaining to Union Pac. R.R. Co.'s Embargoes,* EP 772, slip. op. at 1 (served April 17, 2024) (admonishing UP for "repeated failures to comply with Board orders and requests for information" and finding that " UP's conduct in this regard bordered on the contumacious and cannot be viewed as

Although the Board could and should reject the Application solely on the foregoing failures to comply with the 2001 Rules, the Application also fails on the merits of its competitive and benefits assessments.

B. This merger causes substantial harm to competition.

This merger will fundamentally restructure the competitive landscape of the rail industry in the United States for the worse. Through prior mergers, the national rail network has consolidated into six Class I carriers that provide service in three principal regions of the country. BNSF and UP are a duopoly west of the Mississippi River and NS and CSX are a duopoly to the east. The CN and CP networks in this country primarily run north-south in parallel with the Mississippi River. For traffic that crosses the east-west divide, the Class I railroads have established five major gateways – Chicago, East St. Louis, Kansas City, Memphis, and New Orleans – at which they have developed significant shared infrastructure to efficiently interchange traffic between their networks. Notably, this east-west divide ensures that both the eastern and western carriers are assured of receiving their long-haul on all interline movements with each other because their routes do not overlap to any significant degree; they are truly end-to-end networks. This

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acceptable conduct by a railroad subject to the Board's statutory authority."); *id.*, slip op. at 3 ("While UP ultimately attempted to address its previous failures to fully respond to the Board's information requirements in this proceeding, the Board cannot condone UP's repeated and extended failure to provide the Board with information in a timely and responsive manner when requested. Rarely has a rail carrier engaged in such delay and obfuscation in response to the Board's requests for information.").

merger threatens to "blow up" this structure and the equilibrium that it has fostered for over fifty years.

The revenue adequacy of rail carriers depends upon two major factors: traffic density and length of haul. Higher density and longer hauls enhance a rail carrier's ability to recover its high proportion of fixed costs by spreading those costs across more traffic and over more miles. This merger will impair the competitiveness of all the other Class I railroads by reducing traffic volume at the major gateways and either eliminating or substantially reducing the length of haul for the Applicants' interline partners, primarily BNSF and CSX. As the only competitors to the Applicants in existing duopolies with high barriers to entry, harm to them is harm to the competition that they provide to UP and NS, respectively.

Through their proposed merger, the Applicants will bypass the major gateways for an enormous volume of traffic. For newly formed single line routes, the Applicants will internalize interchanges at new locations that avoid the major gateways. For westbound traffic that they interchange with BNSF and eastbound traffic that they interchange with CSX, the Applicants will have longer hauls that would push interchanges with their interline partners further west and east, respectively, with a corresponding reduction in those carriers' lengths of haul and revenue. The volume of Applicants' traffic that will remain at the major gateways will be a small fraction of their existing volume, primarily traffic destined to locations in the vicinity of those gateways. Although the Applicants' traffic over the major gateways will diminish, the infrastructure will not. The remaining Class I

carriers and their customers, which will remain dependent upon those gateways to interchange traffic among themselves and to a lesser extent with the Applicants, will be left holding the bag for those costs. The average cost per unit of traffic moving over those gateways will increase and those increases are likely to be passed on to shippers. Those customers also are likely to experience reduced service as the carriers attempt to reduce operating costs. The JSA refer to this consequence as "Fixed Cost Transfer."

In addition, the Applicants' post-merger interline traffic with BNSF and CSX will shift to interchanges closer to the destination, resulting in reduced lengths of haul for both carriers. This reduces the revenue those carriers receive, reduces the miles over which they can recover their infrastructure costs, and leaves their customers on the bypassed segments of their mainline to cover more of the fixed costs and suffer service reductions needed to reduce operating costs. The JSA refer to this as "linehaul erosion."

The foregoing harms are known in economic terms as the "raising rivals' cost foreclosure paradigm," or the "RRC paradigm."

> The RRC foreclosure paradigm generally describes exclusionary conduct that totally or partially "forecloses" competitors from access either to critical inputs or customers, with the effect of causing them to raise their prices or reduce their output, thereby allowing the

> excluding firm to profit by setting a supracompetitive output price, with the effect of harming consumers.[22]

This merger implicates the RRC paradigm through two forms of vertical foreclosure: (1) UP could completely foreclose CSX and BNSF interline routes with UP on all moves that create a new UP-NS single line route to competitively served destinations ("Traditional Foreclosure"), and (2) UP could short haul CSX and BNSF on all interline routes to CSX and BNSF destinations ("RRC Foreclosure"). The nearly complete overlap of the CSX and NS networks in the east and the BNSF and UP networks in the west means that most interline movements between the Applicants and either CSX or BNSF are at risk.

UP has several tools at its disposal to engage in foreclosure of interline routes that compete with its new single-line service (Traditional Foreclosure) and legacy interline routes that compete with its new longer haul interline routes (RRC Foreclosure). First, UP can quote rates for its segment of the interline movement that prevent the competing interline alternative from being price competitive with UP's single line or long-haul service. Second, UP could provide a lesser quality of service on the interline route through the frequency of local train service, missed switches, fewer trains in line-haul service to/from the interchange, etc. Third, and perhaps most effectively, UP could foreclose the competing interline service through contract bundling. The combined captive origins and destinations on UP and NS

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[22] Steven Salop, *The Raising Rivals' Cost Foreclosure Paradigm, Conditional Pricing Practices, and the Flawed Incremental Price-Cost Test*, 81 Antitrust L.J. 371 (2017).

would give the merged entity a far greater concentration of closed industries than any of the other Class I carriers,[23] which substantially increases the post-merger leverage of UPNS in contract negotiations with customers to tie its contract rate offers on other captive traffic to the customer's willingness to choose the UP single line and long-haul interline routes over alternative interline routes and bundle them into the same contract.[24]

Despite Board precedent acknowledging that vertical mergers can cause competitive harm,[25] the Applicants' economic witness, Dr. Mark Israel, asserts that "economic theories of foreclosure…are ill-matched for the railroad industry,"[26] and for all but "a narrow sliver of all shipments," that "foreclosure concerns can[] be ruled out as a matter of theory…."[27] He attempts to place the burden on merger opponents to prove otherwise: "*Hence, any economic theory of foreclosure has to explain why the sole-serving carrier was not earning monopoly profits pre-merger, how the merger will alter that situation, and thus why it would have an incentive to*

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[23] Post-merger, of the three Class I rail carriers capable of providing east-west service beyond the Mississippi River, UPNS will be the sole rail carrier with access to 54% of locations nationwide, while BNSF and CSX will be the sole rail carrier with access to just 18% and 28%, respectively. Burchfield V.S. Figures 2 & 3.

[24] Burchfield V.S. ¶ 84.

[25] *Can. Pac. Ry.-Control-Kan. City S.* (*CPKC Decision*), FD 36500 *et al.*, slip op. at 65-66 (STB served Mar. 15, 2023). *See also, Can. Nat'l Ry. Co.-Control-Iowa N.* Ry. Co., FD 36744, slip op. at 9 (STB served Jan. 14, 2025).

[26] UP-39/NS-37, Vol. 2, Verified Statement of Mark Israel ¶ 17 (Israel V.S.).

[27] *Id.* ¶¶ 39, 43.

foreclose the independent railroad post-merger."[28] This burden shifting is contrary to the Board's precedent and must be rejected.[29]

Although it is the Applicants' burden to demonstrate that foreclosure cannot occur based on the specific facts of their proposed merger, they have not done so. Dr. Israel's theoretical musings, which are contrary to Board precedent and the body of current economic theory, are insufficient even to establish a *prima facie* case, and their persuasiveness is further diminished in the face of the evidence presented by the JSA and other stakeholders.

C. The Application overstates the merger's benefits.

The Applicants assert that the benefits of this merger "are driven primarily by the creation of single-line service on transcontinental routes."[30] But if the creation of single-line service were enough, then *any* merger that creates more single-line routes would be in the public interest, including one that consolidates the national rail network into a single monopoly carrier. Moreover, the claimed single-line benefits largely bypass merchandise and bulk carload shippers like the JSA members. Nearly 95% of the shipper savings that the Applicants attribute to single-line service go to traffic diverted from trucks, not to traffic already moving by rail, and the only non-rate service benefits that the Applicants attempt to quantify

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[28] Israel V.S. ¶ 41 (italics in original).

[29] CPKC Decision, slip op. at 47 (rejecting "a presumption that a vertical combination will not result in competitive harm" and placing the burden on "merger applicants…to argue that the facts in an individual proceeding warrant application of the one-lump theory…").

[30] Rev. Appl. 1-37.

accrue to intermodal traffic, a segment that already is competitive. And although carload shippers value reliability far more than average transit time, the Applicants never show that the merger will improve reliability, much less commit to it.

The Applicants' forecast of truck-to-rail diversions is similarly overstated. Their $3.480 billion in shipper truck-to-rail savings, the single largest component of their claimed $6.335 billion in annual public benefits,[31] rests on Mr. Hunt's untested assumption that freight trucked between rail-served counties can move by rail, without ever asking whether the shipper's facility has an industry track or local train service. No rail access means no diversions, and no diversions means no savings. The Applicants themselves have told the Board to discount overstated projections in making its public interest determination,[32] and the Board should do so here.

Finally, the Applicants ignore the 2001 Rules' directive to identify "whether the particular benefits they are relying upon could be achieved short of merger."[33] By crediting all their claimed benefits to the merger, the Applicants raise the very concern that prompted that directive: that "a carrier might seek to gain enhanced market power through a merger, while claiming that this harm would be offset by efficiencies that could actually be achieved by means short of merger."[34] UP itself

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[31] Rev. Appl. 1-516 (Janke V.S. (2d Errata) Table 4).

[32] July 27 Suppl. 112.

[33] 49 C.F.R. § 1180.6(b)(11).

[34] *Major Rail Consolidation Procedures,* 5 S.T.B. at 559.

urged the Board in that rulemaking that "[m]ergers should not be credited with benefits that are practicably achievable through other means that would not cause irreversible changes in the structure of the railroad industry."[35] The Board should hold UP to that standard. Once the claimed benefits are properly discounted, they cannot outweigh the substantial competitive harm that this merger would cause.

D. The Board should reject, not condition, this merger.

There are no conditions that can sufficiently mitigate the harmful effects of this merger short of a wholesale restructuring of the rail industry. And Board precedent plainly states that, "we should not use our conditioning powers to make consolidation proceedings vehicles for rail system restructuring… [because]… [t]o do so would not be consistent with the Congressional intent underlying the statutory scheme governing railroad consolidations."[36] Furthermore, the Board's "conditioning power should not be used to restructure a transaction beyond the scope proposed by applicants."[37] Because the conditions required even to begin to address the anticompetitive effects of this merger would restructure both the rail industry and this transaction, the Board's only option is to deny it.

The risk of vertical foreclosure derives from the extended long-hauls that the Applicants will achieve through this merger. The most effective conditions would restore neutrality to the Applicants' bottleneck segments by creating competition on

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[35] Union Pacific's Comments and Initial Proposals at 18, *Major Rail Consolidation Procedures*, EP 582 (Sub-No. 1) (filed May 16, 2000).

[36] *Union Pac. Corp.-Control-Mo. Pac. Corp.,* 366 I.C.C. 462, 564 (1982) (*UP Control*).

[37] *Id.* at 565.

all interline routes to and from the pre-merger gateways with BNSF and CSX for all traffic destined to BNSF- and CSX-served locations. This enhancement to competition is necessary to constrain the Applicants' ability to discriminate against interline routes via the pre-merger gateways in favor of their post-merger single line and long-haul interline routes.

The scope and scale of conditions that are necessary to create the requisite competition to address the vertical foreclosure effects of this merger is immense precisely because the scope and scale of the Applicants' ability to foreclose is immense. The traditional conditions available to the Board – reciprocal switching, trackage rights – have too many limitations and deficiencies to accomplish this task on both an individual and collective basis. Chief among them is determining appropriate fees for such access that are compensatory to the Applicants, ensure competitiveness of the alternative carriers, and do not require case-by-case adjudications. For the vast amount of traffic that those conditions could not reach, the next best condition is a bottleneck segment rate cap, but again, at what level.

The Applicants offer the CPKC open gateway commitments as a condition to address vertical foreclosure concerns. But those commitments lack objective standards, rely upon remedies that apply only to individual movements to address systemic issues, ignore information asymmetries, and can be completely circumvented through contract bundling. Furthermore, they are behavioral remedies, which require regulatory oversight, not structural remedies, which are necessary to fix the underlying causes of foreclosure. Finally, the Applicants fail to

explain how open gateway commitments from mergers decided under the pre-2001 rules and applied to a much smaller merger suffice under the more stringent 2001 Rules or how those commitments made under very different facts prevent vertical foreclosure under the facts of this merger.

In the 2001 Rules, the Board declared, "[w]e are acutely aware that, as we approach the 'end-game,' the price for any failure would be high."[38] That is why the 2001 Rules set a higher bar for approving major rail mergers. The Board must not risk the substantial uncertainties surrounding the scope and efficacy of the most critical competitive conditions, precisely because of the high price for any failure. And that also is why the JSA ask the Board to deny this merger rather than approve it with conditions.

II. Applicants Have a Heavier Burden to Show That This Merger Is Consistent with the Public Interest.

Under 49 U.S.C. § 11324(c), merger applicants must show that their proposed transaction is "consistent with the public interest." The Board's public interest determination entails a balancing of the merger benefits against any harm to competition, essential services, labor, and the environment that cannot be mitigated by conditions.[39] Specifically, "mergers serve the public interest only when substantial and demonstrable gains in important public benefits—such as improved service and safety, enhanced competition, and greater economic efficiency—

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[38] *Major Rail Consolidation Procedures*, 5 S.T.B. at 560.

[39] 49 C.F.R. § 1180.1(b)-(c).

outweigh any anticompetitive effects, potential service disruptions, or other merger-related harms."[40] The Board also considers whether the merger and conditions promote the rail transportation policy at 49 U.S.C. § 10101.[41] Lastly, the antitrust laws provide guidance but are not determinative in merger proceedings.[42]

In 2001, the Board fundamentally revised its merger rules applying the public interest standard to impose a "heavier burden" on merger applicants.[43] The Board stated that its revised rules, codified at 49 C.F.R. § 1180.1, "reflect a significant change in the way in which we will apply the statutory public interest test to any major rail merger application."[44] Indicative of that heavier burden, the Board placed "greater emphasis" on "enhancing competition while ensuring a stable and balanced rail transportation system."[45] The Board also clarified that it would carefully scrutinize applicants' claims.[46] It adopted a "skeptical, 'show me' attitude toward claims of merger benefits and toward claims that no transitional service problems would occur."[47] Applicants cannot rely on optimistic projections and unrealistic assumptions.[48] They must prove their case with well-documented

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[40] 49 C.F.R. § 1180.1(c).

[41] 49 C.F.R. § 1180.1(b).

[42] *CPKC Decision*, slip op. at 20.

[43] *Major Rail Consolidation Procedures*, 5 S.T.B. at 539, 546.

[44] *Id.* at 546.

[45] *Id.*

[46] *Id.* at 560.

[47] *Id.* at 549.

[48] *Id.* at 560 (cautioning "not to exaggerate" benefit projections).

evidence.[49] The Board justified this heavier burden based upon "substantial concern" that the industry was approaching an "end-game" scenario where future consolidation could leave only two North American transcontinental railroads.[50] In that scenario, the price for a merger's failure to produce an anticipated benefit "would be high."[51]

The 2001 Rules retain and codify certain elements of the Board's pre-2001 rules and decisions. Most notably, merger applicants are "expected to include measures for preserving competition wherever feasible, including effective plans to keep open major existing gateways and to preserve opportunities to challenge segment rates in bottleneck situations," and to protect 2-to-1 locations, build-out options, and transload options.[52] The Rules require applicants to propose remedies to mitigate and offset these competitive harms.[53] Lastly, they codify the Board's prior practice of exercising formal oversight of the merger for at least five years following Board approval.[54]

In addition, the 2001 Rules impose new requirements and raise the bar on previous ones. Although the Board still employs a balancing test to determine if a

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[49] *See Id.* (stating that the Board will determine whether benefits projections are well-documented and reasonable).

[50] *Id.* at 549, 560.

[51] *Id.* at 560.

[52] *Id.* at 546-47; *see also* 49 C.F.R. § 1180.1(c)(2)(i).

[53] 49 C.F.R. § 1180.1(c)(2)(i).

[54] 49 C.F.R. § 1180.1(g).

merger is in the public interest, it has changed how it weighs the statutory criteria and adds new elements to the mix.[55] Where the Board previously focused on greater economic efficiency and improved service, the 2001 Rules add enhanced competition as an important public interest benefit, impose a heavier burden upon applicants to demonstrate efficiency and service benefits, and require them to show that those benefits could not be achieved through means short of a merger.[56] Also, because there are so few Class I railroads remaining, the Board now considers the cumulative impacts and crossover effects likely to occur as rival carriers react to a proposed merger, in contrast to its prior "one case at a time" policy.[57] Lastly, in view of substantial transitional service disruptions following prior major mergers, the 2001 Rules require applicants to submit a Service Assurance Plan that identifies the steps they will take to ensure adequate service, provides service benchmarks, describes arrangements to compensate shippers for service failures, and establishes contingency plans to mitigate unanticipated service disruptions.[58]

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[55] *Major Rail Consolidation Procedures*, 5 S.T.B. at 551-52.

[56] 49 C.F.R. § 1180.1(c).

[57] 49 C.F.R. §§ 1180.1(i), 1180.6(b)(12); *see also Major Rail Consolidation Procedure*s, 5 S.T.B. at 549-50 ("[W]e need to look down the road and determine whether approving not just the immediate proposal that may be before us, but others like it, would ultimately result in a rail industry structure that continues to provide at least the existing level of competitive options for shippers, and continues to make railroads pass on most of the beneficial results of their merger efficiencies to the shipping public.").

[58] 49 C.F.R. § 1180.1(h).

Notably, the Board expressed a deep-seated belief that future mergers were unlikely to be in the public interest without conditions to enhance competition. For example, "[t]he Board anticipate[d] that mergers of Class I carriers would likely create some anticompetitive effects that would be difficult to mitigate through appropriate conditions, and … [t]o offset such potential harms and improve the prospect that their proposal would be found to be in the public interest, applicants should propose conditions that would not simply preserve but also enhance competition…in ways that strengthen and sustain the rail network as a whole…."[59] The Board also observed that, due to the scale of future major rail merger applications, "offering some new or enhanced rail-to-rail competition or other competitive benefits is likely to be necessary to resolve substantial difficulties so as to tip the balance in favor of the public interest."[60] This policy of enhancing competition through mergers stands in stark contrast to the pre-2001 merger policy, which imposed conditions solely to preserve competition where it would be lost and rejected requests for conditions that would create new competition.

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[59] 49 C.F.R. § 1180.1(d); *see also Major Rail Consolidation Procedure*s, 5 S.T.B. at 552 (in the public interest balancing test, "[w]e are upgrading the importance of competition"), 554 ("provisions for competitive enhancement will be given substantial weight as merger benefits and are likely to be extremely important to us"), 557 ("We anticipate…that, to gain our approval, it likely would be necessary for applicants to offer to offset a difficult-to-remedy loss of competition with competitive enhancements").

[60] *Major Rail Consolidation Procedure*s, 5 S.T.B. at 550; *see als*o 49 C.F.R. § 1180.1(c) ("to assure a balance in favor of the public interest, merger applications should include provisions for enhanced competition, and, … the Board is prepared to use its conditioning authority…to preserve and/or enhance competition").

Although the Board did not define "enhanced competition," it provided multiple examples of the types of actions that it would consider to be enhancements. All of those examples constitute new intramodal (rail-to-rail) competition.[61] For example, the Board stated that it was "asking applicants to offer competitive enhancements – as applicants did in both *UP/SP and in CSX/NS/CR*."[62] Those enhancements included thousands of miles of trackage rights, extensive competitive access rights for the trackage rights carriers, and shared asset areas. The Board also identified the removal of paper barriers as an enhancement.[63] Thus, the Board plainly expected applicants to propose competitive enhancements in the form of new intramodal options.

The Board has broad authority under 49 U.S.C. § 11324(c) to impose conditions upon its approval of a merger to offset harm to the public interest.[64] The Board will look first to the applicants to offer appropriate conditions, but it may impose additional conditions that it deems necessary in the public interest. However, it is not the responsibility of the Board or stakeholders to devise effective conditions to fix a flawed merger proposal. If the merger as proposed fails to meet the public interest standard, the Board should reject it. Furthermore, when the necessary conditions would entail "major rail restructuring," as is true of this

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[61] *See Major Rail Consolidation Procedures*, 5 S.T.B. at 546-47, 550, 554, 569.

[62] *Id.* at 569.

[63] *Id.* at 554.

[64] 49 C.F.R. § 1180.1(d).

merger, the Board "will not use its conditioning power to substantially restructure a transaction beyond the scope proposed" by the Applicants.[65]

The proposed acquisition of NS by UP is the first time the Board will apply the 2001 Rules. Considering the concerns underlying the 2001 Rules, the Board must hold the Applicants to their heavier burden and deny any application that does not take that burden seriously.

III. The Board Should Reject This Merger Because Of Its Questionable and Insufficient Benefits, Substantial Competitive Harm and Service Risks, And the Complete Absence of Competitive Enhancements.

The Board should reject this merger outright. The harm to competition is substantial and unprecedented; the alleged merger benefits are overstated, insufficient to outweigh the competitive harm, and largely achievable through less harmful and disruptive alternatives; the Applicants have not proposed any enhancements to competition, much less enhancements that might mitigate harm that cannot be directly or proportionately addressed; and the Applicants offer only a skeletal plan to deal with the consequences of severe service disruptions during the post-merger integration process.

Consequently, the Applicants' understatement of the merger's costs and their overstatement of the merger's benefits markedly distort their public interest assessment, and their proposed conditions do nothing to fix this. As detailed in Part

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[65] *Santa Fe S. Pac. Corp.-Control-S. Pac. Transp. Co.*, 2 I.C.C.2d 709, 714 (1986) *(SFSP Merger*); *see also UP Control*, 366 I.C.C. at 565 ("Our conditioning power should not be used to restructure a transaction beyond the scope proposed by applicants.").

IV below, there are no conditions that can adequately redress the competitive harm, including those offered by the Applicants, short of a substantial restructuring of the rail industry in the United States. Because the Board should not use its conditioning power to restructure a transaction beyond the scope proposed by applicants, the JSA urge the Board to deny the merger application.[66]

A. This merger will cause real and significant harm to competition.

This merger threatens substantial competitive harm that the Applicants refuse to recognize and consequently fail to mitigate. Applicants' principal contention that their proposed merger is not anti-competitive is that, because it is a vertical, end-to-end, merger, it will not reduce the number of rail competitors for most rail traffic. That contention, however, is predicated upon a disingenuous and incredible claim that vertical rail mergers do not reduce competition, except in very narrow circumstances that the Applicants claim are not present in the rail industry. Their claim contradicts both the testimony of UP's expert economist in the CPKC merger proceeding, Dr. Steven Salop, and the Board's conclusions in that proceeding based upon the comments submitted by UP and other parties. The Applicants neither acknowledge nor attempt to distinguish their very recent and contrary position. Instead, they submit testimony from a different economist, Dr. Mark Israel, to argue the opposite position.

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[66] *SFSP Merge*r, 2 I.C.C.2d at 714; *UP Contro*l, 366 I.C.C. at 565.

Through the Verified Statement of two economists, Dr. Hal J. Singer and Mr. Ted P. Tatos ("Singer/Tatos V.S."), the JSA show that Dr. Salop and the Board were correct in the CPKC proceeding, and Dr. Israel's testimony distorts, misapprehends, and contradicts the economic principles upon which he relies. In addition, the JSA submit the Verified Statement of Karen M. Burchfield ("Burchfield V.S.") to show, based on analysis of traffic data and her real-world experience, how this merger constitutes a grave and unprecedented threat to competition and the national rail network. Ms. Burchfield's testimony validates the economic conclusions of Dr. Singer and Mr. Tatos.

1. Applicants disingenuously discount the anti-competitive effects of vertical mergers.

The Board has plainly stated that vertical mergers can cause competitive harm and established a framework for analyzing that harm. In the CPKC Decision, the Board held that "[e]ven in mergers . . . without horizontal network overlap . . . potential adverse vertical competitive impacts can include diminished service and/or increased prices on interline movements that have the effect of foreclosing efficient competitive options," and "expressly rejected the presumption . . . that a vertical combination will not result in competitive harm."[67] Despite this and more recent precedent,[68] the Applicants, through the testimony of Dr. Mark Israel, invoke

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[67] *CPKC Decision*, slip op. at 65-66.

[68] Just last year, the Board expressed concern that, following CN's acquisition of the IANR, the IANR no longer would be a neutral connection for other railroads, one that had "no incentive to try to direct its customers to one railroad over another."

the very same theory the Board rejected in the CPKC Decision, namely that vertical mergers in the rail industry generally do not result in competitive harm.

In the CPKC merger, the applicants asserted that:

> their proposed combination is a purely end-to-end transaction that will generate competitive benefits and cause no competitive harm. They assert that no shippers, stations, or corridors will suffer diminished competition; that, under the "one-lump" theory applied in past proceedings involving vertical combinations, the transaction would not enhance either the incentive or the ability to foreclose competition—and that in all events, the combined entity would have no incentive to force customers to accept new single-line routes they did not desire; and that Applicants' open gateway commitments will "assure that Applicants' incentives are backed up by the potential for enforcement under the auspices of Board oversight." (Appl. 1-20 to 1-21; id., Vol. 2, V.S. Majure, paras. 20-26.)[69]

In rejecting CPKC's position, the Board recognized "that economic understanding regarding the potential for competitive harm from vertical combinations has continued to evolve since the agency first began considering the one-lump theory;"[70] that "empirical economic studies have found evidence suggesting competitive harm from vertical mergers;" and that "the vertical merger guidelines issued by the U.S. antitrust agencies in 2020…expressly recognize that

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Can. Nat'l Ry. Co. — Control — Iowa N. Ry. Co., (Decision No. 3), FD 36744, slip op. at 9 (STB served Jan. 14, 2025).

[69] *CPKC Decision*, slip op. at 42.

[70] The "one-lump" theory postulates that a railroad that is the only carrier serving one part of an interline route already can capture all the monopoly profit available on the entire route, and therefore that railroad will not gain the ability to harm competition by acquiring one of two competing connecting carriers.

'[a] vertical merger may diminish competition between one merging firm and rivals that trade with, or could trade with, the other merging firm.'"[71] Hence, the Board was unwilling to accept CPKC's contention that a vertical merger will cause no competitive harm and abandoned its prior presumption based upon the one-lump theory that "a vertical combination will not result in competitive harm."[72] Despite this precedent, the Applicants essentially make the same arguments as CPKC made. The Board correctly identified vertical harm in the CPKC Decision, and it should do so in this proceeding as well, where the potential for such harm is magnified many times over.[73]

The Board's conclusions in the CPKC Decision drew on the record UP built in that proceeding through its own witness, Dr. Steven Salop, and on an economic article he co-authored.[74] UP consistently has taken the same position in other

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[71] *Id*. at 46 (citations omitted).

[72] *Id*. at 47; *see also id*. at 4 ("Even end-to-end mergers…can pose competitive risks, and indeed this decision overturns prior agency precedent that did not sufficiently recognize such concerns.").

[73] Although the Board ultimately approved the CPKC merger after imposing conditions that it believed would avoid significant competitive harms, *id*. at 47-48, it did so based upon the less stringent pre-2001 merger Rules. In Part IV.B.1. below, the JSA demonstrate that the conditions in the CPKC Decision are inadequate to address the far more substantial concerns posed by the instant merger under the 2001 Rules.

[74] *CPKC Decision*, slip op. at 44-47 (majority opinion summarizing UP's comments and relying on Moresi *et al*. (2021), co-authored by Dr. Salop); *see* Israel V.S. ¶ 67 n.33; *see also* Union Pac. R.R. Co.'s Comments and Req. for Conditions at 3-6, 21-32, *Can. Pac. Ry.—Control— Kan. City S.*, FD 36500 (filed Feb. 28, 2022) ("UP CP/KCS Comments"); Verified Statement of Steven C. Salop at 3-5, 7-27, B-1 to D-6, Union Pac. R.R.'s Comments and Req. for Conditions, *Can. Pac. Ry. Ltd.— Control— Kans. City S.*, FD 36500 (filed Feb. 28, 2022) ("Salop V.S.").

merger proceedings as well; that is, until UP sought approval of its own vertical merger in this proceeding.[75] Now, UP has reversed course, taking a position that directly conflicts with the CPKC Decision and its own prior position. The Applicants undermine their credibility by neither acknowledging nor explaining their own change of position.[76]

Indeed, the Applicants barely engage with the CPKC Decision at all. The narrative portion of the Application never mentions the CPKC Decision in the context of vertical foreclosure. Dr. Israel references it once to note that "the STB has indicated a concern that the conditions for vertical foreclosure may be present and questioned whether the merging railroad could foreclose competition post-merger."[77] His entire statement then takes the opposing position that vertical foreclosure does not apply by claiming that "the economic theories of foreclosure that have been developed in the literature **[including those that persuaded the Board in the**

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[75] *See, e.g.*, Union Pac. R.R. Co.'s Comments at 68, *Kan. City S. — Control–Tex. Mex. Ry. Co.*, FD 34342 (filed Aug. 4, 2003) (vertical transactions can have significant anticompetitive effects when the merged entity can decrease service quality or increase rivals' costs); Union Pac. R.R. Co.'s Comments and Req. for Conditions at 4, *Can. Nat'l Ry. Co. — Control — Iowa N. Ry. Co.*, FD 36744 (filed Apr. 29, 2024) ("As the Board has recognized, even end-to-end transactions create a risk of foreclosure.").

[76] NS espoused a similar position to UP. *See* Comments of Norfolk S. Ry. Co. & Req. for Conditions at 28 ("[E]ven efficiency-enhancing vertical mergers can cause discrete harm to competition and the public interest."), 28-32 (identifying competitive concerns over the worsening of interline alternatives), *Can. Pac. Ry. — Control — Kan. City S.*, FD 36500 (filed Feb. 28, 2022).

[77] Israel V.S. ¶ 16.

CPKC decision] are ill-matched for the railroad industry."[78] Dr. Israel then challenges the accepted determination that "harm from vertical mergers can arise because the merging firm obtains better information about the combined firm's costs…than it had pre-merger."[79] Although his testimony effectively requires the Board to resurrect the one-lump theory's presumption against vertical foreclosure that the CPKC Decision abandoned, he never acknowledges this or makes any effort to address the Board's rationale for abandoning it.

Through these and other statements, Dr. Israel implies that the Board was deceived in the CPKC merger, including by UP's own witness:

> As noted above, an economist opposing this transaction may nevertheless be able to come up with a theory under which foreclosure is possible. In the economic literature on vertical contracting, nearly anything is theoretically possible given enough restrictions on the form of contracting and firm behavior. However, any such theory of foreclosure would at most apply to a very limited set of cases…[and]…would also depend on restrictions on firm behavior and other assumptions that do not fit the facts of the railroad industry.[80]

Dr. Israel sets out to justify this statement by advancing different economic theories as to why foreclosure is not possible in the rail industry predicated upon whether a shipment moves pursuant to negotiated non-linear contracts, non-negotiated Rule 11 rates, or non-negotiated through rates. He then attempts to rebut criticism of the "one lump" theory.

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[78] *Id.* ¶17.

[79] *Id.* ¶ 18.

[80] *Id.* ¶ 19.

In the CPKC Decision, the Board identified the type of facts that applicants must show in an individual proceeding to warrant application of the one-lump theory: "that a particular bottleneck carrier is already capturing the entire monopoly profit pre-merger…."[81] Neither Dr. Israel nor any other witness for the Applicants attempts to make this showing. For all but "a narrow sliver of all shipments," Dr. Israel concludes that "foreclosure concerns can[] be ruled out as a matter of theory…."[82] Therefore, unless the Board reverses the CPKC Decision, the Applicants have not presented even a *prima facie* case to show the absence of anticompetitive vertical impacts.

As demonstrated by Dr. Singer and Mr. Tatos in their joint verified statement on behalf of the JSA, there is no basis for the Board to reverse the CPKC Decision. Dr. Israel distorts, misapprehends, and contradicts the economic principles upon which he relies. In the following two subparts, the JSA respond to the economic principles upon which Dr. Israel relies and his attempt to resurrect the "one-lump" principle.

a. Dr. Israel distorts, misapprehends, and contradicts the economic principles upon which he relies.

Dr. Israel invokes multiple economic principles to support his contention that "economic theories of foreclosure…are ill-matched for the railroad industry." [83] In this context, "foreclosure" means a merged railroad using its control over one part of

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[81] CPKC Decision, slip op. at 47.

[82] *Id.* ¶¶ 39, 43.

[83] *Id.* ¶ 17.

a route to steer traffic away from, or otherwise disadvantage, competing railroads on the rest of the route. Dr. Israel divides all interline traffic into three groups—negotiated non-linear contracts, non-negotiated Rule 11 rates, and non-negotiated through rates—which he says cover every pricing situation, and he concludes that the merger harms no shipper in any group.[84] The principles Dr. Israel relies upon include "Ricardian rents," elimination of double marginalization ("EDM"), Cournot Complements, and the single monopoly profit or "one-lump" theory, each of which is explained below. Although Dr. Israel frames his discussion of these principles in terms of the foregoing three traffic groups, this section responds on a collective basis because several of these principles are relevant to the discussion of more than one group.

Dr. Israel first addresses foreclosure risks for "negotiated non-linear contracts," which he defines as "cases in which the price in the contract is conditioned on volume in some way…."[85] In other words, these are negotiated contracts in which the rate depends on how much the customer ships. This may include contracts where the customer obtains a separate rate from each railroad on an interline route (a Rule 11 rate) or a single rate for the entire route (a through rate).[86] Dr. Israel claims that "[i]n all such cases, economics teaches that there are

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[84] *Id.* ¶¶ 14, 17, 43.

[85] *Id.* ¶¶ 20-30 and ¶ 23.

[86] *Id.* ¶ 20. Although Dr. Israel employs the term "through" rate to mean single factor rates quoted by just one of the interline carriers for the entire route, the correct term is "joint" rate, because a "through" rate also can be a combination of

not foreclosure concerns, but rather the merger will either benefit shippers or leave them unharmed, as I explain next."[87] But as Dr. Singer and Mr. Tatos point out, Dr. Israel's subsequent explanation does not cite to a single economic authority to support his claim; instead, he manufactures this theory from whole cloth based upon a fundamental misrepresentation of the "Ricardian rent" economic concept.[88]

To demonstrate the economics behind his claim, Dr. Israel poses three variations upon a hypothetical transcontinental rail route served by one railroad in the west (UP) and two in the east (NS and CSX).[89] The variations differ as to which eastern railroad has lower costs: NS, CSX, or NS after unlocking merger efficiencies. Dr. Israel posits that the eastern railroad with lower costs will win the business and earn extra profit equal to the amount by which its costs are lower than its rival's, which he labels the "Ricardian rent,"[90] albeit without any citation. According to Dr. Israel, when NS is the lower cost carrier, the merger with UP will eliminate the Ricardian rent, and when CSX is the lower cost carrier, the merger has no effect, positive or negative.[91] Thus, he concludes that "[e]ither the merger changes nothing or, in the situation where the merged RR has the cheaper

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separately quoted Rule 11 rates (*i.e.*, a "combination rate"). *Metro. Edison Co. v. Conrail*, 5 I.C.C.2d 385, 402 (1989).

[87] *Id.* ¶ 22.

[88] Singer/Tatos V.S. ¶¶ 63–64.

[89] Israel V.S. ¶¶ 25-29.

[90] *Id.* ¶ 25.

[91] *Id.* ¶¶ 27-29.

competitive leg, the merger creates a better deal for everyone, because it gets rid of the inefficiencies created by Ricardian rents."[92]

Dr. Singer and Mr. Tatos demonstrate, however, that Dr. Israel incorrectly defines "Ricardian rent" by confusing the concept with cost advantages that result from higher efficiency. Ricardian rent does not result from one competitor being more efficient than another (*i.e.*, a firm with lower costs), but from the scarcity of a resource, such as fertile land, whose supply cannot be increased.[93] Dr. Israel conflates this concept with a different, broader definition used in modern economics, under which rent is any "reward in excess of opportunity cost"[94] — that is, anything a resource earns beyond what it could earn in its next-best use. Because Dr. Israel equates Ricardian rent with a cost advantage, he mistakenly treats eliminating it as eliminating an inefficiency, when a railroad's lower costs reflect greater efficiency.[95]

The economist who originated the Ricardian rent concept, David Ricardo, built his theory around the idea that land is uniquely scarce because its supply is fixed and thus its price is determined entirely by demand rather than the cost of producing it. Ricardian rent reflects the extra income that more fertile land earns compared to less fertile land because it produces a higher crop yield. It has nothing

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[92] *Id.* ¶ 30.

[93] Singer/Tatos V.S. ¶ 64.

[94] *Id.* ¶ 65 & n.85.

[95] Israel V.S. ¶ 30.

to do with a cost advantage. When Dr. Israel defines Ricardian rent in terms of a railroad's "cost advantage" and touts the elimination of Ricardian rent as a benefit of vertical mergers, he "appears to proffer the self-contradictory argument that greater efficiency is itself inefficient."[96]

Even setting aside Dr. Israel's incorrect use of Ricardian rents, his hypothetical fails because it depends on the unrealistic assumption that competing railroads know each other's costs precisely every time they compete for a shipment. Specifically, when he claims that the two eastern railroads "compete until price falls to the cost of the higher-cost railroad, and then the lower-cost railroad will price just under that cost and win the business," Dr. Israel assumes that the railroads know one another's costs.[97] The Board explicitly rejected this assumption in the CPKC Decision when it rejected the "one-lump" presumption,[98] as did Dr. Salop, UP's economic witness in that proceeding.[99] Therefore, Dr. Israel's Ricardian rent hypothetical must fail.[100]

Finally, Dr. Israel posits that, if NS is the lower cost railroad in this hypothetical, the merger will remove the Ricardian rent and make both shippers

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[96] Singer/Tatos V.S. ¶ 65.

[97] *Id.* ¶ 66 *(quotin*g Israel V.S. ¶ 25).

[98] CPKC Decision, slip op. at 46-47.

[99] Singer/Tatos V.S. ¶ 66 n.60.

[100] In a different portion of his testimony, Dr. Israel defends the "one-lump" theory. *See* Part III.A.1.b., *infra*, for the JSA's reply.

and railroads better off.[101] Although he does not use the term "Elimination of Double Marginalization" ("EDM") in this section of his testimony, that is the concept that Dr. Israel describes.[102] "Double marginalization" occurs when two separate companies each add their own profit markup to their part of a single product or service—here, a single shipment moving over two railroads—so the customer pays two markups instead of one. EDM is the theory that, once the two companies merge, the combined company will charge only one markup, which can lower the overall price. Dr. Israel's inaccurate reference to removing the Ricardian rent describes the same idea. But EDM reliably lowers prices only where UP and NS each are the only railroad serving their respective parts of the route (*i.e.*, each is a monopolist on its segment, sometimes called successive monopolies).[103] Where a shipper has a choice of two railroads on one part of the route (*i.e.*, competitive route segments), the effect of EDM is uncertain, because the merged railroad now has a competitor that it can disadvantage by raising that competitor's costs, and the merger will not eliminate all of the stacked markups.[104] According to Dr. Singer and Mr. Tatos, "Dr. Israel finds no foreclosure effects because the successive

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[101] Israel V.S. ¶¶ 28-29.

[102] Singer/Tatos V.S. ¶ 68. Dr. Israel explicitly references EDM elsewhere in his testimony, at ¶¶ 100-101, 110-111, where he discusses the merger's benefits.

[103] Singer/Tatos V.S. ¶¶ 73–75.

[104] *Id.* ¶ 83. As detailed in Part III.A.2.c. below, raising rivals' cost is the principal competitive harm that concerns the JSA.

monopoly condition under which the standard EDM applies and upon which he relies simply assumes away the possibility of foreclosure."[105]

This EDM problem carries over into Dr. Israel's ensuing discussion of non-negotiated Rule 11 pricing. He describes this competitive setting as a variant of "Cournot Complements" pricing, which he defines as there being "sellers of two or more products that are perfect complements, meaning each component is a necessary component that together constitute a single product."[106] As the concept relates to this merger, the components are the eastern and western legs of transcontinental rail shipments, each of which the shipper needs to complete the move. According to Dr. Israel, when a shipper obtains separate Rule 11 rates, each railroad sets its own price without regard to how that price affects the other railroad's business, resulting in a higher combined price for the shipper, because "neither railroad considers the effect of its price on the profits of the other railroad, and thus they each set prices higher than would be optimal to maximize joint profits."[107] He concludes, therefore, that a merger of railroads serving different legs of a route either lowers prices by eliminating this effect or leaves prices unchanged.[108]

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[105] *Id.* ¶ 74.

[106] Israel V.S. ¶ 34.

[107] *Id.* ¶ 35 (emphasis in original).

[108] *Id.* ¶ 34.

Dr. Singer and Mr. Tatos, however, point out that Dr. Israel ignores a critical assumption on which any Cournot benefits depend. The Cournot Complements issue is, as Dr. Israel himself observes, "precisely analogous" to EDM.[109] "The economic logic behind [both] rests on the removal of negative externalities"—here, the higher combined price that results when each railroad prices its leg without regard to the other—which a merger theoretically would eliminate, supposedly allowing the merged railroad to lower its price on the combined route to attract additional traffic.[110] But as with EDM, the Cournot effect produces clear benefits only if UP and NS each are the only railroad serving its part of the route; where a competitor serves one part of the route, the effects of the merger become uncertain.[111]

Dr. Singer and Mr. Tatos also identify an empirical study of the rail industry that questions whether EDM occurs even when a different single railroad serves each part of the route. They note that, while EDM remains valid in theory, this study has raised doubts about whether it actually occurs in practice in the rail industry.[112]

Dr. Singer and Mr. Tatos reference research showing that EDM critically depends upon three conditions: (1) "fixed proportions," meaning the shipper must

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[109] *Id*. ¶ 110 and App. A-5.

[110] Singer/Tatos V.S. ¶ 72.

[111] *Id*. ¶ 73.

[112] *Id*. ¶ 76.

use both merging railroads' lines together, with no ability to substitute another route for either one; (2) the benefits must depend on the merger itself and cannot be achieved without it; and (3) the cost savings must be passed on to shippers in lower rates, rather than kept by the merged railroad as additional profit.[113] The first condition is satisfied only if no alternative rail or non-rail route exists (*i.e.*, each merging railroad is the only option for its part of the route). The second condition is synonymous with the 2001 Rule requiring applicants "to address the question of whether the particular merger benefits upon which they are relying could be achieved by means short of merger."[114] The third condition is one where Dr. Israel hedges when he states that "[r]educed costs should be expected to be passed through to consumers in some form…"[115] But as discussed in Part III.A.2.c. below, by raising rivals' costs through this merger, the Applicants are able to keep those savings as profit for themselves.

Dr. Israel acknowledges a recent article in economics literature that identifies what he characterizes as "two edge cases where a complements merger can theoretically harm consumers, but neither edge case applies to this merger."[116] He reaches this conclusion because "[b]oth edge cases assume that the merged firm engages in 'pure bundling' of the merged complements which in the context of this

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[113] *Id*. ¶ 77.

[114] *Major Rail Consolidation Procedures*, 5 S.T.B. at 559.

[115] Israel V.S. ¶ 109 (italics added).

[116] *Id*. ¶ 36.

case would mean the merged firm would refuse to provide a Rule 11 rate to a competing railroad."[117] Dr. Israel contends that shippers can break this bundling strategy because the Board will require the merged carrier to provide a Rule 11 bottleneck rate when the shipper has entered into a rail contract for the non-bottleneck segment.[118] Although Dr. Israel is correct that the merged entity must provide a Rule 11 bottleneck rate to the shipper, that fact alone does not prevent the merged entity from engaging in foreclosure.

According to the DOJ/FTC Merger Guidelines, there are multiple ways to engage in foreclosure, only one of which is to deny rivals access altogether:

> The merged firm could limit access to the related product in different ways. It could deny rivals access altogether, deny access to some features, degrade its quality, worsen the terms on which rivals can access the related product, limit interoperability, degrade the quality of complements, provide less reliable access, tie up or obstruct routes to market, or delay access to product features, improvement, or information relevant to making efficient use of the products.[119]

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[117] *Id.* Dr. Israel's use of the term "bundling" refers to a merged railroad "bundling" the bottleneck route segment with its competitive route segment by refusing to quote separate rates for each. This is different from the JSA's concern with "contract bundling," which refers to the bundling of different rail lanes, such as tying rates on captive traffic to the customer's willingness to use the UP long-haul routes on interline moves or to awarding competitive lanes in the same contract.

[118] Israel V.S. ¶ 36. The "rule" that Dr. Israel references in note 28 would not apply to the merged carrier when the merger creates a single-line service, but the STB's merger rules require UP to waive such objections post-merger. 49 C.F.R. § 1180.1(c)(2)(i).

[119] U.S. Dep't of Just. & Fed. Trade Comm'n, Merger Guidelines 13-14 (Dec. 18, 2023) (Merger Guidelines).

Dr. Israel, however, summarily dismisses foreclosure by focusing only on the first mechanism – whether UP could refuse to quote a Rule 11 rate at all – without even considering these other possibilities.

Although the merged carrier is required to provide a Rule 11 tariff rate for its bottleneck segment, the only check on that rate's level is for the shipper to pursue a rate reasonableness case at the STB. Dr. Israel does not consider the ability of a shipper to do so in a timely and cost-effective manner. As the JSA discuss in great detail in Part IV.B.2. below, the STB's rate case methodologies are both long and expensive despite the Board's decades-long efforts to streamline such cases. Dr. Singer and Mr. Tatos also reference a GAO report in which shippers reported that they are deterred from requesting tariff rates from railroads in order to pursue a rate case.[120]

Alternatively, or in conjunction with a high Rule 11 bottleneck rate, UP also can provide less or worse service for its bottleneck transportation. For example, it could reduce the frequency or quality of its Rule 11 bottleneck service vis-à-vis its post-merger long haul route.

Finally, Dr. Israel addresses non-negotiated through rates, which he describes as the smallest category but which he covers "for completeness."[121] His entire argument, however, is predicated upon the "one-lump" theory, including placing the burden on advocates of foreclosure "to explain why the sole-serving

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[120] Singer/Tatos V.S. ¶ 82.

[121] Israel V.S. ¶ 39.

carrier was not earning monopoly profits pre-merger…."[122] This is precisely the burden shifting presumption that the Board rejected in the CPKC Decision.[123]

Dr. Israel also purports to prove his conclusion empirically by asking whether shippers who request through rates primarily obtain them from railroads on the competing end and whether through rates obtained from the competing railroads are lower.[124] This analysis, however, is predicated upon the assumption that "theories of foreclosure…do not apply to situations where the shipper gets a price directly from the sole-served carrier [because] nothing stops the sole-serving carrier from setting the monopoly price…."[125] Dr. Israel does not prove that assumption. Although knowing the competing carrier's rate is one piece of information that the monopoly carrier needs to earn the full monopoly profit before the merger, the monopoly carrier still lacks other important information, such as the competing

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[122] *Id*. ¶ 41.

[123] In "Applicants' Response Regarding Their Prima Facie Case" (Applicants Resp. 16, filed August 26, 2026 (UP-94/NS-93)), the Applicants deny that they are relying on a "presumption" and characterize this argument as a "strawman." Their denial, however, is contradicted by Dr. Israel's categorical opinion that "vertical foreclosure theories do not apply in the context of railroad pricing practices" (Rev. Appl. 1-22, 1-52); his verified statement that, "Hence, any economic theory of foreclosure has to explain why the sole-serving carrier was not earning monopoly profits pre-merger, how the merger will alter that situation, and thus why it would have an incentive to foreclose the independent railroad post-merger" (Israel V.S. ¶ 41); the similarity of that statement with the prior showing required to rebut the one-lump presumption (*see* CPKC Decision, slip op. at 45 n.55); and his deposition testimony that {{ }} (Israel Dep. 317:16-319:11, Oct. 15, 2026 (Ex. 1)).

[124] Israel V.S. ¶¶ 44, 48.

[125] *Id*. ¶ 42.

carrier's costs. Lastly, Dr. Israel's testimony ignores the concern, identified above, that a merger that eliminates double marginalization also can give the merged railroad the means to disadvantage rivals by raising their costs.[126]

Ultimately, most of Dr. Israel's position on non-negotiated through rates, even if credited, applies to the admittedly "smallest" rate category and would not apply to the other rate types. And there is nothing that obliges a shipper to select a non-negotiated through rate. In a separate section of his testimony, Dr. Israel does attempt to resurrect the one-lump theory for all scenarios. The next subpart explains why that attempt fails.

b. Dr. Israel's attempt to resurrect the one-lump theory is baseless.

Dr. Israel dedicates a separate section of his testimony to rehabilitating the one-lump theory, despite the Board's departure from it in the CPKC Decision.[127] He acknowledges that the economic literature has raised concerns of foreclosure harms under imperfect information (*i.e.*, when the merging parties do not know each other's costs). The concern is that, before a merger, a railroad that does not know its connecting partners' costs cannot capture the full monopoly profit, but after acquiring one of those partners it gains that information and the ability to use it to capture the full monopoly profit. Although this concern has been the focal point of

[126] Singer/Tatos V.S. ¶ 36.

[127] Israel V.S. Part III.E.

the vertical foreclosure discussion over four decades of prior rail merger decisions,[128] including the recent CPKC Decision, Dr. Israel off-handedly refers to it as a theory "that could potentially be raised."[129] He describes the possibility of such foreclosure, however, as "counterintuitive," despite the Board's acceptance of this potential in the CPKC Decision, as discussed in the introduction to Part III.A.1. above. Dr. Singer and Mr. Tatos offer a comprehensive rebuttal to Dr. Israel's criticisms in Part II.A.3. of their Joint Verified Statement.

Dr. Israel focuses his criticism upon a 2021 paper by Serge Moresi, David Reitman, Steven Salop, and Yianis Sarafidis, but without mentioning that Dr. Salop was UP's expert economist in the CPKC merger in support of the very theory of foreclosure that Dr. Israel now criticizes.[130] Nor do the Applicants acknowledge this contradiction of their prior position anywhere in their Application. Dr. Israel deftly sidesteps this awkwardness by attacking the Moresi, *et al.* article instead of Dr. Salop's prior CPKC testimony. But this still leaves the Board in the position of having to decide which of UP's witnesses to believe and potentially reversing its prior reliance upon Dr. Salop's testimony in the CPKC Decision. Fortunately, Dr. Israel's criticisms are unfounded, and the Board was correct in the CPKC

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[128] *UP Control, 366 I.C.C. at 538-39; Burlington N. Inc.-Control & Merger-Santa Fe Pac. Corp.*, 10 I.C.C.2d 661, 747-57 (1995) *(BN/SF); CSX Corp.-Control & Operating Leases/Agreements-Conrail Inc.*, 3 S.T.B. 196, 268 (1998) (Conrail).

[129] Israel V.S. ¶ 65.

[130] Singer/Tatos V.S. ¶ 87; Israel V.S. ¶¶ 67-73.

Decision when, in partial reliance upon Dr. Salop's testimony, it recognized the potential for vertical foreclosure due to asymmetric information.

Dr. Israel criticizes the Moresi *et al.* article on two grounds. First, he alleges that, "even in the Moresi model, both output and total welfare rise."[131] But neither antitrust economics nor Board precedent recognizes a "total welfare" standard, which would allow the benefits of merging parties (*e.g.,* higher profits) to offset harms to consumers.[132] Dr. Israel also draws the wrong conclusion that "the fact that output increases means that the railroad industry is more effectively doing its job of moving goods."[133] According to Dr. Singer and Mr. Tatos, Moresi *et al.* explain that even when the merger leads to more shipments, consumers are harmed because they now always pay the full monopoly price; although the merger eliminates some of the stacked markups, that benefit may not be large enough to offset the harm from the merged firm's ability to disadvantage its rivals.[134] Perhaps most importantly, the output standard refers to total industry output, not the output of a firm that may have harmed competition.[135] Thus, the merged UP might garner more traffic while overall traffic across the rail industry declines.

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[131] Israel V.S. ¶ 68.

[132] Singer/Tatos V.S. ¶ 88 n.122; *see also SFSP Merge*r, 2 I.C.C.2d at 807 ("While SFSP may seek to maximize private benefits, our responsibility is to the public interest.").

[133] Israel V.S. ¶ 68.

[134] Singer/Tatos V.S. ¶ 89.

[135] *Id.*

Dr. Israel's second criticism is that the Moresi model assumes "that consumers (here, shippers) have perfectly inelastic demand, meaning that changes in price, in either direction, have no effect on demand."[136] According to Dr. Singer and Mr. Tatos, this criticism misinterprets Moresi *et al.*, and in so doing, supports the opposite conclusion. Moresi *et al.* explain that it is the one-lump theory that applies "only under perfectly inelastic demand with public information (*i.e.*, firms know each other's costs)," and thus "Dr. Israel's argument that this assumption is unrealistic and overly restrictive only supports the rejection of the single-monopoly-profit [one-lump] theory."[137] In other words, by calling this assumption unrealistic, Dr. Israel undercuts the very one-lump theory he seeks to defend, because that theory depends on the same assumption.

Dr. Israel concludes by citing to a 1984 paper to support his argument in reliance upon the one-lump theory that, "in complete information settings with an upstream sole sourcing supplier selling through observable non-linear contracts, and with differentiated downstream oligopolists, the pre-merger price equals the price set by a fully integrated railroad."[138] Put simply, the paper posits that, if a railroad that is the only carrier on one part of a route knows everything about its connecting partners and uses sophisticated contracts, it already can charge the same price before a merger that it would charge after one. But that paper is based

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[136] Israel V.S. ¶ 68.

[137] Singer/Tatos V.S. ¶ 91.

[138] Israel V.S. ¶ 76 n.35.

on scenarios that are incongruous with railroad economics, the authors focus on several restraints that do not apply to the rail industry, and their analyses rely on several restrictive assumptions that Dr. Singer and Mr. Tatos explain are not satisfied.[139]

Ironically, Dr. Israel posits that, "given that this model assumes that railroads are already engaged in sophisticated non-linear contracting to ensure the fully integrated outcome pre-merger, there is no reason to believe they could not write a contract replicating that outcome post-merger, and in that case, the merger would not change anything."[140] Yet, as Dr. Singer and Mr. Tatos point out, if any benefits of the merger can be achieved without a merger, then they do not represent cognizable (*i.e.*, merger-specific) benefits.[141]

Dr. Israel also argues that if the same harms that the merger creates can result from other conduct (*e.g.*, contractual arrangements), then these cannot be merger-related harms.[142] In the words of Dr. Singer and Mr. Tatos, "[Dr. Israel's] tortured logic is tantamount to arguing that because lung cancer can result through means other than smoking, then smoking must be innocuous."[143]

Finally, Dr. Israel's conclusion that the bottleneck carrier can and does extract the full monopoly profit from interline routes pre-merger is undermined by a

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[139] Singer/Tatos V.S. ¶ 93.

[140] Israel V.S. ¶ 76.

[141] Singer/Tatos V.S. ¶ 94.

[142] Israel V.S. ¶ 76.

[143] Singer/Tatos V.S. ¶ 94.

common form of contracting for Rule 11 rates. Many JSA members ship the same product(s) from a single facility to multiple customers at different destinations. Although the complete interline route to each customer is likely distinct, the bottleneck segment from the member's facility to the interchange location is common to all those moves. For example, a member with a facility that is captive to UP may ship to multiple locations on CSX through the same gateway. It is a common practice to negotiate a single Rule 11 rate for each commodity moving to that interchange regardless of the ultimate destination.[144] Indeed, the bottleneck carrier does not always know the ultimate destination when negotiating a contract for the Rule 11 bottleneck rate. Without knowing the customer or the destination, it is impossible to extract the full monopoly profit. Moreover, offering a single Rule 11 rate that applies to multiple different interline routes, even when the ultimate

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[144] *See* Verified Statement of Stephen Trombetta (Arkema Inc.) ¶ 8 ("Trombetta V.S.") (Rule 11 rates "do not vary based on the connecting segment" and each rate "applies to all traffic of the same commodity moving between the same origin or destination and gateway"); Verified Statement of Michael Vogt (BASF Corp.) ¶¶ 11-12 ("Vogt V.S.") (explaining that for Rule 11 rates, railroads "typically assess a uniform rate covering all interline traffic of the same type moving on a given leg, without regard to the nature or routing of any connecting segment"); Verified Statement of Michael Gebo (The Dow Chemical Co.) ¶ 12 ("Gebo V.S.") (explaining that each Rule 11 rate "applies to a single type of traffic moving on a specific . . . segment between a gateway and origin or destination, regardless of connecting segment factors," and "[t]hat one rate applies across every connecting routing"); Verified Statement of Amy Hark (Huntsman Int'l LLC) ¶ 10 ("Hark V.S.") ("The same rate applies to all traffic of the same commodity moving between the Union Pacific location and the gateway."); *see also* Comments of The Lubrizol Corp. at 4, FD 36873, Nov. 17, 2026 (UP "quotes a single Rule 11 rate for all traffic of the same type moving between the same UP origin or destination and the same interchange gateway, regardless of the connecting carrier, the origin or destination on the connecting carrier").

destination is known, is inconsistent with extraction of the monopoly profit from each of those routes because the monopoly profit is likely to vary for each route.[145]

2. The anti-competitive effects of this vertical merger are significant and unprecedented.

The proposed merger will cause substantial and unprecedented harm to competition across the nation's rail network, not just on the UP and NS networks. Applicants tout their extended hauls as a merger benefit, while acknowledging the merger's unprecedented size and scope. An undeniable consequence of the merger's unprecedented scope is that the combined UPNS may extend its long-haul routes deep into the eastern US on every eastbound move from UP locations, and deep into the western US on every westbound move from NS locations. This will either reduce or eliminate the other Class I railroads' participation in those movements. The Application nowhere considers the effects of these extended long-hauls on this unprecedented scale.

The threat to competition from UP's extended long hauls is two-fold: (1) UP could completely foreclose CSX and BNSF interline routes with UP on all moves that create a new UP-NS single line route to competitively served destinations, and (2) UP could short haul CSX and BNSF on all interline routes to CSX and BNSF captive destinations. The JSA refer to these harms as "Traditional Foreclosure" and "RRC Foreclosure," respectively. The former forecloses a competing interline

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[145] When asked about this scenario at his deposition, it was clear that Dr. Israel had not considered it and had no good answer. Israel Dep. 315:21-317:7, Oct. 15, 2026 (Ex. 1).

partner from participating in the route at all and the latter substantially reduces (*i.e.*, shorthauls) but does not eliminate the interline partner's participation. Both facilitate foreclosure through the "raising rivals' costs," or "RRC," paradigm. Although the Application considers Traditional Foreclosure, it is silent on both RRC Foreclosure and the RRC paradigm. All are quite pervasive in scope and will have network impacts that redound well beyond just the directly foreclosed movements.

Ms. Burchfield, based on the 2024 traffic data provided by all the Class I railroads in this proceeding, has identified the potential exposure of BNSF and CSX to both "Traditional" and "RRC" foreclosure in terms of carloads and revenue.[146] Figure 1 below reproduces Figure 9 from her Verified Statement. In the chart, "Complete" equates to "Traditional" foreclosure and "Partial" equates to "RRC" foreclosure.

***Figure 1*{{**



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The Applicants summarily dismiss any vertical foreclosure threat through Dr. Israel's categorical opinion that "vertical foreclosure theories do not apply in the

[146] Burchfield V.S. 124 and Fig. 7.

context of railroad pricing practices."[147] The JSA have refuted Dr. Israel's theoretical contentions in Part III.A.1. above. In the following subparts, the JSA detail the nature and scope of the foreclosure threats based on the facts of this merger.

a. "Traditional Foreclosure" by the bottleneck carrier through a merger with an upstream or downstream non-bottleneck carrier must be remedied even under the pre-2001 merger Rules.

Traditional Foreclosure has been the subject of several prior merger proceedings.[148] It is a concern when a neutral bottleneck carrier at either the origin or the destination merges with one of two possible connecting downstream or upstream carriers, respectively, converting a pre-merger interline movement into a single line movement. The primary risk is that the newly merged carrier will foreclose competition on the competitive segment, and in so doing, foreclose an interline route that could compete with the merged carrier's new single-line route.

The following illustration of Traditional Foreclosure is reproduced from the joint verified statement of Dr. Singer and Mr. Tatos (they also illustrate variations upon this scenario):[149]

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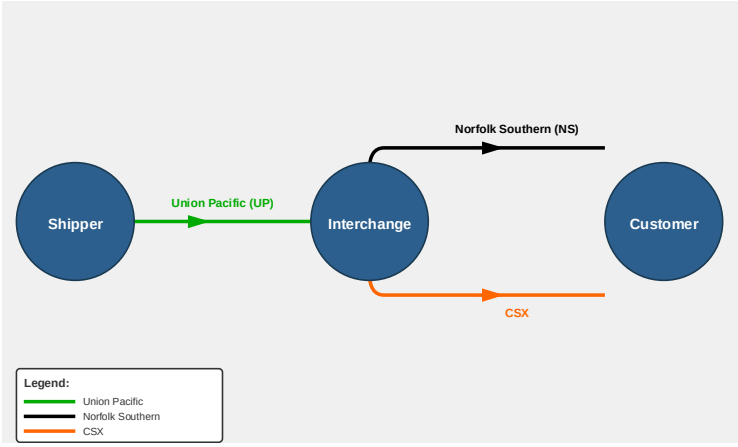
[147] Rev. Appl. 1-22, 1-52.

[148] *E.g., UP Control*, 366 I.C.C. at 538-39; BN/SF, 10 I.C.C.2d at 747-57; *Conrail*, 3 S.T.B. at 268.

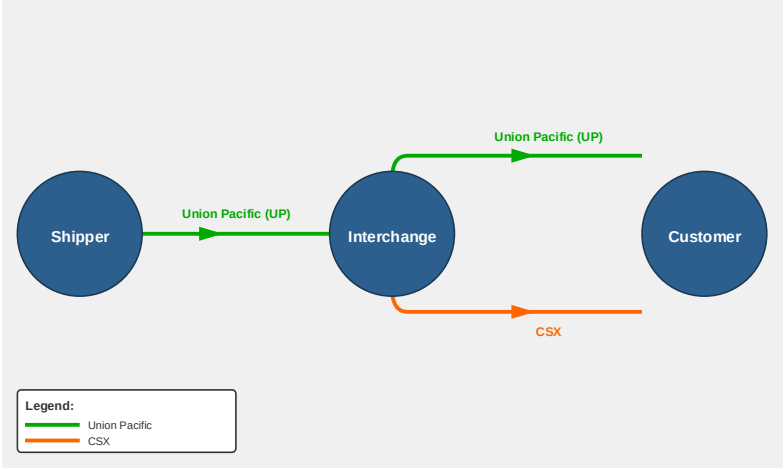
[149] Singer/Tatos V.S. ¶¶ 25–26.

Figure 2: Traditional Foreclosure

ORIGIN BOTTLENECK , BEFORE VERTICAL MERGER



ORIGIN BOTTLENECK , AFTER VERTICAL MERGER



Pre-merger, the bottleneck carrier (UP) is neutral as to which of the two connecting carriers (CSX and NS) it interlines to complete the movement. The shipper thus could benefit from competition between the two connecting carriers. The merger of UP and NS, however, destroys that neutrality, creating an incentive for the merged

entity to favor its new single line route, thereby completely foreclosing CSX from participating in this movement.

This merger presents an even greater potential for Traditional Foreclosure than prior mergers because of competition between NS and CSX in the three Shared Asset Areas created in the Conrail decision[150] and access granted to BNSF in the UP/SP merger. In this merger, the most affected traffic would originate or terminate at: (1) locations served by both NS and CSX in the east (*e.g.*, all traffic that originates in the three Conrail Shared Asset Areas) on routes that interline with UP; (2) locations served by both UP and BNSF in the west (*e.g.*, terminal railroads, 2-to-1 and "New Facility" locations to which BNSF gained access in the UP/SP merger) on routes that interline with NS; (3) locations served by both CPKC and either UP or NS in the so-called "watershed" area on routes that interline with either NS or UP, respectively; and (4) locations served by both CN and either UP or NS in the watershed area on routes that interline with either NS or UP, respectively.

Traditional Foreclosure can limit rivals' access to UPNS bottleneck segments on interline routes through a combination of means. According to the DOJ/FTC Merger Guidelines:

> The merged firm could limit access to the related product in different ways. It could deny rivals access altogether, deny access to some features, degrade its quality, worsen the terms on which rivals can access the related product, limit interoperability, degrade the quality of

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[150] *Conrail*, 3 S.T.B. at 248.

> complements, provide less reliable access, tie up or obstruct routes to market, or delay access to product features, improvement, or information relevant to making efficient use of the product.[151]

The "related product" in this merger is the bottleneck segment depicted in Figure 2 above, which is essential for the UP-CSX interline option to compete against the post-merger UP-NS single line option.

The most direct means for UP to foreclose the interline option is to "deny rivals access altogether" by refusing to participate in interline routes when the merger has provided it with a single line route, effectively tying access to the bottleneck segment to use of its single line route.[152] The 2001 Rules, however, prevent this most blatant form of foreclosure by requiring that UP provide a Rule 11 tariff rate for the bottleneck segment that can be used in combination with a contract rate from the interline connecting carrier – CSX in Figure 2 above.[153]

But UP also can engage in foreclosure through several of the other means identified in the Merger Guidelines by self-preferencing its single line service and/or disadvantaging the competing interline service.[154] For example, UP could "worsen the terms on which rivals can access the related product" by quoting rates for its segment of the interline movement that prevent the interline alternative from being price competitive with the single line service. If UP were to do that, a shipper's only

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[151] Merger Guidelines 13-14.

[152] Singer/Tatos V.S. ¶¶ 25–26.

[153] 49 C.F.R. § 1180.1(c)(2)(i) (preserving the "Bottleneck Rule" contract exception).

[154] Singer/Tatos V.S. ¶¶ 29–32.

remedy would be to bring a burdensome and time-consuming regulatory challenge to the reasonableness of the tariff rate. As discussed more fully in Part IV.B.2. below, that remedy is prohibitive and individual rate challenges are too limited to effectively address the scope and magnitude of the vertical foreclosure risks associated with this merger.

UP also could provide a lesser quality of service on the interline route (e.g., "degrade its quality…, limit interoperability, degrade the quality of complements, provide less reliable access"). Such quality differences could manifest in the frequency of local train service, missed switches, fewer trains in line-haul service to/from the interchange, etc. There is no effective regulatory mechanism to prevent such behavior or even an easy way to identify and target it for regulatory enforcement. This would be especially true when UP's rail service is provided pursuant to contracts over which the STB lacks jurisdiction.[155] And as with rate challenges, individual STB complaints are too limited to effectively address the scope and magnitude of the vertical foreclosure risks associated with this merger. Indeed, UP conceivably could justify lesser service on the interline route based on volume reductions resulting from the conversion of other traffic to its single-line route.

In addition to, or in lieu of, foreclosure through its rates and service for the interline route, UP could foreclose the competing interline route through contract

[155] 49 U.S.C. § 10709.

bundling. Shippers have long identified the problem of railroads leveraging their captive traffic to capture competitive traffic by only offering all-or-nothing contracts to shippers.[156] The combined captive origins and destinations on UP and NS would give the merged entity a far greater concentration of closed industries than any of the other Class I carriers.[157] That concentration substantially increases the post-merger leverage of UPNS in contract negotiations with customers to favor its single-line routes over alternative interline routes by tying its contract rate offers on other captive traffic to the customer's willingness to choose the UP single line routes over alternative interline routes and bundling them into the same contract.[158]

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[156] In multiple Board proceedings, shippers have described a railroad's ability to exert market power by leveraging its captive lanes to also dictate terms for other traffic. *See, e.g.*, Opening Comments of The American Chemistry Council *et al.* at 25-26, *Final Offer Rate Revie*w, EP 755 (filed Nov. 12, 2019); Written Testimony of Olin Corporation at 16-18, *Hearing on Revenue Adequac*y, EP 761 (filed Nov. 26, 2019); Supplemental Comments of PPG Industries at 2, *Competition in the Railroad Industr*y, EP 705 (filed July 15, 2011); Comments of the American Chemistry Council *et a*l. at 24, *Rail Transportation Contracts Under 49 U.S.C. 10709*, EP 676 (filed Feb. 5, 2009) (citing to other shipper comments on bundling). This is an ongoing practice. *See* Gebo V.S. ¶ 10; Vogt V.S. ¶ 10; Opening Comments and Request for Conditions of LyondellBasell at 4, FD 36873, Nov. 18, 2026 (LYB-2) ("LyondellBasell Comments") ("a carrier that holds captive traffic can use it as leverage, and LyondellBasell's ability to bargain over captive rates generally depends on committing competitive lanes to the same carrier").

[157] Post-merger, of the three Class I rail carriers capable of providing transcontinental service in the United States, UPNS will be the sole rail carrier with access to 54% of locations nationwide, while BNSF and CSX will be the sole rail carrier with access to just 18% and 28%, respectively. Burchfield V.S. Figures 3 & 4.

[158] Burchfield V.S. ¶ 86; *see also* LyondellBasell Comments at 4-5 (by combining UP's and NS's captive traffic into a single portfolio, the merger "would give Applicants more leverage to require LyondellBasell to commit competitively served volume to Applicants in exchange for less onerous terms on captive moves, even

Although the Applicants deny that vertical foreclosure is a threat from this merger, they nevertheless have adopted the open gateway commitments that the STB imposed as conditions in the CPKC decision to address vertical foreclosure. In Part IV.B.1. below, the JSA provide a detailed explanation as to why those commitments will be ineffective. In summary, the CPKC open gateway commitments lack objective standards, rely upon remedies that apply only to individual movements to address systemic issues, ignore information asymmetries, and can be completely circumvented through bundling.

As depicted in Figure 1 above and based on 2024 traffic data, BNSF would be exposed to Traditional Foreclosure on {{[redacted]}} carloads of merchandise traffic representing {{[redacted]}} of revenue, and CSX would be exposed on {{[redacted]}} carloads representing {{[redacted]}} of revenue. Because Traditional Foreclosure threatens to completely exclude BNSF and CSX from this traffic, they are at risk for the full amount of revenue on each lost unit.

As detailed in the introduction to this Part III.A. above, there is no longer a rebuttable presumption of "no harm" from vertical mergers. Instead, the Board recognizes that vertical mergers do harm competition and that enhancements to competition may be necessary when that harm is difficult to remedy directly and proportionately. Therefore, it is incumbent upon the Applicants to demonstrate, on the facts of this merger, that Traditional Foreclosure does not pose a competitive

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where another carrier would offer a better rate," so that "a facility nominally served by two carriers may, in practice, have only one").

threat. Rather than make that showing, however, the Applicants attempt to turn back the clock through Dr. Israel's efforts to resuscitate the old presumption of "no harm." In his verified statement, Dr. Israel states that "*Hence, any economic theory of foreclosure has to explain why the sole-serving carrier was not earning monopoly profits pre-merger, how the merger will alter that situation, and thus why it would have an incentive to foreclose the independent railroad post-merger.*"[159] When asked on deposition whether that statement establishes the showing that opponents of the merger must make to prevail on their vertical foreclosure claims, Dr. Israel responded {{[redacted]}}.[160] This burden shifting is contrary to the Board's precedent and must be rejected.[161]

Traditional Foreclosure is the type of merger-related harm that must be remedied even under the pre-2001 merger rules because it entails the loss of a direct competitive alternative. But unlike the 2-to-1 situations in past mergers, the remedy for Traditional Foreclosure is not to replace a lost competitor but to restore neutrality on the bottleneck segment. In assessing a firm's ability to lessen competition by limiting a rival's access to the related product, the Merger

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[159] Israel V.S. ¶ 41 (italics in original).

[160] Israel Dep. 317:16-319:11, Oct. 15, 2026 (Ex. 1).

[161] *CPKC Decision*, slip op. at 47 (rejecting "a presumption that a vertical combination will not result in competitive harm" and placing the burden on "merger applicants…to argue that the facts in an individual proceeding warrant application of the one-lump theory…").

Guidelines consider the "availability of substitutes."[162] Although currently there are no available substitutes on the bottleneck segment, competitive enhancements that establish a new competitor could change that dynamic. As discussed in Part IV.A. below, however, that would require a fundamental restructuring of the rail industry and conditions that have too many limitations and deficiencies to be effective.

b. The "RRC Foreclosure" threat from this merger is unprecedented in scope.

RRC Foreclosure occurs in much the same way as Traditional Foreclosure but with one distinct difference. Unlike Traditional Foreclosure, which totally forecloses the downstream competitor's participation in a movement, RRC Foreclosure only partially forecloses that participation because the merged carrier cannot offer a single-line route. The combination, however, does permit the merged carrier to grab a longer distance haul for itself, post-merger, at the expense of a shorter haul for its interline partner.

For this transaction, RRC Foreclosure is most prevalent on interline routes between a closed (*i.e.*, captive) UP or NS location and a closed CSX or BNSF location, respectively, but it also can occur between open UP or NS locations and closed CSX or BNSF locations, respectively. Pre-merger, both interline carriers benefit from their long-haul because neither rail network overlaps with the other to

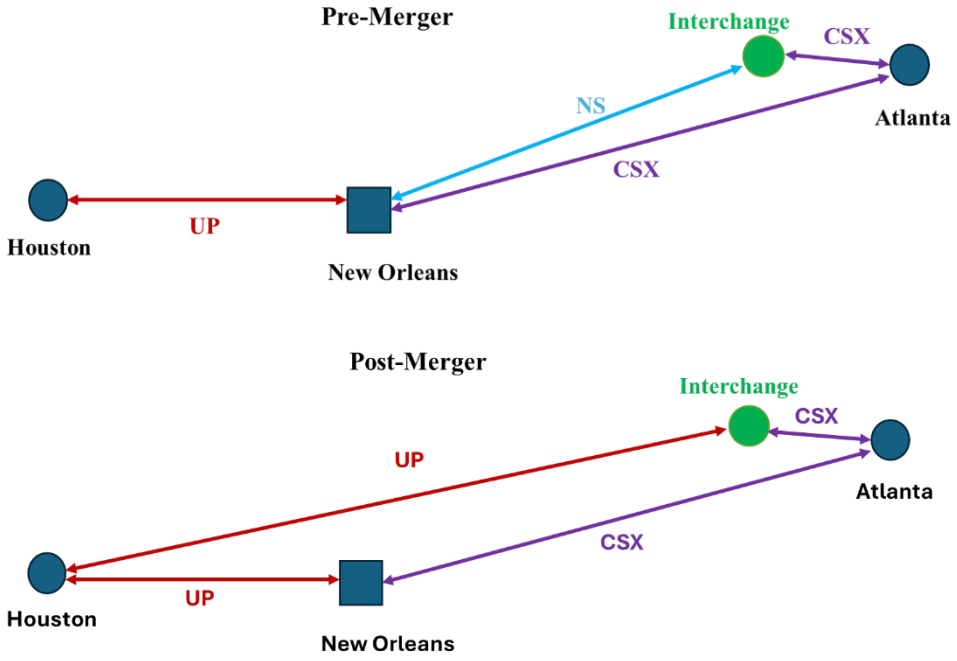
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[162] Merger Guidelines 14. The other three relevant factors – the competitive significance of the related product, effect on competition in the relevant market, and competition between the merged and rival firms – also demonstrate UP's ability and incentive to substantially lessen competition.

any significant degree. This allows both carriers to maximize density on their routes, minimize their average cost per unit, and maintain lower operating ratios. This merger, however, creates a substantial overlap between the merged UPNS network and its interline partners' networks, CSX in the east and BNSF in the west. That overlap enables UPNS to extend its long-haul on interline routes with CSX and BNSF deep into their service territories to their detriment.

The following illustration of RRC Foreclosure, which is reproduced from the joint verified statement of Dr. Singer and Mr. Tatos, illustrates how this merger triggers RRC Foreclosure concerns on eastbound movements from captive UP origins to captive CSX destinations.[163]

Figure 3



[163] Singer/Tatos V.S. ¶ 37.

This hypothetical movement is from a captive UP origin in Houston to a captive CSX destination in Atlanta. Pre-merger, UP interchanges this traffic with CSX in New Orleans, and both carriers benefit from their long-haul. Post-merger, UP's long-haul will extend all the way to Atlanta but CSX is still required to complete the movement to its destination, albeit over a much shorter distance.

Theoretically, at least, a shipper has two interline route options post-merger. There is the pre-merger legacy route via the New Orleans gateway, with each carrier benefiting from its long haul, and there is the post-merger route by which UP bypasses New Orleans and extends its length of haul nearly the entire distance to the destination and CSX has only a very short distance haul to complete the route from the interchange to the destination. But because UP has a bottleneck segment from the origin to New Orleans, it can employ the same foreclosure tools that are available to it in Traditional Foreclosure scenarios (*e.g.* pricing, service, bundling) to foreclose competition from the legacy route over the New Orleans gateway.

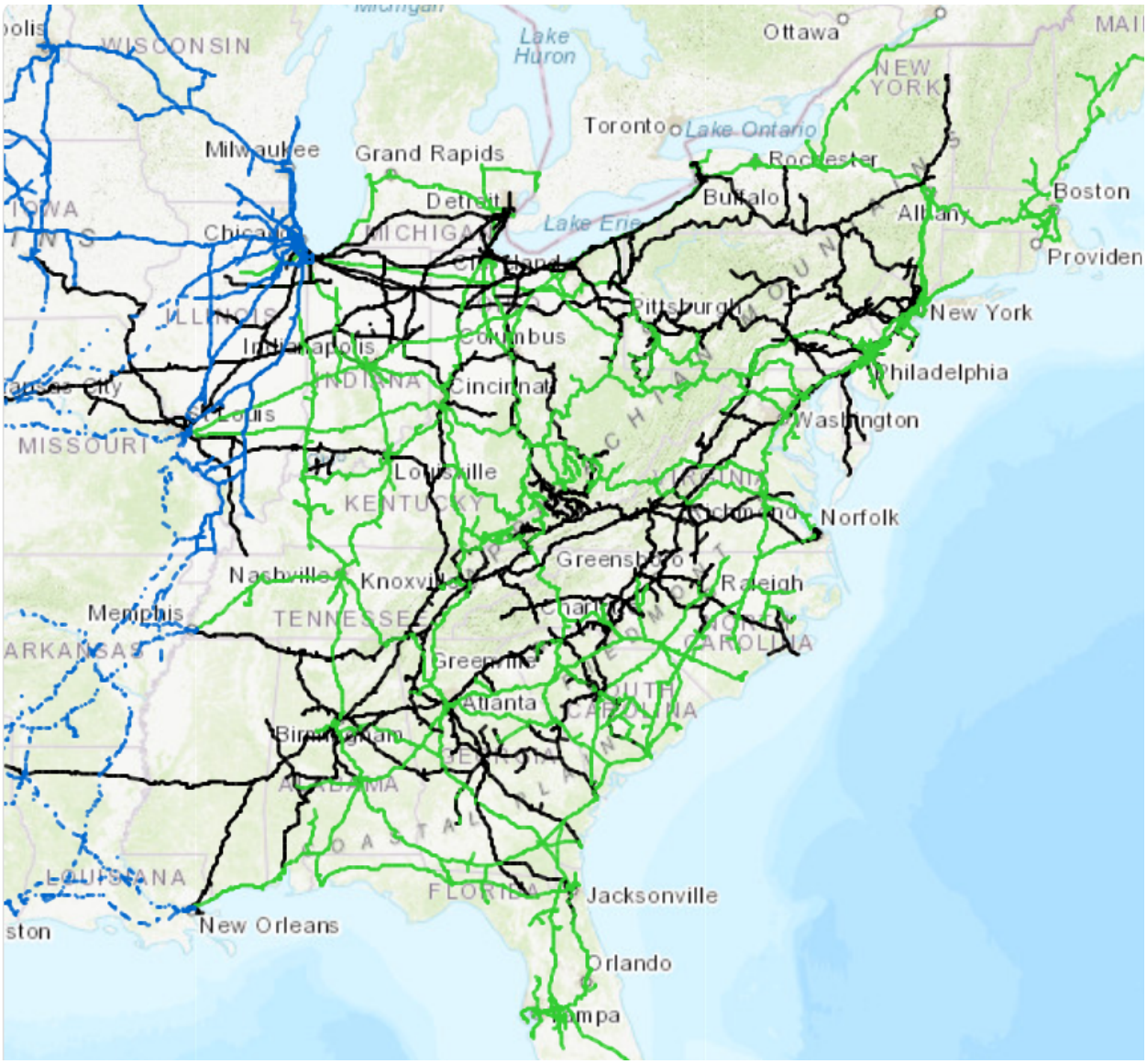
Notably, unlike Traditional Foreclosure, this merger will not convert this type of interline movement to a single-line movement with any of the cost and service benefits that the Applicants tout for single-line conversions. Nor will the merger eliminate any interchange but merely shift the existing interchanges closer

to the destinations. Thus, there are no significant merger benefits even to offset this harm on the affected routes.[164]

This potential for "RRC Foreclosure" is present for any vertical rail merger. But, where the magnitude of such harm in past mergers may not have outweighed the merger's benefits, the unprecedented scope of the affected traffic in this merger magnifies that harm to a level that threatens the very fabric of the national rail network. Consider just the scope of traffic over which UP will acquire a longer haul at the expense of CSX. Figure 4, which overlays the UP, NS and CSX networks, reveals a nearly complete overlap of the NS and CSX networks that will allow UP to capture extended long-hauls to all locations on the CSX network.

Figure 4

[164] As discussed in Part III.A.3. below, the new interchanges will shift the alleged "watershed" problems from the Applicants and their customers to other Class I railroads and their customers, which exposes another vertical foreclosure harm that is a counterweight to the alleged benefits from solving the so-called "gateway watershed problem."



This harm will occur to both CSX and BNSF. Today, CSX and NS compete with one another as an eastern rail duopoly and BNSF and UP do so as a western duopoly. Through the "RRC paradigm" discussed in the next section, this merger threatens to weaken the competitiveness of CSX and BNSF in their respective service territories to the detriment of even traffic moving over routes that are entirely in the eastern or western United States. The JSA anticipate that the severity will be greater for CSX because the network overlap between CSX and NS

is greater than between UP and BNSF. Based on the 2024 traffic data as depicted in Figure 1 above, BNSF would be exposed to RRC Foreclosure on {{[redacted]}} carloads of merchandise traffic representing {{[redacted]}} of revenue, and CSX would be exposed on {{[redacted]}} carloads of merchandise traffic representing {{[redacted]}} of revenue. Unlike Traditional Foreclosure, BNSF and CSX are at risk for less than the full amount of that revenue because they still would participate in those moves, but their share of retained revenue would be a small fraction.

The Board must consider this threat to the national network in the calculation of merger benefits and the overall public interest determination. Much like the Board previously did not require enhancements to competition but has deemed it appropriate to do so for "end-game" mergers, its prior reluctance to consider harm to other railroads also must adapt to "end-game" mergers if the Board is to render a full and complete assessment of the public interest precisely because those railroads are the only competitors left. In such circumstances, harm to the only remaining competitors in the eastern and western U.S. is the same as harm to competition.[165]

The only way to counter the potentially enormous loss of density and revenue to rival carriers like BNSF and CSX in this merger is to create conditions that

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[165] *Cf. Norfolk & W. Ry. Co.-Control-Detroit, T. & I. R.R.*, 360 I.C.C. 498, 526-27 (1979) (willing to impose the standard DT&I Conditions only if the merger would result in impairment of the carrier's ability to provide essential services, or the loss of adequate transportation service to shippers).

enhance competition by restoring a neutral rail carrier on the origin bottleneck segments leading to the major gateways. As with Traditional Foreclosure, however, such conditions would not adequately remedy RRC Foreclosure.

c. By "raising rivals' costs," both Traditional and RRC Foreclosure will have profound and widespread impacts on the national rail network that can be remedied only through enhancements to competition that fundamentally restructure the rail industry.

Both Traditional and RRC Foreclosure scenarios implicate the "raising rivals' cost," or "RRC," paradigm with network impacts that redound well beyond just the affected movements. Dr. Singer and Mr. Tatos describe the "RRC paradigm" in Part I.B.2. of their joint verified statement, and Ms. Burchfield details how the paradigm manifests in the rail industry through Traditional and RRC Foreclosure in Part III.D. of her verified statement. In simple terms, the RRC paradigm examines whether a firm that links, or ties, its products or services together can make it more costly for its competitors to do business and thereby gain the ability to raise prices to customers in a relevant market.[166] The paradigm's most respected proponents, Thomas Krattenmaker and Steven Salop, describe this as gaining "power over price."[167]

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[166] The Merger Guidelines, at 14, similarly observe that "[d]ependent rivals can be weakened if limiting their access to the related product would make it harder or more costly for them to compete; for example, if it would lead them to charge higher prices or offer worse terms in the relevant market…".

[167] Singer/Tatos V.S. ¶ 35.

Dr. Salop, who was UP's expert witness in the CPKC merger, co-authored two seminal papers that introduced the RRC paradigm in the 1980s.[168] In a more recent paper, he describes the paradigm as follows:

> The RRC foreclosure paradigm generally describes exclusionary conduct that *totally or partially* "forecloses" competitors from access either to critical inputs or customers, with the effect of causing them to raise their prices or reduce their output, thereby allowing the excluding firm to profit by setting a supracompetitive output price, with the effect of harming consumers.[169]

Dr. Salop's reference to "total" foreclosure occurs under the Traditional Foreclosure scenarios described in Part III.A.2.a. above and his reference to "partial" foreclosure occurs under the RRC Foreclosure scenarios described in Part III.A.2.b. above. In both situations, UP can limit its rival carriers' (most notably BNSF and CSX) access to customers to such an extent that they could be forced to raise their prices or reduce their output, which then enables UP to profit from higher prices. As Dr. Salop explained in the CPKC merger, "Reducing its own costs allows the firm to gain traffic by decreasing its rates, while raising rivals' costs allows the firm to gain traffic by causing the rivals to increase their rates."[170] This merger will raise the costs of UP's rivals and thus harm shippers that do not even ship on UP or NS.

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[168] *Id*. ¶ 34 n.38.

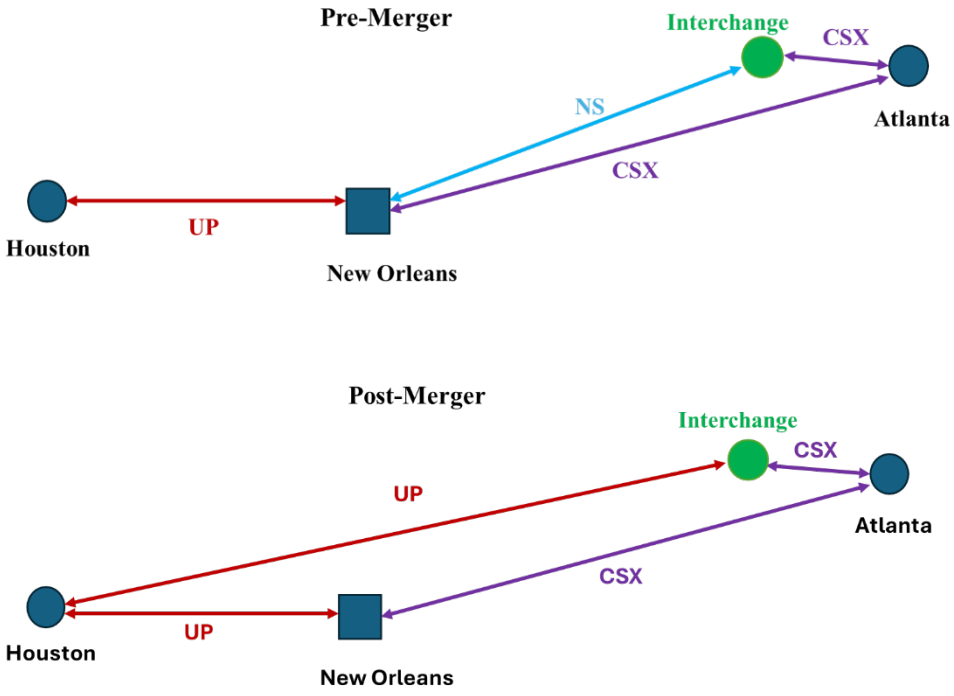
[169] *Id*. ¶ 35 (emphasis added) (quoting Steven Salop, *The Raising Rivals' Cost Foreclosure Paradigm, Conditional Pricing Practices, and the Flawed Incremental Price-Cost Test, 81* Antitrust L.J. 371 (2017)).

[170] Salop V.S. ¶ 16.

Dr. Singer and Mr. Tatos note that "[s]tudying the potential of RRC is a critical element of a vertical merger analysis that involves claims of double marginalization."[171] As discussed in Part III.A.1.a. above, Dr. Israel relies heavily upon elimination of double marginalization ("EDM") to support his claim that vertical foreclosure cannot occur in the rail industry and his assessment of the public benefits.[172] Despite this fact, he does not address the RRC paradigm.

Dr. Singer and Mr. Tatos employ Figure 5 below to illustrate the RRC paradigm in the context of this merger.[173]

Figure 5



[171] Singer/Tatos V.S. ¶ 36.

[172] *See also id.*

[173] Singer/Tatos V.S. ¶¶ 37–40, Figures 17 and 18.

As previously addressed in Part III.A.2.b. above, UP can favor its own longer haul interline route post-merger over its pre-merger route. This reduces the volume of traffic and associated revenue both interchanging at New Orleans and moving over CSX's New Orleans to Atlanta mainline, while CSX still must recover substantially the same fixed costs to maintain and operate those assets. As a result, CSX's average cost per mile rises because those fixed costs are spread over a smaller volume of traffic that still depends upon those assets.[174]

In Part III of her verified statement, Ms. Burchfield, based on both her industry experience and data analysis, connects the foregoing economic concepts with the real-world practical manifestations of those concepts by demonstrating more specifically how this merger will allow UP to raise its rivals' costs.[175] Part III.A. identifies the increased commercial leverage that accompanies a rail carrier's high concentration of exclusively served endpoints, shows how this merger will advantage UP with nearly double the concentration of captive and competitive endpoints of either BNSF or CSX, and shows that UPNS would have had access to more than half of all carloads that touched both open and closed endpoints in the 2024 data for merchandise traffic.[176]

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[174] *Id*. ¶¶ 39–40.

[175] Burchfield V.S. n.23.

[176] *Id*. ¶¶ 67-81.

Part III.B. explains the value of rail access exclusivity in leveraging captive traffic to capture more competitive movements.[177] The merged UPNS will have far more captive points to leverage than BNSF or CSX, and far more open points to gain from that leverage.

Part III.C. then explains how that exclusivity also increases leverage to influence route choices and, more specifically, how the combined UPNS could exert its substantially enhanced leverage to steer shippers towards single line route conversions and interline routes that shorthaul BNSF and CSX.[178]

Finally, in Part III.D., Ms. Burchfield explains the consequences of the resulting traffic shifts upon rivals' costs, especially in a merger of this scope and magnitude.

> 102. As legacy infrastructure, including affected line segments, terminals and interchange locations experience volume reduction, the assets and fixed operating costs for the base level of service remain. This reduced density raises the remaining fixed cost per unit and may cause the non-merging carriers to increase rates, reduce service frequency or both.
>
> 103. These problems are particularly acute when the merged carrier moves away from established gateways and extends its haul deeper into interline partner's territory. In these cases, the interline partner loses revenue and traffic density over the displaced portions of its routes. Even if the original gateway remains physically open, the resulting cost disadvantage can weaken the

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[177] *Id.* ¶¶ 85-89.

[178] *Id.* ¶¶ 87-96.

> interline partner's ability to offer a competitive alternative route through that gateway.[179]

According to Ms. Burchfield, rivals' costs increase in two ways: fixed cost transfers at the legacy gateways and the erosion of both linehaul density and revenue.[180]

Fixed cost transfers entail a shifting of responsibility for maintaining and operating the legacy gateways that have been carefully and painstakingly developed over decades to facilitate interchange between the eastern and western Class I railroads.

> 106. Moving traffic away from the legacy gateways reduces switching revenues for the shared facilities, shifts the fixed cost of their vacated units to the remaining units, and allows the Applicants to shift their share of maintenance and expansion costs based on GTM usage. In a manner of speaking, the merged carrier abandons its contributions to the best use of shared facilities and leaves the cost of their decision to those who remain. This is what I call "fixed cost transfer."[181]

The cumulative loss of traffic at the major gateways will transfer a substantial portion of the current UP and NS cost shares to the other Class I carriers that will continue to interchange at those gateways.[182]

Erosion of both linehaul density and revenue hits rival carriers on both the cost and revenue end of the equation and magnifies the spread.

> 111. As UP converts the foregoing traffic to its single line and extended long-haul interline routes, the "Traditional"

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[179] *Id.* ¶¶ 102-03.

[180] *Id.* ¶ 104.

[181] *Id.* ¶ 106.

[182] *Id.* ¶¶ 107-110.

> and "RRC Foreclosures" are comprised of traffic diverted from the non-merging Class 1 carriers. In the case of Traditional Foreclosure, 100% of the current interline volume and linehaul revenue attributable to the interline partner is lost to UP. In the case of "RRC Foreclosure," the traffic is retained by the non-merging interline partner carriers but most of the linehaul revenue is lost due to a substantially shorter length of haul. Both scenarios reduce the traffic and revenue available to cover the infrastructure and operating costs of the non-merging carriers over their alternative linehaul routes via the legacy gateways from which that traffic has been diverted. This linehaul erosion results in lower revenue per move and higher cost per car-mile associated with the shorter haul.[183]

Ms. Burchfield notes that reduced revenue and higher cost-per-mile "pale in comparison to the persistent and longer reaching consequences of higher operating ratios, which increases the cost of *every* unit that moves over the affected segments, including moves for which UP-NS could not offer service and thus never touch the UP network, *e.g.*, single line CSX and BNSF moves, and interline moves between CSX, BNSF, CN, and CPKC endpoints to which UPNS does not have access."[184]

This effect can be illustrated using the same example from Figure 5 above. As more traffic switches to the UP long-haul route, CSX will lose density both at its New Orleans interchange and on its main line between New Orleans and Atlanta, which leaves less traffic to cover the fixed costs of those assets, forcing the remaining captive traffic that depends upon those facilities to bear more of those costs in their rates (*e.g.*, CSX single line traffic and interline traffic with the three

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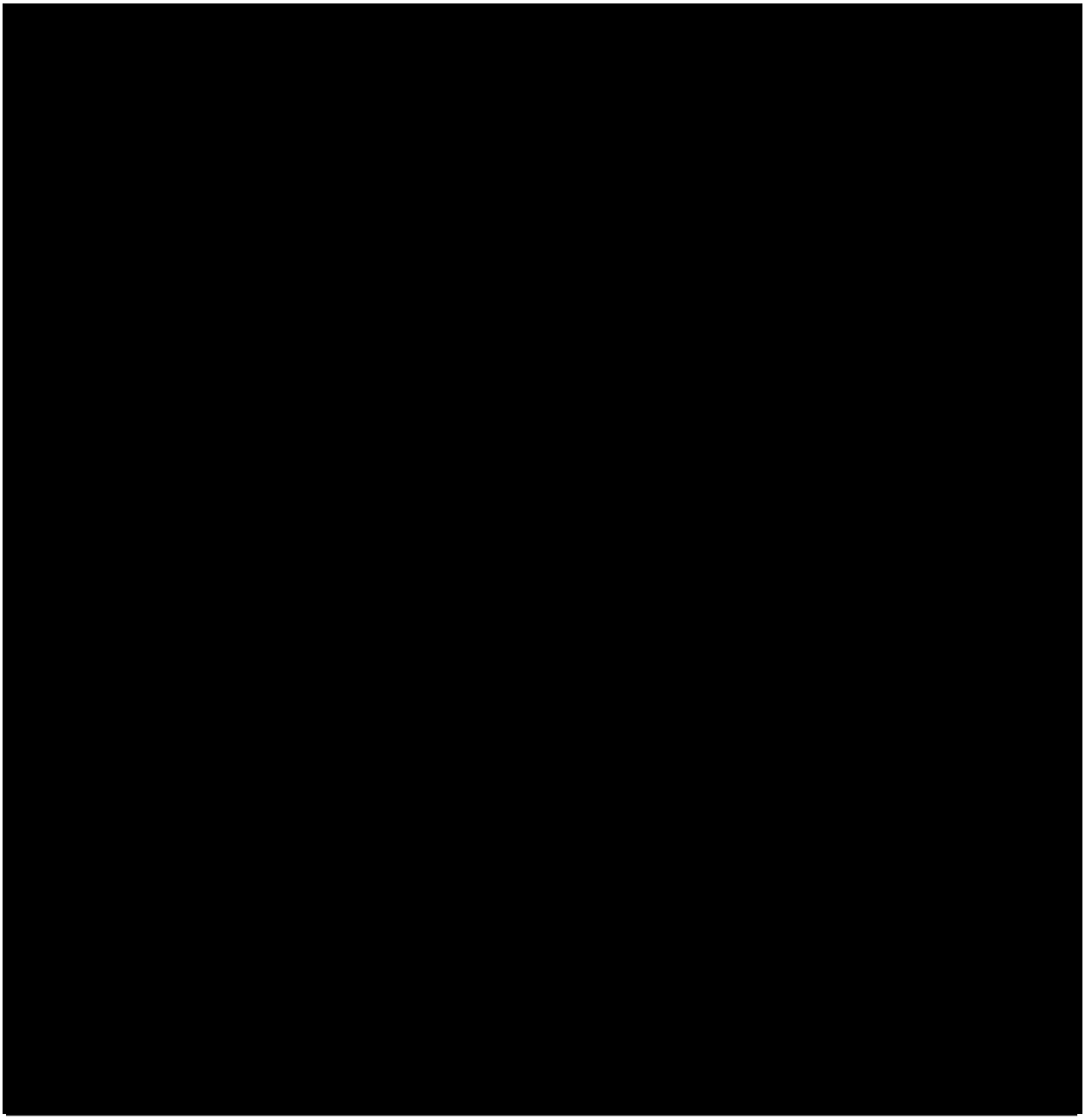
[183] *Id.* ¶ 111.

[184] *Id.* ¶ 113.

remaining Class I railroads). Thus, this harm is not limited to the traffic over which UP obtains an extended long-haul; it also will raise CSX's cost of serving all its other traffic, including traffic that has no other option but CSX for either all or a portion of the transportation.

In Part III.D.2 of her verified statement, Ms. Burchfield performs several analyses to illustrate the potential magnitude of these cost shifts. First, she prepared a sensitivity analysis based upon the volume of merchandise traffic and associated revenue in Figure 1 above that is exposed to Traditional Foreclosure (*i.e.*, existing routes with competitive segments that could be converted to single line service). Figure 6 below reproduces Figure 6 from her verified statement:

Figure 6{{



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If just half of the exposed merchandise traffic converts (*i.e.*, the 50% sensitivity factor), the cumulative impact for CSX and BNSF is {{ }} carloads and {{ }} in share shift. Ms. Burchfield believes this to be a conservative

understatement of how much of this traffic is likely to convert.[185] This is a revenue redistribution between railroads, as opposed to new traffic growth. Moreover, this share shift does not include the potential linehaul erosion and fixed cost transfer effects.

To illustrate the potential linehaul revenue erosion effects upon BNSF and CSX from the Applicants' extended long-hauls, Ms. Burchfield applied a 50% and 90% sensitivity to the volume of merchandise traffic and associated revenue in Figure 1 above that is exposed to RRC Foreclosure.[186] The 50% revenue loss sensitivity represents an average 434 miles of lost linehaul participation per carload, and the 90% sensitivity represents an average 781 miles per carload.[187] For BNSF, the revenue loss at those sensitivity levels ranges from {{[redacted]}}. For CSX, that range is from {{[redacted]}}.[188]

To illustrate the potential fixed cost transfer effects upon BNSF and CSX from RRC Foreclosure, Ms. Burchfield employed a model called DERCE™, which considers the impact to "Density Economics and Rail Consolidation Effects."[189]

> The DERCE™ model … evaluates how moving interchange away from legacy gateways could increase the fixed-cost burden on remaining traffic. These results

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[185] *Id.* ¶ 123.

[186] *Id.* ¶¶ 127-30.

[187] *Id.* ¶ 129.

[188] *Id.* ¶ 130.

[189] *Id.* ¶¶ 131-34; *see also id.* Part II.E (additional details on DERCE™).

> then drive a sensitivity analysis to illustrate the potential effects on earnings. In this way DERCE™ estimates the cost pressures on interline partners experiencing GTM(s) loss and ultimately to those shippers remaining at the established legacy interchanges.[190]

The fixed cost transfer effects have an Operating & Maintenance (O&M) and a capital allowance component.[191] Figure 7 below depicts the results of Ms. Burchfield's analysis of both the line haul erosion and fixed cost transfer effects.[192] They are presented together because they both are a consequence of RRC Foreclosure (*i.e.*, bypassing gateways for extended linehauls).

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[190] *Id.* ¶ 131.

[191] *Id.* ¶ 133.

[192] *Id.* Figure 8.

Figure 7{{



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These costs in Figure 7, which estimate RRC Foreclosure impacts, are additive to those in Figure 6 above, which estimates the impacts of Traditional Foreclosure.[193] In Ms. Burchfield's words, "[t]he takeaway is that, as density shifts, fixed costs remain even as linehaul revenue declines, which means that those costs must be covered by rate increases, service reductions, or both."[194]

[193] *Id*. ¶ 134.

[194] *Id*. ¶ 136.

There remains one other significant cost impact that neither Figures 6 nor 7 captures. Just as there are fixed cost transfer and linehaul erosion effects from bypassing gateways, there are comparable effects on the connecting carrier's mainline infrastructure for the segments that are bypassed by the Applicants' extended hauls that Ms. Burchfield was unable to estimate.[195] Although Ms. Burchfield was unable to estimate the fixed cost transfer and linehaul erosion effects on the bypassed mainlines, there is no reason to believe that they would be any less significant than those impacts upon bypassed gateways. The Board cannot ignore them any more than it ignores unquantified public benefit claims.

Post-merger, the combined UP/NS network will extend UP origin bottlenecks deep into the eastern U.S. and NS origin bottlenecks deep into the western U.S. with especially severe consequences for CSX and BNSF, respectively, and their customers. This harm is not because UP/NS will be a stronger competitor, but because this merger will raise the costs of CSX and BNSF. By decreasing the length of CSX's and BNSF's haul on movements to exclusive endpoints on their networks and bypassing the major transcontinental gateways, the merger would render them weaker competitors, increasing UP/NS' market power and the risk of anticompetitive harm. This is the essence of the RRC paradigm of vertical foreclosure, which demonstrates that this merger is not in the public interest.

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[195] *Id.* ¶ 135.

3. The Applicants' own "watershed" theory exposes the competitive harm that they deny.

The Applicants offer their merger as a solution to the so-called "gateway watershed problem" within the "watershed region," which they define as "any county within 250 miles of four gateway cities: Chicago, IL; St. Louis, MO; Memphis, TN; and New Orleans, LA."[196] They ignore the fact, however, that their extended bottlenecks from this merger would create the very same problem of short haul handoffs on a much larger scale elsewhere on the national rail network. The Applicants cannot justify their merger as a solution to one problem by shifting that problem to other stakeholders. Nor can they claim any benefit from eliminating short haul hand-offs in the watershed region without offsetting that benefit by the harm from creating new short haul handoffs across the network.

The single largest components of the Applicants' estimated $6.335 billion of public benefits annually are $1.757 billion of net revenue from truck and rail traffic diversions and $3.480 billion in shipper truck-to-rail savings.[197] These benefits are principally attributed to truck-to-rail conversions in the so-called "watershed region" that the Applicants allege would solve the "gateway watershed problem."

In describing the "watershed" problem, UP witness Mr. Rocker and NS witness Mr. Elkins jointly observe that:

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[196] Rev. Appl. 2-406 to 2-407 (Verified Statement of David T. Hunt (2d Errata)) ("Hunt V.S.").

[197] *See* Rev. Appl., App. B "Summary of Benefits Exhibit," 1-120; *cf. Union Pac. Corp.—Control—Norfolk S. Corp.* (Decision No. 21), FD 36873, slip op. at 8 (STB served May 28, 2026) (reciting pre-errata figures).

> Where rail networks meet, short-haul handoff lanes are particularly disadvantaged. There is not a precise demarcation – these watershed markets can fluctuate based on the region, commodity type, and other features. For simplicity, we define watershed markets where UP or NS would haul less than 250 miles before or after interchange. These markets are characterized by short-haul handoff lanes that sit right on the fault lines between the Class I railroad networks. Neither carrier owns the full trip, so no one can offer single-line service.[198]

Quoting the former Interstate Commerce Commission, they further explain that:

> Since the carrier serving the site near the gateway receives only the short-haul of what may be a movement of considerable distance, its share of a competitive rate may be insufficient to warrant its participation even though the total revenue associated with the movement may be remunerative.[199]

According to Messrs. Rocker and Elkins, the problem "in a nutshell: staggering opportunities but poor rail market share because the artificial divide between rail networks limits how far we can go."[200] Their solution to unlocking these watershed markets is "integration."[201]

There is nothing about this problem that is unique to the watershed region as defined in the Application. The alleged problem that Applicants identify exists for

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[198] Rocker/Elkins V.S. ¶ 15.

[199] Rocker/Elkins V.S., ¶ 66, *quoting Norfolk S. Corp. – Control – Norfolk & W. Ry. Co.*, 366 I.C.C. 173, 195 (1982).

[200] Rocker/Elkins V.S. ¶ 71 ("staggering opportunities but poor rail market share because the artificial divide between rail networks limits how far we can go").

[201] Rocker/Elkins V.S. ¶ 72.

all interline movements wherever the origin or delivering carrier has a short haul (*e.g.*, < 250 miles) before or after an interchange.

Notably, this merger (through the RRC Foreclosure scenarios described in Part III.A.2.b. above) will create new short haul handoffs in other regions of the country for nearly every movement from captive UP locations to CSX locations and from captive NS locations to BNSF locations because "[n]either carrier owns the full trip, so no one can offer single-line service."[202] Today, both interline carriers on those routes benefit from their long haul when connecting through the Mississippi River gateways. Post-merger, the UPNS extended long-hauls could reduce the BNSF and CSX segments for most of these moves well below the 250-mile demarcation that the Applicants use to define watershed moves.

The Applicants thus are using this merger to solve the gateway watershed problem for their customers near the Mississippi River gateways by creating new short haul handoffs for BNSF and CSX customers at gateways further east and west. In other words, this merger will increase the number of short haul handoff movements on those carriers to the detriment of them and their customers. Thus, the Applicants' own "watershed" claims affirmatively demonstrate that this merger will cause competitive harm and that its principal "benefit" can only be achieved, if at all, through that offsetting harm. These facts also exacerbate the Applicants'

[202] Rocker/Elkins V.S. ¶ 15.

failure to consider cumulative and downstream effects as discussed in Part III.C. below.

4. Applicants Have Not Proposed ANY Competitive Enhancements.

This merger is precisely the type of transaction that prompted the Board to emphasize in its 2001 Rules the need for enhanced competition as an important public interest benefit. The Board anticipated that large-scale Class I mergers "would likely create some anticompetitive effects that would be difficult to mitigate through appropriate conditions, and that transitional service disruptions might temporarily negate any shipper benefits."[203] To offset these harms, "applicants should propose conditions that would not simply preserve but also enhance competition."[204] Despite this unambiguous "call[] for applicants to provide a plan for enhancing competition,"[205] the Application is remarkably bereft of any enhancements at all.

Although the Board has not defined "enhanced competition," the undeniable focus of the 2001 Rules is intramodal (rail-to-rail) competition. The Board has provided numerous examples of the types of actions that it would consider to be enhancements, all of which are new intramodal competition.[206] For example, the Board stated that it was "asking applicants to offer competitive enhancements – as

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[203] 49 C.F.R. § 1180.1(d).

[204] *Id.*

[205] *Major Rail Consolidation Procedures*, 5 S.T.B. at 554.

[206] *See id.* at 546-47, 550, 554, 569.

applicants did in both UP/SP and in CSX/NS/CR."[207] Those enhancements included thousands of miles of trackage rights, extensive competitive access rights for the trackage rights carriers, and shared asset areas. The Board also identified the removal of paper barriers as an enhancement, which also is specific to rail competition.[208] In addition, the regulatory purposes of the enhanced competition requirement all concern intramodal competition: difficulties remedying harm to rail competition, the endgame of rail consolidation, the risk of service failures, and the achievement of a balance between rail capacity and demand.[209] The Application does not contain a single proposal that creates a new, permanent rail competitor for any traffic; its only access-based proposal, the Targeted Access Program, offers six months of reciprocal switching, and only after service fails.[210]

Instead, the Application identifies six actions that the Applicants contend "enhance" competition, none of which create new competitors.[211] But labeling something as enhancing competition does not make it so. Indeed, the Board itself has expressed its opinion that the Applicants have proposed just a single enhancement, "Committed Gateway Pricing," or "CGP," a description that the JSA

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[207] *Id.* at 569.

[208] *Id.* at 554.

[209] *Id.* at 546-47, 549-51, 554-55, 560.

[210] July 27 Suppl. at 22–23, 127–28 (UP-80/NS-78) (Targeted Access Program: sole-served terminal-area shippers, six-month switching, triggered by service deterioration); *id.* at 8 (3-to-2 commitment to "replace any competition lost").

[211] Rocker/Elkins V.S. ¶¶ 153-81.

believe is an overly generous characterization.[212] None of the six actions that the Applicants identify as enhancements to competition passes even a modicum of scrutiny.

First, the Applicants assert that the merger enhances competition "by eliminating interchange points and combining complementary routes … [to] … expand competitive options … against competitor railroads and trucks."[213] But this cannot be what the Board intended by "enhanced competition" in the 2001 Rules because such benefits would be inherent in any end-to-end merger of Class I railroads, rendering the Board's new focus on enhanced competition mere surplusage. Indeed, the Applicants' claims would apply equally to the total monopolization of the national rail network into a single carrier.

The Applicants also conflate "more efficient" and "pro-competitive" as interchangeable concepts, despite the 2001 Rules identifying them as separate and distinct concepts.[214] The reference to "enhanced competition" in the 2001 Rules is to proposals to "offset…potential harms" from "anticompetitive effects that would be difficult to mitigate through appropriate conditions…."[215] The Applicants' alleged merger benefit – efficiencies through the elimination of interchange points and

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[212] Decision No. 21, slip op. at 21 (referring to CGP as "the sole competitive enhancement Applicants propose").

[213] Rocker/Elkins V.S. ¶ 154.

[214] 49 C.F.R. § 1180.1(a) ("Such public benefits include improved service, enhanced competition, and greater economic efficiency.").

[215] 49 C.F.R. § 1180.1(d).

combination of routes – is a benign way to describe the foreclosure opportunities created by the merger's "extended bottlenecks" discussed in Part III.A.2. above. That is the type of difficult-to-mitigate harm that the Board intends enhancements to competition to address. Thus, this alleged merger benefit cannot constitute an enhancement to competition, as contemplated in the 2001 Rules.

Although in prior merger decisions the Board has described conversions to single-line service as "enhanced competition," the Board did not use that phrase in the context of the 2001 Rules because those decisions were not governed by those Rules. In the recent CPKC Decision, the Board described new single-line competition as enhanced competition because "new single-line service will provide new competition with single-line service already provided by…other carriers."[216] This merger does not do that. In contrast to prior mergers that turned smaller, ineffective competitors into effective ones, the proposed merger would make the biggest existing carrier even bigger, creating a unique transcontinental network that the Applicants could exploit to foreclose smaller rivals in ways discussed in Part III.A.2. above. Enhanced competition cannot mean increasing the dominance of the industry's largest railroad. Thus, the Applicants' claim that their merger enhances competition in accordance with the 2001 Rules by making UPNS a stronger competitor is misplaced.

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[216] *CPKC Decision*, slip op. at 21.

Furthermore, the Applicants' inclusion of intermodal alternatives in their definition of "enhanced competition" is misplaced. As discussed at the outset of this section, the Board's focus was on intramodal competition. Enhancing competition with trucks does not fulfill the Board's purpose to "offset…potential harms" from "anticompetitive effects that would be difficult to mitigate through appropriate conditions…."[217] Such difficult to mitigate anticompetitive effects would be from threats to rail competition. Enhancing the Applicants' ability to compete against trucks will do nothing to mitigate those effects, especially for the traffic that is most dependent upon rail transportation. Enhancing rail's ability to compete with trucks only benefits traffic for which trucks already are competitive. The Board's responsibility is to protect rail competition, not to expand the ability of rail to better compete with trucks at any cost.

Second, the Applicants assert that a transcontinental railroad will itself enhance competition because it will engender a competitive response from other railroads.[218] Again, this alleged enhancement is not a response to anticompetitive effects that would be difficult to mitigate through appropriate conditions, and thus it is not the type of enhancement to competition contemplated in the 2001 Rules. Rather, it is another example of misrepresenting an alleged merger benefit as a competitive enhancement. Furthermore, this assertion is inconsistent with the Applicants' claims that the merger benefits cannot be achieved by alternative

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[217] 49 C.F.R. § 1180.1(d).

[218] Rocker/Elkins V.S. ¶¶ 156-58.

means.[219] If those claims are true, the only way that other Class I railroads can respond effectively is to merge themselves.

Third, the Applicants promise that 2-to-1 customers will be protected.[220] That promise merely "preserves" but does not "enhance" competition. Indeed, that same promise has been a staple of every major rail merger considered under the pre-2001 merger Rules, which only required the preservation of competition. Consistent with that fact, the 2001 Rules identify 2-to-1 effects as a "reduction of competition" with a remedy that is distinct from the remedy of "enhanced competition."[221]

Fourth, the Applicants assert that build-in/build-out options will be preserved.[222] This suffers from precisely the same deficiency as the protection of 2-to-1 customers.

Fifth, the Applicants commit to keeping major gateways open on commercially reasonable terms and not to create new regulatory bottlenecks.[223] This too is not an enhancement to competition but an attempt to preserve the status quo.[224] In Part IV.B.1 below, the JSA explain why this commitment is insufficient

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[219] Rev. Appl. 1-41; George V.S. ¶¶ 56-59; Rocker/Elkins V.S. ¶¶ 144-46; Israel V.S. ¶¶ 95-104.

[220] Rocker/Elkins V.S. ¶¶ 159-60.

[221] *Compar*e 49 C.F.R. § 1180.1(c)(2)(i), *with id*. § 1180.1(c)(2)(iv).

[222] Rocker/Elkins V.S. ¶ 161.

[223] *Id.* ¶¶ 162-72.

[224] 49 C.F.R. § 1180.1(c)(2)(i) (describing major gateway and bottleneck protections as "preserving competition.").

even for that purpose and thus can only be addressed through enhancements to competition.

Sixth, and last, the Applicants offer "Committed Gateway Pricing," or "CGP," as an enhancement to competition.[225] But CGP does not create any new transportation alternatives; rather, it sets a cap on the rate that UP would charge for interline moves to BNSF and CSX destinations over UP's bottleneck segment to existing gateways. Thus, at best, CGP can only be described as a meager tool for accomplishing the immediately preceding commitment of keeping gateways open on reasonable terms, which preserves but does not enhance competition. Even as to that purpose, CGP resembles the types of proportional rate proposals that the Board has rejected as potentially harming competition.[226] A condition that harms competition cannot be a competitive enhancement.

Moreover, the Applicants' own descriptions of how they designed CGP to function belie their claim that CGP enhances competition. First, by capping their rates at the 70th percentile of the rates they charge shippers, the Applicants concede that CGP "is designed to provide benefits to customers with the highest rates in relation to comparable traffic…," rather than generate a competitive rate.[227] Second, the Applicants stress that "CGP was not intended to create

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[225] Rocker/Elkins V.S. ¶¶ 173-81.

[226] *CPKC Decision*, slip op. at 58-60; *see also* July 27 Suppl. 40 (Applicants describe CGP as "a regulatory price control").

[227] July 27 Suppl. 42.

competition with post-merger single-line traffic. CGP was intended to create a new competitive option for customers currently served using interline service."[228] But CGP doesn't create a new option for such moves at all; it merely sets a very high cap on the rate the Applicants will charge for the *same* interline move that existed pre-merger. Third, by omitting CGP from their "comprehensive set of competition-preserving commitments," the Applicants effectively admit that CGP does not even preserve competition against foreclosure, much less enhance it.[229] This is significant because most of the potentially CGP-eligible traffic is the same traffic that is most vulnerable to foreclosure, as discussed in Part III.A.2. above. But if the Applicants attempt to ascribe that purpose to CGP, the JSA explain why CGP cannot do so in Part IV.B.3 below. Finally, the Applicants would terminate CGP with the Board's oversight period, which is an extremely short expiration date for any competitive enhancement.

It is striking that the Applicants do not offer any enhancements to competition when enhancements are such an integral part of the 2001 Rules. In failing to do so, the Applicants dismiss the concerns that prompted the Board to adopt new merger guidelines in 2001 and essentially seek approval under the pre-

[228] *Id.* at 43.

[229] *Id.* at 184-85.

2001 Rules.[230] That, in and of itself, is good reason for the Board to deny the Application.

B. The alleged merger benefits are overstated and insufficient to outweigh the competitive harm.

Applicants say "[t]he benefits [of this merger] are driven primarily by the creation of single-line service on transcontinental routes…."[231] Most of the benefits of single line service are alleged to come from converting enormous volumes of truck traffic to rail and capturing more traffic from other rail carriers. But if the creation of single-line service is the primary driver of benefits, then *any* merger that creates more single-line routes would be in the public interest. The logical extension of such a position is the illogical conclusion that a merger that creates a single monopoly railroad across the entire country would be in the public interest.

The benefits of single-line service must be weighed against the harm to competition and there must come a point where the creation of more single line routes through consolidation is more detrimental than beneficial to the public interest. As set forth in the preceding Part III.A., this merger would pass that point because, when a carrier no longer operates in a competitive environment, there is

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[230] *See Major Rail Consolidation Procedure*s, 5 S.T.B. at 546 ("Our shift in policy places greater emphasis in the public interest assessment on enhancing competition while ensuring a stable and balanced rail transportation system.").

[231] Rev. Appl. 1-37 to 1-38.

nothing that compels it to share merger efficiencies with consumers and instead those gains are retained by the carriers and their shareholders.[232]

In this Part III.B., the JSA show that the Applicants exaggerate the benefits of their merger by: (1) overstating the benefits of single-line moves for the bulk commodities that the JSA members routinely transport; (2) overstating the potential for truck-to-rail diversions; and (3) failing to exclude benefits that can be attained through alternative means to a merger. This section is supported by the Verified Statement of Karen M. Burchfield.

1. Applicants overstate the benefits of single-line service for shippers of merchandise and bulk commodities.

For shippers of merchandise and bulk carload traffic, like JSA members, this merger's single-line service benefits are insignificant. Applicants' own numbers send nearly all the quantified savings to truck and intermodal traffic. As for unquantified service benefits, Applicants claim faster average transit times, but carload shippers already plan around known transit times. What carload shippers really need is reliability, but Applicants never show the merger will improve it or commit to improved reliability. Carload shippers also will continue to deal with multiple railroads after the merger because their shipments are not limited to Applicants' network; Applicants will not be the one-stop shop they claim. Applicants concede that sole-served shippers will not directly benefit, and without competition

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[232] 49 C.F.R. § 1180.1(c)(1) ("To the extent that a merged carrier continues to operate in a competitive environment, its new efficiencies would be shared with shippers and consumers.").

nothing carries the merger's efficiencies to them. The Board should give these benefits little or no weight for merchandise and bulk carload traffic.

a. Applicants' own numbers send nearly all the quantified truck savings to truck traffic.

Applicants claim shippers will save $3.692 billion from truck-to-rail and rail-to-rail diversions.[233] Nearly all of it goes to truck traffic. None of it goes to existing carload traffic. And none of it measures better service.

Nearly 95%[234] of the shipper savings Applicants claim from single-line service goes to shippers that switch from truck, not to shippers already on rail. Mr. Hunt says that shippers "which currently move freight by truck could reduce their out-of-pocket transportation costs by approximately $3.5 billion annually."[235] Not one dollar reaches existing carload traffic.

The remaining 5%[236] of purported single-line savings ($192 million a year) accrues to existing rail shippers and is entirely from diverted traffic. Mr. Hunt states that rail shippers moving "from interline service to new UP-NS single-line service can expect to save an additional $192 million per year."[237] But he did not

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[233] July 27 Suppl. 342 (Hunt Suppl. V.S. (Errata) 20) (projecting $192 million in rail-to-rail diversion savings); Rev. Appl. 2-482 (Hunt V.S. (2d Errata) § 8.2 (estimating $3.5 billion in truck-to-rail diversion savings).

[234] $3,500 million ÷ ($3,500 million + 192 million) = 94.8%. July 27 Suppl. 342 (Hunt Suppl. V.S. (Errata) 20); Rev. Appl. 2-482 (Hunt V.S. (2d Errata) § 8.2).

[235] Rev. Appl. 2-482 (Hunt V.S. (2d Errata) § 8.2).

[236] $192 million ÷ ($3,500 million + 192 million) = 5.2%. July 27 Suppl. 342 (Hunt Suppl. V.S. (Errata) 20); Rev. Appl. 2-482 (Hunt V.S. (2d Errata) § 8.2).

[237] July 27 Suppl. 342 (Hunt Suppl. V.S. (Errata) 20).

include in that figure pre-merger UP-NS moves that convert to single-line service.[238] So existing UP-NS moves, including those that are captive on both ends, get no part of the $192 million.[239]

Neither "savings" figure measures better service; both measure rate differences. The $192 million rests on "historical differences between interline and single-line rail pricing."[240] The $3.5 billion is the gap between truck and rail rates. {{ }}[241]

Nor do Applicants put any price on their claimed service benefits for carload traffic. Dr. Israel derives a price equivalent only for intermodal diversions, and for merchandise he concedes: "I do not have cross-price elasticities from the literature to calculate a precise implied value for these diversions."[242] He says his intermodal measure captures quality gains "that all shippers can benefit from," but that

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[238] *Id*. ("The estimates . . . were obtained by starting with the R2R diverted traffic and adding one junction to the post-merger junction frequency. This reset the junction frequency to a pre-merger condition where UP and NS could only offer interline service.").

[239] JSA computation: $192 million ÷ $3,500 million = 5.5%; $3,500 million − $192 million = $3,308 million attributable to shippers that are not existing rail shippers. Inputs are Applicants' figures. July 27 Suppl. 342 (Hunt Suppl. V.S. (Errata) 20); Rev. Appl. 2-482 (Hunt V.S. (2d Errata) § 8.2).

[240] July 27 Suppl. 340-42 (Hunt Suppl. V.S. (Errata) 18–20 & Exs. PB6.1–PB6.2).

[241] Hunt Dep. 588:18-19, Oct. 8, 2026 (Ex. 2).

[242] Rev. Appl. 2-243 to 2-245 (Israel V.S. (2d Errata) ¶¶ 138–40) (quotation at ¶ 139). He also testified that {{ }} Israel Dep. 245:6-11, Oct. 15, 2026 (Ex. 1).

measure rests on truck-to-intermodal elasticities, and he concedes he cannot value the merchandise diversions.[243] The only non-rate shipper benefits Applicants priced go to truck and intermodal traffic.

Those intermodal benefits—the only non-rate benefits that Applicants attempted to quantify—go to the traffic segment that needs them the least. Board Member Kloster observed that Applicants "rely heavily on the benefits to intermodal shipments, a market segment which, by today's standards, is already competitive."[244]

b. Applicants' unquantified single-line service benefits are not significant for merchandise and bulk carload shippers.

Applicants contend that single-line service will produce faster transit times, greater reliability, and lower logistics costs. But they don't quantify these benefits for merchandise and bulk carload interline traffic. The question, then, is whether those benefits matter to merchandise and bulk carload shippers. They do not.

Faster average transit matters little to carload shippers, because shippers can plan around a known transit time.[245] If a shipper knows how long a trip will

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[243] Rev. Appl. 2-243 to 2-244 (Israel V.S. (2d Errata) ¶¶ 137, 139).

[244] *Union Pac. Corp.—Control—Norfolk S. Corp.* (Decision No. 37), FD 36873, slip op. at 5 (STB served Sept. 18, 2026) (Kloster, Board Member, concurring).

[245] Trombetta V.S. ¶ 10; Vogt V.S. ¶ 13; Gebo V.S. ¶ 13 (improvement "on a given lane would not materially change Dow's operations, inventory, or fleet size"); Hark V.S. ¶ 11; Comments of The Lubrizol Corp. at 6; Olin Comments at 8 (single-line transit efficiencies "would be marginal at best," and Olin's transit-time standard deviation of approximately +/- 4.5 days "dwarf[s] any modest improvement in average transit speed").

take, the shipper knows when to release its traffic to ensure it arrives on time. Whether a carrier cuts transits by a day or increases them by a day matters little because the shipper can adjust when it releases a car so that it arrives on time. Mr. Hunt concedes this point, stating that the interchange-time savings from converting to single-line service "is most acute for intermodal."[246]

What carload shippers really value is reliability.[247] Applicants acknowledge that customers care more about reliability than average transit time: customers "don't 'feel' our averages, they 'feel' our outliers. In other words, they want reliability."[248] Mr. Hunt made a similar observation about customers, agreeing that {{ }}[249]

[246] Rev. Appl. 2-417 (Hunt V.S. (2d Errata) § 3.4).

[247] *See* Trombetta V.S. ¶ 10 ("Reliable, consistent service matters more to the Company than average transit time because production schedules, inventory levels, and fleet sizing depend on predictable arrivals."); Vogt V.S. ¶ 13; Gebo V.S. ¶ 13; Hark V.S. ¶ 11; Comments of The Lubrizol Corp. at 6 ("overall reliability in service is the primary concern of our customers"); LyondellBasell Comments at 12; Olin Comments at 8 ("reliability matters far more than a modest improvement in averages").

[248] Rev. Appl. 1-298 (Rocker/Elkins V.S.).

[249] Hunt Dep. 215:18-216:9, 220:19-24, Oct. 7, 2026 (Ex. 2). The survey covered retailers, manufacturers, and third-party logistics providers, so it is a general shipper survey, not a carload survey. Hunt Dep. 193:2-195:8, Oct. 7, 2026 (Ex. 2).

Despite shippers' premium on reliability and Applicants' position that reliability is "what we believe this merger can strengthen most,"[250] Applicants do not show that this merger will improve it. {{ }}[251] He concedes that a direct measure of reliability "does not exist on a lane-by-lane basis nationally," so he uses the number of interchanges as a stand-in.[252] And Applicants' own Service Assurance Plan, which reports yard-dwell and on-time-origination benchmarks, says Applicants "do not expect on-time origination performance in their principal classification yards to change substantially."[253] Applicants thus measure the yard performance that drives reliability, and then forecast no meaningful change in it.

Although the Board in *CPKC* recognized "more reliable service" in that end-to-end merger and held that the qualitative benefits on that record, "by themselves, are consistent with approval,"[254] this merger requires a more thorough showing. In

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[250] Rev. Appl. 1-297 to 1-298 (Rocker/Elkins V.S. (2d Errata) ¶ 62).

[251] Hunt Dep. 188:20-23, Oct. 7, 2026 (Ex. 2).

[252] Rev. Appl. 2-415 (Hunt V.S. (2d Errata) § 3.3). {{ }} Hunt Dep. 186:6-14, Oct. 7, 2026 (Ex. 2).

[253] Rev. Appl. 2-890 to 2-895 (Service Assurance Plan, Verified Statement of John W. Turner (Second Errata) ¶¶ 74–80 (UP-100/NS-99, Sept. 4, 2026) (Turner SAP (2d Errata)) (quotation at ¶ 77, Rev. Appl. 2-892).

[254] CPKC Decision, slip op. at 24, 31.

CPKC, the Board applied the pre-2001 rules.[255] Here, however, the 2001 rules apply. These rules require that benefit projections be "well-documented and reasonable," and give gains realized only over time "somewhat less weight."[256] Applicants' reliability claim is neither documented nor forecast, and the Board should give it little weight.

Further, even though the switch from interline to single-line service may remove one interchange, that does little to make a carload move more reliable, because the move's many local switching events remain. Mr. Hunt's Exhibit 3-6 multiplies the chance of meeting a trip plan—the railroad's scheduled sequence of handlings and train connections for a car—across switching events. Although the Exhibit uses a 98% per-event success rate, which Mr. Hunt concedes is "above levels normally experienced by the Class I railroads,"[257] the Exhibit shows a declining probability of trip plan success with each remaining switch. Eliminating a single gateway interchange still leaves both the first-mile and last-mile switching events to lower the odds of an on-time trip and changes little.[258]

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[255] *Id*. at 34 (citing 49 C.F.R. § 1180.7(c) (2000)).

[256] *Major Rail Consolidation Procedure*s, 5 S.T.B. at 554, 560.

[257] Rev. Appl. 2-415 to 2-416 (Hunt V.S. (2d Errata) § 3.3 & n.30).

[258] Shippers recognize that first-mile and last-mile delays are more common and typically more disruptive than interchange delays. *See* Trombetta V.S. ¶ 11; Vogt V.S. ¶ 14; Gebo V.S. ¶ 14; Hark V.S. ¶ 12 (each stating that first-mile and last-mile delays are more common or more disruptive than delays at interchange); LyondellBasell Comments at 12-13 (local service reliability "can have a far greater impact on industrial operations than modest reductions in line-haul transit time"); Olin Comments at 8 (eliminating an intermediate interchange does not solve "first-

Also, most manifest routes will not experience reduced handling. Applicants' own operating plan shows that of 9,077 manifest routes, only 40% show an improvement in average handlings per car; 46% show no change, leaving 14% with an increase in handlings.[259]

Turning to Applicants' contention that the merger will lower logistics costs by allowing shippers to use a single carrier, carload shippers will still have to deal with several railroads. Applicants promise "true one-stop shopping" in place of "multiple contracts, multiple carriers, and multiple sets of rules," with quotes in one day instead of up to seven.[260] But after the merger, UPNS would hold about 54% of the exclusive-access ("closed") locations served by the four largest Class I railroads, and, counting all U.S. railroads, 28% of listed locations and 36% of "closed" and "local" points.[261] Shippers whose customers sit on other networks keep those relationships, and moves interlined with CSX and BNSF remain interline or at least require some continued bargaining with those carriers to leverage competition.[262] Applicants'

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and last-mile switching failures, crew constraints, yard congestion, or communication breakdowns").

[259] Rev. Appl. 2-871 (Turner SAP (2d Errata) ¶ 43).

[260] Rev. Appl. 1-278 to 1-280 (Rocker/Elkins V.S. (2d Errata) ¶¶ 10–12) (quotation at ¶ 12, Rev. Appl. 1-280).

[261] Burchfield V.S. ¶¶ 72, 76-77 & Figs. 23–3.

[262] See LyondellBasell Comments at 8 (LyondellBasell "does not view the existence of multiple commercial relationships as a material impediment to transportation planning," will continue working with multiple carriers, and values competitive leverage "far more … than the purported convenience of one-stop shopping"); Olin Comments at 8 (eliminating an interchange does not "materially reduce the complexity of managing Olin's multi-carrier rail network"); Hark V.S. ¶ 9

support letters praise one waybill and one portal, but those letters describe UP-origin, NS-destination lanes that the merger converts; JSA members ship to customers on many railroads.[263] They will still maintain third-party car tracking systems as a true single window into the status of their rail shipments.[264] To the extent they contract with Applicants, a one-day rate quote is irrelevant. And their payment and claims infrastructure and handling will remain in place to support shipments that may never touch Applicants' network or that move beyond it.

Additionally, the promised gains for private railcar fleets depend on reliable cycle times, and as explained above, Applicants never show that the merger will make cycle times more reliable. Applicants claim that single-line service "for private railcar asset owners, increases productivity" and maximizes the value of customer-supplied railcars.[265] Ms. Burchfield explains that reduced service frequency "impacts transit variability, private fleet performance, supply chain reliability, and

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(Huntsman prefers Rule 11 rates "despite some additional administrative burdens").

[263] UP-88/NS-86 (e.g., letters of Peak Midstream and Cody Group).

[264] See Trombetta V.S. ¶ 12 (Arkema would still use third-party car-tracking, bill payment, and invoice auditing because it will still use CN, BNSF, and CSX); Vogt V.S. ¶ 15 (BASF's car-tracking software would still be needed because BASF will still use multiple railroads); Gebo V.S. ¶ 15 (Dow's transportation management system and third-party dwell tracking would still be needed, and "using [railroads'] individual portals is inefficient"); Hark V.S. ¶ 13 (Huntsman would still need RailTrac and GeoMetrix to track railcars across multiple railroads); Comments of The Lubrizol Corp. at 6 (Lubrizol's Intellitrans tracking systems "would still be needed" because Lubrizol "will still use BNSF and CSX extensively").

[265] Rev. Appl. 1-280, 1-297 to 1-298 (Rocker/Elkins V.S. (2d Errata) ¶¶ 11, 62).

inventory requirements."[266] Applicants' support letters say shippers will "support the same business with fewer cars," but fleet savings follow reliability, which Applicants never show will improve.[267]

At bottom, for chemicals, fertilizer, petroleum, and other merchandise and bulk carload traffic, Applicants' proposed single-line service benefits are not material.

2. Applicants overstate the potential for truck-to-rail diversions of non-intermodal traffic.

For merchandise and bulk (*i.e.*, non-intermodal) traffic, Applicants rest their truck-to-rail forecast on an untested assumption: that freight trucked between rail-served counties can move by rail. That assumption carries about 191,000 rail carloads of diverted traffic, representing roughly 850,000 merchandise and bulk truckloads within Applicants' "estimated 2.13 million equivalent truckloads" of diversions.[268] It also drives the forecast's predicted jumps in rail share, with tank-truck markets leaping from 1.1% rail share to 54.5%.[269] Mr. Hunt's premise that shippers prefer single-line rail does not rescue the forecast: for chemicals, fertilizer,

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[266] Burchfield V.S. ¶ 138.

[267] UP-88/NS-86 (letter of Advanced Lubrication Specialties); *see* Trombetta V.S. ¶ 10 (fleet sizing depends on predictable arrivals); Hark V.S. ¶ 11 ("fleet sizing depends more on predictable, reliable service"); Olin Comments at 8 (transit predictability and consistency drive "railcar fleet sizing").

[268] Rev. Appl. 2-407 to 2-408, 2-433 (Hunt V.S. (2d Errata) & Ex. 2-5). Another 7,000 truckloads (about 5,000 rail carloads) are automotive, Hunt V.S. Ex. 4-1, and the rest are intermodal, an already competitive segment.

[269] Rev. Appl. 2-427 (Hunt V.S. (2d Errata) & Ex. 4-5).

and petroleum, the data shows that rail carries a greater share of the traffic where only *interline* service is available. And the forecast spreads across lanes so thin that almost none of them would carry ten cars a year, making their conversion to rail service unlikely even with rail access at both ends. Given the flaws in the diversion forecast, the Board should give no weight to the benefits that depend on merchandise truck-to-rail diversions.

a. Mr. Hunt assumes truck traffic will move by rail without checking whether the origin or destination is rail-served.

A shipper cannot move freight by rail without a rail track to its door and local train service, and Mr. Hunt's analysis never asks whether either exists. As Ms. Burchfield explains, "[t]he most important criteria in any potential truck to rail conversion is the existence of an industry track and existing local train service," and those criteria "are missing from Mr. Hunt's analysis."[270] Mr. Hunt assumes that "if a given county has rail service, then rail direct service is feasible."[271] But converting rail moves from interline to single-line service "does not create these essential prerequisites."[272] The diversions are thus "substantially overstated because [Hunt] relies upon unrealistic assumptions."[273]

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[270] Burchfield V.S. ¶ 153.

[271] *Id*. ¶ 154.

[272] *Id*. ¶ 155.

[273] *Id*. ¶ 151.

Mr. Hunt's method confirms this oversight: he codes every diversion on a county-to-county level, and none of his screens asks whether the traffic is moving between facilities that can load or unload a railcar. He excludes "[c]ounty-to-county lanes where rail service was not identified ('truck only')."[274] He requires the origin county to show "at least two carloads a week of existing plus diverted traffic."[275] He excluded other lanes "[p]er UP Industrial team review."[276] None of these screens tests facility access. {{ }}[277]

Mr. Hunt's modeling also shows that he assumes that truck traffic starts and ends at rail locations. His truck data come from a commercial Transearch database of freight flows between counties for seven transportation modes.[278] He placed each county's freight at the centroid of the county's rail freight stations as {{ }}[279] The model thus places the starts and ends of truck moves at rail access points. {{ }}

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[274] Rev. Appl. 2-536 (Hunt V.S. (2d Errata) App. B).

[275] Rev. Appl. 2-543 (Hunt V.S. (2d Errata) App. B); *see id*. at 2-425 (Hunt V.S. (2d Errata) Ex. 4-4).

[276] Rev. Appl. 2-537 (Hunt V.S. (2d Errata) Ex. B-21).

[277] McLaughlin Dep. 43:8-14, Sept. 30, 2026 (Ex. 3).

[278] Rev. Appl. 2-504 (Hunt V.S. (2d Errata) App. B).

[279] Rev. Appl. 2-515 (Hunt V.S. (2d Errata) 128); Hunt Dep. 604:1-8, Oct. 8, 2026 (Ex. 2).

[redacted]}}[282]

Mr. Hunt's own appendix shows that his diversions begin and end at county codes, not at shippers' facilities. For the operating plan, he "[t]ranslated the FIPS codes that were used as origins and destinations of the diversions into the ~3,300 blocking locations in MultiRail"—a FIPS code being the federal code for a county.[283] His assumptions table agrees: "All geography at a county-to-county level, the base level of Transearch," with a "market" defined as "origin county, destination county, and traffic type."[284]

Further, the scale of the truck-diversion forecast shows that the assumption that lanes can be aggregated at the county level is inappropriate. Mr. Hunt spread his truck-to-rail diversions across 153,000 lanes before compressing them to 2,000 for the operating plan,[285] and he reports that a cutoff of "10 cars per year would result in using only 1.3% of traffic lanes"—so almost none of the lanes would carry

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[280] Hunt Dep. 539:18-22, Oct. 8, 2026 (Ex. 2).

[281] *Id.* at 561:8-13.

[282] Hunt Dep. 539:18-22, 561:8-13, 605:9-12, Oct. 8, 2026 (Ex. 2).

[283] Rev. Appl. 2-575 (Hunt V.S. (2d Errata) App. C.1.2).

[284] Rev. Appl. 2-425 (Hunt V.S. (2d Errata) Ex. 4-4).

[285] Rev. Appl. 2-478 (Hunt V.S. (2d Errata)).

ten cars a year.[286] Setting aside that no one checked whether these lanes are rail-served at both ends, lanes this thin are poor candidates for rail service.[287]

Union Pacific's own marketing team recognized that county-level rail service does not mean a shipper is rail-served. {{ }}[288] {{ }}[289] {{ }}[290]

Further, the market cuts against the assumption that rail service is available. Ms. Burchfield explains that developers build new big-box warehouses without rail service; that not all commodities tolerate transloading, given private fleets and safe-handling requirements; and that shippers have spent capital on

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[286] *Id*. at 2-575 (Hunt V.S. (2d Errata) App. C.1.2). JSA computation: truck-to-rail lanes under 10 cars a year: 100% − 1.3% = 98.7% (Rev. Appl. 2-575 (Hunt V.S. (2d Errata) App. C.1.2)).

[287] Burchfield V.S. ¶¶ 153–55.

[288] McLaughlin Dep. 33:1-14, Sept. 30, 2026 (Ex. 3).

[289] McLaughlin Dep. 42:2-6, Sept. 30, 2026 (Ex. 3).

[290] McLaughlin Dep. 43:8-14, Sept. 30, 2026 (Ex. 3).

truck doors rather than rail spurs, which take time and permits to build.[291] The diversion forecast thus "overstates" the shift from truck to rail.[292]

b. The rail-service assumption causes the diversion forecast to predict large gains in rail share.

The forecast predicts jumps in rail share that only an assumption of universal rail access could produce. For tank traffic, Mr. Hunt predicts a 54.5% rail share, "up from 1.1% currently."[293] Yet his own comparison shows that, for tank-truck markets where UP-NS provides interline service, rail already carries a 51% market share, while the tank-truck markets that generate his diversions sit at 0.3% to 1.1% today.[294] The difference between these markets is not the number of railroads needed to complete a move; it is that the markets generating diversions lack rail access. As Ms. Burchfield explains, treating county rail service as access at

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[291] Burchfield V.S. ¶¶ 156–58.

[292] *Id.* ¶ 159; *see also* Hark V.S. ¶ 15 (Huntsman uses trucks for short-distance moves, small or time-sensitive orders, facilities with inadequate rail sidings, narrow delivery windows, packaged products, and emergencies, and "[i]t is very unlikely that this truck traffic would ever convert to rail"); Gebo V.S. ¶ 16 (Dow uses truck between rail-served facilities primarily for smaller or time-sensitive shipments, certain packaged products, and customer delivery requirements not well suited to rail); Trombetta V.S. ¶ 13 (Arkema uses truck between rail-served facilities mainly for short-distance moves, small or time-sensitive orders, narrow delivery windows, and emergency shipments); LyondellBasell Comments at 10-11 (LyondellBasell's truck shipments "reflect customer and operational needs that no rail merger can address" and move "for reasons the proposed transaction does not change"); Comments of The Lubrizol Corp. at 5-6, FD 36873 (filed Nov. 17, 2026) (customers often dictate mode, and switching modes would require significant capital investment to rebuild site infrastructure).

[293] Rev. Appl. 2-427 (Hunt V.S. (2d Errata)).

[294] Rev. Appl. 2-414 (Hunt V.S. (2d Errata) Ex. 3-4); *id.* at 2-427.

a target industry assumes "that there is existing rail service at the target facility, or there is a nearby transload facility and the commodity characteristics are conducive to using transload services."[295]

c. Mr. Hunt's premise that shippers prefer single-line rail over truck does not hold for JSA members' commodities.

Mr. Hunt infers from aggregate market shares that removing an interchange will win truck traffic, but he ignores the factors that actually decide mode choice. He reports that where only interline service exists, rail captures 43% of merchandise and bulk tons in 750-to-999-mile markets, against 60% where single-line service exists.[296] As Ms. Burchfield explains, Mr. Hunt "falls into the trap of concluding that this proves that the deciding factor for a shipper is the number of rail carriers involved, without considering more important factors such as the existence of rail loading and unloading infrastructure."[297]

For chemicals, fertilizer, and petroleum, Applicants' own data show the opposite of what Mr. Hunt concludes. Ms. Burchfield reconstructed Mr. Hunt's

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[295] Burchfield V.S. ¶ 157.

[296] Rev. Appl. 2-411 (Hunt V.S. (2d Errata)).

[297] Burchfield V.S. ¶ 152; *see also* Hark V.S. ¶ 14 (Huntsman "has optimized its logistics operations for rail transportation and prefers to use rail whenever it is available"); Gebo V.S. ¶ 16 ("if both sites are served by rail, the default mode is rail"); LyondellBasell Comments at 10 (LyondellBasell "has invested heavily in rail and structured its freight logistics around rail transportation" and "uses it as much as possible"); Comments of The Lubrizol Corp. at 3, 5 (Lubrizol's rail-served sites have on-site track and loading infrastructure, and rail is safer and up to five times less expensive than truck).

Exhibit 2-2 for JSA members' commodities and found "[t]he results are completely reversed. Rail has a greater market share only when interline service is available."[298] Chemicals favor interline service in the two highest mileage bands; fertilizer favors interline service in all but one band; and petroleum "overwhelmingly favor[s] interline service in every mileage band."[299] Ms. Burchfield concluded that Mr. Hunt's analysis "is too aggregated to draw any conclusion," and any single-line preference is "one factor among many, and hardly the most significant."[300] Mr. Hunt's validation fails.

d. The Board should give no weight to the benefits that depend on merchandise truck-to-rail diversions.

Applicants' claimed benefits from forecasted non-intermodal truck-to-rail diversions are unreliable because they assume rail access that Applicants never checked. Applicants cannot avoid that result by claiming that the benefits arise "regardless of whether a single carload is diverted to UP/NS": they compute their $3,480 million in shipper savings from "the diverted truck-to-rail miles."[301] No diversions means no savings. And Applicants have already told the Board what to do when projections fall short: "[i]f the Board were to conclude the projections

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[298] Burchfield V.S. ¶ 162.

[299] *Id.* ¶ 163, first ¶ 164, second ¶ 165.

[300] *Id.* ¶ 166; {{[redacted]}}.

[301] July 27 Suppl. 67; Rev. Appl. 1-515 (Janke V.S. (2d Errata) ¶ 59). We note that Applicants give different numbers for the savings.

should be partially discounted, it should apply any such discount in making its public interest determination, so its decision is not influenced by overstated projections."[302] The Board should take Applicants at their word and give no weight to truck-to-rail diversion benefits.

3. Applicants overstate the benefits by including those that can be achieved by alternative means to a merger.

A significant addition made by the Board in the 2001 Rules is that, "when evaluating the public interest, the Board will consider whether the benefits claimed by applicants could be realized by means other than the proposed consolidation" because "private-sector initiatives, such as joint marketing agreements and interline partnerships, can produce many of the efficiencies of a merger while risking less potential harm to the public."[303] Although the Board recognized that some benefits may only be achieved through a merger, it also observed that:

> [T]his does not mean that *all* of the claimed benefits require a merger for their accomplishment, nor does it address shipper concerns that a carrier might seek to gain enhanced market power through a merger, while claiming that this harm would be offset by efficiencies that could actually be achieved by means short of merger. We need to have a full awareness of which of the claimed benefits are obtainable only through a merger so that we can fairly weigh them against potential harms. Accordingly, we believe that it is appropriate for us to require applicants to address the question of whether the particular merger

[302] July 27 Suppl. 112.

[303] 49 C.F.R. § 1180.1(c).

> benefits upon which they are relying could be achieved by means short of merger.[304]

The Applicants have ignored this directive. They allege only that they cannot achieve the entirety of their claimed benefits without a merger. But that sidesteps the question the Board expressly posed: "which of the claimed benefits are obtainable only through a merger"?[305]

This evasion allows the Applicants to credit all their claimed public benefits to the merger, which contravenes the 2001 Rules' express purpose. Notably, as demonstrated in the underlined text above, that purpose was motivated in significant part by shipper concerns that applicants could invoke efficiency claims to mask a grab for market power. That is precisely what the JSA believe this proposed merger attempts to do. To the extent that the Applicants can achieve any of the benefits without the harms caused by the merger, those benefits must be excluded from the public interest calculus. Thus, the Applicants' non-compliance with the 2001 Rules overstates the public benefits and prevents the Board from accurately assessing the marginal public interest impact that specifically and only originates from the merger.

Merger alternatives need not replicate the entire panoply of alleged benefits to demonstrate that this merger is not in the public interest. Ultimately, there are trade-offs between mergers and partnerships that the Board must balance in its

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[304] *Major Rail Consolidation Procedure*s, 5 S.T.B. at 559 (italics in original; underline added).

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

public interest assessment. Even if there are merger benefits that cannot be achieved through partnerships, there also are partnership benefits that cannot be achieved through a merger. The existing national rail network establishes the two eastern Class I carriers as neutral partners towards the two western Class I carriers, and vice versa, on interline movements between their networks. They can enter into multiple partnerships with either or both interline partners to enhance their operating efficiency for different types of traffic.

In contrast, a merger permanently binds the interests of UP with NS for east-west moves of all traffic and biases the merged entity towards its own network over potentially superior partnerships with either CSX or BNSF. The RRC paradigm discussed in Part III.A.2.c., above, and the consequences of the Applicants' "gateway watershed" solution discussed in Part III.A.3., above, are two examples of such bias because UPNS enhances its efficiency through extended lengths of haul that reduce the length of haul and efficiency of CSX and BNSF. Furthermore, an unsuccessful merger cannot be easily undone and there is no precedent for doing so, whereas a partnership can be unwound or restructured for greater success. This must be a critical factor in the Board's public interest calculus because, "as we approach the 'end-game,' the price for any failure would be high."[306]

Finally, in Part II.B. of their joint verified statement, Dr. Singer and Mr. Tatos highlight significant errors and misstatements in Dr. Israel's suggestion that

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[306] *Id.* at 560.

vertical mergers always produce the most beneficial outcome. Most notably, Dr. Israel mistakenly focuses on maximizing the joint profits of the merging railroads.[307] This is the same "total welfare" standard that Dr. Israel incorrectly invokes to support the "one-lump" theory, as discussed in Part III.A.1.b. above, and is equally inapplicable in this context because neither the Board nor antitrust regulatory authorities count purely financial gains to the merging companies, as opposed to real cost savings, as merger benefits.[308] Similarly, Dr. Israel's discussion of "double moral hazard" — the idea that two separate companies each invest less in a shared service than they would as one company, because neither receives the full benefit of its investment — recycles the same economic position that he espouses with respect to EDM and thus embodies the same inherent flaws identified in Part III.A.1.a., above.[309] Lastly, the only economic literature that Dr. Israel cites to support his position that only a merger can eliminate the double moral hazard to achieve a joint profit maximizing scenario is not even about vertical mergers, or even mergers at all, but instead addresses this problem within a single entity.[310]

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[307] Rev. Appl. 2-226 to 2-229 (Israel V.S. ¶¶ 95-96, 101-104).

[308] Singer/Tatos V.S. ¶ 95; *see also SFSP Merge*r, 2 I.C.C.2d at 807 ("While SFSP may seek to maximize private benefits, our responsibility is to the public interest.").

[309] Singer/Tatos V.S. ¶ 96.

[310] *Id.* ¶¶ 97–99.

C. The Applicants' analysis of downstream and cumulative effects ignores the merger's most significant downstream effect.

One of the more significant additions to the 2001 Rules is the requirement that Applicants "explain how additional Class I mergers would affect the eventual structure of the industry and the public interest," "discuss the likely impact of such future mergers on the anticipated public benefits of their own merger proposal," and "discuss whether and how the type or extent of any conditions imposed on their proposed merger would have to be altered, or any new conditions imposed, should [the Board] approve any future consolidation(s)."[311] The Board explained the need for this addition "[b]ecause from this point on any proposed major transaction would have a significant effect on the structure of the entire industry . . . ."[312] The Applicants initially gave short shrift to this requirement because they "cannot predict" downstream merger proposals.[313] The rule, however, does not require them to "predict" how other carriers will react, but rather, as quoted above, to "explain" and "discuss" the impact of any such mergers that might occur.

In Decision No. 21, the Board recognized this deficiency and stated that it "can fully analyze the effects of major mergers on the current landscape only if Applicants provide 'preliminary evidence about the evolving structure of the industry that would likely result from their proposal and others like it; if they address the merits of such a structure; if they provide their views on how to deal

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[311] 49 C.F.R. § 1180.1(i).

[312] *Major Rail Consolidation Procedures*, 5 S.T.B. at 582.

[313] Decision No. 21, slip op. at 11.

with potential problems that structure could cause to service, efficiency, and competition.'"[314] Despite this admonition, the Applicants' July 27 supplemental submission in response to Decision No. 21 ignores the single most significant downstream effect upon the very fabric of the national rail network.

This significant and undeniable downstream effect, identified in Part III.A.2. above, is the potential for vertical foreclosure that the Applicants' extended hauls will enable because of this merger by short hauling CSX and BNSF on interline routes. Regardless of whether the Applicants agree that their extended hauls pose anticompetitive concerns, they do not dispute that they expect to divert traffic from the other Class I railroads as a result. The more traffic that they divert, the greater the harm to the other railroads (through the "RRC paradigm" in Part III.A.2.c.), especially CSX and BNSF, their customers, and the national rail network. While all rail mergers lead to some traffic diversions, the potential magnitude and scope of such diversions from this merger are unprecedented. Yet the Applicants fail to consider the ramifications for those carriers, their customers, and the national rail network from any diversions that would shorthaul CSX and BNSF on post-merger interline routes. Those ramifications are critical to a comprehensive assessment of the public interest.

In Part III.A.3. above, the JSA identify a significant downstream ramification from the Applicants' extended lengths of haul on interline routes with CSX and

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[314] Decision No. 21, slip op. at 30-31 (quoting *Major Rail Consolidation Procedure*s, 5 S.T.B. at 582).

BNSF that the Applicants either overlooked or chose to ignore. Specifically, in their search for a problem that this merger could solve, the Applicants' solution to the "gateway watershed problem," *i.e.*, integration, only shifts that problem to other carriers and their customers in other regions of the country, with significant ramifications for the national rail network. Although the effects of their "solution" should have been obvious to the Applicants, they have not attempted to address them in their analysis of downstream and cumulative effects.

It does not require much foresight to anticipate that CSX and BNSF may have no choice but to merge themselves to compensate for the effects of being short hauled by UP on their interline routes so that they too can obtain longer hauls from their captive origins to UP destinations. Indeed, if the Applicants believe their own claim that their merger benefits cannot be achieved through alternative means to a merger,[315] a BNSF/CSX merger would be inevitable. That merger might offset some of the BNSF and CSX losses from this UP/NS merger, but it would threaten the last vestiges of rail competition for all shippers. Specifically, it would result in two transcontinental railroads that will provide single line service between all locations within their networks and maximize their long hauls to all locations captive to the other carrier's network. The very notion of a neutral bottleneck carrier will become an anachronism. The Applicants do not engage with this outcome at all.

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[315] Rev. Appl. 1-41.

The alternative is equally troubling. CSX faces greater traffic and revenue reductions than BNSF because its network overlaps more extensively with NS than BNSF overlaps with UP. BNSF thus might not seek a merger, as its owner has stated,[316] potentially stranding CSX without a merger partner to offset the harm from a UPNS merger. That raises serious questions about CSX's future ability to continue as an effective competitive counterweight to the combined UPNS for movements in the east. From that perspective, this proposed merger also has "horizontal" anticompetitive effects. Thus, Applicants also must consider the possibility of no further mergers at all.[317] They have not.

The Applicants cannot hide behind their open gateway commitments in response to these potential outcomes. When there remain just two transcontinental carriers, *both* will have strong incentives to protect their long-haul routes and thus it is difficult to envision how any gateway commitment could preserve competition over route segments that might otherwise be competitive. Further, as discussed in Part IV.B.1. below, the Applicants fail to explain how open gateway commitments from mergers decided under the pre-2001 rules suffice under the more stringent 2001 Rules or how those commitments made under very different facts prevent vertical foreclosure under the facts of this merger.

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[316] Decision No. 21, slip op. at 11.

[317] *See Major Rail Consolidation Procedure*s, 5 S.T.B. at 546 ("Our shift in policy places greater emphasis in the public interest assessment on enhancing competition while *ensuring a stable and balanced rail transportation syste*m.") (emphasis added).

Either outcome above would completely restructure the rail industry as it has existed for decades. This is precisely what the Board had in mind when it declared, as justification for this new requirement, that "we need to look down the road and determine whether approving not just the immediate proposal that may be before us, but others like it, would ultimately result in a rail industry structure that continues to provide at least the existing level of competitive options for shippers, and continues to make railroads pass on most of the beneficial results of their merger efficiencies to the shipping public."[318] Both outcomes are readily foreseeable and far from speculative. Yet, the Applicants chose not to consider what these outcomes could mean for the rail industry. The Applicants' avoidance of that discussion fails to show that this merger is in the public interest under the 2001 Rules.

D. The merger presents significant service risks that are not adequately addressed.

Every major rail merger in recent memory has disrupted service, and Applicants offer no reason to believe this one will be different. The 2001 Rules treat transitional service problems as a merger harm that substantial and demonstrable public benefits must outweigh, and they require applicants to show—not merely promise—that shippers will be protected. Applicants fall short on three fronts. First, the record of prior Class I mergers shows that serious transitional disruptions are likely here, despite Applicants' assurances that customers will experience none.

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[318] *Major Rail Consolidation Procedures*, 5 S.T.B. at 549-50.

Second, the same concentration that produces Applicants' claimed single-line benefits would spread any failure across the national rail network and leave shippers without an independent carrier to turn to. Third, Applicants' service assurance plan and arbitration program cannot mitigate these risks. Applicants commit to no measurable level of service at all. Their arbitration program then shuts out most shippers entirely, covering only non-exempt tariff traffic and, thus, excluding the far larger volumes that move under contract or as exempt commodities. It also caps relief, leaving shippers to absorb the facility shutdowns and consequential losses where service failures inflict the most harm. The risk is real, its reach is national, and the remedy is empty.

1. This merger is likely to cause serious transitional service disruptions despite Applicants' planning.

The Board's rules deem potential transitional service problems as a harm that "substantial and demonstrable gains in important public benefits" must outweigh for a merger to serve the public interest.[319] Applicants answer that test with a categorical prediction that they "do not expect customers to experience any merger-related service disruptions," and the merger will deliver its benefits "without causing service degradation."[320] They are "confident that this program will never need to be invoked."[321] Those predictions are nothing new. In 2000, UP itself

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[319] 49 C.F.R. §§ 1180.1(c), 1180.1(c)(2)(iii).

[320] Rev. Appl. 2-1004 (Turner SAP (2d Errata) ¶ 332); *see id*. at 2-857 (Turner SAP (2d Errata) ¶ 13).

[321] July 27 Suppl. 9.

told the Board that "no rational merger applicant would predict that its merger would cause service failures on any carrier."[322] UP also said in its 2000 filing that "service problems have followed every major railroad merger in recent years," and because "service disruptions are so likely to follow Class I mergers," a merger without public benefits "must be judged contrary to the public interest."[323] The Board's own record proves UP right. The Board should not take on faith Applicants' promise that this merger will be different.

The Board found in 2001 that "transitional service disruptions are likely,"[324] because four recent mergers had disrupted service despite strong incentives, extensive planning, and phased implementation. The finding took five words: "Transitional service disruptions are likely." The Board explained that CSX and NS's division of Conrail caused severe service problems that plagued the applicants and their customers for a full year or more, that the UP/CNW and BN/SF transactions were also accompanied by disruptions, though less severe ones, and that UP/SP belonged on the same list.[325] The Board had already observed that

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[322] Union Pacific's Reply Comments at 16, *Major Rail Consolidation Procedure*s, EP 582 (Sub-No. 1) (filed June 5, 2000) (UP Initial Reply).

[323] UP Initial Reply at 43–44.

[324] *Major Rail Consolidation Procedure*s, 5 S.T.B. at 557.

[325] *Id.* at 557-58.

merger integration "has, in a number of recent instances, been associated with severe service dislocations."[326] The pattern was not bad luck. It was the record.

The Board specifically rejected the argument Applicants make now: that end-to-end combinations should not raise significant service issues. In 2001, the Class I railroads argued that "future merger proposals would likely be for relatively simple end-to-end combinations that should not raise significant service issues."[327] The Board found disruptions likely anyway. Applicants now revive the argument. They say their "end-to-end combination will reduce the risk of service disruptions, not cause them," and UP's chief executive has echoed this, saying "{{ }}."[328] Applicants add that their integration will be staged, reversible, and planned with modern tools.[329] The Board has heard that, too. It found disruption likely "despite substantial planning by applicants in conjunction with this agency and the Federal Railroad Administration (FRA), and despite carefully phased and delayed implementation."[330] Planning did not prevent the last round of failures.

Applicants' own executives describe UP's last major merger as a {{ }} and {{ }}

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[326] CPKC Decision, slip op. at 181 (Primus, Board Member, dissenting) (quoting *Major Rail Consolidation Procedure*s, 4 S.T.B. 570, 572 (2000)).

[327] *Major Rail Consolidation Procedure*s, 5 S.T.B. at 558.

[328] Rev. Appl. 2-1007 (Turner SAP (2d Errata) ¶ 341); Vena Dep. 321:2-3, Oct. 20, 2026 (Ex. 4).

[329] Rev. Appl. 2-862 to 2-863, 2-1008 to 2-1009 (Turner SAP (2d Errata) ¶¶ 27, 345).

[330] *Major Rail Consolidation Procedure*s, 5 S.T.B. at 558.

[redacted]. UP has said as much in public. In the 2001 rulemaking, UP referred to "a service failure, as UP did after the SP merger,"[331] and it told the Board that after its 1997–98 service crisis it "paid hundreds of millions of dollars" in substitute-transportation costs to its customers.[332] UP's deposition testimony is blunter. Asked about the UP/SP result, UP's witness Mr. Rynaski answered: [redacted] The [redacted] was in [redacted][333] He agreed that [redacted][334] and that UP/SP's problems were [redacted][335] A UP presentation quoted [redacted][336] and Mr. Rynaski conceded that [redacted][337]

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[331] Union Pacific's Closing Comments at 17, *Major Rail Consolidation Procedure*s, EP 582 (Sub-No. 1) (filed Jan. 11, 2001) (UP Closing Cmts.).

[332] Union Pacific's Comments and Initial Proposals at 6, *Major Rail Consolidation Procedure*s, EP 582 (Sub-No. 1) (filed May 16, 2000) (UP-1) (UP Initial Cmts.).

[333] Rynaski Dep. 189:23–190:12, Sept. 9, 2026 (Ex. 5).

[334] *Id.* at 188:12-14.

[335] Rynaski Dep. 188:24–189:1, Sept. 9, 2026 (Ex. 5).

[336] *Id.* at 187:24-188:3.

[337] Rynaski Dep. 188:8-9, Sept. 9, 2026 (Ex. 5).

This merger would involve the first transcontinental integration, spanning three years while the merged carrier moves NS onto UP's operating systems and rules as traffic grows. Applicants call the combination "America's first transcontinental railroad,"[338] and they do not expect full implementation "until three years after the merger is authorized."[339] During those three years, Applicants will deploy NetControl—UP's operating system—across NS in Years 2 and 3, with rollback contingencies.[340] Applicants name the risks themselves: "malfunctioning features, inaccurate or incomplete data migration," and others, "all of which can disrupt service."[341] They concede that any change to train and blocking plans or any yard rationalization "creates a risk of service degradation," they identify traffic changes, procedures, and IT systems as the three areas of merger risk, and they plan heightened vigilance when "legacy NS employees become subject to legacy UP operating rules."[342] Applicants answer that UP implemented NetControl on its Alton & Southern subsidiary "without service disruption" and rolled out its CADX dispatching system "without service interruption."[343] Those efforts involved a single subsidiary and an incremental dispatch rollout on UP's own network. NS is a

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[338] Rev. Appl. 1-15.

[339] *Id*. at 2-856 (Turner SAP (2d Errata) ¶ 11).

[340] *Id*. at 2-947 (Turner SAP (2d Errata) ¶¶ 178–80).

[341] *Id*. at 2-949 (Turner SAP (2d Errata) ¶ 187).

[342] *Id*. at 2-858 to 2-859, 2-1005, 2-1036 (Turner SAP (2d Errata) ¶¶ 16, 336, 415).

[343] *Id*. at 2-954 (Turner SAP (2d Errata) ¶¶ 200–01).

separate Class I railroad with its own systems, employees, and rules—and UP/SP failed on {{ }}[344] The most recent Class I merger shows the risk: more than two years after the Board approved the CPKC merger, the Board's Chairman required CPKC to file a Service Action Plan to address "technology changeover-related service disruptions," citing higher terminal dwell, slower average velocity, and lower on-time performance and industry spot and pull.[345]

NS's own network faltered in early 2026, and NS's CEO testified that NS is less resilient today than it was a year ago. Mr. George testified that NS's network {{ }} that service {{ }} and that NS had {{ }}[346] The problems began {{ }}[347] Velocity {{ }} and {{ }}[348] He traced the root cause to {{ }}

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[344] Rynaski Dep. 188:24–189:1, Sept. 9, 2026 (Ex. 5).

[345] Letter from Patrick J. Fuchs, Chairman, STB, to Keith Creel, President & CEO, Canadian Pac. Kan. City Ltd., FD 36500 (Sub-No. 6), at 1 (June 17, 2025) (Fuchs Ltr.).

[346] George Dep. 276:8-14, Sept. 17, 2026 (Ex. 6).

[347] George Dep. 277:7-8, Sept. 17, 2026 (Ex. 6).

[348] George Dep. 41:18-19, Sept. 17, 2026 (Ex. 6).

[redacted] and {{[redacted]}}[349] NS is, in his words, {{[redacted]}} and {{[redacted]}}[350] Applicants will answer that NS service reached an all-time high in 2024 and that NS has not since faced serious disruptions like those in 2023.[351] That answer proves the point. A network that swung from record service in 2024 to {{[redacted]}} in early 2026 offers no stable base for a three-year integration.[352]

Further, Applicants built their capacity and service projections without an on-the-ground review of NS's network, call them preliminary, and expect them to change. The sponsor of the Service Assurance Plan testified that Applicants did not prepare the plan {{[redacted]}} as the later on-site review of NS's network, and that the plan does not capture the learnings from that review: {{[redacted]}}[353] He agreed that the plan might be different if actual capacity differs from the projections: {{[redacted]}}[354] Asked whether Applicants had developed short-term

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[349] George Dep. 43:12-22, Sept. 17, 2026 (Ex. 6).

[350] George Dep. 45:7-13, Sept. 17, 2026 (Ex. 6).

[351] George Dep. 51:1-3, Sept. 17, 2026 (Ex. 6); Elkins Dep. 87:22-24–88:1, 108:9-20, Sept. 9, 2026 (Ex. 7).

[352] George Dep. 44:12-45:5, 276:11-12, Sept. 17, 2026 (Ex. 6).

[353] Turner Dep. 225:3-13, Sept. 2, 2026 (Ex. 8).

[354] Turner Dep. 229:8-14, Sept. 2, 2026 (Ex. 8).

contingency transportation plans, he answered: {{ }}[355] Applicants' witness Mr. Barr testified that {{ }}.[356] Applicants' sponsor nevertheless says he is {{ }} because Applicants built in buffers.[357] The plan itself says Applicants' plans "will continue to develop and evolve," and its sponsor agreed that planned transit times reflect only preliminary expectations.[358] The Board found in 2001 that disruptions occurred "despite substantial planning by applicants."[359]

The most recent Class I merger underscores the risk. It disrupted service for customers[360] and reduced capacity on a jointly operated NS line. NS's chief marketing officer testified that after the CPKC merger there were {{ }} on the Meridian Speedway,

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[355] Turner Dep. 337:2-6, Sept. 2, 2026 (Ex. 8); *see* 49 C.F.R. § 1180.10(i) (applicants "must provide evidence that contingency plans would be in place to promptly restore adequate service levels").

[356] Barr Dep. 203:6-21, Sept. 3, 2026 (Ex. 9).

[357] Turner Dep. 241:1-11, Sept. 2, 2026 (Ex. 8).

[358] Rev. Appl. 2-856, 2-869 (Turner SAP (2d Errata) ¶¶ 11, 40); Turner Dep. 170:17-22, Sept. 2, 2026 (Ex. 8).

[359] *Major Rail Consolidation Procedure*s, 5 S.T.B. at 558.

[360] Fuchs Ltr. at 1.

some of which CPKC implemented.[361] JSA's witness Ms. Burchfield likewise observes that CPKC "has suffered its own integration challenges."[362] Although Mr. Elkins also cited the post-COVID economy and NS's own service problems,[363] the lesson holds: integration on one railroad reaches its partners' lines.

Serious disruption would fall hardest on JSA members, whose chemical, refining, and fertilizer facilities depend on rail and cannot quickly shift to other modes. Just-in-time chemical and fertilizer receivers have the least room to absorb late or erratic service. Applicants agree that chemical customers "lease and own some of the most expensive railway equipment in the North American fleet" and "ship some of the most expensive commodities on the rails."[364] UP itself has priced the cost of slower service. It told the Board that if manifest cycle times increase by 24 hours, customers would need to add 3,200 railcars, and it relayed a chemical customer's estimate that one extra day of transit costs $100,000 a year in railcar lease costs and $350,000 a year in inventory carrying costs.[365] UP supplied those

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[361] Elkins Dep. 130:21–131:15, Sept. 9, 2026 (Ex. 7).

[362] Burchfield V.S. ¶ 20.

[363] Elkins Dep. 131:8-11, Sept. 9, 2026 (Ex. 7).

[364] Rev. Appl. 1-321 (Rocker/Elkins V.S. (2d Errata) ¶¶ 103-04).

[365] *Reciprocal Switching for Inadequate Rail Serv.*, EP 711 (Sub-No. 2), slip op. at 45 (STB served Apr. 30, 2024) (EP 711 (Sub-No. 2)), *vacated sub nom. Grand Trunk Corp. v. ST*B, 143 F.4th 741 (7th Cir. 2025) (quoting UP testimony, Hr'g Tr. 287:9–16, *Reciprocal Switchin*g, EP 711 (Sub-No. 1) (Mar. 15, 2022)).

numbers, and they price a single day of delay without asking whether a shipper could even acquire the equipment in time to handle a disruption.

Applicants answer those costs with assurances: careful planning, rollback options, and a problem-resolution team. Assurances like these did not prevent prior merger disruptions. Applicants promise not to make merger-related changes that cannot be reversed, and they promise a special problem resolution team if trouble appears.[366] Their executives describe backup routes, substitute yards, additional crews and locomotives, and a requirement to roll back any change that does not perform as expected.[367] The Board has heard such assurances before. In the Conrail decision, Chairman Morgan wrote: "I am confident that this merger will be implemented smoothly and will result in overall service improvements in relatively short order."[368] Three years later, the Board found that the same transaction "resulted in severe service problems that plagued applicants and their customers for a full year or more."[369] Railroads say they have learned from the 1990s. So had CSX and NS in 1998: they planned "in conjunction with this agency and the Federal Railroad Administration," and that planning still fell short.[370]

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[366] Rev. Appl. 2-862 to 2-863, 2-1036 to 2-1040 (Turner SAP (2d Errata) ¶¶ 27, 418–26).

[367] Rev. Appl. 1-340 to 1-342 (Rocker/Elkins V.S. (2d Errata) ¶¶ 149-50).

[368] *Conrail*, 3 S.T.B. at 382 (Morgan, Chairman, commenting).

[369] *Major Rail Consolidation Procedure*s, 5 S.T.B. at 558.

[370] *Id*.

Applicants may answer that the Board itself once cleared mergers of blame for the worst of those failures. In Service Order 1518, the Board found that inadequate infrastructure caused the 1997 Houston-area emergency "in large measure," and stated that "there is no reason to believe that rail mergers, in and of themselves, result in systemic service problems."[371] That decision does not help Applicants. It answered a different question—whether to order emergency restructuring under 49 U.S.C. § 11123—not how to weigh merger risk in an approval proceeding.[372] And the same decision found that "merger-related operational integration issues may have played a role" and that integration "can take years."[373] Three years later, after a rulemaking built on that experience, the Board listed UP/SP among the disrupted mergers and found disruptions likely.[374] UP itself described "a service failure" after the SP merger, and its witness now calls the result a {{[redacted]}} tied to technology implementation.[375]

The record thus shows that transitional disruption is likely, not speculative. The Board should give that likelihood substantial weight, because Applicants concede transitional disruptions can negate the shipper benefits they claim.

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[371] *Joint Pet. for Serv. Orde*r, 3 S.T.B. 28, 34 (1998) (Service Order 1518).

[372] *Id*. at 29, 35.

[373] *Id.* at 32 & n.9.

[374] *Major Rail Consolidation Procedure*s, 5 S.T.B. at 558.

[375] UP Closing Cmts. at 17; Rynaski Dep. 188:12–190:14, Sept. 9, 2026 (Ex. 5).

Applicants themselves invoke the principle that "transitional service disruptions might temporarily negate any shipper benefits."[376] Here the integration will run three years,[377] and {{ }}.[378] A harm the rules require the Board to weigh, that Applicants concede can cancel the benefits, and that history shows can last for years deserves substantial weight. The next section shows why a disruption on this network would spread farther than in any past merger.

2. The same concentration that produces Applicants' claimed single-line benefits would spread any network failure across the national rail system and leave shippers without an independent carrier.

Applicants' case depends on moving east-west traffic off interline routes and onto one integrated network, so their claimed benefits and this risk come from the same concentration. UP's witness testified that the largest opportunities {{ }} which {{ }} in rail-to-rail and truck-to-rail conversions.[379] NS's chief executive agreed that single-line service is the {{ }}.[380] Today, interline shipments

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[376] July 27 Suppl. 29 (citing 49 C.F.R. § 1180.1(c)-(d)).

[377] Rev. Appl. 2-856 (Turner SAP (2d Errata) ¶ 11).

[378] Rynaski Dep. 184:5–188:9, Sept. 9, 2026 (Ex. 5) (discussing Rynaski Dep. Ex. 131).

[379] Rynaski Dep. 285:3-10, Sept. 9, 2026 (Ex. 5).

[380] George Dep. 255:12-14, Sept. 17, 2026 (Ex. 6).

make up more than 40% of UP's traffic, and interline shipments with NS slightly more than 10%.[381] Applicants also project roughly 1.93 million carloads and intermodal units a year in gross diversions to UP/NS.[382] Single-line service may eliminate interchanges for that traffic, but it puts all that traffic on one network and exposes it when that network fails.

Applicants concede that merger risk is highest at the Chicago, St. Louis, Kansas City, Memphis, and New Orleans gateways, the junctions that carry the nation's east-west traffic. In their words, the risk of merger-related disruption "would be highest at the classification yards and intermodal terminals with the most merger-related operational changes," and those facilities sit in these five gateways.[383] Applicants will also use the Kansas City–Butler main line "for the first time as a significant route" between the two systems.[384] The same five gateways carry interline flows of every Class I railroad.[385] Applicants' list of their riskiest points is the list of points the rest of the network depends on most.

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[381] Rev. Appl. 2-943 (Turner SAP (2d Errata) ¶ 162).

[382] Rev. Appl. 2-404 to 2-405 (Hunt V.S. (2d Errata) ¶ 3 & Ex. 2-4).

[383] Rev. Appl. 2-1032 to 2-1033 (Turner SAP (2d Errata) ¶ 409).

[384] *Id*.

[385] Rev. Appl. 1-296 to 1-297 (Rocker/Elkins V.S. (2d Errata) ¶ 59) (network "artificially split between east and west, forcing freight to pass through interchange points like Chicago, St. Louis, Memphis, and New Orleans").

A failure at these gateways will reverberate throughout the national rail network. On an integrated network, a failure at one point spreads to other yards and corridors, and resetting the network takes cooperation across the industry. Applicants say so. They describe how, without a reroute, congestion at New Orleans can "compound and spread" to other main lines and terminals.[386] Their witness agreed that changes at one yard {{[redacted]}}—{{[redacted]}}—and that after the merger a disruption at {{[redacted]}} would affect {{[redacted]}} and {{[redacted]}}.[387] JSA's witness Ms. Burchfield explains the consequence: "When one rail carrier in an integrated network is disrupted, it requires the entire network in cooperation to reset it."[388] Past merger disruptions stayed "geographically constrained," but a disruption here would reach "the east-west interchange of all transcontinental traffic."[389]

Applicants' remedies give a shipper no way out of a failing merged network; Applicants concede the Targeted Access Program cannot let a shipper avoid the merged carrier. That program offers expedited reciprocal switching during merger-related disruptions and thus "would not enable shippers to avoid use of the merged carrier, because the merged carrier would still provide first-mile or last-mile service

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[386] Rev. Appl. 2-1012 to 2-1013 (Turner SAP (2d Errata) ¶ 355).

[387] Barr Dep. 349:11-350:2, Sept. 3, 2026 (Ex. 9).

[388] Burchfield V.S. ¶ 22.

[389] Burchfield V.S. ¶ 173.

to shipper facilities."[390] Several limits also sharply narrow the program's protections: it reaches only sole-served shippers in terminal areas; it excludes contract, unit-train, and intermodal traffic; switching lasts six months; and the program ends three years after approval.[391] Most traffic falls outside it: {{ }} of UP and NS single-line traffic in 2024 moved under a contract or other non-tariff arrangement.[392] Applicants may point to expanded Committed Gateway Pricing, which caps certain interline rates to existing gateways, as giving some shippers an alternative routing.[393] But Applicants concede that program "was not designed to address merger-related service disruptions,"[394] and it still leaves the merged carrier at one end of the move.

Applicants' contingency plans fare no better. They rely on detours over other railroads and on those railroads' cooperation, yet the merger weakens those carriers and leaves fewer independent railroads to help. For each high-risk gateway and

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[390] July 27 Suppl. 51.

[391] July 27 Suppl. 127–28*; i*d. at 195 (App. A § 13.1); *see also* Olin Comments at 10 (TAP "sets unfairly high triggering thresholds that make reciprocal switching extremely difficult to obtain," excludes contract traffic, and, "[b]ecause nearly all of Olin's rail traffic moves under contract, … offers Olin little protection"); LyondellBasell Comments at 14-15 (TAP and the ADR Program exclude contract traffic, which "includes a majority of LyondellBasell's traffic"); Hark V.S. ¶ 17 (TAP and the ADR Program "do not apply to contract traffic").

[392] Israel Dep. 121:18-22, Oct. 15, 2026 (Ex. 1).

[393] July 27 Suppl. 52.

[394] *Id.* at 22–23.

corridor, Applicants list alternate main lines, "including lines requiring detours over other railroads."[395] The combined company "will continue to seek cooperation from other carriers."[396] The Board foresaw that railroads cannot take this cooperation for granted, stating in its 2001 final merger rules: "Any further decrease in the number of major independent railroads from which to obtain assistance would make inter-carrier cooperation increasingly important."[397] This merger is that decrease. And as Part III explains, the merger's fixed-cost transfers and linehaul erosion would raise those rivals' costs and could lead them to "increase rates, reduce service frequency, or both."[398]

With fewer outside carriers to help, Applicants may respond that pooled resources and internal rerouting options make their merged network more resilient. But that resilience depends on the integration succeeding first. Applicants predict the combined company "will be more resilient" and will gain new options for rerouting traffic,[399] that "routing optionality" will "strengthen resiliency,"[400] and that New Orleans traffic could be rerouted through Memphis.[401] While a larger

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[395] Rev. Appl. 2-1034 (Turner SAP (2d Errata)).

[396] Rev. Appl. 2-1041 (Turner SAP (2d Errata) ¶¶ 431–32).

[397] *Major Rail Consolidation Procedure*s, 5 S.T.B. at 562.

[398] Burchfield V.S. ¶ 102 & Part III.D.

[399] Rev. Appl. 2-1003 (Turner SAP (2d Errata) ¶¶ 329–30).

[400] *Id*. at 2-1007 (Turner SAP (2d Errata) ¶ 341).

[401] *Id*. at 2-1012 to 2-1013 (Turner SAP (2d Errata) ¶ 355).

network does offer more places to send traffic, internal rerouting runs on the same crews, rules, dispatching, and IT systems Applicants will spend three years integrating.[402] And the reroute points are the same five gateways Applicants identify as their highest risk.[403] This backup shares the weak points of the network it backs up.

Nor does any claimed single-line reliability fill the gap. Fewer handoffs in normal operations do not make a single network better able to withstand a failure. Applicants argue that more interchanges mean more missed handoffs, and that the merger eliminates handlings.[404] JSA's point is different. It concerns concentration, not handoffs: when the single network fails, no independent routing remains to absorb the traffic. Reliability on a normal day says little about resilience on a bad one.

Because a failure here would spread farther than in any prior merger and leave shippers no way out, Applicants' service commitments matter more than ever. Yet those commitments fall short. UP itself recognized the stakes in 2001, proposing merger-harms rule text that kept the Board's statement that "[c]onsolidation can also threaten essential services and the reliability of the rail network."[405] UP also

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[402] *Id.* at 2-947 to 2-948, 2-1036 (Turner SAP (2d Errata) ¶¶ 178-83, 415).

[403] *Id.* at 2-1032 to 2-1033 (Turner SAP (2d Errata) ¶ 409).

[404] Rev. Appl. 2-415 to 2-416 (Hunt V.S. (2d Errata) § 3.3 & Ex. 3-6); Rev. Appl. 2-1003 to 2-1004 (Turner SAP (2d Errata) ¶ 331).

[405] UP Closing Cmts. at 5.

urged that the Board include "long-term damage to service" in the harms that it weighs.[406] The next section shows that Applicants commit to no measurable level of service at all.

3. Applicants' service assurance plan and arbitration program are inadequate to mitigate the service risks.

a. Applicants' Service Assurance Plan cannot detect or promptly contain service failures.

The Board's rules require a service assurance plan, built on Applicants' own projections, that identifies where service is at risk and shows how adequate service would be promptly restored. Section 1180.10(i) requires contingency plans to address merger-related service disruptions and to "promptly restore adequate service levels," and § 1180.10(c) requires applicants to estimate expected dwell times at their principal classification yards and major terminals.[407] Measured against Applicants' own service projections, the Service Assurance Plan is inadequate.

First, its contingency plan triggers may not activate until service deteriorates significantly. Applicants project that post-merger dwell at legacy UP principal classification yards "will range between 20 and 26 hours under typical operating conditions," and at legacy NS yards "between 26 and 32 hours."[408] But Applicants

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[406] *See* Union Pacific's Reply Comments on Proposed Merger Rules at 21-22, *Major Rail Consolidation Procedure*s, EP 582 (Sub-No. 1) (filed Dec. 18, 2000) (UP NPRM Reply).

[407] 49 C.F.R. § 1180.10(c), (i).

[408] Rev. Appl. 2-892 (Turner V.S. (2d Errata) ¶ 76).

do not activate their contingency response until the previous month's dwell at a principal classification yard exceeds 29 hours on legacy UP or 36 hours on legacy NS.[409] Those thresholds sit 3 hours above the top of Applicants' projected UP range and 4 hours above the top of the projected NS range, respectively. A yard could therefore deteriorate from the bottom of its projected range to well past the top of it—a swing of up to 9 hours on UP (45% increase) and 10 hours on NS (38% increase)—and the Plan would treat that yard as healthy.

Additionally, these triggers are delayed. They run on the prior month's average dwell,[410] so a yard can deteriorate for weeks before the dwell times exceed the trigger.

Section 1180.10(i) asks how Applicants will "promptly restore adequate service levels." A trigger that is not tied to any yard's projected performance and that reports only after a month of averaged data is not designed to see service degrade fast enough to restore service promptly.

Second, the yard and terminal "estimates" that Applicants use in their plan are uniform ranges, not the facility-specific estimates § 1180.10(c) requires. Section 1180.10(c) requires applicants to estimate what dwell times will be at their principal classification yards and major terminals after the merger's operational changes are implemented, noting the "operational fluidity of yards and terminals is key to the successful implementation of a transaction and effective service to

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[409] *Id.*

[410] Rev. Appl. 2-1036-1037 (Turner V.S. (2d Errata) ¶ 418).

shippers." Yet Applicants assign every legacy UP principal classification yard—from North Little Rock to Pine Bluff—the identical dwell range of 20 to 26 hours and on-time origination range of 40% to 90%, and every legacy NS yard the identical 26 to 32 hours and 25% to 75%.[411]

A range applied identically to every facility on a legacy network is not an estimate for any of them, and it cannot be, given Applicants' own volume projections. The Growth Plan changes workloads at these yards by widely different amounts, from reductions of 171 cars per day to increases of 482.[412] It leaves some yards with hundreds of cars per day of headroom and others, such as Livonia, Gateway Yard, and North Little Rock, with 6, 13, and 16.[413] A yard projected to run within a few cars of capacity and a yard projected to lose volume cannot both be expected to produce the same dwell. The ranges are also wide: a 4- to 6-hour dwell band and a 50-point on-time band span most of what the yards experienced before the merger. A forecast that covers nearly every outcome tells the Board nothing about whether the merger's operational changes will degrade service at any particular yard.

The uniform ranges also explain why the contingency plan triggers for yards fail. Because Applicants never estimated dwell yard by yard, they fell back on a

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[411] Rev. Appl. 2-891 (Turner V.S. (2d Errata) Table 12).

[412] Rev. Appl. 2-882 to -883 (Turner V.S. (2d Errata) Tables 4–5).

[413] Rev. Appl. 2-885 (Turner V.S. (2d Errata) Table 6).

network-wide threshold chosen "for manageability purposes."[414] The § 1180.10(c) deficiency and the § 1180.10(i) deficiency are the same failure seen from two sides.

Taken together, these failures leave the Board without the showing its rules require. Applicants have not estimated post-merger service at the facilities where the merger concentrates traffic. And the measure they would watch to determine whether to intervene has a monthly lag. Applicants' Plan is not designed to ensure that disruptions would be promptly contained, placing shippers across the network at risk.

b. The Applicants' proposed arbitration program excludes the vast majority of traffic and is subject to a relief cap that insulates them from serious service blunders.

In the 2001 Rules, the Board expressly declared that conditions are appropriate to offset the potential harm caused by transitional service disruptions.[415] With respect to claims arising from such disruptions, the Board adopted the following rule at 49 C.F.R. § 1180.1(h)(5):

> Service failure claims. Applicants must suggest a protocol for handling claims related to failure to provide reasonable service due to merger implementation problems. Commitments to submit all such claims to arbitration will be favored.

The Board added this requirement in response to extensive transitional service disruptions following several prior mergers that crippled the applicants' networks

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[414] Rev. Appl. 2-1037 (Turner V.S. (2d Errata) ¶ 419).

[415] 49 C.F.R. § 1180.1(d).

for long periods and had spill-over effects for the national rail network. The brunt of those disruptions was felt by rail customers who suffered enormous damage with little or no recourse to recover damages from the applicants.

Although the Applicants agree to arbitrate some claims, there are so many restrictions upon their commitment that they render it worthless.[416] To be meaningful, Applicants must accept liability for all damage claims that are caused by or arise from transitional service disruptions, including contract and exempt traffic, and any arbitration program must extend to all such claims. The Applicants' arbitration program "applies only to non-exempt commodities shipped under tariff service (not contract service or exempt commodities, unless otherwise agreed)" and permits only the recovery of direct damages.[417] These restrictions effectively disclaim liability for most transitional service disruption claims since far more traffic is either exempt or covered by contracts.[418] And even for eligible traffic, the program's 30-day cure period excuses Applicants from the short-duration disruptions that shippers routinely experience and that can shut down a single-

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[416] *See* Rev. Appl., Vol. 2, Service Assurance Plan, App. B.

[417] *Id*. App. B §§ 6.1–6.2, 6.5.

[418] See LyondellBasell Comments at 14-15 (contract traffic "includes a majority of LyondellBasell's traffic," and LyondellBasell's existing contracts with UP and NS "do not include service performance requirements or remedies"); Olin Comments at 8, 10 ("[v]irtually all of Olin's rail traffic moves under confidential contracts that contain no enforceable service standards and exclude carrier liability for service failures," leaving "almost all of Olin's traffic outside [the arbitration program's] protection"); Hark V.S. ¶ 17; Trombetta V.S. ¶ 9 (Arkema's rail contracts with UP do not include service standards).

served facility within days.[419] The Applicants' liability also must extend to indirect and consequential damages – *e.g.*, the consequences of facility shutdowns or related curtailments of production – which is where the most severe damages accrue to shippers from rail service disruptions.[420] This is fair because only the Applicants can ensure a smooth transition and shippers have not requested and did not bargain for this merger.

Applicants blithely assert that contract and exempt customers don't require protection because they can pursue contract remedies or revocation of the applicable exemption.[421] Neither customer group, however, has bargained for this merger and many oppose it. And, because even tariff customers have existing tariff remedies absent this condition, the Applicants' distinction of contract and exempt traffic on

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[419] See Comments of The Lubrizol Corp. at 7 (both programs "give applicants a pass for service disruptions that they fix within 30 days"; a two-week September 2026 NS disruption forced Lubrizol to shut down its Louisville facility for 163.5 hours, and its single-served Louisville and Pasadena facilities can operate only about 3-4 days during a rail service failure); Hark V.S. ¶¶ 16-17 (a CPKC-integration disruption lasting just over three weeks would not have been covered because the programs apply only to disruptions lasting more than 30 days); LyondellBasell Comments at 15 ("[b]y the time a service failure has persisted for 30 days, production rates likely will have been reduced, and in some instances operations may have been partially or fully curtailed"); see also Gebo V.S. ¶ 17; Vogt V.S. ¶ 16.

[420] See Olin Comments at 8, 10 (2026 NS and UP service breakdowns forced production curtailments and lost sales, and for single-served facilities "a limited after-the-fact damages claim does nothing to keep those plants operating"); LyondellBasell Comments at 15 ("the ADR Program caps monetary relief, even though a shipper's actual damages from a service failure are not similarly limited"); Gebo V.S. ¶ 18 (a recent disruption contributed to a {{ }} production cut costing Dow approximately {{ }} pounds of product).

[421] July 27 Suppl. 126-27.

the grounds that they already have remedies is illogical. The purpose of this merger rule is to protect all shippers regardless of their traffic's status as tariff, contract, or exempt. Given that railroads seldom accept much, if any, responsibility for service claims in their contracts or their tariffs, it is essential that Applicants accept such liability for transitional service disruption claims as a merger condition if the Board is to fulfill the objective of the 2001 Rules. Otherwise, those restrictions will exclude most potentially affected movements, which contravenes the very purpose of 49 C.F.R. § 1180.1(h)(5) to address "all such claims" for merger-related service disruptions.[422]

IV. Because The Conditions Required to Address the Anticompetitive Effects of This Merger Would Restructure Both the Rail Industry and This Transaction, The Board's Only Option Is to Deny It.

The JSA strongly urge the Board to deny the merger application. There are no conditions that can sufficiently mitigate the harmful effects of this merger. Overcoming the scale and scope of this merger's competitive harms would require a wholesale restructuring of the rail industry. And Board precedent plainly states that, "we should not use our conditioning powers to make consolidation proceedings vehicles for rail system restructuring… [because]… [t]o do so would not be consistent with the Congressional intent underlying the statutory scheme governing

[422] Although the rule "favors" but does not "require" commitments to submit all service disruption claims to arbitration, the Applicants' failure to do so remains a factor in the public interest assessment and the Board could impose a condition that effectively would make this a requirement of approval.

railroad consolidations."[423] Furthermore, the Board's "conditioning power should not be used to restructure a transaction beyond the scope proposed by applicants."[424] Because the conditions required even to begin to address the anticompetitive effects of this merger would restructure both the rail industry and this transaction, the Board's only option is to deny it.

In the 2001 Rules, the Board declared, "[w]e are acutely aware that, as we approach the 'end-game,' the price for any failure would be high."[425] That is why the 2001 Rules set a higher bar for approving major rail mergers. The Board must not risk the substantial uncertainties surrounding the scope and efficacy of the most critical competitive conditions, precisely because of the high price for any failure. And that also is why the JSA ask the Board to deny this merger rather than approve it with conditions.

In the following subparts A and B, the JSA identify the types of broad structural conditions that are necessary for a vertical merger of this scale and explain why neither those conditions nor the Applicants' proposed conditions are adequate to effectively address the vertical foreclosure risks that this merger presents. Following that, if the Board nevertheless approves the merger despite stakeholder objections, the JSA identify a *minimum* set of conditions in subpart C. to mitigate the enormous threats to competition that this merger presents as much

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[423] *UP Control*, 366 I.C.C. at 564.

[424] *Id*. at 565.

[425] *Major Rail Consolidation Procedures*, 5 S.T.B. at 560.

as may be possible. Make no mistake that such conditions will only minimally address harm and will not stop the detrimental fallout described in these comments. In no way do the JSA deem these conditions sufficient to satisfy the public interest standard for approving this merger.

A. No condition can meaningfully alleviate the harmful effects of this merger.

The "Consolidation criteria" in the 2001 Rules declare that "[t]he Board must ensure that any approved transaction would promote a competitive, efficient, and reliable national rail system."[426] Rather than promoting this objective, the proposed merger undermines it. Similarly, the "Conditions" section, states that "[t]he Board seeks to enhance competition in ways that strengthen and sustain the rail network as a whole."[427] Thus, if the Board approves this merger, it must impose conditions that enhance competition in ways that counter the merger's harm to the rail network as a whole.

As discussed in Part III.A.2. above, this merger will permit the Applicants to engage in two forms of vertical foreclosure: (1) UP could completely foreclose CSX and BNSF interline routes with UP on all moves that create a new UP-NS single line route to competitively served destinations ("Traditional Foreclosure"), and (2) UP could short haul CSX and BNSF on all interline routes to CSX and BNSF destinations ("RRC Foreclosure"). The nearly complete overlap of the CSX and NS

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[426] 49 C.F.R. § 1180.1(b).

[427] 49 C.F.R. § 1180.1(d).

networks in the east and the BNSF and UP networks in the west means that nearly all interline movements between the Applicants and either CSX or BNSF are at risk.[428] Moreover, the network impacts will redound well beyond just the directly affected movements to all other CSX and BNSF traffic that will remain on those networks even when that traffic never touches the UPNS network. The tremendous consequences for the national rail network and the supply chains that rely on that network mean that any conditions to address this harm must be similarly broad.

The risk of vertical foreclosure derives from the extended long-hauls that the Applicants will achieve through this merger. The most effective conditions would restore neutrality to the Applicants' bottleneck segments by creating competition on all interline routes to and from the pre-merger gateways with BNSF and CSX for all traffic destined to BNSF- and CSX-served locations. This enhancement to competition is necessary to constrain the Applicants' ability to discriminate against interline routes via the pre-merger gateways in favor of their post-merger single line and long-haul interline routes. Specifically, the new rail competition on those bottleneck segments preserves a neutral rail carrier with which the downstream interline carrier can interchange traffic to receive a longer haul than it could when interchanging with the Applicants over their post-merger long-haul routes.

The development of such competition is challenging due to the scale that is necessary for this merger. The volume of traffic over which the Applicants will

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[428] CN and CPKC also will be affected, albeit on a smaller scale than CSX and BNSF.

achieve extended long-haul opportunities is immense due to the nearly complete overlap of the Applicants' networks with those of CSX and BNSF. And the new competition needed to mitigate the vertical foreclosure risk must apply on a comparable scale to be effective. This means that enhanced competition should extend, *to the greatest extent possible*, to all traffic over which the Applicants will obtain a longer haul from this merger.

There are three types of conditions that could be employed to enhance competition on UPNS pre-merger bottleneck route segments to preserve a neutral bottleneck carrier: (1) grant a second railroad access over the bottleneck segment, (2) prescribe reciprocal switching, and (3) repeal paper barriers. But these options, neither individually nor collectively, can reach all the requisite UPNS bottleneck segments. Therefore, a necessary supplemental condition is to impose an appropriate rate constraint upon the Applicants' rates for interline service over their pre-merger bottleneck segments to prevent them from favoring their post-merger long-haul routes through their pricing of the alternative pre-merger interline routes.

Even with the adoption of all these competitive enhancements and rate constraints, the JSA do not believe that they can adequately mitigate, much less remedy, the harm that this merger threatens to the national rail network.[429] As

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[429] For example, even if conditions succeed in creating competition over all origin bottleneck segments, CSX and BNSF still could lose significant traffic volume and face significantly shortened hauls for the remaining traffic and the resulting impact upon their revenue could force their captive traffic *(e.g.*, single-line traffic, interline

discussed in the following subparts, each of these conditions has significant limits and deficiencies that undermine their effectiveness, which is why the JSA urge the Board to reject this merger instead of imposing conditions.

1. Establish a competing railroad over bottleneck segments through trackage rights, shared assets, or terminal railroads.

The most direct means to establish a neutral carrier on the origin bottleneck segment are: (a) to grant alternative carriers, such as BNSF in the West and CSX in the East, access across the UPNS network via trackage rights to operate over the bottleneck segments to serve the affected traffic directly, or (b) to create joint facilities, such as shared asset areas or terminal railroads, that grant all connecting Class I carriers access to all traffic in the shared asset area or terminal railroad service territory. For eastbound traffic from captive UP locations to CSX destinations, trackage rights would grant BNSF the ability to transport that traffic between the captive UP locations and gateways with CSX, and for westbound traffic, grant CSX the ability to transport that traffic between captive NS locations and gateways with BNSF. Shared Asset Areas or terminal railroads would create a shortline railroad to provide all local train service within their service territories to pick up and deliver traffic to each of the Class I railroads. This option would require all the Class I participants, not just UP and NS, to open their closed facilities to the shortline. Both options could remove the Applicants' ability to discriminate against

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traffic with other railroads) to pay higher rates and/or suffer reduced service. *See* Part III.A.2.c. (the "RRC paradigm"); Burchfield V.S., Part III.D. & Figures 6-8.

the downstream carrier's long-haul route in favor of their own long-haul route through their rates and service.

There are multiple barriers to the effective implementation of such a condition, however, most of which are self-evident:

- The nationwide expanse of such a condition is unprecedented and raises operational issues that could vary significantly across the myriad locations.
- Without the cooperation of the Applicants, it is impossible to address the complexity of operations that would be required. The most comparable precedents from the BN/SF, UP/SP, and Conrail mergers were all negotiated agreements between the applicants and the alternative carriers. Those conditions also were regional, whereas this merger requires a nationwide remedy that spans the entire UPNS network or, at the very least, multiple regions of high traffic density. The Board is in no position to devise the terms of such a condition without the participation and cooperation of the Applicants and other Class I rail carriers.
- Both BNSF and CSX must be willing and able to provide the alternative service, which is a concern the Board expressed in the 2001 Rules.[430] The extent to which an alternative carrier would need to deploy personnel and assets beyond its existing service territory will have a significant bearing on its willingness and ability to provide effective alternative service.
- Ultimately, even if all the foregoing issues can be addressed sufficiently, the access fee or other cost to an alternative carrier to provide service must permit it to be competitive with UPNS.

The JSA are not positioned to develop such conditions because they are not railroads. Only the Applicants and the other Class I railroads can negotiate these arrangements and they have not done so.

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[430] *Major Rail Consolidation Procedures,* 5 S.T.B. at 557.

BNSF has proposed a condition in this mold, although the geographic scope of its proposal is insufficient to address the full scope of the problem.[431] Structured as a terminal railroad for all industries on the Texas/Louisiana Gulf Coast, this is the type of joint facility condition that is needed to establish a neutral origin carrier for a large volume of traffic on interline routes with the other Class I railroads and could be more effective than other forms of direct competition, such as trackage rights or reciprocal switching. But significant details are still lacking that preclude a full assessment. Unlike the BN/SF, UP/SP, and Conrail transactions, there is no final agreement to review and assess; indeed, there is only a description of a concept developed by just one of the necessary parties to any final agreement. Although the Applicants' cooperation is crucial, they deny the very need for any such condition. Furthermore, BNSF's proposal only would apply to traffic in the Gulf Coast region, which still omits a majority of the interline traffic that is vulnerable to vertical foreclosure and thus it is not of similarly broad scope to the merger's overall competitive impact.

Multiple similar arrangements would be needed across the UPNS network to accomplish that. Other Class I railroads also have filed descriptions of responsive applications that could create neutral carriers for incremental additional amounts of affected traffic, but cumulatively still would not equate to the broad scope of the

[431] BNSF Descr. of Responsive Appl. 9-10, Sept. 9, 2026 (BNSF-53).

merger's overall competitive impact.[432] Therefore, the barriers described above for such a condition appear insurmountable.

2. Establish universal reciprocal switching at bottleneck endpoints.

An alternative but less effective means to create competition over bottleneck route segments would be through reciprocal switching across the UPNS network. Where there is a nearby competitor within a terminal area, reciprocal switching establishes competition for most of the route from origins to gateways. This theoretically could mitigate vertical foreclosure impacts by preserving a neutral linehaul connection with downstream interline carriers in lieu of the Applicants, whose neutrality will be annulled by the merger, and enhancing the downstream carriers' (*e.g.*, CSX, BNSF) ability to compete against the Applicants for a longer haul.

Reciprocal switching, however, has significant limitations of both scope and effectiveness that constrain its ability to meaningfully reduce the vertical foreclosure effects of this merger.

- First, reciprocal switching is only available in terminal areas, and not all terminals are served by an alternative rail carrier. Therefore, a substantial volume of bottleneck UPNS interline traffic still would face increased foreclosure risks from the merger.

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[432] *See* CSXT Descr. of Anticipated Responsive Appls., Sept. 9, 2026 (CSX-25) (requesting various conditions to replace NS as a neutral carrier); CPKC Descr. of Anticipated Responsive Appls., Sept. 9, 2026 (CPKC-46) (seeking to serve local customers via various reciprocal switching and trackage rights requests).

- Second, reciprocal switching may not be operationally feasible or efficient in some terminals.[433] Both UP and the AAR have claimed that such problems cannot be addressed even through case-by-case adjudication.[434] Regardless, a case-by-case adjudication of any dispute is inimical to the objective and efficient application of reciprocal switching broadly across the UPNS network.

- Third, reciprocal switching still interposes the incumbent bottleneck carrier, UPNS, between the shipper and the alternative carrier for the provision of local and switching service. The additional handling renders the alternative carrier less competitive from the start, and it affords the incumbent carrier the opportunity to further disadvantage (*i.e.,* foreclose) the alternative carrier through the quality and frequency of its local and switching service.

- Fourth, reciprocal switching can only be effective if the switch rate enables the neutral alternative carrier to be competitive.[435] The Board

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[433] The following railroad comments from *Reciprocal Switchin*g, EP 711 (Sub-No. 1), raised a multitude of concerns with the feasibility and efficiency of mandated reciprocal switching operations: Union Pacific Railroad Company's Supplemental Comments at 3-5 (filed Apr. 4, 2022); Opening Comments and Evidence of Union Pacific Railroad Company at 40-45 (filed Oct. 26, 2016); Supplemental Comments of The Association of American Railroads at 37-43 (filed Feb. 14, 2022); Reply Comments of The Association of American Railroads at 15-20 (filed Jan. 13, 2017); Opening Comments of The Association of American Railroads at 34-37 (filed Oct. 26, 2016); Opening Comments of Norfolk Southern Railway Company at 50-55 (filed Oct. 26, 2016).

[434] *See* Opening Comments and Evidence of Union Pacific Railroad Company at 43-45, *Reciprocal Switchin*g, EP 711 (Sub-No. 1) (filed Oct. 26, 2016); Opening Comments of The Association of American Railroads at 37, *Reciprocal Switchin*g, EP 711 (Sub-No. 1) (filed Oct. 26, 2016).

[435] *See UP Contro*l, 366 I.C.C. at 590 (compensation terms for a trackage rights condition that are so onerous as to defeat the purpose cannot be considered just and reasonable); *St. Louis Sw. Ry.-Trackage Rights over Mo. Pac. R.R.-Kan. City to St. Loui*s, 1 I.C.C.2d 776, 779 (1984) ("[T]he key to the success of the conditions lies in the terms of compensation . . . ."); *St. Louis Sw. Ry.—Compensation—Trackage Right*s, 8 I.C.C.2d 80, 86, 92 n.21 (1991) (compensation must be low enough to offer an effective competitive alternative and high enough to maintain the route); *CSX Corp.—Control—Conrail Inc.* (Decision No. 109), FD 33388, slip op. at 8 (STB served Dec. 18, 1998) ("Any compensation established in this proceeding must put the tenant in the same competitive position as the owning carrier."); *BNSF Ry.—Terminal Trackage Rights—Kan. City S. Ry.* (Decision No. 16), FD 32760 (Sub-No.

> never has adopted a methodology for prescribing reciprocal switch rates; it would be very difficult to identify the appropriate rate, or rates, for all the eligible traffic that is at risk of foreclosure; and it is not appropriate to experiment with a new fee setting methodology in this proceeding because the price of failure would be both high and irreversible.

These limitations mean that reciprocal switching is of insufficient scope to address the harmful effects of the merger; is not a comparable competitive alternative to the Applicants' service because it requires more handling of the traffic than the Applicants' long-haul route and the Applicants can inject inefficiencies into their local and switching service to discourage shippers from selecting that option; and cannot be an effective remedy unless the switch rate allows the alternative carrier to be competitive.

Consequently, reciprocal switching is not a panacea. And even if the Applicants' interline partners (*e.g.,* CSX and BNSF) were to retain some portion of traffic on their long-haul routes under these conditions, they still could lose enough to cause serious harm. Therefore, inclusion of a broad reciprocal switching condition would not change the JSA's opposition to this merger.[436]

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46), slip op. at 3 (STB served July 21, 2026) (describing UP/SP merger as setting "a fee designed to allow BNSF to garner sufficient traffic and compete effectively with the newly merged UP/SP").

[436] Two Joint Shipper Association members, ACC and NITL, were the principal proponents and advocates of broader reciprocal switching in *Reciprocal Switchin*g, EP 711 (Sub-No. 1), and continue to support expanding shipper access to reciprocal switching. Their objective is to enhance competition relative to the *status qu*o, not to fix merger-related competitive harm. The proposed merger will cause substantial harm to the competitive *status qu*o and reciprocal switching cannot effectively mitigate that harm, much less enhance competition. Thus, to advance reciprocal

3. Repeal all paper barriers on the Applicants' networks.

Traffic from locations on shortlines that connect with UP and NS is affected by this merger in the same way as traffic that receives direct service from the Applicants. When a shortline has multiple physical connections to other rail carriers but cannot use them because of a paper barrier, eliminating that barrier immediately enhances competition by establishing the existing shortline as a neutral carrier at the origin for all downstream Class I railroad connections. For such traffic, the repeal of all paper barriers on the UPNS network could have the same effect as creating a new competitor over the Applicants' bottleneck segments or through reciprocal switching, but without the barriers and limitations associated with those conditions. It does not require new operations or additional interchanges, depend upon the Applicants' local or switching service, or require prescribed access or switching fees. These factors establish the shortline as a completely neutral and independent origin connection for the alternative Class I rail carrier promptly and efficiently. Unfortunately, the amount of traffic that might benefit from repealing all paper barriers on UPNS does not begin to approach the amount of traffic exposed to vertical foreclosure because it would apply only to movements that originate on shortlines with paper barriers that preclude or inhibit access to BNSF or CSX.

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switching as a condition in this proceeding would move competition one step forward and two steps backward.

4. Impose bottleneck rate constraints on all bottleneck segments where competitive access is impractical or unavailable.

Because the foregoing conditions to enhance competition by establishing a neutral rail carrier over gateway bottleneck segments can only reach a portion of the traffic at risk of vertical foreclosure, both individually and collectively, it also is necessary to constrain the line-haul rates that the Applicants can charge for transportation over those bottleneck segments that would not gain access to a neutral rail carrier post-merger. This supplemental condition is necessary to inhibit the ability of UPNS to use its bottleneck segment pricing to foreclose the alternative pre-merger routes that provide BNSF and CSX with longer hauls.

How to accomplish this for so many commodities over such a large geographic area, however, is complicated and its effectiveness difficult to gauge with confident foresight. Furthermore, even if it is possible to successfully overcome such obstacles to prevent foreclosure through pricing, UPNS still could foreclose routes over the pre-merger gateways through the quality and frequency of its local and switching service, its line-haul service over the bottleneck segment, and its interchange service at the gateway. It would be nearly impossible for the Board to police the UPNS service because rarely would such discrimination be overt and a carrier almost always is able to allege a plausible alternative explanation.[437]

[437] This is the same problem that shippers face to prove allegations of "retaliation" by rail carriers. *See, e.g.*, Letter from U.S. Senator Baldwin, July 17, 2026.

Furthermore, there is no precedent for imposing maximum line-haul rates as a merger condition to remedy foreclosure and thus no established methodology for determining the appropriate rate level. In the CPKC merger proceeding, several stakeholders proposed proportional rate methodologies that would cap the applicants' post-merger gateway rates based on a mileage pro-rate of their post-merger extended haul rates as a way to keep gateways open on commercially reasonable terms. But the Board rejected those proposals as potentially harming competition.[438] Also, the Applicants themselves refer to "significant, well-recognized, long-term concerns with price caps…."[439]

In the absence of a tried-and-tested method of establishing gateway bottleneck rates for the large number of bottleneck movements for which it is not possible to establish a neutral competitor to the Applicants, the Board cannot effectively mitigate the vertical foreclosure effects of this merger with any confidence. Nor is this the appropriate venue for experimenting with new proposals when "the price for any failure would be high."[440] Lastly, in the face of the Applicants' objection to such constraints, the Board has no alternative except to deny the merger.

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[438] CPKC Decision, slip op. at 58-60.

[439] July 27 Suppl. 40.

[440] *Major Rail Consolidation Procedures*, 5 S.T.B. at 560.

B. The Applicants' proposed conditions are insufficient to approve this merger under the 2001 rules.

The 2001 Rules require applicants to "explain how they would *at a minimum* preserve competitive and market options such as those involving the use of major existing gateways…and the opportunity to enter into contracts for one segment of a movement as a means of gaining the right separately to pursue rate relief for the remainder of the movement."[441] The objective of both requirements is similar to the conditions discussed in the preceding section, *i.e.*, to prevent vertical foreclosure. The Applicants commit to both of these *minimum* conditions and propose a third condition that they label "Committed Gateway Pricing" ("CGP").[442]

These conditions are insufficient to prevent vertical foreclosure, first and foremost, because they do nothing to restore a neutral interline carrier to the bottleneck route segments as discussed in the preceding section. The CGP condition is further undermined by its exclusion of most carload traffic and expiration at the end of the oversight period while the competitive harms are permanent. The following subparts provide additional reasons why each of these conditions cannot effectively prevent vertical foreclosure.

1. The CPKC open gateway commitments are inadequate.

Although the Applicants categorically deny that vertical foreclosure theories apply in the context of railroad pricing practices, they nevertheless pledge to adhere

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[441] 49 C.F.R. § 1180.1(c)(2)(i) (emphasis added); *see also Major Rail Consolidation Procedure*s, 5 S.T.B. at 564.

[442] Rev. Appl. 1-347 to 1-354 (Rocker/Elkins V.S. ¶¶ 162-81).

to the same open gateway commitments that the Board imposed upon the CPKC merger.[443] In the CPKC merger, the Board held "that a robust and readily enforceable open gateway requirement is the best means to ameliorate or eliminate vertical foreclosure concerns without unreasonably impeding the Transaction's benefits."[444] The theory is that a robust and enforceable open gateway requirement will preclude the merged carrier from favoring its post-merger extended long-haul routes over alternative pre-merger interline routes by physically or commercially closing the gateways that are necessary for the pre-merger routes. The Applicants, however, have not demonstrated that the CPKC open gateway commitments are sufficiently robust and enforceable to ameliorate or eliminate the foreclosure concerns that this much larger transaction presents.

The Applicants summarily and erroneously conclude that, by agreeing to the same open gateway requirements that the Board imposed upon the CPKC merger and nothing more, they effectively have addressed all vertical foreclosure concerns with this merger despite the drastically different circumstances between these mergers. The Applicants make no attempt to show that this commitment would be "effective" for their unprecedented and transformative transaction; they merely

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[443] Rev. Appl. 1-22, 1-52 ("[A]ny remote concerns about foreclosure or reductions in independent routings are addressed by Applicants' voluntary open gateway commitments.").

[444] CPKC Decision, slip op. at 67.

assume as much.[445] This assumption cannot satisfy the Applicants' heavier burden of proof under the 2001 Rules to demonstrate the effectiveness of proposed conditions precisely because those more stringent Rules did not apply to the CPKC merger.

There are meaningful differences between the CPKC merger and this transaction that the Applicants ignore. For example, the CPKC merger was end-to-end at a single location, Kansas City, and affected only north-south traffic along that one corridor. In contrast, UP and NS interchange at multiple locations, including every major east-west gateway, for much greater volumes of traffic over multiple corridors. Those traffic volumes are far more consequential for the multiple east-west interline routes with CSX and BNSF than the north-south traffic affected by the CPKC merger. Therefore, Applicants' mere assumption that the CPKC open gateway conditions provide sufficient protection for this transaction is facially untenable.

In addition, none of the CPKC open gateway commitments address the Applicants' ability to capture their extended long-hauls through "bundling," which is a far more substantial threat from this transaction than it was for the CPKC merger, due to the much higher concentration of both "open" and "closed" locations on the combined UP-NS network relative to the combined CP-KCS network. Shippers have long complained about the ability of railroads to leverage their

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[445] *Major Rail Consolidation Procedure*s, 5 S.T.B. at 546-47 (requiring "effective plans to keep open major existing gateways").

captive traffic to capture competitive traffic by only offering all-or-nothing contracts to shippers.[446] The combined captive origins and destinations on UP and NS would give the merged entity a far greater concentration of closed industries than any of the other Class I carriers.[447] That concentration substantially increases the post-merger leverage of UPNS in contract negotiations with customers to favor its new long-haul routes over alternative interline routes by tying its rate offers on captive traffic to the customer's acquiescence to bundling the UP long haul routes on interline moves into the same contract. UP would not even need to increase its rate levels on the alternative, pre-merger, interline routes to accomplish this, which is the behavior that the CPKC open gateway commitments target. That fact alone

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[446] In multiple Board proceedings, shippers have described a railroad's ability to exert market power by leveraging its captive lanes to also dictate terms for other traffic. *See, e.g.*, Opening Comments of The American Chemistry Council *et al.* at 25-26, *Final Offer Rate Revie*w, EP 755 (filed Nov. 12, 2019); Written Testimony of Olin Corporation at 16-18, *Hearing on Revenue Adequac*y, EP 761 (filed Nov. 26, 2019); Supplemental Comments of PPG Industries at 2, *Competition in the Railroad Industr*y, EP 705 (filed July 15, 2011); Comments of the American Chemistry Council *et al.* at 24, *Rail Transportation Contracts Under 49 U.S.C. 10709*, EP 676 (filed Feb. 5, 2009) (citing to other shipper comments on bundling). *See also* Gebo V.S. ¶ 10; Vogt V.S. ¶ 10; Opening Comments and Request for Conditions of LyondellBasell at 4, FD 36873, Nov. 18, 2026 (LYB-2) ("LyondellBasell Comments") ("a carrier that holds captive traffic can use it as leverage, and LyondellBasell's ability to bargain over captive rates generally depends on committing competitive lanes to the same carrier").

[447] Post-merger, of the three Class I rail carriers capable of providing transcontinental service in the United States, UPNS will be the sole rail carrier with access to 54% of locations nationwide, while BNSF and CSX will be the sole rail carrier with access to just 18% and 28%, respectively. Burchfield V.S. Figures 2 & 3.

establishes the inability of the CPKC open gateway commitments to address the vertical foreclosure risk of this transaction.

Before examining each commitment individually, there is an overarching weakness that applies to them all. Specifically, they are behavioral, not structural, remedies. Instead of addressing the underlying structural problem (*e.g.*, the loss of a neutral bottleneck carrier), they attempt to regulate the behavior of UP post-merger. Contrary to the emphasis on "competition" in the Rail Transportation Policies,[448] and a matching intent "to minimize the need for Federal regulatory control,"[449] the CPKC open gateway commitments would increase dependence upon regulation to address the foreclosure harm from this merger, harm that would not exist but for the merger.

Next, an examination of the specific commitments in the CPKC Decision demonstrates that they are *not* effective conditions for addressing the Applicants' ability to engage in vertical foreclosure through rate and service levels.

First, in the CPKC merger, the applicants committed "to maintain efficient operations serving existing gateways *wherever traffic levels warrant* – in terms of both the through train services to and from the gateways as well as the operational capabilities and infrastructure necessary to carry out efficient interchange."[450] The Board accepted that traffic levels may not warrant preserving a particular gateway

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[448] 49 U.S.C. § 10101(4), (5), (12).

[449] Id. § 10101(2).

[450] CPKC Decision, slip op. at 71 (*quoting from Application*) (italics added by STB).

in the future and required the applicants to make that demonstration to justify a future closure on that basis.

This commitment suffers from a critical shortcoming when applied to this merger. One can readily anticipate dramatic traffic declines at major gateways in the ordinary course of UP shifting much of its interline traffic to new interchanges that better reflect its extended long-hauls.[451] UP already plans to shift its new single-line movements (currently UP-NS interline moves) away from the major gateways (where UP currently interchanges with NS) to new locations internal to its network.[452] Most of the remaining UP and NS traffic over those interchanges will be with CSX in the east and BNSF in the west, respectively. But, for eastbound traffic to CSX and westbound traffic to BNSF, UP also can shift interchanges deeper into those carriers' service territories to take advantage of its extended long-hauls to achieve greater density.[453] Through bundling, UP has the means to incentivize shippers to select its long-haul routes.[454] As that occurs, UP traffic at the major gateways could fall to levels that no longer *warrant* UP's maintenance of operations over those gateways and thus would not violate this commitment. Therefore, even if UP does not completely close a gateway, it could justify service reductions that would further prejudice interline routes over those gateways. This

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[451] Burchfield V.S. ¶¶ 102-03.

[452] *Id*. ¶¶ 95, 116-17.

[453] *Id.* ¶¶ 99, 103, 108.

[454] *Id*. ¶¶ 84, 87, 92, 122.

becomes a "downward spiral" for the gateway because, as more interline traffic diverts to UP's long-haul routes, the impacts compound, driving more diversions until the gateway is no longer commercially viable.[455]

Second, the CPKC Decision requires "commercially reasonable rate divisions" with the Board available to resolve any disputes.[456] But the Board declined to "impose a formulaic principle or attempt to provide a specific definition of 'commercial reasonableness,'" leaving that to the parties in the first instance. Such a prescription rests on two heroic assumptions that: (1) the parties are in an equal bargaining posture even when the traffic is captive; and (2) shippers have access to the same information as the railroad (*i.e.*, no information asymmetries exist). As demonstrated in Part III.A.1.b., above, and in the foregoing bundling discussion, those assumptions are unreasonable.

Moreover, this prescription ignores the frustrations that shippers have expressed for decades with the time and expense of litigating any matter before the Board, especially rate disputes when there is no clear standard.[457] It is a choice between two terrible options. Most shippers will find it less objectionable to accept a contract that bundles the UP long-haul interline routes with their other traffic when the alternative is a lengthy and costly process of questioning their gateway

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[455] *Id*. ¶¶ 95-98.

[456] CPKC Decision, slip op. at 74.

[457] *See, e.g.*, Transp. Rsch. Bd., *Modernizing Freight Rail Regulation* 212 (2015), https://doi.org/10.17226/21759.

rate pursuant to an uncertain standard for an unspecified remedy. And once enough interline traffic makes the shift to UP's long-haul routes and successfully raises its rivals' costs, those rival carriers will no longer have a cost structure that allows them to offer the rates and service required to compete effectively.[458] The end result is greater market power for UP.

Lastly, a rate division may be both "commercially reasonable" and high enough to divert substantial interline traffic to the Applicants' single-line service. The statutory rate reasonableness standard is not a "commercially reasonable" standard. That makes this commitment all the more amorphous.

Third, the CPKC open gateway condition requires that, upon receiving a written request, the applicants must provide "justification(s) for any rate increase above the applicable rate of inflation for interline movements subject to the open gateway obligation" that "must include sufficient detail to enable the shipper to make a meaningful preliminary assessment of the reasonableness of the justification(s)."[459] But because shippers are not well-positioned to assess the carrier's justifications, they would need to hire experts, perhaps engage in discovery, and be prepared to litigate pursuant to an unknown standard for an unspecified remedy if the carrier's explanation is unsatisfactory.[460] The volume of

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[458] *See* Part III.A.2.c. above.

[459] CPKC Decision, slip op. at 78.

[460] For example, would a gateway rate dispute be resolved through a "baseball-style" procedure where the carrier either justifies the entire increase above inflation or gets no increase at all, or would the STB determine if any portion of the increase is legitimate? If the former, the recent 7th Circuit decision in *Grand Trunk Corp. v.*

traffic and estimated rate differential would need to be of sufficient magnitude to warrant this effort and expense, which is a problem that has plagued rail rate challenges for decades.[461] Most shippers are more likely to acquiesce to the Applicants' long-haul route when the alternative is the uncertain, lengthy and costly process of challenging the commercial reasonableness of the bottleneck gateway rate increase.[462]

Over time, UP's extended long-hauls will have a stealth effect on the interline carriers' rates pursuant to the RRC paradigm, which will allow UP to capture its long haul for even more traffic not by being more competitive, but by making its interline partners less competitive.[463] As more traffic shifts to the UP long-haul routes, the interline carriers will receive less revenue from shorter hauls while still needing to maintain the same infrastructure to support their operations. Thus, by raising the interline carriers' costs, UP will not need to increase its bottleneck

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Surface Transp. Bd., 143 F.4th 741 (7th Cir. 2025), calls into question the lawfulness of a baseball-style procedure. If the latter, carriers would be incentivized to push the outer limits of such increases knowing that their worst-case scenario is preservation of the status quo when a shipper challenges the rate increase and that the more likely scenario is no challenge at all because the shipper concludes that it is easier to default to the carrier's long-haul route.

[461] *See* Part IV.B.2, below, notes 475-485 and associated text.

[462] The rate differential above inflation wouldn't have to be very significant to steer ever greater amounts of traffic to the Applicants' extended long-haul routes. Each year, the excess above inflation will become embedded in the base rate for the following year. After multiple years of this occurring, the cumulative differential will grow ever larger so as to render the gateway commercially closed despite this condition.

[463] *See* Part III.A.2.c. above.

gateway rates beyond the rate of inflation to favor its long-haul routes because the interline carriers will need to increase their rates by even more to support their long-haul routes. A condition that caps UP's bottleneck gateway rates to the level of inflation misses the mark in this scenario.

The RRC paradigm poses a risk for any vertical rail merger. But, where the scope and magnitude of such harm in past mergers may not have outweighed the merger's benefits, the unprecedented scope of the affected traffic in this merger magnifies that harm to a level that threatens the very fabric of the national rail network. [464] The only way to counter the potentially enormous loss of revenue to rival carriers like BNSF and CSX in this merger is to create conditions that enhance competition by restoring a neutral rail carrier on the origin bottleneck segments leading to the major gateways. [465] The CPKC open gateway commitments do not do this.

The final deficiency inherent in the CPKC open gateway commitments is the balkanization of the remedies. A single actor, UP, will have both the ability and incentive to engage in a broad-based foreclosure effort through a multitude of means. In contrast, the CPKC open gateway commitment remedies require individual shippers to contest UP's efforts for each individual lane. But to effectively counter UP's foreclosure efforts, the open gateway commitments need most shippers

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[464] Burchfield V.S. Figure 9 (showing the potential revenue exposure).

[465] Such conditions are not about protecting competitors, but about protecting the competition that those competitors provide.

who experience foreclosure to contest them. An individual shipper's cost-benefit assessment of doing so, however, is unlikely to result in a critical mass of challenges even though the cumulative consequence to the overall rail network from foreclosure will be substantial. In summary, relying upon individual, one-off challenges by shippers cannot mitigate, much less resolve, the broad systemic effects of vertical foreclosure.

2. Preservation of the "Contract Exception" Is Inadequate.

As required by the 2001 Rules, at 49 C.F.R. § 1180.1(c)(2)(i),[466] the Applicants pledge that they "will not create new regulatory bottlenecks that could limit customer access to rate relief through the Board."[467] Although the purpose of this requirement is to preserve a regulatory rate challenge remedy commonly known as the "contract exception" to "bottleneck rate challenges," the Applicants may allege that it also prevents them from engaging in vertical foreclosure. Any such contention would be wrong.

In the "Bottleneck Decisions," [468] the Board held that "a shipper's challenge to the reasonableness of a proportional rate covering a bottleneck segment that is combined with a common carriage rate over the non-bottleneck segment must, in

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[466] *See also Major Rail Consolidation Procedures*, 5 S.T.B. at 564.

[467] Rev. Appl. 1-91.

[468] *Cent. Power & Light Co. v. S. Pac. Transp. Co.,* 1 S.T.B. 1059 (1996) *(Bottleneck I), clarified, 2 S.T.B. 235 (1997) (Bottleneck II), aff'd in part sub nom. MidAm. Energy Co. v. Surface Transp. Bd.*, 169 F.3d 1099 (8th Cir. 1999).

our view, address the reasonableness of the entire through rate as a whole."[469] This "Bottleneck Rule" means that a shipper may not challenge the reasonableness of just the rate for the bottleneck segment but, instead, must challenge the rate for the entire route. The Board, however, recognized a "contract exception" to the Bottleneck Rule when the bottleneck proportional rate operates in combination with a contract rate because the Board does not have jurisdiction to review contract rates.[470] The Board subsequently clarified that the contract exception applies only when the bottleneck carrier cannot or does not offer single-line service.[471] Thus, in the "Traditional Foreclosure" scenario discussed in Part III.A.2.a., the shipper may avail itself of the contract exception to challenge the reasonableness of a bottleneck segment rate pre-merger, but would lose that ability post-merger for movements where the applicants could provide new single-line service.[472]

The 2001 Rules require that, even when the merger converts an interline route to a single-line route, the newly merged single-line carrier must continue to offer a bottleneck segment tariff rate to the pre-merger gateway when a potential interline carrier provides the shipper with a contract rate. If the shipper believes

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[469] *Bottleneck I*, 1 S.T.B. at 1073–74.

[470] *Id.* at 1074.

[471] *Bottleneck II*, 2 S.T.B. at 240-42.

[472] It is unclear if the 2001 Rules impose a similar requirement on mergers that extend bottleneck segments but do not convert an interline to a single-line movement, such as the "RRC Foreclosure" scenario in Part III.A.2.b. If not, preservation of the "contract exception" does nothing at all to mitigate the harm from that foreclosure scenario.

the bottleneck tariff rate to be unreasonably high, it could pursue a lower prescribed rate through a regulatory challenge.

When it adopted the 2001 Rules, the Board deemed the preservation of a shipper's ability to challenge the reasonableness of the pre-merger bottleneck rate to be adequate protection against the adverse effects of a vertical merger because it preserved this pre-merger regulatory protection that otherwise could be lost because of the merger. Since the Board, at that time, did not recognize any other adverse consequences of a vertical merger (*e.g.*, foreclosure), it did not recognize any harm other than this loss of regulatory rate protection. But since then, the Board has recognized that vertical mergers also are likely to harm competition.[473] That means a shipper is harmed by more than just a loss of regulatory rate protections on the bottleneck segment. Thus, although the 2001 Rules require applicants to preserve the "contract exception," it was to preserve a regulatory remedy, not to address vertical foreclosure since the Board did not recognize foreclosure as an anti-competitive effect of vertical mergers at the time.

Nevertheless, the Applicants may contend that this condition also protects shippers against the competitive harm of vertical foreclosure because the threat of rate regulatory review might deter the Applicants from favoring their post-merger longer haul routes through unfavorable pricing of their shorter pre-merger routes

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[473] *See, e.g.*, *Can. Nat'l Ry. Co.—Control—EJ&E W. Co.* (Decision No. 16), FD 35087, slip op. at 15 (STB served Dec. 24, 2008); CPKC Decision, slip op. at 46; *Can. Nat'l Ry. Co.—Control—Iowa N. Ry. Co.* (Decision No. 3), FD 36744, slip op. at 9 (STB served Jan. 14, 2025).

over the major Mississippi River gateways.[474] But the test of time has proven the ability to challenge a bottleneck segment tariff rate to be a toothless remedy for carload traffic.

The Board's Stand-Alone Cost, or "SAC," methodology for determining rate reasonableness was developed specifically for unit train coal moves in a proceeding titled "Coal Rate Guidelines, Nationwide."[475] A former Board member observed that, "The very fact that the SAC test was developed in a proceeding titled Coal Rate Guidelines demonstrates that the test was not intended for non-coal commodities."[476] The "Bottleneck Decisions" themselves were three rate cases brought by unit train coal shippers. Therefore, when the Board expressed its expectation in the 2001 Rules that applicants would preserve the contract exception, it was in the context of that history.[477]

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[474] *See, e.g.*, Rev. Appl. 2-200 (Israel V.S. ¶ 36 & n.28). Regardless, a rate remedy cannot prevent foreclosure through the frequency and quality of service or bundling.

[475] *Coal Rate Guidelines, Nationwide*, 1 I.C.C.2d 520 (1985).

[476] *Sunbelt Chlor Alkali P'ship v. Norfolk S. Ry. Co.*, NOR 42130, slip op. at 43 (STB served June 30, 2016) (Miller, concurring).

[477] Over a decade later, three chemical shippers attempted to challenge rail rates on their carload traffic for scores of origin-destination pairs based on the SAC methodology. *See E.I. DuPont de Nemours & Co. v. Norfolk S. Ry. Co.*, NOR 42125; *Total Petrochemicals & Refining USA, Inc. v. CSX Transp., Inc.*, NOR 42121; *M&G Polymers USA, LLC v. CSX Transp., Inc.*, NOR 42123. From complaint to either dismissal or final decision, each of these cases lasted 62, 76, and 32 months (M&G was shorter because it settled after the market dominance decision; it never litigated SAC), respectively, which was far longer than any unit train coal case. Unlike prior coal cases, which typically entailed a single movement of coal from the mine(s) to the power plant, these cases encompassed no fewer than 69 and as many as 146 origin-destination pairs for as many as 27 different commodities. The added cost and complexity of those unprecedentedly large SAC cases – which was

A SAC rate case is an enormous undertaking, and "even the most straightforward SAC case…involves a lengthy and complex proceeding."[478] From start to finish, a SAC case can take over five years, excluding appeals. Litigation costs for unit train coal shippers, which are the most straightforward SAC cases, were upwards of $5 million in 2007.[479] They are even more costly for carload shippers who often must design a more extensive stand-alone railroad to serve scores of origin-destination pairs with more complex operations than a unit train SAC case requires. For these reasons, the Board has attempted to develop an alternative to SAC for carload traffic.[480]

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necessary to encompass sufficient traffic volume to justify the litigation costs in the first place – erased any residual doubts that SAC could not be a viable option for carload traffic. Indeed, these cases took longer and cost more than any prior coal SAC case.

[478] *E.I. DuPont de Nemours & Co. v. Norfolk S. Ry. Co.*, NOR 42125, slip op. at 6 (STB served Dec. 23, 2015).

[479] *E.g.*, *Simplified Standards for Rail Rate Case*s, EP 646 (Sub-No. 1), slip op. at 5 (STB served Sept. 5, 2007) ("Shippers' litigation costs in recent Full-SAC cases have approached $5 million."), *aff'd sub nom. CSX Transp., Inc. v. Surface Transp. Bd.*, 568 F.3d 236 (D.C. Cir.), *vacated in part on reh'g*, 584 F.3d 1076 (D.C. Cir. 2009). This was for a unit train coal rate case over 20 years ago, whereas the three non-coal, carload cases referenced in the preceding notes were far more expensive.

[480] *See Total Petrochemicals & Refining USA, Inc. v. CSX Transp., Inc.*, NOR 42121, slip op. at 48 (STB served Sept. 14, 2016) (Begeman, dissenting in part) ("Vice Chairman Miller and I are in agreement that the Board must focus its attention on finding SAC *alternatives*.…We need to ensure that the Board's rate complaint procedures are accessible to *all* captive shippers of *all* types of commodities—whether large or small and whether shipped by unit train or carload. It may not be easy (or very fast) to ultimately develop a new approach, but it has to be a top Board priority.").

But when it comes to carload traffic, the rate review process continues to be an ineffective regulatory tool.[481] The Board has struggled to develop an effective rate review alternative to SAC for carload traffic for more than four decades.[482] The Board originally developed and subsequently revised the Three-Benchmark methodology and then created the Simplified SAC methodology to address this problem.[483] Most recently, recognizing the failure of those methodologies to achieve

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[481] *See, e.g.*, *Final Offer Rate Review*, EP 755, slip op. at 3 (STB served Sept. 12, 2019) ("The Board has recognized that, for smaller disputes, the litigation costs required to bring a case under the Board's existing rate reasonableness methodologies can quickly exceed the value of the case."); *Expanding Access to Rate Relief*, EP 665 (Sub-No. 2), slip op. at 10 (STB served Aug. 31, 2016) ("Based on the comments and testimony received in this proceeding, the Board is persuaded that the existing rate review processes present accessibility challenges not only for small shippers of grain, but also for small shippers of any commodity. The Board recognizes that, for small disputes, the litigation costs required to bring a case under the Board's existing rate reasonableness methodologies, even the Board's most simplified method, Three-Benchmark, can quickly exceed the value of the case.").

[482] *See, e.g.*, *Final Offer Rate Revie*w, slip op. at 2-5 (summarizing the history of the agency's effort to develop simplified rate reasonableness methodologies following Congress' directive in the ICC Termination Act of 1995 to do so by the end of 1997). Missing from that summary is the fact that this Congressional deadline was motivated by the agency's struggle to complete this effort in a proceeding that began nearly a decade prior, in *Rate Guidelines-Non-Coal Proceeding*s, EP 347 (Sub-No. 2) (May 21, 1986). *See Rate Guidelines-Non-Coal Proceedings*, 1 S.T.B. 1004, 1006, 1010-12 (1996) (summarizing the history from 1986 through 1996).

[483] *Rate Guidelines-Non-Coal Proceeding*s, 1 S.T.B. 1004 (1996) (adopting the original Three-Benchmark methodology), *pet. to reopen denie*d, 2 S.T.B. 619 (1997), *appeal dismissed sub nom. Ass'n of Am. R.Rs. v. Surface Transp. Bd.*, 146 F.3d 942 (D.C. Cir. 1998); *Simplified Standards for Rail Rate Cases*, EP 646 (Sub-No. 1) (STB served Sept. 5, 2007) (overhauling the Three-Benchmark methodology and adopting a Simplified-SAC methodology), *aff'd sub nom. CSX Transp., Inc. v. Surface Transp. Bd.*, 568 F.3d 236 (D.C. Cir.), *vacated in part on reh'g*, 584 F.3d 1076 (D.C. Cir. 2009); *Rate Regulation Reform*s, EP 715 (STB served July 18, 2013) (raising relief caps for Three-Benchmark and Simplified-SAC cases; modifying Simplified-SAC).

their objectives, the Board created Final Offer Rate Review ("FORR").[484] But the rail industry, led by UP, successfully overturned that methodology on appeal.[485] The overturning of FORR has left in place all the problems that the Board intended FORR to address. Considering those long-standing unresolved issues, the Board cannot rely upon bottleneck rate cases to mitigate the anti-competitive vertical foreclosure problems with this merger.

Furthermore, even if an effective rate regulatory alternative did exist for carload traffic, the sheer scope of affected traffic in this case calls into question its utility as a mitigation measure for this merger. If shippers filed rate cases for only a fraction of affected lanes, they would overwhelm the Board's capacity to decide them in a timely manner. But as discussed in the preceding section on the CPKC open gateway commitments, the time, cost, and uncertainty of STB litigation will deter most shippers from exercising any condition that depends on such litigation.

Finally, the CSX and BNSF shippers who will be harmed by the RRC paradigm discussed in Part III.A.2.c., above, are not the beneficiaries of the contract exception. Only the shippers of traffic over the Applicants' bottleneck gateway segment can invoke the contract exception to challenge the Applicants' rates. If those shippers opt not to pursue a rate case because of the time, cost, and complexity, and settle instead for the Applicants' post-merger long-haul route, there is nothing that CSX and BNSF shippers without that choice can do to address the

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[484] *Final Offer Rate Revie*w, EP 755 (STB served Dec. 19, 2022).

[485] *Union Pac. R.R. Co. v. Surface Transp. Bd.,* 113 F.4th 823 (8th Cir. 2024).

harm inflicted upon them. This further illustrates why relying upon individual, one-off rate challenges by shippers cannot mitigate, much less resolve, the broad effects of vertical foreclosure from this merger.

3. Committed Gateway Pricing does not protect gateways.

The Applicants have proposed CGP as an enhancement to competition, not as a condition to protect against vertical foreclosure risks. They concede that CGP "is designed to provide benefits to customers with the highest rates in relation to comparable traffic."[486] Thus, by their own admission, CGP is not designed to commercially protect gateways.[487] That fact, alone, disqualifies CGP as an appropriate condition for protecting gateways against foreclosure, and there are ample additional facts to reinforce this conclusion. Nevertheless, because CGP loosely resembles the types of proportional rate proposals that stakeholders have proffered in prior mergers to protect gateways commercially, this section explains why CGP would not be an effective remedy.

First, there is an extremely small amount of traffic that is eligible for CGP and an even smaller fraction of eligible traffic that would benefit. The Applicants deliberately have restricted CGP to interline traffic that interchanges at just four gateways – Chicago, St. Louis, Memphis, and New Orleans – to just two railroads,

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[486] July 27 Suppl. 42.

[487] *Id.* at 37 (CGP intended to address "transitory" harms); *id.* at 184-85 (omitting CGP from "comprehensive set of competition-preserving commitments"); *see also* Israel Dep. 54:21-55:19, Oct. 15, 2026 (Ex. 1) ({{ [redacted] }}).

BNSF and CSX.[488] And even for that traffic, CGP does not apply to intermodal shipments, finished vehicles, shipments to storage-in-transit facilities, TIH/PIH shipments, and dimensional loads.[489] As explained in Part IV.A.4. above, a bottleneck rate constraint must apply to all interline movements where the merger will extend the Applicants' long-haul distance and other conditions do not otherwise preserve a neutral interline carrier over the bottleneck segment to the pre-merger gateway. Although CGP is a rate constraint, it does not satisfy those requirements.

Second, there is the brief duration that the Applicants propose for CGP – just a five-year post-merger oversight period. [490] But the Applicants' ability to engage in foreclosure will not end magically at five years. Of course, because the Applicants never intended CGP to address foreclosure impacts, there was no reason for them to consider a longer duration.

Third, CGP does not constrain increases in interline bottleneck rates for most eligible traffic, and it rewards increases in the rates used to set the cap. As noted above, CGP applies only to a small subset of interline traffic that is at risk of foreclosure. Within that subset, the Applicants' own evidence shows that the CGP cap sits *above* existing rates for about 60% of eligible carloads, so CGP does not

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[488] July 27 Suppl. 31-33.

[489] *Id*. at 32-36.

[490] Rev. Appl. 1-390 (Novak V.S. ¶ 45).

constrain increases in those rates up to the cap.[491] And Applicants' economist concedes that CGP makes it "advantageous for UP/NS to set rates on routes in the input set to increase the CGP price in order to reduce the effect of this cap."[492] The Board itself observed that CGP "may harm some shippers by incentivizing UP/NS to compete less aggressively for some traffic."

For all the foregoing reasons, the Board cannot rely upon CGP as a condition to protect against the risks of vertical foreclosure.

C. Minimum required conditions if the Board approves this merger despite objections.

For the reasons expressed in the preceding subparts A. and B., the JSA believe that there are no practical conditions that can adequately mitigate the harmful vertical foreclosure effects of this merger and, thus, they ask the Board to deny the merger outright. It is not the responsibility of the Board or stakeholders to devise effective conditions to fix a flawed merger proposal. However, if the Board approves the merger despite these concerns, this Part C identifies a *minimum* set of conditions to partially mitigate those effects. Even if the Board adopts these conditions *in toto*, this merger would not be in the public interest and would cause significant harm.

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[491] July 27 Suppl. 269–70 (Israel Suppl. V.S. ¶ 34 & Fig. 8) (103,676 of 257,971 eligible carloads (40.2%) have rates above the CGP rate; the remaining 154,295 (59.8%) are "unaffected by the program," *id.* at 255–56 (Israel Suppl. V.S. ¶ 12)).

[492] July 27 Suppl. 276-77 (Israel Suppl. V.S. ¶ 46). The Applicants may contend that the CPKC open gateway conditions will preclude that result. But for the reasons explained in Part IV.B.1. above, that contention would be false.

The 2001 Rules authorize conditions of this kind: the Board "is prepared to use its conditioning authority as necessary under 49 U.S.C. 11324(c) to preserve and/or enhance competition."[493] The JSA first identify widespread reciprocal switching based on objective criteria and the elimination of paper barriers as necessary enhancements to competition. Because those conditions are insufficient to match the scale of the traffic that the merger exposes to foreclosure, they also identify the need for a condition to constrain the Applicants' bottleneck gateway rates on traffic that would not benefit from this enhanced competition. Lastly, they identify conditions that are necessary to address transitional service disruptions and extend the Board's oversight period.

In Part IV.A.1. above, the JSA observe that BNSF's proposal to create a terminal railroad in the Texas/Louisiana Gulf Coast Region has the *potential* to be a more effective condition to address vertical foreclosure concerns than those identified in this section. In addition, other railroads have expressed their intent to request conditions or file responsive applications, some of which would enhance competition in ways that could have incremental mitigating effects. To the extent the BNSF and other conditions create neutral bottleneck carriers from UPNS captive locations to the pre-merger gateways, and the Board were to impose them, those conditions could be applied in lieu of Condition Nos. 1 and 3 identified below,

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[493] 49 C.F.R. § 1180.1(c); *see also id*. § 1180.1(d) (the Board "seeks to enhance competition in ways that strengthen and sustain the rail network as a whole").

but only for traffic that would benefit directly from those proposals. Condition Nos. 1 and 3 should still apply to all other UPNS traffic, as described below.

1. Condition #1: Reciprocal Switching.

Reciprocal Switching. *Grant reciprocal switching at prescribed rates to all traffic that originates at closed UP locations within a terminal area served by at least one other Class I rail carrier (either directly or via a shortline) and is destined to a location (both open and closed) on any other Class I rail carrier (either directly or via a shortline) when UP has a longer haul post-merger. This includes routes over which UP can provide single line service post-merger to an open location.*

For illustrative purposes, the foregoing condition encompasses the following categories of traffic—

- All traffic that is captive to UP at pre-merger UP locations (*i.e.,* UP single-served locations) and is destined to any CSX, CN, or CPKC location (both open and captive) when UP has a longer haul route option post-merger.
- All traffic that is captive to UP at pre-merger NS locations (*i.e.,* NS single-served locations) and is destined to any BNSF, CN, or CPKC location (both open and captive) when UP has a longer haul route option post-merger.

As discussed in Part IV.A.2. above, reciprocal switching can only be an effective mitigation measure if the switch rate enables the alternative route to be competitive. The JSA, however, are unable to identify either a rate or rate methodology to accomplish this objective across the broad array of interline moves on the UPNS network. Nor can a case-by-case approach be effective to address this network-wide concern. The rate must be a known factor that does not require litigation, as has been the case in prior mergers with broadly applicable reciprocal

switching.[494] The inability to develop a switch fee proposal is a central reason why the Board should reject this merger rather than approve it with conditions.

2. Condition #2: Repeal Paper Barriers.

Repeal Paper Barriers. *Repeal all paper barriers that prohibit, impede, or limit in any form the ability of a Class II or III rail carrier to interchange with any rail carriers other than UP or NS.*

This condition applies to all Class II or III rail carriers that have physical connections to UP and any other rail carriers, or NS and any other rail carriers, but are restricted from accessing the other carriers in any manner pursuant to an agreement with UP or NS.

3. Condition #3: Maximum Bottleneck Rates.

Maximum Bottleneck Rates. *Based on an econometric model of the rates that the other Class I railroads charge to the same gateways, cap UP's post-merger rates to all major gateways for all traffic that originates at closed UP locations (directly or via shortline), both within terminal areas served exclusively by UP and outside terminal areas, and is destined to a location (both open and closed) on any other Class I rail carrier (directly or via a shortline) when UP has a longer haul opportunity post-merger. This includes routes over which UP can provide single line service post-merger to an open location. This condition extends to all traffic that originates on a Class II or III rail carrier that physically interconnects only with UP*

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[494] *See Union Pac. Corp.—Control & Merger—S. Pac. Rail Corp.,* 1 S.T.B. 233, 390 (1996) *(UP/SP); Conrail*, 3 S.T.B. at 255.

or NS when UP has a longer haul post-merger (i.e., Class II and III rail carriers that do not benefit from Condition #2).

For illustrative purposes, the foregoing condition is intended to encompass the following categories of traffic:

- All traffic that is captive to UP at pre-merger UP locations (*i.e.,* UP single-served locations) that are within a terminal area that is not served by at least one other Class I carrier and is destined to any CSX, CN, or CPKC location (both open and captive) when UP has a longer haul post-merger.
- All traffic that is captive to UP at pre-merger NS locations (*i.e.,* NS single-served locations) that are within a terminal area that is not served by at least one other Class I carrier and is destined to any BNSF, CN, or CPKC location (both open and captive) when UP has a longer haul post-merger.
- All traffic that is captive to UP at pre-merger UP locations (*i.e.,* UP single-served locations) that are located outside a terminal area and is destined to any CSX, CN, or CPKC location (both open and captive) when UP has a longer haul post-merger.
- All traffic that is captive to UP at pre-merger NS locations (*i.e.,* NS single-served locations) that are located outside a terminal area and is destined to any BNSF, CN, or CPKC location (both open and captive) when UP has a longer haul post-merger.
- All traffic that originates on a shortline railroad that physically interconnects only with UP or NS when UP has a longer haul post-merger.

The mitigating effect of this condition depends upon a competitive maximum bottleneck rate. The JSA offer the Board Gateway Rate Benchmarking ("GRB") as a potential methodology for setting that rate. The Board would need to define some details, but these comments provide the basic framework. Nevertheless, the JSA believe that this merger is not the appropriate venue to adopt such a novel and

untested approach because "the price for any failure would be high."[495] Therefore, they urge the Board instead to deny this merger.

GRB employs regression analysis to model the relationship between rates and multiple shipment characteristics of gateway bottleneck movements. The dependent variable is the rate (measured in dollars per ton-mile) paid for a gateway movement and the explanatory variables are economically relevant shipment characteristics (*e.g.*, commodity, distance, car ownership, gateway, interline carrier). The model estimates the statistical relationship between the shipment characteristics and the rates of movements to major gateways on BNSF, CSX, CN, and CPKC, and uses that relationship to determine the rates that UP may charge for its bottleneck gateway traffic based upon the same set of shipment characteristics for that traffic. All the relevant variables for the model can be obtained from the Confidential Costed Waybill Sample ("CCWS").

The rationale for GRB is that, because BNSF, CSX, CN, and CPKC do not have longer haul route options for their major gateway traffic, they possess neither the ability nor incentive that the post-merger UP would possess to discriminate against those gateway routes in favor of a longer haul route option. Those carriers' rates, therefore, are a proxy for the rates that UP likely would charge traffic with similar movement characteristics through those gateways but for this merger.

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[495] *Major Rail Consolidation Procedures*, 5 S.T.B. at 560.

GRB does not suffer from the problems that prompted the Board to reject proportional bottleneck rate conditions in the CPKC decision. Those conditions would have capped the bottleneck rates from the origin to the gateway to a mileage-based proportion of the Applicants' post-merger long-haul rate for the movement.[496] The Board rejected those proposals for two reasons.

First, the Board agreed with CPKC that "such a condition could have the effect of subsidizing rival carriers – by enabling them to reap the benefits of cost efficiencies generated by the newly combined carrier – and threaten to dampen competition by diminishing CPKC's incentive to offer the most competitive single-line rate," which "would, in turn, undermine the public benefits that would otherwise result from the merger."[497] That problem arose, however, from tying the bottleneck gateway rate to the applicants' more efficient post-merger long-haul rate. In contrast, because GRB is based upon comparable bottleneck gateway rates of all other Class I railroads, those railroads cannot reap the cost efficiencies of the Applicants' long-haul routes, which removes any disincentive for the Applicants to offer the most competitive rates over those routes. Indeed, the Applicants' merger efficiencies could enable them to earn a greater profit under the GRB rates precisely because those rates would be pegged to the rates of carriers that lack those efficiencies.

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[496] *CPKC Decision*, slip op. at 58-60.

[497] *Id.* at 59-60.

Second, the Board expressed concern that the proportional rate conditions "would not be narrowly tailored to remedy competitive harm" because "it would apply regardless of whether any particular move is more or less likely to benefit from or be harmed by the introduction of single-line CPKC service post-Transaction."[498] In this merger, as detailed in Part III.A.2.b. above, the "RRC Foreclosure" threat is attributable to UP's extended hauls on routes that will continue to be interline and thus will not benefit from single-line service. In addition, the threatened vertical harm extends far beyond the movements over which the Applicants will gain a longer haul and, therefore, the remedy must be comparable in scope.

Finally, GRB is not a rate reasonableness methodology. It is designed to protect the commercial reasonableness of UP's gateway rates based on the same factors that Class I rail carriers without extended long-haul alternative routes face. Therefore, the Board should make clear that this condition would not preclude a rate reasonableness challenge to the GRB rate.[499]

4. Condition #4: Arbitration of disputes related to Conditions #1 through #3.

Arbitration of Disputes. *Any stakeholder other than the Applicants may submit any dispute with the Applicants over the implementation of Conditions #1 through #3 to binding arbitration pursuant to the Commercial Arbitration Rules of*

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[498] *Id.* at 60.

[499] *See CPKC Decision*, slip op. at 76, note 126 (distinguishing between rate reasonableness disputes and gateway rate condition disputes).

the American Arbitration Association which shall be the exclusive remedy of the parties. Arbitration shall constitute a waiver of the stakeholder's right to pursue resolution before the Board.

Despite the JSA's attempt to present objective terms for the foregoing conditions, they recognize the potential for disputes to arise over whether traffic is eligible for any of the conditions, the switch rate, or the gateway benchmark rate. Arbitration is an expeditious dispute resolution option that should be available to stakeholders. Because there may be questions that a stakeholder deems more appropriate for resolution by the Board, however, that option should remain available.

5. Condition #5: Transitional service disruption claims.

Arbitration of Service Failure Claims. *For all contract, exempt, and common carrier traffic, the Applicants shall accept liability to customers for direct and indirect damages that arise from or are caused by service disruptions that occur during the merger oversight period established by the Board. Applicants shall opt-in to the Board's arbitration program, codified at 49 C.F.R. Part 1108, for all disputes with shippers for such damage claims. Customers may opt-in to the arbitration program for individual disputes by filing a Notice pursuant to § 1108.3(a) within two years after the claimed damages have accrued, notwithstanding expiration of the oversight period. A rail customer who opts to arbitrate its disputes in accordance with this Condition must waive all claims that it may have under any applicable contract in its Notice. Applicants shall not be liable for damages to the extent that a service disruption is caused by force majeure events or the customer's own actions.*

As discussed in Part III.D.3.b. above, the Applicants' proposal to arbitrate service disruption claims inadequately addresses this issue as contemplated in the 2001 Rule. It excludes contract and exempt traffic and offers no remedy for the most serious and consequential damages that shippers have experienced from past transitional service disruptions. Condition #5 corrects these deficiencies.

Any argument that the Board lacks jurisdiction over contract and exempt traffic misses the point. The Applicants can accept such a condition, and the Board can decide that, absent such acceptance, this merger is not in the public interest. For example, there is precedent for including contract traffic in merger conditions when the applicants in the UP/SP merger agreed to release 50% of contracted traffic to enable BNSF to compete immediately for business on its newly-obtained access and trackage rights.[500] And when UP experienced an epic service meltdown following its acquisition of SP, the Board ordered UP to allow shippers under contract to shift traffic to other carriers.[501]

The JSA, however, acknowledge that customers who may have a cause of action for service-related damages in their contracts should not be permitted to "double-dip" in pursuit of a remedy. Condition #5, therefore, requires a customer to waive its contract claims, if any, when it opts into this arbitration process. In addition to preventing "double-dipping," this precludes arbitration of contract

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[500] *UP/S*P, 1 S.T.B. at 420 (broadened the scope of contract traffic to which the applicants' agreement applied).

[501] *Joint Pet. for Serv. Orde*r, 2 S.T.B. 725, 725-26 (1997).

claims pursuant to this Condition. If a customer has a remedy under this Condition and under its contract, it must elect which one to pursue and thereby waive the other.

Finally, Condition #5 invokes the Board's own arbitration procedures in 49 C.F.R. Part 1108 in lieu of the Applicants' procedures in Appendix B of their Service Assurance Plan. Part 1108 covers all essential process items (*e.g.*, arbitrators, discovery, costs, relief caps, appeal, etc.), many that are mirrored in Appendix B, and it was adopted by the Board through the notice-and-comment rulemaking process.

6. Condition #6: 10 year oversight period.

Oversight. *The Board's formal oversight process at 49 C.F.R. 1180.1(g) shall be for a period of 10 years.*

The 2001 Rules, at 49 C.F.R. 1180.1(g), impose an oversight process "[f]or at least the first 5 years following approval." [underline added] The scope and magnitude of this merger and its consequences are unprecedented. The Board, therefore, should exercise its discretion to extend its oversight period beyond the minimum required in the 2001 Rules, if it approves the merger over the strenuous objections of the JSA and other stakeholders.

CONCLUSION

This merger is not in the public interest, and the 2001 Rules compel its denial. The merger fails for three reasons.

- First, it will cause real and significant harm to competition. It eliminates shippers' direct access to competing carriers on interline moves and lets Applicants strip rivals of the traffic they need to compete.
- Second, the merger's benefits are speculative and minor, failing to outweigh the merger's harm. Applicants base these benefits mostly on a truck diversion analysis that never asks whether Applicants can physically handle this traffic.
- Third, the merger creates serious service risks that Applicants' Service Assurance Plan does not address. The same concentration that produces Applicants' claimed single-line benefits would spread any network failure across the national rail system and leave shippers without an independent carrier to turn to. Yet the Service Assurance Plan cannot detect or promptly contain those failures, and Applicants' arbitration program excludes most traffic and caps relief.

No conditions can cure these defects. The conditions needed to protect shippers would restructure both this transaction and the rail industry itself. Applicants' own proposed conditions fall far short. The borrowed CPKC open gateway commitments ignore this merger's far larger scale and do nothing to stop bundling. Committed Gateway Pricing excludes most carload traffic and expires while the harm endures. Applicants' ADR program and Targeted Access Program do not apply to the vast majority of traffic and excuse the short-duration disruptions that shippers routinely suffer. Even with these conditions, shippers would still have

to depend on Board regulation and adjudication to police harm that would not exist but for the merger.

Applicants bear a heavier burden in this unprecedented transaction. They have not carried it. The Board has seen what happens when a merger outruns a railroad's ability to serve: after UP acquired SP, an epic service meltdown forced the Board to let contract shippers move their traffic to other carriers. This transaction is larger, the competitive harm is permanent, and "the price for any failure would be high."[502] The Board should not gamble the national rail network on promises Applicants have not proven they can keep.

The Board should deny the Application.

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[502] *Major Rail Consolidation Procedures*, 5 S.T.B. at 560.

Respectfully submitted,

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Dated: November 18, 2026

CERTIFICATE OF SERVICE

I hereby certify that on November 18, 2026, the foregoing document was served by first-class mail or email on all parties of record to this proceeding, the Secretary of Transportation, the Attorney General of the United States, and Administrative Law Judge Jenifer Soulikias.

/s/ Jason D. Tutrone
Jason D. Tutrone

PUBLIC VERSION

BEFORE THE
SURFACE TRANSPORTATION BOARD

Docket No. FD 36873

UNION PACIFIC CORPORATION AND UNION PACIFIC RAILROAD COMPANY
—CONTROL—
NORFOLK SOUTHERN CORPORATION AND NORFOLK SOUTHERN
RAILWAY COMPANY

Prepared on Behalf of the
JOINT SHIPPER ASSOCIATIONS

VERIFIED STATEMENT
OF
HAL J. SINGER and TED P. TATOS

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INTRODUCTION AND ASSIGNMENT

1. We provide this statement at the request of the American Chemistry Council (ACC), the Alliance for Chemical Distribution (ACD), the American Fuel & Petrochemical Manufactures (AFPM), and The National Industrial Transportation League (NITL) (collectively, "Joint Shipper Associations") in connection with the Surface Transportation Board's review of the proposed acquisition of control of Norfolk Southern (NS) by Union Pacific (UP), both Class I railroads. We have been asked to focus on the potential anticompetitive effects of the acquisition, including price effects and route foreclosure that would harm shippers, and to respond to the economic testimony of Dr. Mark A. Israel in support of the acquisition.[1]

2. We have been asked to address the following issues related to merger effects resulting from UP's acquisition of NS:

(1) whether the merger raises anticompetitive concerns regarding foreclosure of routes to rival railroads and accompanying price increases; and,

(2) the extent to which the single-monopoly-profit theory (or "one lump theory") applies to certain routes where either UP or NS have a monopoly on the route between the origin or destination either preceding or following an interchange; and,

(3) whether the application properly estimates merger benefits consistent with economic principles.

SUMMARY OF CONCLUSIONS

3. The instant proceeding involves UP's proposed acquisition of NS, pursuant to the parties' Revised Major Merger Application to the Surface Transportation Board (STB) filed on April 30, 2026. The proposed merger would further consolidate an already concentrated industry. Should UP's acquisition of NS succeed, only three American Class I railroads would remain, creating additional pressure for the end-game duopoly scenario in which CSX and BNSF would also merge.

4. Though UP and NS overlap on limited routes, particularly within the geographic polygon defined by nodes in Chicago (IL), St. Louis (MO), Kansas City (MO), and Des Moines (IA), the merger effects would reverberate across the country through extended bottleneck routes. Previous attempts to allay concerns regarding anticompetitive harm from extensions of bottleneck routes have relied on the one lump theory. Current economic thought has shifted away from this theory, and the literature has now acknowledged the limited conditions under which it applies. In this statement, we explain that the one lump theory is inapposite in this matter, which suggests that prices on certain routes can be expected to increase. Moreover, we find that the merger increases the risk of foreclosure on origin and destination bottleneck route segments, harming both shippers and receivers.

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1. Within the context of the rail industry, Grimm et al. explain that ("Foreclosure implies that no transactions among integrated and nonintegrated firms will occur or at least that the quantities exchanged will be less than would occur in the absence of vertically related bargaining power. As in the Alcoa case, the vertically integrated firm can also "price squeeze" its nonintegrated buyers by raising its price above competitive levels.") Curtis M. Grimm, Clifford Winston, and Carol Evans, *Foreclosure of Railroad Markets: A Test of Chicago Leverage Theory*, 35 J.L. & ECON. 295 (1992), [hereafter, "Grimm et al., (1992)"] at 235.

5. Finally, we address efficiency justifications that UP and NS offer in support of the merger.

i. First, we note that industry consolidation increases the likelihood and severity of supply chain disruptions, as the post-COVID period demonstrated. UP's acquisition of NS would increase supply chain risks, as the merged entity would control nearly half of total rail volume in the United States. Recent episodes, such as Cloudflare outages, have revealed the risks of dependence on supply chains with a single point of failure.

ii. Second, in addition to pricing discipline, competition in rail markets can provide necessary redundancies and mitigate supply-chain risks.[2] Workforce reduction implemented through Precision Scheduled Railroading (PSR) and further accelerated through consolidation can improve the merged entity's operating ratio and thus its shareholders. Not only does this private benefit not reflect a cognizable efficiency under antitrust standards, but workforce reduction also increases the risk of losing institutional knowledge if older workers receive voluntary early retirement packages as part of a merged entity's cost-cutting efforts.[3]

iii. Third, efficiency justifications should reflect any influence of consequential merger-related risk. For example, even if a merger resulted in cognizable efficiencies that redounded to downstream customers, such as fewer interchanges (and the likely corresponding faster transit times), the expected value of these efficiencies should be risk-adjusted.

iv. Fourth, efficiency justifications should only reflect the marginal efficiency gains from the merger above efficiencies that could be gained absent the acquisition. For example, railroads have a history of entering into agreements that reduce transit time, reduce cost, or otherwise improve the quality of service, such as those resulting in steel-wheel interchanges.[4] If such agreements fail to produce the intended benefits,

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2. Samuel Bemment, Roger Goodall, Roger Dixon, and Christopher Ward, *Improving the reliability and availability of railway track switching by analysing historical failure data and introducing functionally redundant subsystems*, PROC INST MECH ENG F J RAIL RAPID TRANSIT, 232(5), (2017), 1407-1424 at 1407, ("Subsystem redundancy is one of a number of approaches, which can be used to ensure an appropriate safety integrity and/or operational reliability level, successfully adopted by, for example, the aeronautical and nuclear industries.")

3. Office of Research, Development and Technology, U.S., Department of Transportation, Federal Railroad Administration, Expertise Management for Safety Leadership Positions in the U.S. Railroad Industry, Final Report, August 2024, at I, ("The U.S. railroad industry is facing critical knowledge loss of invaluable safety leadership expertise due to employee separations and a retiring workforce.") https://railroads.dot.gov/sites/fra.dot.gov/files/2024-08/Expertise%20Management%20Framework.pdf. See also, Monique Stewart, Railroad Industry Workforce Development Survey (Report No. RR 20-19). Federal Railroad Administration, (2020), ("As the workforce ages and retires from the rail industry, significant experience will be lost if knowledge is not effectively transferred to and socialized among the next generation of employees."), available at https://railroads.dot.gov/sites/fra.dot.gov/files/2020-11/Workforce%20Development%20Survey-A.pdf.

4. Progressive Railroading, *CN, CSXT craft steel-wheel interchange in Chicago*, April 3, 2012, available at https://www.progressiverailroading.com/class_is/news/CN-CSXT-craft-steel-wheel-interchange-in-Chicago--30475. See also, CSX, *CSX and CN Collaborate to Launch New Intermodal Rail Service into Nashville*, Sept. 9, 2025, ("This agreement allows us to expand our reach, enabling our customers to efficiently access more markets. Collaboration like

they can be far more easily unwound than a merger. Thus, merger efficiencies should include only the incremental benefits over and above those that cannot be realized with agreements alone.

QUALIFICATIONS OF HAL J. SINGER

6. I am a Managing Director at Econ One Research and Adjunct Professor at the University of Utah College of Social and Behavioral Science, where I teach Economics and the Law to undergraduate economic students and law students. I am also the director of an inter-disciplinary institute at the University of Utah, named the Utah Project, that straddles the law school and the economics department and is dedicated to the study of antitrust and consumer protection law and policy. I received my undergraduate degree from Tulane University and my PhD in Economics from Johns Hopkins University.

7. I am an applied microeconomist with an emphasis on industrial organization and regulation. In an academic capacity, I have published several books and book chapters, spanning a range of industries and topics, and my articles have appeared in dozens of legal and economic journals. My competition-related articles have appeared in multiple American Bar Association (ABA) Antitrust Section journals, and I have been a panelist at several ABA Antitrust events. In a consulting capacity, I have been nominated for antitrust practitioner of the year among economists in 2013 by the American Antitrust Institute (AAI) for my work in *Tennis Channel v. Comcast*, and AAI named me as co-Honoree in the same category in 2018 for my work in *In re Lidoderm Antitrust Litigation*, and again in 2023 for my work in *Cung Le et al. v. Zuffa d/b/a Ultimate Fighting Championship*.

8. I have testified as an economic expert in state and federal courts, as well as before regulatory agencies. I also have testified before the House Judiciary Subcommittee on Antitrust and the Senate Judiciary Subcommittee on Competition Policy, Antitrust, and Consumer Rights on the interplay between antitrust and sector-specific regulation. Federal and state courts have relied on my models of common impact in certifying eleven classes in antitrust matters,[5] and six classes in

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this benefits everyone; railroads, customers, and communities, by driving growth, reliability, optionality, and sustainability") available at https://www.csx.com/index.cfm/about-us/media/press-releases/csx-and-cn-collaborate-to-launch-new-intermodal-rail-service-into-nashville/.

5. *Meijer, Inc. v. Abbott Laboratories*, No. C 07-5985 CW, 2008 WL 4065839 (N.D. Cal. Aug. 27, 2008) (granting Plaintiffs' Motion for Class Certification); *Natchitoches Parish Hosp. Serv. Dist. v. Tyco Int'l, Ltd.*, 262 F.R.D. 58 (D. Mass. 2008) (granting Motion to Certify Class); *Se. Missouri Hosp. v. C.R. Bard, Inc.*, No. 1:07cv0031 TCM, 2008 WL 4372741 (E.D. Mo. Sept. 22, 2008) (granting in part Motion for Class Certification); *Johnson v. Arizona Hosp. & Healthcare Ass'n*, No. CV 07-1292-PHX-SRB, 2009 WL 5031334 (D. Ariz. July 14, 2009) (granting in part Motion for Class Certification); *In re Delta/AirTran Baggage Fee Antitrust Litig.*, 317 F.R.D. 675 (N.D. Ga. 2016) (granting Motion to Certify Class); *In re Lidoderm Antitrust Litig.*, No. 12-md-02521-WHO, 2017 WL 679367 (N.D. Cal. Feb. 21, 2017) (granting Motions for Class Certifications); *In re Pork Antitrust Litig.*, No. CV 18-1776 (JRT/JFD), 2023 WL 2696497 (D. Minn. Mar. 29, 2023) (granting Motion to Certify Class); *Le v. Zuffa, LLC*, No. 2:15-cv-01045-RFB-BNW, 2023 WL 5085064 (D. Nev. Aug. 9, 2023) (granting in part Motion to Certify Class); *Simon and Simon, PC d/b/a City Smiles and VIP Dental Spas v. Align Technology, Inc.*, No. 20-cv-03754-VC (N.D. Cal. Nov. 29, 2023); In re Broiler Chicken Grower Antitrust Litig. (No. II), No. 6:17-cv-00033-RJS-CMR, ECF No. 798 (E.D. Ok. May 8, 2024) (granting motion to certify class and denying Daubert motion as to Dr. Singer);); Henry, et al. v. Brown University, et al. - 568 Cartel Antitrust Litigation, No. 22 C 125, ECF No. 1275 (N.D. Ill. June 1, 2026) (granting motion to certify class).

consumer protection matters (each using conjoint-based valuation methods).[6] I have also served as the economic expert for the Federal Trade Commission in its challenge of Meta's acquisition of Supernatural.

QUALIFICATIONS OF TED P. TATOS

9. I am a quantitative microeconomist, specializing in econometric and statistical analysis. I have taught in the Economics department as an adjunct professor at the University of Utah and regularly publish in economic and law journals on antitrust, labor, statistics, and intellectual property issues. My work has appeared in the Antitrust Bulletin, the Harvard Journal of Sports & Entertainment Law, the Journal of Sports Economics, the Federal Circuit Bar Journal, the Appraisal Journal, and others. I currently serve as the Associate Economics Editor of the Antitrust Bulletin journal. I received my undergraduate degree in Economics from Duke University and Master's Degree in Statistics with a focus in Econometrics from the University of Utah. I hold a professional statistician certification from the American Statistical Association.

10. I have testified as an economic expert in state and federal courts, as well as before regulatory agencies. I have advised both private sector and government clients, such as the Securities and Exchange Commission, on matters requiring complex economic and statistical analysis and also co-presented research findings regarding lock-in in the mainframe industry before the European Commission, Director General of Competition, Chief Economist's team. I have served as an expert on various antitrust matters, including *Garavanian v. Jet Blue and Spirit Airlines*, challenging the merger of the two airlines, as well as multiple litigation matters brought under the Robinson-Patman Act. I also served as part of the outside economics team advising the Federal Trade Commission on its challenge of Meta's acquisition of Supernatural.

BACKGROUND AND SALIENT FACTS

11. On April 30, 2026, UP and NS filed their major merger application with the STB. As a result of the merger, NS would become a wholly owned subsidiary of UP, and only three American-owned Class I railroads would remain in service in the United States—UP, CSX, and BNSF. Two additional smaller, Canadian-owned Class I railroads also service portions of the continental United States, providing a rail link to Canada: Canadian National Railway (CN) and Canadian Pacific Kansas City (CPKC). The latter resulted from the STB's 2023 approval of the acquisition of control by Canadian Pacific Railway (CP) of Kansas City Southern Railway (KCS),

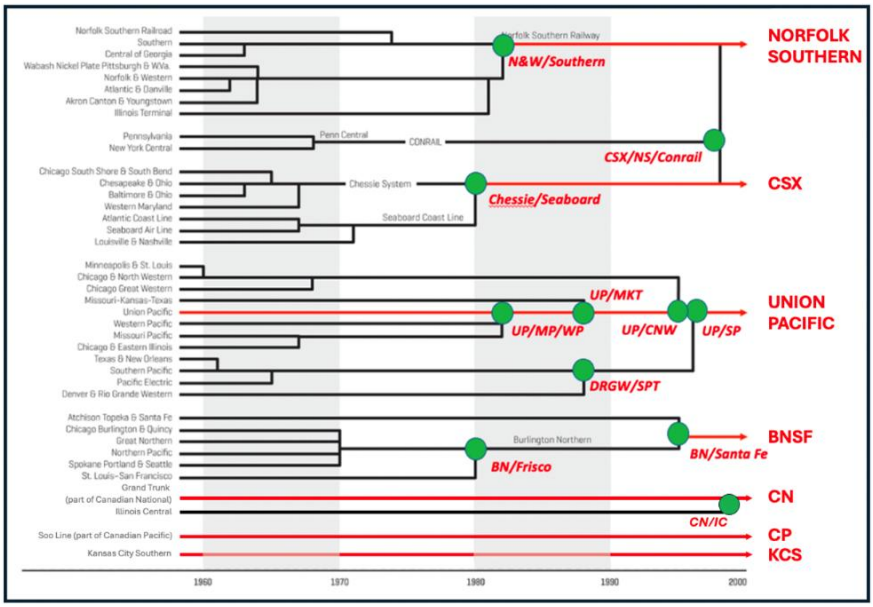
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6. *In re: MacBook Keyboard Litig.*, No. 5:18-cv-02813-EJD, 2021 WL 1250378 (N.D. Cal., Apr. 5, 2021) (granting Motion to Certify Class); *In re JUUL Labs, Inc., Mktg. Sales Pracs. & Prod. Liab. Litig.*, 609 F. Supp. 3d 942 (N.D. Cal. 2022) (granting Motion For Class Certification); *In re Univ. of S. California Tuition & Fees COVID-19 Refund Litig.*, No. CV 20-4066-DMG (PVCx), 2023 WL 6453814 (C.D. Cal. Sept. 29, 2023) (granting motion to certify a class*); In re Pepperdine Univ. Tuition & Fees Covid-19 Refund Litig.*, No. CV 20-4928-DMG (KSX), 2023 WL 6373845 (C.D. Cal. Sept. 26, 2023) (granting motion to certify a class); *Michael Miazza, et al. v. Board of Supervisors of Louisiana State University and Agricultural and Mechanical College*, No. C-696918; Zhubeen Vakilzadeh v. Trustees of the California State University, No. 20STCV23134 (Super. Ct. Cal., Cnty. of L.A. Mar. 26, 2025).

two comparatively small Class I railroads.[7] Given their relatively small sizes, CP and KCS obtained a waiver, allowing the merger to be considered under the STB's pre-2001 merger regulations.[8]

The figure below, courtesy of CPKC, provides a historical summary of the consolidation that has occurred in the railroad industry in the United States over approximately a half century from 1960 to immediately prior to CP's acquisition of KCS.[9]

FIGURE 1. RAILROAD CONSOLIDATION IN THE UNITED STATES, 1960-2020.



12. Because railroading is a high fixed cost business, railroads require sufficient traffic volume and density to defray these expenses and yield some measure of operating profit. The presence of many parallel lines in the mid-20th century limited the volume, and hence density, that any given railroad could garner, risking the abandonment of rail lines, to the particular detriment of shippers located in rural areas. The consolidation that occurred after the passage of the Staggers Act allowed railroads to generate sufficient volume and density needed for profitability. Ostensibly, as merging parties commonly argue, cognizable efficiencies would redound to consumers as well in the form of lower prices and improved service quality. Yet pricing data do not support this contention. Over the period since 2003, after the last major consolidation, in which CSX and NS

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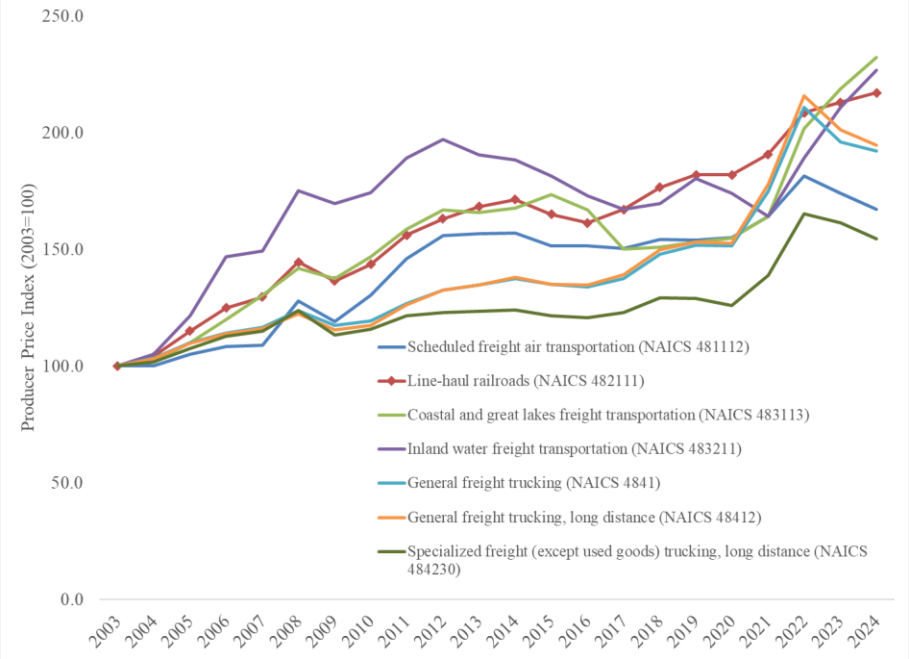
7. STB Docket No. FD 36500, March 15, 2023 Decision No. 35, ("This decision authorizes the combination of the Canadian Pacific Railway system with the Kansas City Southern Railway system. CP and KCS are Class I railroads, but individually they are far smaller than any of the other five Class I railroads with which they compete for business. Even after they merge, the combined system—to be known as Canadian Pacific Kansas City (CPKC)—will continue to be the smallest Class I railroad. This merger will create the first railroad providing single-line service spanning Canada, the United States, and Mexico.")

8. STB, Surface Transportation Board Determines Regulatory Waiver for Merger Between CP and KCS Applies, No. 20-21, April 23, 2021, available at https://www.stb.gov/news-communications/latest-news/pr-21-20/. See Docket No. FD 36500, Decision No. 4, at 1, ("The Board finds this transaction to be subject to the regulations set forth at 49 C.F.R. subpart A, in effect before July 11, 2001, pursuant to the waiver for transactions involving The Kansas City Southern Railway Company under 49 C.F.R. § 1180.0(b).")

9. Source: https://www.cpkcr.com/en/media/Rail-Consolidation-Updates.

split Conrail's assets, the Produce Price Index (PPI) of line-haul railroads has increased faster than both air- and truck-freight transport.[10]

FIGURE 2. TRANSPORTATION SERVICES PPIS



Such an increase in line-haul prices occurred despite railroads' adoption of PSR, indicating that the railroads internalized claimed efficiencies from such a practice, benefiting their operating ratios and stockholders rather than shippers and other consumers of their services.[11] Indeed, railroads' costs have declined over the past 25 years, as indicated by the Railroad Cost Adjustment Factors (RCAFs) shown in Figure 3 below.[12]

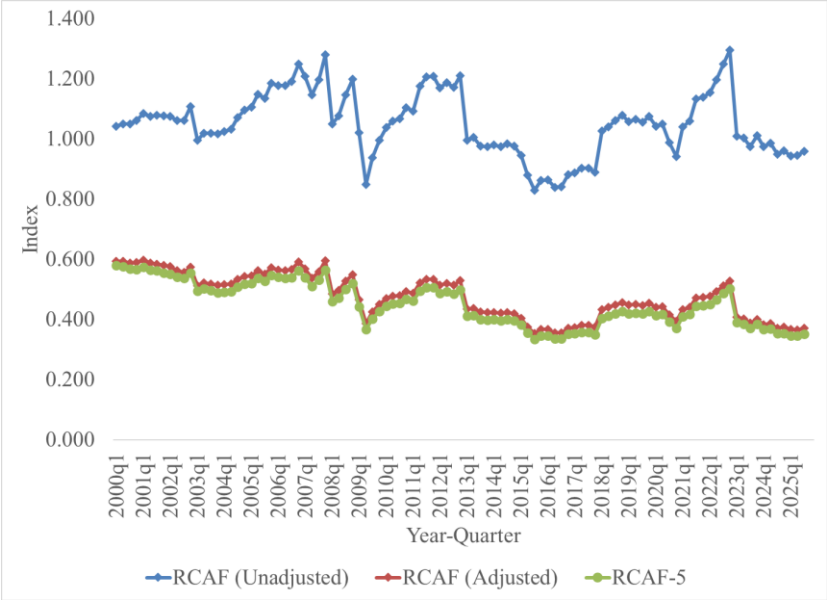
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10. Bureau of Transportation Statistics, Producer Price Indices for Transportation Services and Warehousing Services, available at, https://www.bts.gov/content/producer-price-indices-selected-transportation-and-warehousing-services-north-american.

11. Brian Chansky and Michael Schultz, "Tracking productivity in line-haul railroads," *Beyond the Numbers: Productivity*, vol. 13, no. 2 (U.S. Bureau of Labor Statistics, March 2024), https://www.bls.gov/opub/btn/volume-13/tracking-productivity-in-line-haul-railroads.htm. Line-haul refers to movement between rail stations not located within a station's switching limits.

12. RCAF data are available from the STB site at https://www.stb.gov/reports-data/railroad-cost-recovery-factor/. A description of the RCAF can be found on the AAR site at https://www.aar.org/wp-content/uploads/2022/09/Index_RCAFDescription-09.2022.pdf. See also, Interstate Commerce Commission, Ex Parte No. 290 (SUB-No. 2), Railroad Cost Recovery Procedures, Nov. 21, 1984, available at https://www.stb.gov/wp-content/uploads/1-ICC2d-207.pdf.

FIGURE 3. RAILROAD COST ADJUSTMENT FACTORS



13. UP's proposed acquisition of NS would result in the largest and only Class I railroad in the United States with an owned coast-to-coast rail network. In 2000, prompted by the announcement on December 20, 1999 that BNSF and CN sought to merge, the STB solicited comments regarding the state of rail consolidation and the future structure of the North American railroad industry.[13] Referring to the merger policy guidelines that the Interstate Commerce Commission (ICC) adopted subsequent to the passage of the Staggers Act of 1980, the STB explained the risks of further consolidation in the rail industry:

> The goals of that merger policy have largely been achieved. It does not appear that there are significant public interest benefits to be realized from further downsizing or rationalizing of rail route systems, as there is little of that activity left to do…Given the current transportation environment, and with the prospect of a transportation system composed of as few as two transcontinental railroads, we may wish to revisit our approach to competitive issues such as the 'one lump theory' and the 'three-to-two' question; downstream effects; the important role of smaller railroads in the rail network; service performance issues; how we should look at the types of benefits to be considered in the balancing test, and how we monitor benefits; how we should view alternatives to merger, such as alliances; employee issues such as 'cramdown;' and the international trade and foreign control issues that would be raised by any CN or CP proposal to combine with any large U.S. railroad. As Transportation Secretary Slater pointed out, the sheer size of these potential new mergers poses unique risks and leaves

13. Fed. Register, 65(19), Jan. 28, 2000 Notices, STB Ex Parte No. 582, Public Views on Major Rail Consolidation. See also, STB Ex Parte No. 582 (Sub-No. 1), Major Rail Consolidation Procedures, Advance Notice of Proposed Rulemaking, Decided March 30, 2000.

> no margin for error: *if these mergers were to fail, or lead to service problems, the effects could be devastating for both the rail industry and the shippers that depend on rail service*.[14]

14. In its April 2000 decision, the STB noted that further consolidation offers few prospects for additional efficiencies by eliminating excess capacity, a key motivating factor in the wave of mergers that followed the passage of the Staggers Act.[15] The STB further considered, and adopted, the principle that a proposed merger should enhance, rather than simply preserve, competition.[16] Parties at the hearing offered various means by which mergers could do so, including: (1) a reciprocal switching requirement ("requiring merger applicants to provide switching, at an agreed-upon fee, to all exclusively served shippers located within or adjacent to terminal areas");[17] (2) a revision of the one lump theory's relevance to rail mergers; and (3) a bottleneck condition ("contracts for the competitive portion of joint-line routes when the joint-line partner has a bottleneck segment.")[18]

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14. STB Ex Parte No. 582 (Sub-No. 1), Major Rail Consolidation Procedures, Advance Notice of Proposed Rulemaking, Decided March 16, 2000 at 552 (emphasis added). See also, Id. at 548, explaining the problems with previous mergers and unrealized "efficiencies", ("This announcement came as the rail sector and the shipping public have been struggling to recover from the disruptions associated with the most recent round of mergers. Those consolidations regrettably have been accompanied by a number of serious service problems, and, while service levels have shown improvement in certain areas, overall, service is clearly not where it should be. Promised customer benefits have not yet been fully realized, and carrier relationships with customers, rail employees, and local communities have been strained."). The STB also explained that at its hearing, ("We heard from Members of Congress, federal and state government agencies, shippers, and employees about poor service; the threat that another round of proposed mergers would further degrade service; and the need to let some time pass so that railroads, their employees, and their customers can catch their breath before the industry embarks upon what will likely be the final round of mergers. We heard from shippers and Members of Congress about the threat that another round of mergers would pose to competition in the industry, and we heard from a significant number of participants about the need for new rules to govern future mergers."). *Id.* at 549.

15. STB, Ex Parte No. 582, Public Views on Major Rail Consolidation, April 7, 2000 decision at 572, ("Thus, it appears that further rail mergers now offer limited opportunity for additional efficiencies through elimination of excess capacity. And while extensions of single-line service can offer benefits to railroads and their customers, there is a view that these benefits could be better achieved, short of merger, through innovative joint marketing arrangements and other cooperative efforts, such as joint dispatching to more efficiently move trains through congested terminal areas. Further, our experience has shown that, whether or not a particular proposed consolidation holds promise of significant service enhancing and cost reducing synergies, the integration task is itself quite complex and time consuming, and has, in a number of recent instances, been associated with severe service dislocations.")

16. STB, Ex Parte No. 582 (Sub-No. 1), Major Rail Consolidation Procedures, Final rules, July 11, 2001 [hereafter, STB 2001 Final Rules"] at 10, ("Our new rules reflect an intention on our part to offset, through conditions for competitive enhancements, those merger-related harms that cannot be directly or effectively mitigated. Such competitive enhancements could include, but would not be limited to, reciprocal switching arrangements, trackage rights, or elimination of 'paper barriers'"). Id. at 13, ("But in light of the service problems that have arisen in recent mergers, and the scale of the transaction that we would be asked to approve in future major rail merger applications, we believe that offering some new or enhanced rail-to-rail competition or other competitive benefits is likely to be necessary to resolve substantial difficulties so as to tip the balance in favor of the public interest.")

17. STB, Ex Parte No. 582, Public Views on Major Rail Consolidation, April 7, 2000 decision at 577 .

18. *Id.*

I. MERGER-RELATED HARMS

15. In its 2001 final regulations governing proposals for major rail consolidations, the STB identified various sources of merger-related harm: (1) reduction of competition, (2) harm to essential services, and (3) transitional service problems. While acknowledging the importance of the latter two potential merger effects, this statement focuses on the reduction of competition that can result in harm to shippers in the form of higher prices.[19] To offset such negative potential outcomes that lack mitigation options, the STB noted that future merger applicants "should explain how the transaction and conditions they propose would enhance competition."[20]

16. In comments preceding the 2001 Final Rule, railroads argued that future consolidations would involve end-to-end (vertical) rather than parallel (horizontal) mergers, and thus few direct losses of competition would result.[21] UP primarily serves the western United States and owns no rail lines east of Chicago. NS primarily serves the eastern United States and owns no lines west of Kansas City. The two Class I railroads overlap in the Midwest, most visibly in the cities of Chicago, IL, St. Louis, Springfield, and Kansas City, MO, New Orleans, LA, Memphis, TN, and Des Moines, IA.

17. In response to the railroads, the STB explained that losses to both direct and indirect competition would be difficult to remedy, cautioning that "a merger between any two U.S. Class I rail carriers or between major U.S. and Canadian rail carriers would surely threaten certain shippers with a loss of some indirect competition."[22] Further, the STB expressed concern that a previous remedy used to mitigate merger related harms in the past—namely, the issuance of trackage rights—may offer little relief in the future, particularly if no other carrier could (or would) offer replacement services to shippers harmed by the merger.[23]

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19. As discussed further infra, claims of merger-related cost reductions that result from harms to input providers, e.g., railroad workers, do not constitute cognizable efficiencies. See, e.g., U.S. Dept. of Justice & Federal Trade Commission, Merger Guidelines (2023) at 32, ("Merging parties sometimes raise a rebuttal argument that, notwithstanding other evidence that competition may be lessened, evidence of procompetitive efficiencies shows that no substantial lessening of competition is in fact threatened by the merger. This argument asserts that the merger would not substantially lessen competition in any relevant market in the first place. When assessing this argument, the Agencies will not credit vague or speculative claims, nor will they credit benefits outside the relevant market that would not prevent a lessening of competition in the relevant market."). See also, Ted Tatos and Hal Singer. *The Abuse of Offsets as Procompetitive Justifications: Restoring the Proper Role of Efficiencies after Ohio v. American Express and NCAA v. Alston*, GEORGIA ST. UNIV. L. REV., 38(4) (2022) available at, https://readingroom.law.gsu.edu/gsulr/vol38/iss4/10/.

20. STB Final Rule (2001), at 24. See also, Id. at 10 ("In the NPR, we indicated that we would require applicants in future merger proceedings to present proposals that enhance, not merely preserve, competition, in order to secure our approval.")

21. The term "end-to-end" refers to a linear route between start and end points. In this case, the end-to-end merger between UP and NS reflects the fact that the two railroads operate largely on opposite sides of the country, with limited overlap. As a result, the merger would yield a transcontinental railroad. Parallel lines involve tracks that follow the same or similar routes and share common nodes (starting/ending points and interchanges).

22. STB Final Rule (2001), at 18. See also, Id. at 19, ("End-to-end carriers that compete with each other geographically would stand to gain market power if we were to approve their merger without imposing effective conditions, which, as discussed above, could be difficult.")

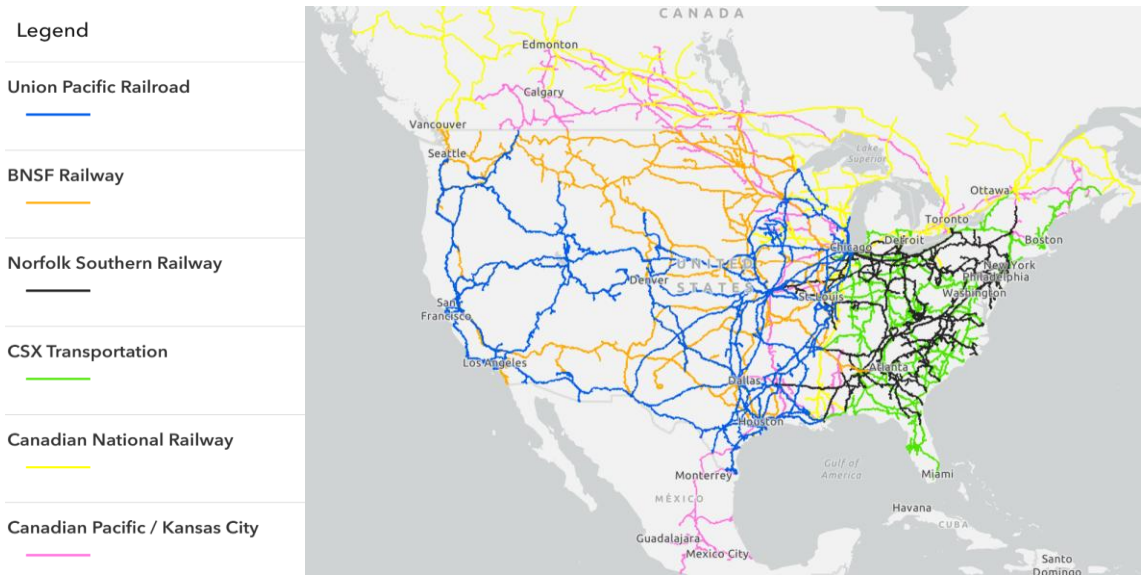
23. *Id*. at 19.

18. We address competitive harm that occurs under two scenarios: (1) on overlapping routes that UP and NS currently serve, for which the merger would result in a "2-1" merger-to-monopoly scenario, rendering shippers captive to the merged entity; and (2) on pre-merger interline routes where the merger would extend the length of the UP or NS bottleneck segments (i.e., from the origin to the interchange), and thereby permit the merged entity to foreclose competition from alternative routes via pre-merger gateways, resulting in either a new single-line route that completely shuts out a downstream competitor or a new interline route that substantially short hauls the downstream carrier.

A. Harm to Competition on Overlapping Routes

19. As noted above, railways in the United States divide across geographic areas with currently no east-to-west service on a single carrier available, though CN and CPKC provide such service in Canada.[24] BNSF and UP primarily cover the western United States, while CSX and NS cover the eastern portion of the country. This geographic separation results in the limited overlap discussed above, which occurs primarily within the geographic triangle with vertices in Chicago, Kansas City, and St. Louis, though the two carriers also overlap in Memphis and as far south as New Orleans. Figure 4 illustrates the Class I railroad routes in the United States, Canada, and Mexico.

FIGURE 4. CLASS I RAILROAD MAP

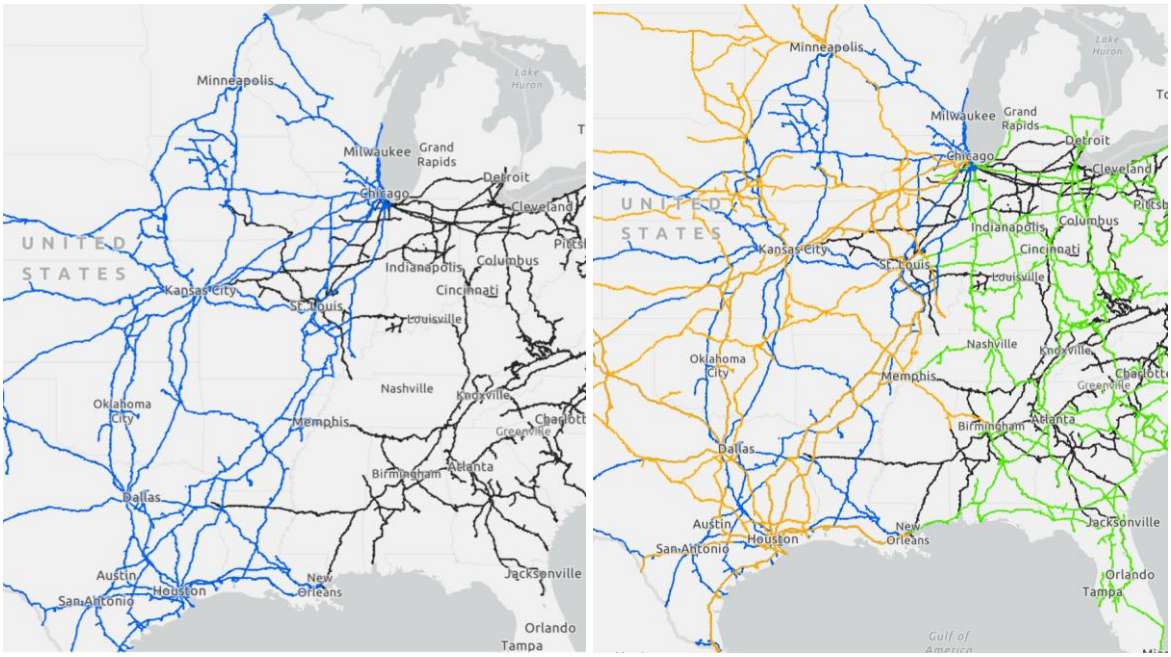


Source: Surface Transportation Board ArcGIS Mapping, *available at* https://stb.maps.arcgis.com/apps/mapviewer/index.html?webmap=96ec03e4fc8546bd8a864e39a2c3fc41.

20. Figure 5 below focuses on the overlap between UP and NS (left) and the overlap with BNSF and CSX in the same geographic area (right).

.24 Canada National Railway, previously a government-owned crown corporation established in 1919, was privatized in 1995 and now operates as a publicly-traded entity. Its acquisition of Illinois Central Railroad permitted its rail network to reach the Gulf of Mexico.

FIGURE 5. UP-NS OVERLAP AREAS



21. The relatively small number of overlapping routes between UP and NS masks their importance. According to the Association of American Railroads (AAR), Chicago remains the busiest railroad hub in the United States, with approximately one quarter of rail traffic either originating, terminating, or passing through the area.[25] In addition, approximately one-half of all intermodal trains in the United States pass through the metropolitan Chicago area.[26] According to the Missouri Department of Transportation, Kansas City and St. Louis are ranked as the second and sixth largest rail transportation centers in the United States, respectively.[27] These three cities along with Des Moines form the UP-NS overlap polygon depicted in Figure 6 below. Along with Memphis and New Orleans, the other two UP-NS overlap locations, these six locations constitute the principal gateway cities where rail traffic originating from either the east or west coasts can transfer to rails that service the opposite coast.

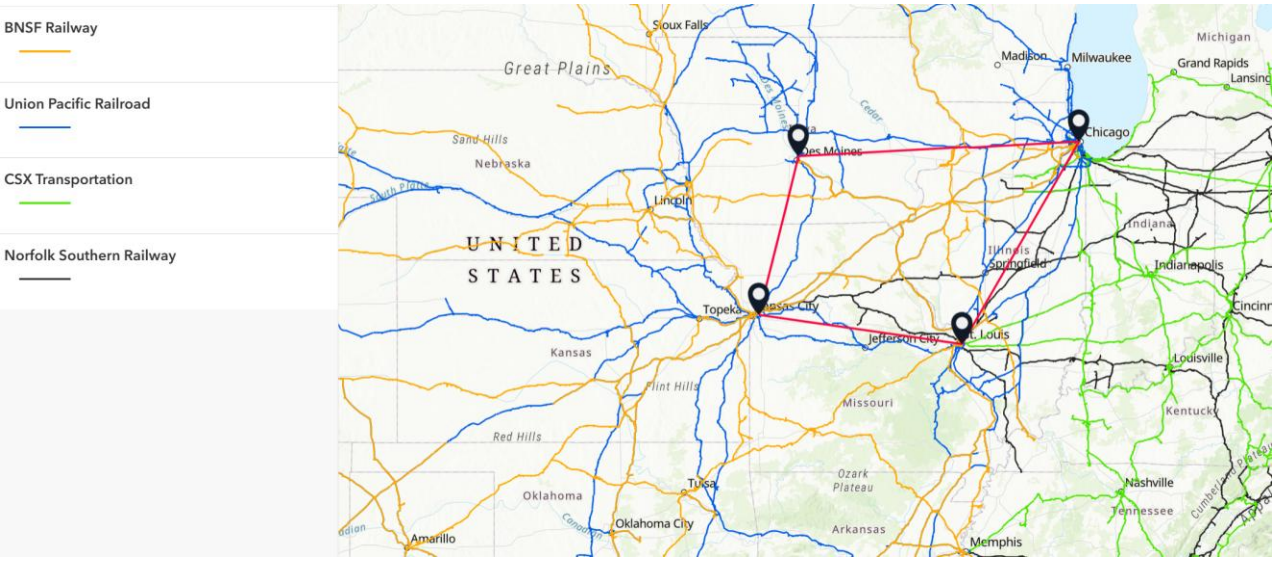
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25. Association of American Railroads, Freight Rail Facts & Figures at 4, available at https://www.aar.org/wp-content/uploads/2023/04/AAR-Facts-Figures-Fact-Sheet.pdf.

26. Chicago Metropolitan Agency for Planning, Recommendation: Maintain the region's status and North America's freight hub, available at https://cmap.illinois.gov/regional-plan/goals/recommendation/maintain-the-regions-status-as-north-americas-freight-hub/.

27. Missouri Dept. of Transportation, Freight Railroads, available at https://www.modot.org/freight-railroads. See also, Mid-America Regional Council, Connected Freight KC 2050: A Plan in Action / Freight Economic Overview and Policies at 27, ("The Kansas City region owes much of its historical growth to its strategic position as a major freight trans-shipment point, and it remains an important center for the rail, truck, barge, and air freight industries. The metropolitan area currently ranks as the second largest rail center (based on number of carloads and amount of pass-through tonnage) in the U.S.")

FIGURE 6. UP-NS GEOGRAPHIC OVERLAP POLYGON



22. Overlapping routes reflect direct sources of competition between UP and NS that the merger would extinguish, increasing the likelihood of harm to shippers and receivers in the form of higher prices and reduced quality of service.[28]

B. Harm to Competition on Non-Overlapping Routes

23. This section focuses on two types of vertical foreclosure concerns: (1) origin/destination bottlenecks, where a bottleneck carrier at either end of an interline route merges with one of two competing carriers at the other end to create a single line route, and (2) extended bottlenecks, where the bottleneck carrier at either end of an interline route is able to extend its bottleneck over a greater distance through a vertical merger which reduces the interline partner's length of haul and consequently raises the costs of that rival carrier. We refer to these concerns as "Traditional Foreclosure" and "Raising Rivals' Costs" or "RRC Foreclosure," respectively. Both reflect strategies that dominant firms use to harm competition but operate through different mechanisms. Traditional foreclosure reduces competition when a firm with market power conditions the purchase of a one product (the tied product) on the purchase of another (the tying product). RRC foreclosure reduces competition by increasing competitor's operating costs or denying them access to critical inputs.

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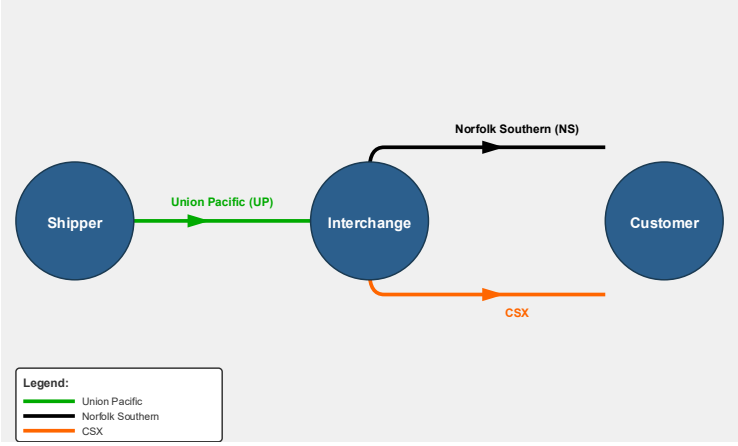
28. In this statement, we focus on harm to the output side of the market, though harm to input providers would also likely occur, which labor unions have recognized. We understand that Smart-TD, the largest rail labor union, which opposed the merger, successfully extracted concessions from UP in exchange for dropping its objections. Smart-TD observed that, "If there's one lesson we've learned since the 1860s, it's that you cannot trust the railroads for a damn thing. They've got lawyers, lobbyists, and PR firms paid to get them out of any promise they ever make. That's why, when they said no union employee would lose their job, we lawyered up. We legislated. We called in the press. Most importantly, we stood together as a force of 100,000 SMART-TD brothers and sisters with one demand: Put it in writing, make your promise legally binding. And that's what they did." Smart-TD, Reactions to the SMART-TD Guarantee with Union Pacific, September 25, 2025, available at https://www.smart-union.org/reactions-to-the-smart-td-guarantee-with-union-pacific/. We also understand that at this time, the Transport Workers Union of America continues to oppose the merger.

24. The judicial perception of tying has morphed dramatically over the last three decades into the current three-pronged "quasi-per se" rule that, absent a defendant's proof of pro-competitive justifications, "*makes it illegal to tie together 1) separate products when the defendant (2) has tying market power and (3) forecloses a nontrivial dollar amount of sales in the tied market*."[29] Ties that meet the first and second requirements and lack offsetting efficiencies will also generally incur antitrust liability in the presence of substantial foreclosure share, which may be inferred through direct evidence that the ability of rivals in the tied market has been harmed.[30] Importantly, courts now require evidence of market power in the tying market, a characteristic that moves the quasi-per se rule closer to the rule of reason than the *per se* rule.

1. Origin/Destination Bottleneck Routes

25. The traditional understanding of foreclosure exists when one of the merging carriers is a neutral bottleneck carrier between either the origin or destination and an interchange with two competing carriers that serve the opposite end of the route. This condition exists when UP holds a monopoly on the route segment between the customer and the interchange where NS and CSX connect, beyond which NS and CSX compete via parallel routes to the customer location. The merger thus enables UP to provide single line service post-merger by tying its product offerings. In other words, UP could condition the use of its monopoly segment (the tying product) on whether the customer uses the former NS line on the competitive portion of the route (the tied product). Figure 7 below illustrates this pre-merger condition.

FIGURE 7. ORIGIN BOTTLENECK, BEFORE VERTICAL MERGER



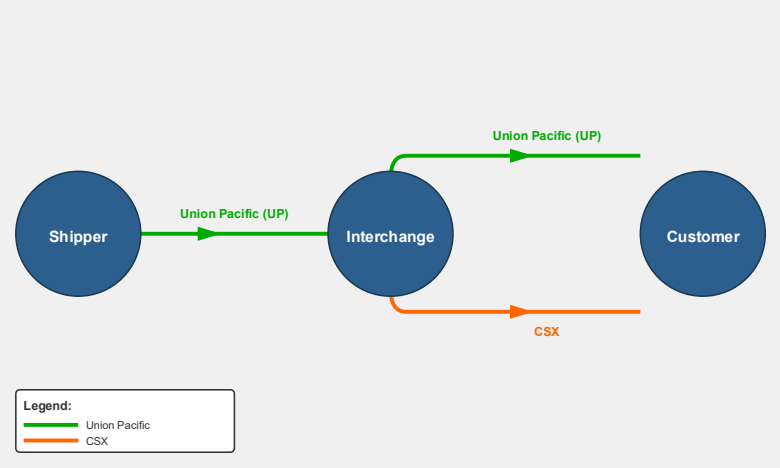
26. Figure 8 below provides the post-merger scenario, in which UP now controls the NS line connecting the interchange to the customer, resulting in an end-to-end consolidation. As detailed further below, potential economic harm to both shippers and customers results from UP's ability to

29. Einer Elhauge, *Tying, Bundled Discounts, and the Death of the Single Monopoly Profit Theory*, 123 HARV. L. REV. 397, 431 & n.89 (2009).

30. Einer Elhauge, *Rehabilitating Jefferson Parish: Why ties without a substantial foreclosure share should not be per se legal*, 80 ANTITRUST L.J. 463 (2016) at fn. 10 ("Direct proof that the competitiveness of tied market rivals was impaired would obviate the need to prove a substantial tied foreclosure share under this second branch [of the bifurcated rule of reason in tying cases] because a foreclosure share is simply used to infer those anticompetitive effects. *FTC v. Ind. Fed'n of Dentists*, 476 U.S. 447, 460–61 (1986)")

foreclose CSX from serving its customers by effectively tying access to UP's monopoly route between the shipper and the interchange to use of its line, which previously belonged to NS, between the interchange and the customer. Because vertical merger outcomes resemble tying conditions, the same economic lens can inform both scenarios. As discussed in detail *infra*, the one lump theory that has been invoked to allay concerns regarding the potential for anticompetitive outcomes from vertical mergers only applies in limited conditions that do not hold in the instant matter.

FIGURE 8. ORIGIN BOTTLENECK, AFTER VERTICAL MERGER



27. The same economic conditions exist when the bottleneck occurs at the destination, i.e., when UP or NS hold a monopoly on the line between the customer and the interchange. Figures 9 and 10 below illustrate these pre- and post- merger bottleneck scenarios. These Figures also would apply to routes where NS is the neutral bottleneck carrier and UP and BNSF are the competing carriers.

FIGURE 9. DESTINATION BOTTLENECK, BEFORE VERTICAL MERGER

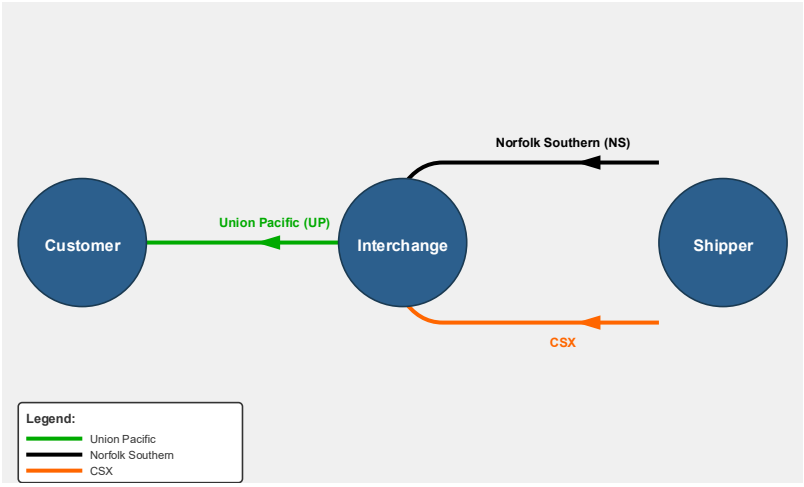
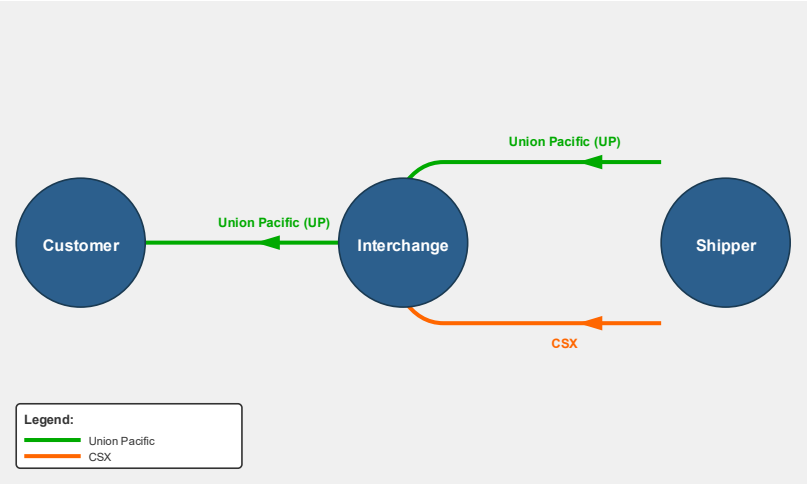


FIGURE 10. DESTINATION BOTTLENECK, AFTER VERTICAL MERGER



28. As the STB explained in its CPKC decision, "Even end-to-end mergers, however, can pose competitive risks, and indeed this decision overturns prior agency precedent that did not sufficiently recognize such concerns."[31] Indeed, the figures above reveal a critical distinction between the theoretical framework that motivates the one lump theory and the real-world, practical conditions that occur in the bottleneck situations described above. This distinction occurs because the rail rate itself does not capture the entire transportation cost. As RSI Logistics explains, "While the best rail rate often correlates with the best rail route, there may be scenarios where the cheapest rail rate is not always the best route. It is possible that your cheapest route may have a much longer or more variable transit time, costing you money in other areas."[32] This reality underscores the varying incentives of an end-to-end vertically integrated railroad compared to one that only controls a portion of the line, and highlights the incongruity of market realities with the one lump theory.

29. Consider the scenarios in Figures 7 and 8 above. Pre-merger (Figure 7), UP is indifferent between whether the shipper chooses NS or CSX to transport its product after the interchange, because it has no overlapping route segments over which to extend its haul. As such, it has no apparent reason to prioritize one choice over another. A vertically-merged entity, by contrast, has fresh incentives, as shown in Figure 8. Because it now has an end-to-end solution, UP has the incentive to prioritize a shipment if the shipper also chooses its long-haul route as opposed to choosing the competitor's route. In other words, as a platform that links shippers and customers, the

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31. STB, Finance Docket #36500, Decision at 4. See also, Id. at 65-6, ("Even in mergers such as this (i.e., those without horizontal network overlap), potential adverse vertical competitive impacts can include diminished service and/or increased prices on interline movements that have the effect of foreclosing efficient competitive options…the Board has expressly rejected the presumption—applied in some prior Board proceedings—that a vertical combination will not result in competitive harm.")

32. RSI Logistics, *Factors That Affect Your Railcar Shipments*, available at https://www.rsilogistics.com/blog/factors-that-affect-your-railcar-shipments/.

railroad can engage in self-preferencing, a common strategy among platforms such as Amazon and Google that face similar conditions.[33]

30. While the potential for self-preferencing to yield adverse economic outcomes has garnered attention among economists and regulators in the context of digital platforms, the literature has recognized these platforms' nexus to railroads.[34] Thus, even if CSX offers a lower rate, UP has the ability to prioritize a given shipment on the monopoly portion of its route, counteracting any savings that the customer may receive on the competitive portion of the route from a lower CSX rate. We note that the same scenario explains why the STB's open gateway condition in the CPKC decision is insufficient—it only attempts to protect commercially reasonable rates while failing to consider other actions that the merged entity can take to discriminate against a competitor's alternative interline service.

31. The one lump theory implicitly assumes no qualitative differences between shipment transactions contemplated under Figures 7 (pre-merger) and Figure 8 (a vertically integrated UP). The archetypal example, where a monopolist in bolts cannot extract additional profits by tying purchases of complementary nuts sold in a competitive market to its bolts, presupposes that a customer can acquire the combination of nuts and bolts at the same time regardless of its chosen purchaser. Again, consider the first reason described above for distinguishing the one lump theory from the instant case: A vertically integrated end-to-end provider can prioritize delivery of the bundled purchase it offers (UP-UP) over an interline shipment (UP-CSX), raising the quality-adjusted cost of the latter relative to the former.

32. In its CPKC Decision, the STB addressed empirical analysis contained in the verified statement of Richard Brown and Nathan Zebrowski on behalf of Applicants, which examined carload and intermodal shares for various county-to-county traffic pairs, relying on the 2015-2019 confidential waybill sample.[35] As the STB explained, Brown & Zebrowski found that,

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33. For a discussion of the incongruity of the one lump profit theory with self-preferencing, see David J. Balan, *Too Many Economists Are Using a Flawed Theory To Defend Dominant Platforms' Self-Preferencing Practices*, PROMARKET, Nov. 18, 2022, available at https://www.promarket.org/2022/11/18/single-monopoly-profit-theory-is-an-invalid-justification-for-dominant-platforms-self-preferencing-practices/.

34. See, e.g., Nikolas Guggenberger, *Essential Platforms*, 24 STAN. TECH. L. REV. 237 (2021), 237-343, ("Digital platforms are the railroads of the modern era."), available at https://law.stanford.edu/publications/essential-platforms/; Lina M. Khan, *Amazon's Antitrust Paradox*, 126 YALE L.J. 710, 797–98 (2017), ("Famously, the Interstate Commerce Commission—which instituted a form of common carriage for railroads—was created partly in response to the abusive conduct of railroads, whose control over an essential facility enabled them to pick winners and losers among farmers."), referencing Christopher Leslie, *Antitrust Law as Public Interest Law*, 2 U.C. IRVINE L. REV. 885, 887 (2012); Online Platforms and Market Power, Part 6: Examining the Dominance of Amazon, Apple, Facebook, and Google, Statement of Congressman Jerry Nadler, July 29, 2020, ("In some basic ways, the problem is not unlike what we faced 130 years ago, when railroads transformed American life—both enabling farmers and producers to access new markets, but also creating a key chokehold that the railroad monopolies could exploit. Railroads notoriously abused this gatekeeper power in a variety of ways. They charged tolls, extorting the producers reliant on their rails. They discriminated among farmers, picking winners and losers across the economy. And by expanding into lines of business that competed directly with producers, they could use their dominance in transportation to favor their own services") available at https://nadler.house.gov/news/documentsingle.aspx?DocumentID=394381.

35. STB, Docket No. FD 36500, Decision at 66.

> For carload traffic during the time period under review, the Traffic Distribution Analysis showed that where a single-line route competed against an independent interline route of equal length, the single-line route captured about 55% of the traffic. But where a single-line route competed against a dependent interline route of equal length, the single-line route captured over 65% of the carload traffic.[36]

In such a scenario, as the STB observed, a single-line scenario should be equally efficient under both conditions, obviating any increased efficiency explanations for the difference. Such results are consistent with increased foreclosure, further undermining the one lump theory.

2. The Raising Rivals' Costs Foreclosure Paradigm

33. In this case, RRC Foreclosure applies equally to the Traditional Foreclosure scenarios described above and to partial foreclosure scenarios where the merging carriers' extended long-haul does not result in single-line service. This is because only a non-merging carrier directly serves the opposite end of the route, such as when (1) UP holds a monopoly on the route segment between the customer and interchange with CSX, and (2) CSX holds a monopoly at the opposite end. The merger would extend UP's long-haul over the NS line to a new interchange with CSX that is closer to the destination, thereby reducing CSX's length of haul. The reduction in its length of haul leaves CSX with fewer miles over which to spread its fixed costs, effectively resulting in a cost increase.

34. Antitrust economists have recognized that, in situations like this, a vertical merger can harm competition when a monopolist forecloses supply, thus raising rivals' costs. In this case, downstream competitors experience a cost increase, as they necessarily shift to higher cost suppliers or less efficient inputs, an outcome known as the "bottleneck" or "essential facilities" problem.[37] The bottleneck problem is a special case of foreclosure. Steven Salop (UP's expert in the CPKC merger) and David Scheffman introduced the raising rivals' cost (RRC) foreclosure paradigm in two seminal papers in the 1980s.[38]

35. The RRC foreclosure paradigm used to analyze potential anticompetitive effects arising from ties focuses on the ability of the tying firm to raise prices to consumers in a relevant

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36 *Id.*

37 Thomas G. Krattenmaker and Steven C. Salop, *Anticompetitive Exclusion: Raising Rivals' Costs To Achieve Power Over Price*, 96 YALE L.J. 209 (1986) at 234. The authors explain that, ("This Bottleneck method is precisely the technique employed collectively by a group of vertically integrated firms in the *Terminal Railroad* case. [United States v. Terminal R.R. Ass'n, 224 U.S. 383 (1912).] In that case, a group of railroad operators obtained an important input: the only railroad bridges across the Mississippi River at St. Louis.")

38. Steven Salop and David Scheffman. *Raising rivals' costs: Recent advances in the theory of industrial structure.* AMERICAN ECONOMIC REVIEW, 73(2), (1983), 267–271, ("It is better to compete against high cost firms than low cost ones. Thus, raising rivals• costs can be profitable even if the rival does not exit from the market. Nor is it necessary to sacrifice profits in the short-run for 'speculative and indeterminate' profits in the long -run. A higher cost rival quickly reduces output, allowing the predator to immediately raise price or market share."); Steven Salop and David Scheffman, *Cost-Raising Strategies.* JOURNAL OF INDUSTRIAL ECONOMICS, 36(1), (1987),19–34.

market, an outcome that Krattenmaker and Salop, two of the theory's most respected proponents, describe as gaining "power over price."[39] Salop further explains that:

> The RRC foreclosure paradigm generally describes exclusionary conduct that totally or partially "forecloses" competitors from access either to critical inputs or customers, with the effect of causing them to raise their prices or reduce their output, thereby allowing the excluding firm to profit by setting a supracompetitive output price, with the effect of harming consumers…in a RRC foreclosure case, the plaintiff must prove "power over price" (i.e., probable harm to competition as well as "raising rivals' costs" (i.e., harm to competitors)). [40]

36. Studying the potential of RRC is a critical element of a vertical merger analysis that involves claims of double marginalization. Instead of addressing this effect, which the economic literature has long acknowledged, the Applicants' witness, Dr. Israel, ignores it by simply assuming it away. Krattenmaker and Salop (1986) argue that the foreclosure, i.e., anticompetitive exclusion, "should be judged according to whether the challenged practice places rival competitors at a cost disadvantage sufficient to allow the defendant firm to exercise monopoly power by raising its price."[41] Below, we show that the instant case meets this condition by raising the costs of rival railroads. While the open gateway remedy that the STB imposed in the CPKC decision aimed to prevent that sort of foreclosure, it would do little to mitigate this concern in the instant matter. UP's acquisition could foreclose the remaining few Class I railroads from their competing long-haul routes, even if gateways remain open.[42]

37. To underscore the shortcomings of the Open Gateway Commitment in this case, consider the following scenario. UP operates a line between Houston and New Orleans, where an interchange gateway exists with NS and CSX. CSX operates a route from New Orleans to a customer in Atlanta. NS operates a line between New Orleans and an interchange proximate to and west of Atlanta, from where CSX has a connector line that completes the journey to the Atlanta customer.

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39. Thomas G. Krattenmaker & Steven C. Salop, *Anticompetitive Exclusion: Raising Rivals' Costs to Achieve Power over Price*, 96 YALE L.J. 209 (1986).

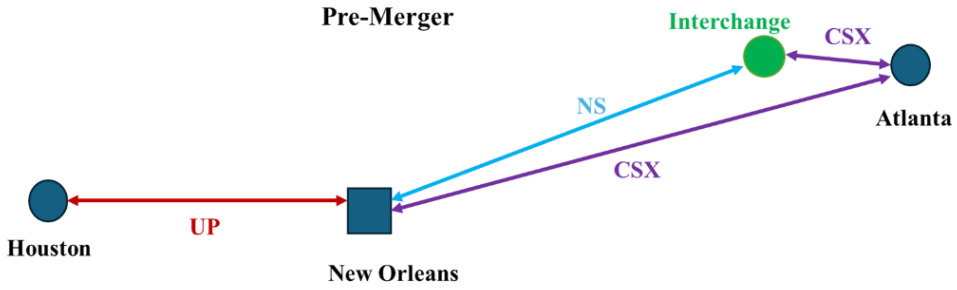
40. Steven Salop, *The Raising Rivals' Cost Foreclosure Paradigm, Conditional Pricing Practices, and the Flawed Incremental Price-Cost Test*, 81 ANTITRUST L.J. 371-421 (2017), [hereafter "Salop, Raising Rivals' Costs, 2017"] at 376. Id. at 377, ("…successful RRC conduct does not require the exit of rivals, or even the permanent reduction in competitors' production capacity. If the marginal costs of established competitors are raised, those competitors will have the incentive to raise their prices and reduce their output, even if they remain viable. This also means that RRC conduct is more likely to succeed, and therefore, is more likely to be attempted.")

41. Thomas Krattenmaker and Steven Salop, *Anticompetitive Exclusion: Raising Rivals' Costs To Achieve Power over Price*, YALE L. J., Volume 96, Number 2, December 1986, 209-293 at 214. Also see, Id. at 214, ("Raising rivals' costs can be a particularly effective method of anticompetitive exclusion. This strategy need not entail sacrificing one's own profits in the short run; it need not require classical market power as a prerequisite for its success; and it may give the excluding firm various options in exercising its acquired power.")

42. Salop, Raising Rivals' Costs, 2017 at 386, ("Customer foreclosure by a monopolist can injure competitors and harm competition in several distinct ways. First, in the most extreme scenario, the customer base of an entrant or small rival may be limited to such a degree that it is unable to earn sufficient revenue to cover its costs and remain viable in the market. If anticipated sales likely would fall below this 'minimum viable scale (MVS),' an entrant would lack an incentive to enter and an existing competitor would have the incentive to exit.")

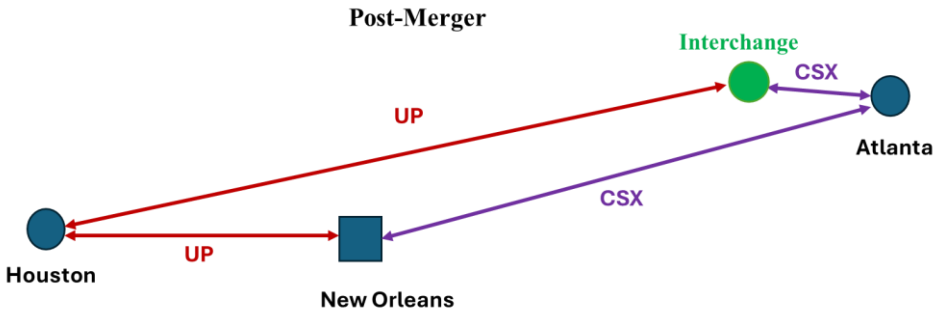
Because of its short distance, this connector line offers CSX a far less attractive economic proposition than CSX's New Orleans to Atlanta line.

FIGURE 17. PRE-MERGER ROUTE THROUGH NEW ORLEANS GATEWAY



38. Post-merger, the economic calculus changes, as shown in the diagram below. Now, UP gains a longer haul, from Houston-Atlanta (and vice versa), that bypasses New Orleans. It can keep the New Orleans gateway open as a technical matter, but UP will now have a direct line to the interchange (green) much closer to Atlanta, as shown below.

FIGURE 18. POST-MERGER UP/NS BY-PASS OF NEW ORLEANS GATEWAY



39. Post-merger, UP can self-preference its longer route to the new interchange. Doing so will push traffic originating in the west further east, reducing the volume of traffic interchanging at New Orleans and shortening the length of haul available to CSX. In the example above, an interline agreement would still occur post-merger, but CSX would only obtain the short distance between the interchange to Atlanta. This redistribution of line-haul responsibility reduces CSX's line-haul revenue, as UP performs a larger share of the movement, and CSX must still recover substantially the same network fixed costs at New Orleans and for its mainline from New Orleans to Atlanta with less volume and fewer line-haul miles, increasing its average cost per mile of service. In sum, CSX will experience line-haul revenue erosion, lower traffic density, and higher costs-per-mile across all the traffic that remains dependent upon its network. This is the essence of partial foreclosure known as "raising rivals' costs." In his verified statement in the CPKC matter, UP's expert explained that, "Reducing its own costs allows the firm to gain traffic by decreasing its rates, while raising rivals' costs allows the firm to gain traffic by causing the rivals to increase their rates. After the merger, CPKC can raise rivals' costs by raising the rates it charges for interline movements with those rivals."[43] That is precisely what UP could do following this merger, but over many more

43. Verified Statement of Steven Salop in CPKC matter, ¶16.

gateways and substantially more traffic volume, with more devastating effect, than in the CPKC merger.

40. The RRC paradigm reflects the concerns expressed above and reflected in the two previous diagrams with respect to the Open Gateway Commitment. *First*, the post-merger UP line haul from Houston to the interchange requires no risky investment or losses, as the merged entity would simply use the previous NS line rather than interline with CSX at New Orleans. *Second*, UP's successful implementation of RRC does not require that CSX exit the market. On the contrary, UP would still leave open the New Orleans gateway, allowing CSX to at least technically offer the same services as pre-merger, but under higher costs. As a result, (1) traffic that continues to depend upon the New Orleans interchange must bear more of the fixed costs; and (2) traffic that remains dependent upon the CSX line from New Orleans to Atlanta must bear more of its fixed costs. Foreclosure occurs in both scenarios by raising CSX's costs.[44]

41. As we discuss in more detail *infra*, Dr. Israel fails to address such post-merger conditions under which UP could raise rival railroads' costs, depriving them of customers and thus the necessary scale to maintain operations. Instead, his limited discussion of the Open Gateway Commitment uncritically repeats the same pronouncements that UP makes with respect to the "benefits" from the merger.

C. Economic Theory Recognizes the Limited Applications of the One Lump Theory, Rendering It Inapposite as a Defense of UP-NS Merger Price Effects

42. As the previous section explained, the theoretical settings that the single-monopoly-profit, also known as the one lump, theory envisions diverge critically from the economic realities that define railroad transportation. Additionally modern economic theory now recognizes that the one lump theory applies only under limited conditions that do not characterize the instant matter, which involves a proposed merger between two Class 1 railroads whose economies differ significantly from the simple nuts-and-bolts toy problem that initially motivated the single-monopoly-profit theory. This section begins with a brief introduction of the theory's origin in tying cases as the precursor to the one lump theory, which reflects the single monopoly profit's application to vertical mergers.

43. In output markets, a tying arrangement occurs when a seller conditions the sale or lease of a product or service on the customer's purchase of an additional product or service.[45] The motivation for concern that tying could harm consumers is that a monopolist in one market could tie the purchase of a good in another market (the tied product) to its monopoly good (the tying product), thus resulting in harm to competition in the market for the tied product. If a monopolist in the breakfast cereal market (the tying product) forced customers to also buy its own brand of milk (the tied product) along with the cereal, this tying arrangement would raise the price of the combined cereal and milk breakfast option to consumers. In other words, by tying purchases of milk to

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44. Salop, Raising Rivals' Costs at 377, ("If the marginal costs of established competitors are raised, those competitors will have the incentive to raise their prices and reduce their output, even if they remain viable.")

45. Erik Hovenkamp and Herbert Hovenkamp, *Tying Arrangements and Antitrust Harm*, ARIZONA L. REV., Vol. 52, 2010 at 925, ("A tying arrangement is a seller's requirement that a customer may purchase its 'tying' product only by taking its 'tied' product.")

purchases of its cereal, the cereal monopolist could leverage its monopoly from one market to another and thereby foreclose competition in the market for milk.[46]

44. For many years, antitrust jurisprudence relied on such reasoning in viewing tying arrangements as *per se* illegal. In *Standard Oil*, the Supreme Court found that "Tying agreements serve hardly any purpose beyond the suppression of competition."[47] Treatment of such arrangements soon began to change, motivated by the Chicago School of Economics, proponents of which rejected the economic logic above, arguing that tying restraints should be *per se* legal based on the single-monopoly-profit theory. This theory originated with Ward Bowman's 1957 paper, in which he offered the "nuts and bolts" toy problem previously explained above as justification his theory:

> For example, if the price of bolts were set by a monopolist and the price of nuts were set by competition, tying the sale of nuts to the sale of bolts would not increase the monopoly profit. Every increase in the price of nuts, even if the monopolist could produce them as cheaply as competitors, would require reduction in the price of bolts by a compensating amount. If the monopolist acted otherwise, he would be creating a situation which reduced his total monopoly return.[48]

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46. See Michael D. Whinston, *Tying, Foreclosure, and Exclusion*, AMERICAN ECONOMIC REVIEW, 80(4), 1990, 837–859. ("Tying has a long history of scrutiny under the antitrust laws of the United States, and throughout this history it has been harshly treated by the courts. A primary basis for this condemnation has been the courts' belief in what has come to be known as the "leverage theory" of tying: that is, that tying provides a mechanism whereby a firm with monopoly power in one market can use the leverage provided by this power to foreclose sales in, and thereby monopolize, a second market.") Also see A. Douglas Melamed, *Exclusionary Conduct under the Antitrust Laws: Balancing, Sacrifice, and Refusals to Deal*, 20 BERKELEY TECH. L.J. 1247 (2005). Melamed explains tying as "conduct by a firm or group of firms that weakens rivals or excludes them from the market and can thereby enable the firm or firms engaging in the conduct to gain market power." See also, Erik Hovenkamp and Herbert Hovenkamp, *Tying Arrangements and Antitrust Harm*, ARIZONA L. REV., Vol. 52, (2010) at 925, Foreclosure ("occurs when a tie ousts or unreasonably limits opportunities of rivals…")

47. *Standard Oil Co. of Cal. v. United States*, 337 U. S. 293, 305–306. See also *International Salt Co. v. United States*, 332 U. S. 392, where the Court found that the statutory grant of a patent conferred market power upon the recipient. As a historical matter, tying arrangements and patent litigation are inextricably linked. See Aaron Director & Edward Hirsch Levi, *Law and the Future: Trade Regulation*, 51 NORTHWESTERN UNIV. L. REV. 281 (1956). Also see *Illinois Tool Works Inc. v. Independent Ink, Inc*., 547 U.S. 28 (2006), ("American courts first encountered tying arrangements in the course of patent infringement litigation.") The Court in *Jefferson Parish v. Hyde* made explicit the long-held presumption that dominated antitrust jurisprudence at the time, namely that the granting of a patent conferred market power upon its holder, finding "if the Government has granted the seller a patent or similar monopoly over a product, it is fair to presume that the inability to buy the product elsewhere gives the seller market power." *Jefferson Parish Hosp. Dist. No. 2, v. Hyde* 466 U.S. 2 (1984). However, the U.S. Congress, through the Patent Misuse Reform Act of 1988 (35 U.S.C. § 271(d)), obviated the market power presumption and required that a Plaintiff alleging patent misuse demonstrate that the patentee has market power. As a result, the Court in *Illinois Tool Works v. Independent Ink*, presented with the question of whether "the presumption of market power in a patented product should survive as a matter of antitrust law despite its demise in patent law," abrogated in part its previous opinion in Jefferson Parish, concluding that "the mere fact that a tying product is patented does not support such a presumption." *Illinois Tool Works Inc. v. Independent Ink*, *Inc*., 547 U.S. 28 (2006). For a detailed discussion, see Tiffany L. Williams, *Illinois Tool Works Inc. v. Independent Ink, Inc.: The Intersection of Patent Law and Antitrust Law in the Context of Patent Tying Arrangements*, 58 MERCER L. REV. 11 (2007).

48. Ward S. Bowman, Jr., *Tying Arrangements and the Leverage Problem*, YALE L. J., Vol. 67, No. 1 (Nov., 1957), pp. 19-36.

In other words, assuming a customer has a reservation price for the combination of the goods (one nut and one bolt), if the monopolist raises the price of the bolt, it must lower the price for the nut in the competitive market, else the total exceeds the customer's reservation price. Thus, the theory argued that the bolt monopolist could not benefit by tying the purchase of bolts to the nuts it manufactures. Applying and extending this theory, Robert Bork argued in the 1970s that vertical mergers thus pose no threat to competition, create efficiency, and should receive approval.[49]

45. Applying this theory to the milk and cereal combination, a monopolist could not benefit from a second monopoly in the tied product unless some efficiencies resulted, because only a single monopoly profit could be extracted from the milk-and-cereal breakfast. In other words, buyers set a reservation price for the combination of the two goods, and a monopolist in the breakfast cereal market has no incentive to tie the two goods because it could obtain the same profits by just raising the price of breakfast cereal to the buyer's reservation price, a condition that would exist under a monopolist's implementation of perfect price discrimination.[50]

46. The single monopoly profit theory has been applied in vertical merger cases under the synonymous one lump theory. In the context of a railroad merger, the one lump theory argues that a bottleneck carrier, i.e., a carrier that has the only available rail route from an interchange to a destination (or from the origin to the interchange), can extract the maximum profit from the transportation, thus acting as a monopolist.[51] Consider Figures 7 and 8 above, the pre- and post-merger conditions in the instant matter, respectively. Suppose a shipper sets its reservation price for the Origin-Destination route at $1,000. Above this rate, the shipper would not transact the shipment by rail (or not at all). Further, suppose the following cost structure characterized the shipments in Figure 8: UP has the same marginal cost of $250 for each of the Origin-Interchange and Interchange-Destination routes. CSX has a marginal cost of $200 for the latter segment, rendering it the more efficient carrier of the two for the Interchange-Destination portion. As a result, UP has the incentive to interchange with CSX so long as its revenue share for the total through route exceeds $500 (its combined marginal cost for the route). CSX would agree to an interline if its revenue share exceeded its marginal cost of $200. The negotiating spectrum between the two parties would then distribute to CSX between $200 (its own marginal cost) and $250 (UP's marginal cost) and to UP between $750 and $800. Meeting at the midpoint, UP and CSX would each garner $775 and $225 in revenues, respectively. UP's requirement of at least $750 would reflect its leveraging of monopoly power on the bottleneck segment without foreclosing CSX on the competitive portion. Based on this theoretical construct, the Chicago School argued against statutory intervention in such instances of vertical integration, as the railroads would both have the incentive to choose the more efficient route.

47. Grimm and Harris, who offered a similar example to the one above, noted that "Perhaps the most important criticism that can be levied against the Chicago view is that it is pure

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49. ROBERT H. BORK, THE ANTITRUST PARADOX, 226 (1978).

50. Thomas Lambert, *Appropriate Liability Rules for Tying and Bundled Discounting*, OHIO STATE L. J., 72(5), 2011, ("A monopolist can attain all available monopoly profits simply by raising its price for the tying product to monopoly levels.*")*

51. See, e.g., Surface Transportation Board, Finance Docket No. 33388, Aug. 20, 1997, Oral Argument, comment of Richard Allen representing Norfolk Southern, at 24, "The one lump theory states in brief that a bottleneck carrier, the one who has the only route to the destination, which in this case is Conrail, generally will extract its maximum profits from the move, will act as the monopolist."

theoretical speculation."[52] The above example highlights a critical and heroic assumption required to motivate the one lump theory—namely, perfect information. Specifically, for the scenario above to hold, the bottleneck carrier, UP in this case, must have perfect information regarding CSX's marginal costs, a condition that seldom, if ever, applies in practice. In its decision regarding Canadian Pacific-Control-Kansas City Southern (CPKC), the STB announced its formal modification of the agency's historical reliance on the one lump theory to inform its assessment of competitive impacts from vertical integrations such as the instant matter.[53] While not precluding Applicants from arguing the applicability of the one lump theory in the CPKC control matter, the STB concluded that "the one lump theory does not justify a presumption that a vertical combination will not result in competitive harm."[54] As the STB noted in its decision, "Indeed, Applicants' own economic expert witness acknowledged at his deposition that the one lump theory may not apply where the merging parties have imperfect information about each other's costs, prices, and rates."[55]

48. The STB's acknowledgment above reflects a divergence from its previous reliance on the one lump theory, a skepticism well-supported by post-Chicago economists. Over the last three decades, the economic literature has observed that the one lump theory applies only in limited circumstances characterized by various restrictive assumptions. Identifying five such assumptions, Elhauge argues that "antitrust economics actually shows that the single monopoly profit theory is wrong in most cases," and that "[r]elaxing those assumptions invalidates the theory."[56] Elhauge identifies five profit-increasing effects that apply to the majority of ties exercised by firms with market power, which he separates into power effects and foreclosure share effects.[57]

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52. Curtis Grimm and Robert Harris, *Competition Access Policies in the Rail Freight Industry, With Comparisons to Telecommunications*, In: Gabel, D., Weiman, D.F. (eds) OPENING NETWORKS TO COMPETITION. Topics in Regulatory Economics and Policy Series, vol 27. Springer, Boston, MA (1998). The authors contemplate the same bottleneck configuration as we show in Figure 1 in this statement. The authors note at 145, ("Perhaps the most important criticism that can be levied against the Chicago view is that it is pure theoretical speculation.")

53. CPKC Decision at 13. Also, Id. at 43, ("The premise of the one lump theory is that there is only one monopoly profit (or rent) to be gained from the sale of an end-product or service. The theory holds that, because a monopolist at the end stage of production (for example, a bottleneck carrier) is in a position to capture the entire monopoly profit, integration with a connecting carrier on a competitive route segment normally does not enable it to raise the profit-maximizing price.") Also, see Id. at note 54, ("The one lump theory is also known as the single monopoly profit or one monopoly profit theory.")

54. CPKC Decision at 47. The STB further observed that "Indeed, Applicants' own economic expert witness acknowledged at his deposition that the one lump theory may not apply where the merging parties have imperfect information about each other's costs, prices, and rates – a limitation that applies here."

55. CPKC Decision at 47.

56. Einer Elhauge, *Tying, Bundled Discounts, and the Death of the Single Monopoly Profit Theory*, 123 HARV. L. REV. 397, 431 & n.89 (2009) [hereafter, Elhauge, HARV. L. REV. (2009)"]at 1. See also Einer Elhauge, *Rehabilitating Jefferson Parish: Why ties without a substantial foreclosure share should not be per se legal*, 80 ANTITRUST LAW JOURNAL 463 (2016) at 467, ("No one seems to still contend that the single monopoly profit theory holds and justifies a rule of total per se legality for all ties. That theory, at least, now seems good and buried.")

57. Elhauge, HARV. L. REV. (2009) at 2.

49. Moresi et al. (2021) evaluate the role of private information on vertical merger effects with an upstream monopolist, the scenarios envisioned in Figures 7-10 above.[58] The authors show that the upstream monopolist (UP) once vertically integrated post-merger, can observe the costs of its acquisition (NS). Prior to the merger, UP lacked such perfect information, meaning that it could not capture the monopoly profits envisioned under the one lump profit theory. The one lump outcome would occur only if certain conditions occurred, including if the costs of downstream firms (e.g., NS and CSX in Figure 1) were public information.

50. Salop explains that the same upward pricing pressure that horizontal mergers in differentiated product markets create also exists in vertical mergers with the same market structure. He likewise argues that, despite the one lump theory's simplicity, only three extreme circumstances warrant its application: (1) the upstream merging firm (i.e., the bottleneck carrier) is an unregulated monopolist, protected by strong entry barriers; (2) the upstream and downstream products are used in a fixed ratio; and (3), the downstream market is perfectly competitive. As noted above, the conditions under which the one lump theory would apply include perfect information, which characterizes the state of perfect competition.[59] Indeed, in his verified statement to the STB on behalf of UP in the matter involving Canadian Pacific's acquisition of Kansas City Southern, Salop explained the deficiencies of the one lump theory.[60]

51. Market realities also militate against the application of the one lump theory with respect to origin or destination bottleneck scenarios (i.e., starting or ending Y-configurations). In

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58. Serge Moresi, David Reitman, Steven C. Salop, and Yianis Sarafidis, *Vertical Mergers in a Model of Upstream Monopoly and Incomplete Information*, REVIEW OF INDUSTRIAL ORGANIZATION, Special Issue: The U.S. Vertical Merger Guidelines, (2021), ("A vertical merger can improve the information that is available to an upstream monopolist because, after the merger, the monopolist can observe the cost of its downstream merger partner. In the pre-merger world, because the costs of the downstream firms are private information, the monopolist has incomplete information and cannot implement the monopoly outcome: The expected pre-merger equilibrium price of the downstream product is lower than the monopoly price.")

59 Steven Salop, *Invigorating Vertical Merger Enforcement*, 127 YALE L.J. 1962 (2018), at 1968-9. Salop explains that the same upward pricing pressure that horizontal mergers in differentiated product markets create also exists in vertical mergers with the same market structure. Id. at 1973. See also, Michael A. Salinger, *The New Vertical Merger Guidelines: Muddying the Waters*, REVIEW OF INDUSTRIAL ORGANIZATION, 59, (2021), 161-176 at note 4, ("The single monopoly profit theorem states that a monopolist at one stage cannot increase its profits by integrating into *an adjacent perfectly competitive stage*." Emphasis added.) See also, Steven C. Sunshine, Deputy Assistant Attorney General, Antitrust Division, U.S. Department of Justice, Vertical Merger Enforcement Policy, Statement Before American Bar Association, Section of Antitrust Law, April 5, 1995, ("First, the monopolist's output must be used by its downstream customers in fixed proportions: otherwise, the downstream customers could switch to another mix of inputs. Second, the model assumes that the single monopolist has exercised all available market power at its functional level. If not, and a vertical merger increases the monopolist's ability to exercise market power (perhaps through raised entry barriers), that merger may reduce welfare. The model also assumes perfect competition downstream, without which considerations of double marginalization and price discrimination come into play. Additionally, it assumes a lack of any constraining regulation.")

60. Verified Statement of Steven C. Salop, STB Finance Docket No. 36500, ¶11, ("Although the Board has traditionally relied on the "one lump" theory to presume that end-to-end mergers are procompetitive, my economic analysis summarized in this report leads to the conclusion that the one lump theory does not support such a presumption in this matter.") Id. ¶12, ("When the one lump theory does not apply, an end-to-end merger between a monopoly carrier on one segment and one of the competing carriers on the other segment may have anticompetitive effects.")

CSX and Norfork Southern's joint acquisition of the Conrail network,[61] experts for ACE demonstrated that the inapposite nature of the one lump theory to the vertical integration of CSX or NS assets with Conrail, in which railroads acquired 42 and 58 percent Conrail, respectively.[62] Drs. Kahn and Dunbar explained that the theory only applies in the real world under certain restrictive conditions:

i. No actual potential alternative to the existing bottleneck
ii. The bottleneck carrier has perfect information regarding the shipper's demand function
iii. The bottleneck carrier has perfect information regarding the competing carriers' demand functions, particularly those with which it interlines.
iv. Future costs and prices are known with certainty.
v. Revenue-sharing agreements, to the extent they exist, do not preclude the bottleneck carrier from extracting the monopoly profit on the route it controls.[63]

With respect to the latter point, given the small number of Class I railroads, which would become even smaller should UP successfully acquire NS, a bottleneck carrier on some routes would also find itself in a position as a dependent carrier on other routes. Attempting to extract monopoly profits on bottleneck routes, effectively squeezing the dependent carrier's profits, would be met with the same behavior from rivals in the reverse situation.[64]

52. Using Costed Waybill Samples for Conrail, CSX and NS for 1988 through 1995 and other documents, Drs. Kahn and Dunbar also performed an empirical analysis to test the applicability of the one lump theory, finding the overwhelming evidence to indicate that this theory is incongruous with market realities in railroading.

> We have examined four hypotheses implied by the one lump theory. None is supported by the available empirical evidence. Taken together, the weight of this empirical evidence is overwhelming. It is simply not true that bottleneck carriers typically extract all the monopoly profit from a coal shipment; nor is it the case that a reduction in origin competition has no effect on the prices paid by shippers.[65]

Consistent with Drs. Kahn and Dunbar's findings, the then-Chairman of UP admitted that a sole destination carrier cannot reap monopoly profits from an interline movement:

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61. STB FD #33388 Joint Comments, Evidence, and Request for Conditions of Atlantic City Electric Company and Indianapolis Power & Light Company, October 21, 1997 citing joint Verified Statement of Drs. Alfred E. Kahn and Frederick C. Dunbar of National Economic Research Association (NERA) at 22-23.

62. Freight Waves, Conrail divided between CSX and Norfolk Southern, originally in American Shipper, July 1998, p. 71-72, available at https://www.freightwaves.com/news/freightwaves-classics-conrail-divided-between-csx-and-norfolk-southern.

63. STB FD #33388 Joint Comments, citing joint Verified Statement of Drs. Alfred E. Kahn and Frederick C. Dunbar of National Economic Research Association (NERA) at 22-3.

64. See Id. at 25 for a discussion.

65. Id at 30, citing joint Verified Statement of Drs. Kahn and Dunbar.

> Q. In other words, you think that, if a shipper is served by a single carrier at destination but another carrier might be involved at origin, that the destination carrier cannot extract all of the profit from the move?
>
> A. No way. [66]

Previous litigation has also revealed the limited applicability of the one lump profit theory, given a monopoly carrier has imperfect information regarding the costs and rates on competing portions of interline routes.[67]

53. Grimm et al. empirically evaluated the application of the Chicago School's single-monopoly-profit theory in railroad markets, observing that in network industries such as railroading, tying and vertical foreclosure have an identical structure.[68] The authors estimated a regression model to test the applicability of the Chicago School's one lump theory to the rail industry, finding that,[69]

> The effect of interline carriers on the welfare difference is substantial and statistically reliable, thus refuting the applicability of the Chicago hypothesis. An additional interline carrier at the origin reduces ΔW by 3.00 per ton mile**.** [70]
>
> It is clear that, to the extent interline competitors are eliminated by vertical integration (or tied sales), a welfare loss to shippers will result; if interline competition is promoted, there will be a welfare gain. The possibility of foreclosure arises in a number of related rail-policy issues: end-to-end mergers, route cancellations, and access to rail facilities.[71]

54. The recognition that the one lump theory does not mitigate potential harm from vertical integration motivated the STB's open gateway commitment requirement. As described by the STB's former chief economist, William Huneke, such a commitment "ensures that shippers who today enjoy competitive joint line routings with either CN or KCS will continue to have those

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66. Finance Docket No. 32760 (Tr. 148), as cited in Surface Transportation Board Finance Docket No. 33388, CSX Corporation and Norfork Southern Control and Operating Leases/Agreements, Conrail and Consolidated Rail Corp, Joint Comments, Evidence, and Request for Conditions of Atlantic City Electric Company and Indianapolis Power & Light Company, [hereafter, "STB FD #33388 Joint Comments"] at 38.

67. *Western Resources, Inc., Petitioner, v. Surface Transportation Board and United States of America, Respondents, Santa Fe Pacific Corporation, et al., Intervenors*, 109 F.3d 782 (D.C. Cir. 1997) "As a bottleneck carrier does not have perfect information about the cost of moving coal over the origin segment, the best it can do is estimate its monopoly lump and see whether origin carriers will compete to handle traffic. If the bottleneck's price is too high, no bid the origin carrier can afford to make will be acceptable to the shipper. This form of rate setting is one means of eliciting cost information."

68. Grimm et al. (1992) at 297.

69. Grimm et al. (1992) at 300-1, ("The welfare change between deregulation and optimality is the dependent variable, ΔW, used to test the Chicago hypothesis…According to the Chicago hypothesis, if one single-line rail carrier is in the market, interline rail carriers do not supply effective competition and have no effect on ΔW. If the Chicago hypothesis is incorrect and interline rail carriers do increase market competition, an additional interline rail carrier should have a statistically reliable negative effect on ΔW.")

70. Grimm et al. (1992) at 303.

71. Grimm et al. (1992) at 305. *Id.* at 308, ("Our results also support recent theoretical contributions that conclude that one cannot a priori assume away potential vertical or tied-sales foreclosure harms.")

routings available to them in a post CN/KCS merger environment, even if a merged CN/KCS could handle the entire movement via a single-line routing."[72]

II. RESPONSES TO VERIFIED STATEMENT OF MARK ISRAEL

55. Union Pacific has supported its application for control of Norfolk Southern with the verified statement of Dr. Mark Israel who addresses the vertical aspects of the proposed acquisition. We explain herein that, inter alia, (1) his opinions not only contradict the literature but also UP's own expert in the recent CPKC matter; (2) he misrepresents the relevant economic research, including the "Nobel Prize winning economics" that he claims support UP's controlling acquisition of NS (which it does not); and (3) he incorrectly attempts to relegate conditions in which the merger would lead to foreclosure harms as "edge cases."

56. Dr. Israel organizes the economic opinions in his verified statement as follows: his Section III discounts any foreclosure harms and Section IV claims an assortment of "procompetitive benefits" resulting from UP's acquisition of NS.[73] We find the opinions that Dr. Israel offers therein invalid and misleading as a matter of economics and address each of his points seriatim below.

A. Economic theories of foreclosure directly apply to the instant case, notwithstanding Dr. Israel's misleading attempts to minimize the resulting economic harm.

57. As we explained in Section I above, UP's proposed acquisition of NS poses economically significant risk of foreclosure, harming competition, shippers, and other downstream consumers. Our opinion is consistent with that of Dr. Steven Salop, UP's own expert in the CPKC matter, who explained how foreclosure harms apply to the railroad industry.[74] In the CPKC matter, various comments noted the exact same risk of foreclosure, even in cases involving end-to-end mergers such as the instant acquisition.[75] Additionally, in its comments regarding the previous CPKC acquisition, the Department of Justice noted that characteristics such as high fixed and sunk costs render the railroad industry susceptible to anticompetitive harm, including foreclosure:

> Even beyond the elimination of head-to-head competition, mergers that increase market power can harm competition in several ways. The merger can empower the merged railroad to deny shippers access to the lowest cost or fastest end-to-end routings. Likewise, in the absence of a complete refusal to interchange traffic, mergers may enable firms to foreclose

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72. William Huneke, *Why CN's Open Gateways Offer is a Big Deal*, RAILWAY AGE, June 22, 2021, available at https://www.railwayage.com/regulatory/why-cns-open-gateways-offer-is-a-big-deal/.

73. Verified Statement of Mark Israel at ii.

74. Verified Statement of Steven C. Salop, STB Finance Docket No. 36500, ¶¶11-12.

75. STB Finance Docket No. 36500, CN's Response to Comments on Application, July 12, 2022 at 11, ("A wide spectrum of commenters—shippers, affected communities, and railroads alike—recognize that even mergers that are largely end-to-end may result in competitive harms that can and should be mitigated for a transaction to serve the public interest. Such harms include vertical foreclosure, diminished geographic competition, and injuries to potential competition such as buildout opportunities.")

> competition in other ways, such as raising costs for their rivals through control over inputs or access…The railroad sector in particular, with its relatively high fixed and sunk costs, often enjoys substantial structural entry barriers and advantages that may facilitate or incentivize anticompetitive behavior.[76]

58. Dr. Israel ignores such observations entirely. Instead, he advances various economic principles to support his conclusion that foreclosure is not possible in the rail industry. Those principles include "Ricardian rents," elimination of double marginalization ("EDM"), and Cournot Complements. Dr. Israel also defends the one lump theory despite mounting economic criticism and the STB's adherence to that criticism in the CPKC merger decision. He frames his discussion of the foregoing principles in terms of whether a shipment moves pursuant to negotiated non-linear contracts, non-negotiated Rule 11 rates, or non-negotiated through rates. In the following subparts, we address the various economic concepts that Dr. Israel invokes, but our discussion of those concepts is not limited by or to his framework based on rate types.

1. **Negotiated non-linear contracts.**

59. Dr. Israel first advances a theory that foreclosure harms would not affect shippers that enter into negotiated non-linear contracts, i.e., agreements where the price reflects volume discounts or volume commitments.[77] Such arrangements represent freight rail contracts that are negotiated with customers, as distinguished from tariff rates, which are public, standard price lists that railroads publish for specific routes or commodities and do not reflect customer-specific rates.[78] The negotiated rates may be Rule 11 or through rates.[79] In contrast to tariff rates, freight rail contracts are not subject to STB oversight.

60. We agree with Dr. Israel that such contracts can include non-linear terms, such as volume discounts, though we understand that such price concessions commonly apply across an aggregate of many different lanes of traffic in contrast to individual lanes. The amount of a given shipment would logically depend on the demand from the customer. Even if per-unit rates were lower for larger shipments, the shipper would not ship more than the customer requires. For example, the cost per unit typically will be lower for bulk quantities purchased at Costco, but this does not mean that consumers will purchase those bulk quantities instead of smaller ones from retail grocers.

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76. STB Finance Docket No. 36500, Comment of the United States Department of Justice, Jan. 24, 2023 at 4. The DOJ further clarifies that ("For example, railroads may anticompetitively refuse to interchange traffic and/or favor the newly integrated company's long-haul route over a more efficient joint line route. While this can increase the profits of the integrated company, denying such traffic to a rival can reduce the incentives for that rival to invest in maintenance and improvements.")

77. Verified Statement of Mark Israel at note 22.

78. See, e.g., UPRR 11 Asset Tariff Changes – Effective January 1, 2026, Announcement Number: IN2025-10, Dec. 1, 2025, *available at* https://www.up.com/announcements/metals-minerals-forest/IN2025-10.

79 Verified Statement of Mark Israel, ¶ 20.

61. Dr. Israel's argument that foreclosure would not apply to any non-linear contracts is incorrect. Such freight rail contracts include rates for multiple origin destination pairs. This is significant because, as the GAO explains,

> Despite the volume discounts contracts can offer, some selected shippers said that contracts that include rates for multiple origin-to-destination routes can contain high rates on some routes. This is particularly an issue for shippers that are "captive"—that is, shippers served by a single railroad without an economically viable transportation alternative. Representatives of the four largest freight railroads said they charge what shippers are willing to pay to cover infrastructure costs for the entire rail network. However, according to selected shippers GAO interviewed, combining captive and non-captive routes together in one contract can compel shippers to accept some unreasonable rates.[80]

62. Dr. Israel also equivocates his position, arguing that he does not claim every contract reflects negotiation over non-linear pricing but rather that his own "experience in the industry" indicates that "a very large percentage of these cases reflect negotiated non-linear contracts."[81] This equivocation does nothing to support his position. Non-linear terms such as volume discounts apply to contracts that cover multiple routes. In other words, a shipper on a captive route can still suffer from supra-competitive rates even though it might obtain some volume discounts across all of its shipments, including those on non-captive routes. Thus, customers can still experience higher costs and risk of foreclosure on certain routes, particularly those where they are captive to a single railroad.

63. Dr. Israel then argues that, "in all such cases, economics teaches that there are not foreclosure concerns, but rather the merger will either benefit shippers or leave them unharmed, as I explain next."[82] First, if Dr. Israel's reference to "economics" reflects his attempted appeal to widely accepted and supported economic theory, the latter teaches no such thing. Indeed, Dr. Israel's subsequent explanation in the next section of his testimony does not cite a *single* economic authority in support. He manufactures the theory that non-linear contracts are immune to foreclosure effects from whole cloth. The STB also has never acknowledged any of the prophylactic effects that Dr. Israel now claims non-linear contract terms bestow on mergers such as UP's acquisition of NS.

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80. GAO Report 17-166 at 1. See also, Id. at 11, ("In our discussions with the four Class I railroads, they said they look at the extent of competition when determining contract and tariff rates. According to one railroad representative, this includes considering customer feedback, past experience, and market research to determine the level of three types of competition: Competition from other forms of transportation: Generally, a railroad can charge more if it does not have to compete with another railroad or other transportation forms, such as barge, pipeline, or truck…") See also, Id. at 18, ("Eight of the nine shippers we interviewed stated that captive shippers have no other options than the one railroad that serves them, which can result in higher freight rail rates. Further, according to our analysis of a 2011 STB proceeding on rail competition, 6 of the 11 shippers that provided comments to the proceeding about being a captive shipper said that captive shippers have no other options than the railroad that serves").

81. Verified Statement of Mark Israel, ¶22.

82. *Id.*

64. Second, Dr. Israel's example purporting to show no harm corresponds to the complete foreclosure scenario we identified in Section I.B.1 above.[83] In attempting to show no harm, however, Dr. Israel errs by misrepresenting the Ricardian rent, a concept critical to his argument and his incorrect definition undermines his position. The concept of "rent" in economics broadly refers to income derived from the control or ownership of a particular limited resource.[84] The term "Ricardian rent" originates from the work of economist David Ricardo in the early 19th century, and applies the concept of rent to revenues that accrue from inherent characteristics of land rather than any work done to improve it. For example, Ricardian rent refers to the relative income advantage that an owner of a more arable plot of land obtains, as such income accrues without any effort on the owner's part.[85]

65. Dr. Israel confuses the concept of "Ricardian rent" with cost advantages that result from higher efficiency. He opines that,

> The winning lower-cost railroad will earn a margin roughly equal to the difference between the two railroads' costs. That margin is known in economics as a "Ricardian rent." It is the profit that a firm earns because it has a cost advantage, and it is equal to the size of that cost advantage. Critically, the presence of that Ricardian rent creates a wedge between what is paid to the railroads and what it actually costs to move the goods, and this creates an inefficiency and takes value away from shippers.[86]

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[83] *Id.*, ¶¶ 25-29.

84. Mariana Mazzucato, Josh Ryan-Collins, and Giorgos Gouzoulis, *Mapping modern economic rents: the good, the bad, and the grey areas*, CAMBRIDGE JOURNAL OF ECONOMICS, Volume 47, Issue 3, May 2023, [hereafter, "Mazzucato et al. (2023)"], 507–534, ("A growing body of literature has identified that modern economies are suffering from excessive economic rents—with rent defined as returns based on the control over or ownership of a scarce asset." Citations omitted.), *available a*t https://academic.oup.com/cje/article/47/3/507/7160981.

85. DAVID RICARDO, THE PRINCIPLES OF POLITICAL ECONOMY AND TAXATION, (1817), available in THE WORKS AND CORRESPONDENCE OF DAVID RICARDO (Pierro Sraffa and M.H. Dobb, *eds.*), Liberty Fund, (2004) at 67 ("Rent is that portion of the produce of the earth, which is paid to the landlord for the use of the original and indestructible powers of the soil. It is often, however, confounded with the interest and profit of capital, and, in popular language, the term is applied to whatever is annually paid by a farmer to his landlord. If, of two adjoining farms of the same extent, and of the same natural fertility, one had all the conveniences of farming buildings, and, besides, were properly drained and manured, and advantageously divided by hedges, fences and walls, while the other had none of these advantages, more remuneration would naturally be paid for the use of one, than for the use of the other; yet in both cases this remuneration would be called rent. But it is evident, that a portion only of the money annually to be paid for the improved farm, would be given for the original and indestructible powers of the soil…") See also, *Id.* at 68, referencing Adam Smith's example the relative attractiveness of Norwegian forests in alleviating demand for timber in southern European countries, ("If, indeed, after the timber was removed, any compensation were paid to the landlord for the use of the land, for the purpose of growing timber or any other produce, with a view to future demand, such compensation might justly be called rent, because it would be paid for the productive powers of the land;") *available at* https://competitionandappropriation.econ.ucla.edu/wp-content/uploads/sites/95/1970/01/Principles-of-Political-Economy-and-Taxation-1817.pdf.

86. Verified Statement of Mark Israel, ¶25.

Dr. Israel's definition of rent confounds the Ricardian concept of rents, which derives from the relative scarcity of a good, with the neoclassical understanding of rent as "reward in excess of opportunity cost."[87] Ricardian rents result *not* from relative efficiency (i.e., a firm with lower operating costs), *but* rather from the relative scarcity of the inputs such as land. In contrast, Dr. Israel refers to a "cost advantage" that one railroad has over another. Under competitive conditions, cost reductions result from operational efficiencies, meaning one railroad operates more efficiently than its rival. Dr. Israel erroneously refers to this cost advantage as "Ricardian rent," which he claims to represent "an inefficiency."[88] In other words, Dr. Israel appears to proffer the self-contradictory argument that greater efficiency is itself inefficient.[89]

66. Moreover, Dr. Israel's example requires a heroic assumption. Specifically, he claims that "The railroads will compete until price falls to the cost of the higher-cost railroad, and then the lower cost railroad will price just under that cost and win the business…"[90] This claim, which is predicated upon the "one-lump" theory, assumes that railroads have perfect information with regard to each other's costs, not just generally, *but in every competitive instance*. This is almost certainly not true, as we explained previously, referencing UP's own testimony in the verified statement of its expert in the CPKC merger, Dr. Salop. As Dr. Salop explained, a critical reason why the one lump theory does not apply in the railroad industry is because railroads lack perfect information regarding

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87. Beth Stratford, *Rival definitions of economic rent: historical origins and normative implications*, NEW POLITICAL ECONOMY, 28(3), 2023, 347-362, [hereafter, "Stratford, 2023"] at 347-8, ("Since the mid-nineteenth century, the term rent has been used by political economists to refer to incomes that are analogous to land rents, in the sense that they reward control of persistently scarce or monopolised assets, rather than contribution. This concept of rent permeated political rhetoric in Britain and the United States at the turn of the last century. But in the meantime an alternative understanding of rent has come to dominate neoclassical economic discourse: 'the return to any agent of production greater than that required to keep it in its present employment' a definition widely considered synonymous with 'reward in excess of opportunity cost' (i.e. in excess of the maximum that could be claimed by deploying labour or resources elsewhere). The rise of these neoclassical definitions has caused considerable confusion…Some commentators claim to subscribe both to the original understanding of rents as surplus incomes arising from control over scarce or monopolised assets, and the neoclassical understanding of rents as rewards in excess of opportunity cost. But one cannot coherently subscribe to both.")

88. Verified Statement of Mark Israel, ¶25.

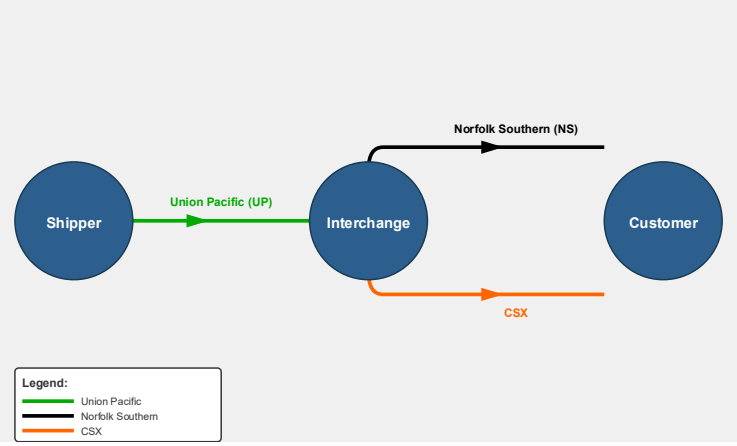
89. Stratford, 2023 at 347, ("Across the political spectrum, the concept of economic rent is used to delegitimise certain incomes by marking them out as unearned and/or inefficient. But too often, users offer either no definition of rent, multiple definitions that are logically incompatible, and/or definitions whose normative implications they appear not to comprehend.") David Ricardo, for example, argued for socializing land rents on the basis that such rents dampen growth and productivity because the entity obtaining the rent does so without any effort into the production process. This scenario does not apply here. A lower-cost railroad would have achieved this goal based on relative efficiency, a procompetitive outcome. Other definitions of rent exist as well, including that of Joan Robinson, which defines economic rent as the difference between actual earnings and transfer earnings.

90. Verified Statement of Mark Israel, ¶25.

each other's costs.[91] Access to such information represents a critical assumption necessary for both Dr. Israel's faulty "Ricardian rent" theory and the one lump theory. Thus, even if Dr. Israel had correctly represented Ricardian rent, which he did not, his theory does not meet the basic requisite assumption of perfect information.

67. Dr. Israel's unfounded assumption undermines his entire argument. His example contemplates the exact bottleneck scenario we presented in Figure 7 *supra* and replicate in Figure 15 below.

FIGURE 15. ORIGIN BOTTLENECK, BEFORE VERTICAL MERGER



Dr. Israel explains that "Prior to the merger, the shipper will also negotiate with Union Pacific in the West." Post-merger, UP's ownership of the bottleneck route would allow it to extend its market power over the competitive section of the route after the interchange, potentially foreclosing the alternative route via CSX. Dr. Israel argues that, post-merger, CSX would still gain the shipper's business if CSX were the lower-cost provider and the shipper would pay CSX a price just below NS's costs. But neither the shipper nor CSX would know NS's costs.[92] Moreover, post-merger, because UP can condition access to the monopoly portion of the route on a shipper's use of its route on the competitive portion of the journey (i.e., the line owned by NS prior to the merger), UP can

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91. Verified Statement of Steven Salop, Docket No. FD 36500, ¶11, ("Modern economic theory has recognized that the one lump presumption does not apply under certain market conditions, in particular, when (a) the market participants sell differentiated products (i.e., products that shippers do not view as perfect substitutes at equal rates), or (b) the carriers set their rates based on imperfect information about each other's costs and rates.") See also, Id. ¶32, ("As I explain in more detail in the next two sections, both types of deviations from the assumed conditions— imperfect information and differentiated products — likely are present in the proposed transaction. Either of them would be sufficient to render the one lump theory inapplicable in most real-world markets and specifically in this matter.")

92. Verified Statement of Mark Israel, ¶27, ("Now consider the post-merger situation. Suppose first that CSX is the lower cost Eastern railroad. It still makes sense for the shipper to work with CSX and pay it a price just below NS's cost—that option is cheaper than the merged carrier shipping the goods itself and bearing NS's cost, which is higher than a price just below NS's cost.") How shippers would know either CSX or NS' costs in every instance for every affected route remains a mystery into which Dr. Israel offers no insight.

increase CSX's costs pursuant to the RRC paradigm we discussed above.[93] These outcomes reflect the risk of foreclosure that the merger generates, which is the same risk that UP argued would result from the CPKC acquisition.

68. Further, Dr. Israel contends that if NS were the lower-cost provider on the post-interchange competitive segment in the east, then the merger would remove the "Ricardian rent" and result in a welfare-enhancing scenario for shippers and railroads.[94] Without explicitly saying so, Dr. Israel implies that the merger would result in the elimination of double marginalization (EDM), meaning that the upstream (UP) and downstream (NS) providers would combine and thus eliminate the successive markups that existed prior to the merger.[95] Dr. Israel explicitly touts EDM as one of the benefits of vertical integration in his discussion of the merger's benefits.[96] As we discuss in the next section on non-negotiated, non-linear contracts, EDM applies only when both the upstream and downstream providers are monopolists. In that scenario, there is no competitor to foreclose.

2. Non-negotiated non-linear contracts.

69. Following his discussion of foreclosure in the context of negotiated, non-linear contracts, Dr. Israel separately addresses foreclosure in the context of non-negotiated, non-linear contracts. These types of contracts also can take the form of Rule 11 or through rates, but unlike his discussion of negotiated contracts, Dr. Israel separately addresses Rule 11 and through rates in his discussion of non-negotiated contracts. For the purpose of our testimony, however, we do not consider Dr. Israel's distinctions to be significant because the economic principles on which he relies frequently recur in his discussion of these different contract types.

70. Dr. Israel argues that, with respect to Rule 11 pricing, "a general conclusion is that mergers in this setting [Cournot complements] either reduce prices or leave them unchanged, except in certain edge cases that do not apply to the merger at hand."[97] It remains unclear whose "general

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[93] UP can do this through various means. First, UP could bundle its long-haul routes into contracts with multiple other lanes and could make its contract rates for all lanes contingent upon use of those routes. Second, UP could set the tariff rate for the bottleneck segment at a level that could not compete with its longer haul. Third, UP could reduce the quality and frequency of its bottleneck segment service relative to its long-haul route.

[94] *Id.*, ¶ 28.

95 The concept of EDM originates from the work of Augustin Cournot. See, e.g., Nicholas Economides and Steven Salop, *Competition and Integration Among Complements and Network Market Structure*, JOURNAL OF INDUSTRIAL ECONOMICS, Vol. XL, no. 1, March 1992, 105-123 at 106, ("Cournot considered the merger of two monopolists that produce complementary goods (zinc and copper) into a single (fused) monopolist that produces the combination of the two complementary goods (brass). He showed that joint ownership by a single integrated monopolist reduces the sum of the two prices, relative to the equilibrium prices of the independent monopolists. This is because the two independent firms ignore the effect of their individual markups on each other, while the integrated monopolist internalizes this externality.")

[96] Verified Statement of Mark Israel, ¶¶ 100-101, 110-111.

97. Verified Statement of Mark Israel, ¶34.

conclusion" he references, because the relevant economic literature has widely acknowledged the potentially anticompetitive effects from vertical mergers for over four decades. Dr. Israel nevertheless relies on two related concepts to argue that the merger will have no harmful effects: EDM and Cournot complement externalities, also known as "Cournot effects."[98] Indeed, he uses the same concepts to argue that the merger will yield procompetitive benefits. As we explain below, his analysis is inapposite for several reasons.

71. The existence of a Cournot effect provides theoretical support for the argument that mergers of complements, i.e., vertical mergers, will eliminate negative externalities and thus yield lower prices for consumers. Even though he cites to Cournot's original work, Dr. Israel glosses over the assumptions that undergird the nature of Cournot effects. Economic research has shown that the Cournot effect only applies in very limited circumstances.[99] The eponymous effect's progenitor, Augustin Cournot, based his theory on the assumption that the providers of complementary goods are both monopolists. Cournot contemplated the existence of two monopolists of complementary goods, each of which manufactures one of two inputs into a final product.[100] Specifically, Cournot offered the example of two monopoly manufacturers, one of copper and one of zinc, the two necessary inputs for the production of brass.[101]

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98. Although Dr. Israel does not explicitly reference EDM in his discussion of Rule 11 rates, elsewhere he acknowledges the similarity between the elimination of double marginalization and the elimination of Cournot effects. *See*, Verified Statement of Mark Israel, ¶ 110 (describing both as "precisely analogous), A-5, ("In Rule 11 settings with no shipper bargaining and linear pricing, Rule 11 creates a Cournot complements setting where independent firms tend to price too high. The high price caused by independent pricing in the Cournot complements setting is analogous to double marginalization that arises in vertical contracting. The merger, which leads to joint pricing of the complements, mitigates or eliminates this Cournot complements concern and thus creates direct benefits." Citations omitted.)

99. Alessandro S. Kadner-Graziano, *Mergers of Complements: On the Absence of Consumer Benefits*, INTERNATIONAL JOURNAL OF INDUSTRIAL ORGANIZATION, Vol. 89, July 2023, 1-13 [hereafter, "Kadner-Graziano, 2023") at 1, ("Instead of yielding benefits, profitable mergers of complements can cause unambiguous consumer harm."); Robert T. Masson, Serdar Dalkir* and David Eisenstadt, *A note on complementary goods mergers between oligopolists with market power: Cournot effects, bundling and antitrust*, REV. LAW ECON. 10 (1), 2014, 59–79, ("Our point of departure is several policy statements issued by U.S. and EU authorities since the early 2000s about complementary goods mergers between firms which possess market power (earn high shares and high profit) in their respective product or component markets. The presumptive benefits of such mergers through Cournot Effects ("CEs") and/or bundling are at best overreaching and at worst inaccurate because the statements stem from an oversimplification of the demand and/or market structure conditions which are necessary for CEs to exist.")

100. AUGUSTIN COURNOT, RESEARCHES INTO THE MATHEMATICAL PRINCIPLES OF THEORY OF WEALTH, (Nathaniel Bacon, transl.) (1838), London MacMillan, (transl. in 1897) at 101, ("if we suppose each of these to be handled by a monopolist...". See also Id. at 103, explaining the reasoning behind the now eponymous Cournot effect, (…the composite commodity will always be made more expensive, by reason of separation of interests than by reason of the fusion of monopolies. An association of monopolists, working for their own interest, in this instance will also work for the interest of consumers, which is exactly the opposite of what happens with competing producers.")

101. *Id.* at 100, ("Simply for convenience of expression we can take for examples copper, zinc, and brass under the fictitious hypothesis that copper and zinc have no other use than that of being jointly used to form brass by their alloy, and that the cost of production of copper and zinc can be neglected, as well as the cost of making the alloy.")

72. The economic logic behind both the Cournot effect and EDM rests on the removal of negative externalities. In this case, each monopolist would price its product at the monopoly rate, with no regard for the effect on the other producer. In doing so, each producer would exert a negative externality on the other: the higher input prices would raise the overall price of the finished product, lowering the quantity sold and reducing each producer's profits. The merger of the two monopolists would theoretically internalize the externalities—namely, the merged entity would now set input prices with the effect on the sales of the finished product in mind. Applied here, the merger would ostensibly reduce the price of the merged route to attract additional rail traffic on its tracks.

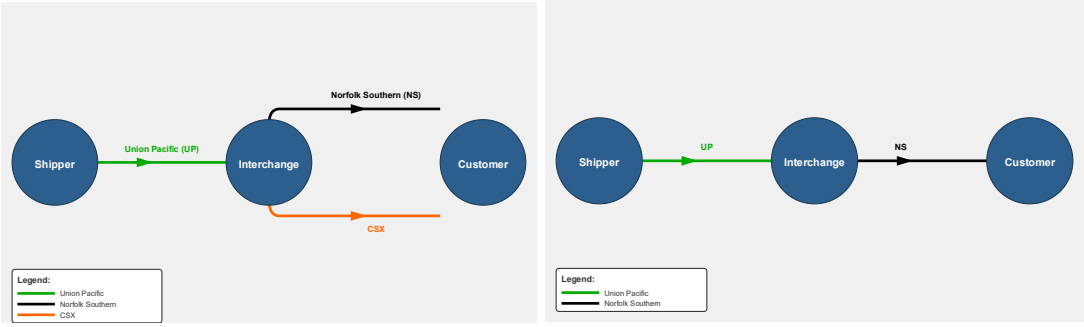
73. But this example only corresponds to a single set of conditions, specifically only where *both* UP and NS are the two monopoly providers on an end-to-end route. Thus, while Dr. Israel attempts to paint instances that would raise foreclosure concern as "edge cases," the opposite is true. The "no-harm" or "procompetitive" scenario would *not* occur on routes that involve other third-party carriers, as the merging parties could not fully internalize the Cournot externality. The presence of a third party, i.e., a competitive portion of any route, complicates the determination of merger effects. For ease of exposition, we distinguish the latter case (monopoly upstream/competitive downstream) from the standard EDM scenario upon which Dr. Israel bases his argument (monopoly upstream/monopoly downstream).

74. This distinction is critical. Figure 16 below illustrates the two conditions: the bottleneck scenario on the left with UP as the monopoly carrier and a competitive downstream scenario (NS and CSX) juxtaposed against the condition on the right, the single monopoly carrier upstream (UP) and downstream (NS).

FIGURE 16. BOTTLENECK SCENARIO (LEFT) VS. MONOPOLY SCENARIO WITH EDM (RIGHT)

(a) Monopoly Upstream / Competitive Downstream

(b) Monopoly Upstream / Monopoly Downstream (EDM case)



The condition on the right reflects the EDM scenario with both upstream and downstream monopolies. By definition, this condition *assumes* that no foreclosure can occur because no

competitors exist under the posited monopoly conditions.[102] In other words, Dr. Israel finds no foreclosure effects because the successive monopoly condition under which the standard EDM applies and upon which he relies simply assumes away the possibility of foreclosure.

75. The literature acknowledges that the existence of potential foreclosure renders vertical mergers potentially anticompetitive when the merging entities are not successive monopolies.[103] As Salinger explained in his comments on the 2020 Vertical Merger Guidelines,

> The argument that EDM is unambiguously procompetitive rests on the successive monopoly model which, by assumption, ignores any competitors that might be foreclosed. The post-Chicago literature considered a wider range of structural conditions in which foreclosure could occur and demonstrated the possibility that vertical mergers could be anticompetitive.[104]

The attempt to cabin vertical merger effects to the successive monopoly scenario, which Dr. Israel's analysis implicitly assumes, and as shown on the right panel of Figure 16, thus ignores a critical cause of anticompetitive concern.

76. Moreover, even with successive monopoly routes, EDM rests upon assumptions of, at best, ambiguous validity in the instant case. In this simple model, we agree that the removal of an interchange could allow for end-to-end routing and thus increase efficiency by eliminating double marginalization. But while the above conclusion remains theoretically valid, recent research on U.S. freight railroads has raised doubt as to its practical validity. Alexandrov, Pittman, and Urkhaneva used the STB Waybill sample to study a scenario in which a coal producer must ship from point A

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102. Michael A. Salinger, *Vertical Mergers and Market Foreclosure,* QUARTERLY JOURNAL OF ECONOMICS, Volume 103, Issue 2, May 1988, 345–356 [hereafter, "Salinger, Vertical Mergers"], at 346 ("Market foreclosure refers to the effect of vertical integration on unintegrated producers. In these models, however, no unintegrated firms exist after the vertical merger occurs. Thus, the view that vertical mergers are not harmful is based on models that cannot address the primary reason to believe that they are.") See also, Id. at note 4, ("…the successive monopoly model implicitly rules out the anticompetitive harm from vertical mergers...")

103. Salinger, Vertical Mergers, at 349-50, ("Moreover, the key result of this model is that the effect of vertical mergers on the final good price is indeterminate. A vertical merger eliminates the successive markup for the merging firms. In addition, however, it eliminates an independent supplier of the intermediate good and, as a result, can cause the intermediate good price to increase. If it does, the remaining unintegrated producers become less competitive, which, other things equal, causes the price of the final good to increase. Even under the restrictive assumptions of this model, either effect can dominate. Obviously, if the price can go either up or down in a special case, it can also go either way under more general assumptions.")

104. Michael Salinger, comments on the Vertical Merger Guidelines, ("The argument that EDM is unambiguously procompetitive rests on the successive monopoly model which, by assumption, ignores any competitors that might be foreclosed. The post-Chicago literature considered a wider range of structural conditions in which foreclosure could occur and demonstrated the possibility that vertical mergers could be anticompetitive.") See also, Michael H. Riordan, *Anticompetitive Vertical Integration by a Dominant Firm*, AMERICAN ECONOMIC REVIEW Vol. 88, No. 5 (December 1998), pp. 1232-48, ("Backward vertical integration by a dominant firm into an upstream competitive industry causes both input and output prices to rise. The dominant firm's cost advantage may or may not offset the negative effect of higher prices on social welfare.")

to point C, with the route passing through point B. They examined two scenarios: (1) the same railroad owns AB and BC and (2) different railroads own AB and BC. The authors explained that, "We do not find that the price in case (2) is higher than the price in case (1), suggesting that the complementary monopolist pricing inefficiency is absent in this market."[105] Thus, contrary to Dr. Israel's assertions, an end-to-end railroad merger may not be necessary to mitigate any inefficiency resulting from double marginalization.

77. Consistent with the findings from Alexandrov et al. above on EDM, Kwoka and Slade explain that "there is a series of caveats, conditions, and qualifications that affect its applicability."[106] Specifically, EDM in the above case critically depends on three conditions: (1) fixed proportions, (2) the requirement that benefits must depend on vertical integration and cannot be realized absent the merger (i.e., merger specificity), and (3) cognizable efficiencies, i.e., the benefits must redound to consumers, not remain as pecuniary profits to the now-integrated entity.[107] These conditions either do not exist, are unlikely, or only apply in limited circumstances in the instant matter.

78. The fixed proportion condition is satisfied only when a shipper requires both the UP and NS rail lines for end-to-end transport. This condition does not exist when, as we illustrate in Figures 7 and 15, the upstream railroad is a monopoly and the downstream railroad has rivals.[108] The merger specificity condition is comparable to the STB merger rules that requires applicants to distinguish between benefits that are attainable only through the merger and benefits that are attainable through alternative means. Lasty, the cognizable efficiencies condition recognizes that benefits to the applicants are not public benefits.

79. A recent article by Kadner-Graziano (2023) offers the insight that a comparison of the margins of upstream and downstream producers of complements can inform the existence of a Cournot effect in conditions that fall between the extremes of successive monopolies and successive atomistic competition, which we understand represents most competitive scenarios in the rail

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105. Alexei Alexandrov, Russell Pittman, and Olga Ukhaneva, *Double marginalization in the pricing of complements: The case of US freight railroads*, JOURNAL OF ECONOMICS & MANAGEMENT STRATEGY, Vol. 34, No. 2, (Summer, 2025), 403-427 at 403, available at https://onlinelibrary.wiley.com/doi/10.1111/jems.12604.

106. John Kwoka and Margaret Slade, Second Thoughts on Double Marginalization, Antitrust, Vol. 34, No. 2, Spring 2020, 51-56.

107. Id. at 52-3, ("The simple model described in Figure 1 is crucially dependent on the assumption of a fixed proportion production process at the downstream stage…A second important qualification to the standard EDM model is the implicit assumption that the actual cost savings require vertical integration for their realization. In theory, this is not correct, and, in practice, it is often not the case…The third broad issue with EDM concerns cognizable efficiencies. In antitrust analysis these are limited to "real" economies, that is, those that save on actual resources…a reduction in pecuniary costs per se results in no real cost savings, although in this case it induces an output increase, a lower price, and a deadweight loss reduction.")

108. Kwoka and Slade at 54, ("Other more subtle scenarios may also disrupt the conclusions of the classic model when markets are not monopolies. One such scenario involves the case of an upstream monopolist that integrates with a downstream firm that has rivals.")

industry.[109] Harm to competition occurs if the merger weakens existing pricing constraints on the merging parties and "Instead of yielding benefits, profitable mergers of complements can cause unambiguous consumer harm."[110]

80. Dr. Israel argues that the Kader-Graziano findings apply only in edge cases, because the paper assumes that the merged firm can commit to a pure bundling strategy, i.e., that it will offer transportation on its monopoly route only if the shipper also chooses its services on the competitive portion.[111] Dr. Israel opines that "that assumption does not fit the facts of the railroad industry, as shippers have the ability to break the pure bundling strategy. In particular, by rule, the merged carrier must provide a Rule 11 rate if the shipper requesting the rate has arranged service from the competing railroad for the other leg."[112] In other words, the shipper requesting a Rule 11 rate from the monopoly carrier must already have entered into a contract with the competing railroad for the competitive portion of the trip.

81. Thus, in Fig. 15 above, if the shipper obtains a contract rate from CSX, UP must quote a tariff rate to the CSX interchange. Yet the bottleneck carrier, i.e., the merged entity, can quote the rate of its choosing, subject only to the statute's "reasonableness" requirement. The existing regulatory remedy obligates the shipper dissatisfied with the rate received to litigate a rate case at the STB. The time and expense associated with such litigation defangs this prescription, an observation that the STB has acknowledged and tried to address unsuccessfully multiple times over the past 40 years. In such circumstances, the gateway may remain physically open but commercially closed.

82. When an STB rate case is an option, six shippers interviewed by the GAO said that STB tariff rate-relief cases are complicated, time-consuming, and expensive, in part, due to the challenges in determining reasonable and unreasonable rates. Consequently, these shippers said they

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109. Kadner-Graziano, 2023. See also, Alessandro S. Kadner-Graziano, A New Merger Tool Protects Consumers from Limits of the Cournot Effect, ProMarket, Feb. 17, 2023, ("Cournot's effect is similar to a broader and intuitive argument in economics that firms reduce negative externalities after they internalize them. However, this is not necessarily so. In mergers of complements, it is so only in very specific circumstances…Every model uses assumptions. The key question is if a model uses assumptions that lead to distorted or even opposing predictions relative to the true merger effects.") available at https://www.promarket.org/2023/02/17/a-new-merger-tool-protects-consumers-from-limits-of-the-cournot-effect/.

110. Kadner-Graziano, 2023 at 8.

111. Verified Statement of Mark Israel, ¶ 36.

112. *Id*. The "rule" that Dr. Israel references in note 28 would not apply to the merged carrier when the merger creates a single-line service, but the STB's merger rules require UP to waive such objections post-merger and UP has agreed to do so. 49 C.F.R. § 1180.1(c)(2)(i).

are deterred from pursuing cases or from requesting tariff rates from railroads in order to pursue a rate case.[113]

83. In his Appendix A, Dr. Israel provides additional theoretical discussion in an attempt to support his opinion of no anticompetitive effects. He claims that, "On 2*1 routes, the merger raises no significant risk of competitive harm. If each duopolist writes an efficient contract with the customer facing monopoly, the fully integrated outcome arises with or without the merger."[114] He is wrong for three reasons. *First*, if the same claimed "benefits" can occur by contract rather than through a merger, as Dr. Israel opines, then no merger-specific efficiencies exist for that traffic. *Second*, the 2*1 scenario (customer-facing monopoly) assumes a duopoly exists on the shipper side, which excludes the conditions that characterize captive shippers entirely. *Third*, Dr. Israel also claims that "The merger then eliminates double marginalization between the merging firms and lowers final product prices in standard cases."[115] As explained above, the canonical EDM scenario contemplates successive monopolies. In duopoly settings, by contrast, the effects of EDM become ambiguous, as the risk of foreclosure from raising rivals' costs now exists and the merger will not remove all double marginalization.

84. Finally, with respect to non-negotiated through rates, Dr. Israel concedes that "[a]s a pure matter of economic theory, shippers who accept offers of through rates from railroads—without negotiating non-linear contractual terms—*could* face traditional foreclosure concerns following a merger," but he then invokes the one lump theory to reject that outcome.[116] He claims that foreclosure could occur only under "a single, narrow case—prices that are not part of negotiated non-linear contracts, are not Rule 11, and are not through rates *set by the sole-served carrier* but rather are through rates received from one of the railroads on the competitive end."[117] As explained in the discussion of EDM above, his erroneous opinion follows, in part, because much of his argument merely assumes foreclosure cannot occur, i.e., he focuses on the successive monopoly scenario.

85. Dr. Israel also leans on the one lump theory to claim that "A long-standing response to these concerns has been that the sole serving carrier can charge the monopoly rate and earn the monopoly profit prior to a merger."[118] We previously explained, as did UP's own expert in the CPKC

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113. GAO Report 17-166 at 20, ("An STB staff member said that when a rate case involves hundreds of O-D pairs, resolving the case can take substantial resources and time for STB, the railroads, and the shippers involved in the litigation. This STB staff member also stated that cases can take up to 3 years and be so costly that some shippers may think it is not worth bringing a case.")

114. Verified Statement of Mark Israel, at A-3.

115. *Id.*

116. Verified Statement of Mark Israel, ¶ 41.

117. Verified Statement of Mark Israel, ¶43 (emphasis added).

118. Verified Statement of Mark Israel, ¶41.

matter, why the one lump theory does not apply in the instant matter. The STB has acknowledged the shortcomings of this theory and the narrow scope to which it applies.

86. Dr. Israel does not appear to appreciate the details of the one lump theory, which he loosely describes as "Something about having to work through two downstream railroads (meaning two competing railroads who compete to win the shipper's business with a through rate) prevents the upstream, sole-served railroad from being able to charge the full monopoly price."[119] Dr. Israel's apparent misunderstanding undermines his conclusions in two ways. *First*, the shippers need not choose a through rate, as we explained above. Foreclosure can occur under Rule 11 pricing as well. *Second*, what Dr. Israel describes as "something about having to work" refers to the fact that under a competitive downstream situation (Figures 7 and 15), where a competitive portion exists either before or after the bottleneck monopoly portion, the merged railroad can foreclose rivals by raising their costs. Dr. Israel's attempt to support his claim that foreclosure would not occur, even in the single edge case he claims raises the only such possibility, reflects nothing more than an attempt to paint a veneer of science on an economically inapposite argument. As an analogy, Dr. Israel's arguments constitute the equivalent of poking a small hole in the lens cap of a telescope and claiming that nothing else exists other than what can be observed through that pinhole. In the next section, we respond to Dr. Israel's defense of the one lump theory in the face of more recent criticism.

3. Lack of information on rivals' costs undermines the one lump-profit theory and underscores the foreclosure risks from the merger.

87. In addition to invoking the one lump theory in his discussion of foreclosure for non-negotiated through rates, Dr. Israel mounts a more detailed defense in Part III.E. of his testimony. Dr. Israel acknowledges that the economic literature has raised concerns of foreclosure harms under imperfect information, meaning that the merging parties do not know each other's costs. While Dr. Israel attributes this observation to a 2021 paper by Serge Moresi, David Reitman, Steven Salop, and Yianis Sarafidis, he fails to mention that Salop was UP's own expert in the CPKC matter. In his verified statement on behalf of UP, Salop explained that

> …the "one lump" theory does not hold in a market structure in which each pre-merger carrier faces imperfect information regarding the costs and rates of the other carriers. In such a market, the pre-merger monopoly carrier is generally unable to extract the full monopoly profit from the shipper, but is better able to do so after merging with one of the competing carriers. The merger creates an increased incentive and ability for the merged firm to foreclose rivals, leading to harm to both shippers and unintegrated carriers.[120]

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119. Verified Statement of Mark Israel, ¶44.

120. Verified Statement of Steven Salop in Docket No. FD 36500, ¶36, citing to Serge Moresi, David Reitman, Steven C. Salop & Yianis Sarafidis, *Vertical Mergers in a Model of Upstream Monopoly and Incomplete Information*, 59 REV. IND. ORG. 363 (2021) [hereafter, "Moresi et al.").

Without engaging with Salop's statements in the CPKC matter directly, Dr. Israel instead offers a criticism of the Moresi et al. (2021) paper, claiming that the concerns raised therein are "misplaced" and that, "even in the Moresi model, both output and total welfare rise."[121] This is an unfair criticism for three reasons.

88. *First*, antitrust economics does not recognize a "total welfare" standard. Such a standard would allow the benefits to merging parties to offset the harms to consumers, a practice that the STB explicitly disavowed in its CPKC decision.[122] And in general, antitrust precludes consideration of any benefits to third parties as offsets against cognizable harms to a counterparty.[123] Higher profits would result in greater welfare for the merging parties (and their shareholders), but would indicate that the merger did not increase competition and thus result in lower prices to shippers.

89. *Second*, Dr. Israel misinterprets the findings in Moresi et al. (2021). Dr. Israel claims that "Notably, in the context of the railroad industry, the fact that output increases means that the railroad industry is more effectively doing its job of moving goods."[124] Dr. Israel's conclusion is unwarranted. Moresi et al. explain,

> The presence of private information leads to consumers sometimes obtaining prices below their reservation prices in the pre-merger world. *While the merger leads to more transactions, consumers themselves are harmed by now always having to pay the full monopoly price, despite a type of internalization of double marginalization*.[125]

Moresi et al. also review several other models in the literature, concluding that, "the models make it clear that merger-specific elimination of double marginalization may not be sufficient to offset vertical foreclosure effects and thus cause an increase in overall consumer welfare."[126] Dr. Israel's

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121. Verified Statement of Mark Israel ¶68.

122. STB Decision, Docket No. FD 36500 at 23, ("Although a proposed transaction can produce some financial benefits for the consolidating carriers that are purely transfers from competing carriers, these private benefits are not considered in the agency's analysis of the public benefits of the consolidation.").

123.*See* Ted Tatos and Hal Singer. *The Abuse of Offsets as Procompetitive Justifications: Restoring the Proper Role of Efficiencies after Ohio v. American Express and NCAA v. Alston*, GEORGIA STATE UNIVERSITY LAW REVIEW, Vol. 38, No. 4, 2022.

124. Verified Statement of Mark Israel, ¶68.

125. Moresi et al. (2021).

126. Moresi et al. (2021), ("The expected pre-merger equilibrium price of the downstream product is lower than the monopoly price. After a vertical merger, the equilibrium input price that is charged to the downstream rival can either increase or decrease -- depending on whether the downstream merger partner's cost is low or high, respectively. However, in all cases the equilibrium price of the downstream product increases to the monopoly price. Therefore, the merger leads to consumer harm even when it leads to a reduction in the input price"). Also Id., ("We have focused on the most pristine version of the model in which the buyer demands a single unit, the buyer's budget is known, and the

perfunctory conclusion stands in direct contrast to the literature. Further, the output standard as a procompetitive outcome contemplates an increase in total industry output, not the output of a firm that may have harmed competition.[127] Anticompetitive actions may cause a single firm's output to increase while industry-wide output falls. In other words, the merged UP entity could garner more traffic while overall rail freight across the industry falls.

90. Consider the fallacy in Dr. Israel's logic. He claims that "the information transfer (between UP and NS) engendered by the merger is not a source of competitive concern, but rather a benefit."[128] The benefit accrues not to customers, however, but instead to the railroad itself, because in the presence of perfect information, the single-monopoly-profit theory would hold. This does not mean that consumers would benefit at all, but rather that the merger could not raise prices any further. Consumers would still pay the monopoly price, but now UP would earn higher profits.[129]

91. *Third*, in an attempt to rebut the findings therein, Dr. Israel undermines his own reliance on the one lump theory. Moresi et al. used the example of inelastic demand, precisely because it constitutes a premise upon which the one lump theory relies.[130] Baker explains,

> The single monopoly profit theory is logically valid as a matter of economic theory only in one extreme case, however. If the monopolist (or coordinating firms acting like a monopolist) has literally no rivals and faces no potential entrants, and if buyers have literally no alternative to the monopolist's products, then the monopolist may indeed be unable to

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buyer does not set a reserve price. If these assumptions are relaxed, the analysis becomes more complex. However, we do not think that our basic results on the effects of a vertical merger will change if these assumptions are relaxed. The single monopoly profit theorem is unlikely to obtain in a general way -- because of incomplete information.")

127. Jonathan Baker, *Taking the Error Out of "Error Cost" Analysis: What's Wrong with Antitrust's Right*, 80 ANTITRUST L. J. No. 1 (2015) [hereafter, "J. Baker, *Error Cost*, 2015"] at note 47, ("The exercise of market power would be expected to lead to higher prices and reduced output industry-wide when products are homogeneous. The output standard is properly concerned with industry-wide output, not with the output of the firms alleged to have harmed competition, as firms that exercise market power by excluding rivals and raising price could increase their own output even as industry output falls.")

128. Verified Statement of Mark Israel, ¶73.

129. Moresi et al., (2021), ("The vertical merger changes the structure by providing the upstream monopolist with knowledge of the costs of its merger partner. This allows the monopolist to raise the input price to the downstream rival when the monopolist knows that the merger partner has a low cost, and conversely to reduce the input price when the merger partner has a high cost. As it turns out, the buyer always pays the monopoly price whenever the auction generates a sale. However, the merged firm does not obtain all the monopoly profit because the downstream rival still wins the auction and earns some profits when it has a relatively large cost advantage.")

130. Serge Moresi, David Reitman, Steven C. Salop & Yianis Sarafidis, *Vertical Mergers in a Model of Upstream Monopoly and Incomplete Information*, 59 REV. IND. ORG. 363 (2021), ("To demonstrate these results most simply, we analyze a model in which a buyer -- who buys from one of two downstream perfect competitors -- purchases one unit if the price does not exceed the buyer's willingness-to-pay, which we refer to as the buyer's 'budget'. Thus, demand is perfectly inelastic. The output of the upstream monopolist is an input for the downstream firms, which use that input with other inputs in 1-to-1 fixed proportions to produce the two downstream products. These downstream products are perfect substitutes for one another. *Except for private information, these are the standard assumptions that are used to establish the single monopoly profit result*." Emphasis added.)

> increase the rents it derives from exercising market power through (further) exclusionary conduct.[131]

Dr. Israel misinterprets Moresi et al. entirely, and, in doing so, Dr. Israel supports the opposite conclusion of what he claims. Moresi et al. explain that the single monopoly profit theory would apply only under perfectly inelastic demand with public information (i.e., firms know each other's costs). Dr. Israel's argument that this assumption is unrealistic and overly restrictive only supports the rejection of the single-monopoly-profit theory. Indeed, Moresi et al. show that the one lump theory may not hold even under this restrictive assumption.[132]

92. Asymmetric information on costs is not an edge case, but rather, as UP's expert in the CPKC matter explained, the de facto market reality. Dr. Israel now claims that all the previous literature, which has motivated the STB to depart from the one lump theory, is "counterintuitive."[133] Dr. Israel again leans on the one lump theory, opining that "in complete information settings with an upstream sole sourcing supplier selling through observable non-linear contracts, and with differentiated downstream oligopolists, the pre-merger price equals the price set by a fully integrated railroad."[134] Note that he again assumes "complete information," which does not exist in the rail industry as UP has admitted in prior matters, and as we previously discussed.

93. Moreover, the paper to which Dr. Israel cites as support, Matthewson and Winter (1984), contemplates scenarios incongruous with the railroad economics.[135] For example, the authors focus on several restraints, none of which apply to the instant matter: (1) resale price maintenance, (2) closed territory distribution (i.e., a retailer has exclusive rights over a geographic area), (3) quantity forcing (minimum volume requirements), and (4) franchise fees. Moreover, the authors explain that their analyses rely on several restrictive assumptions, including, (1) uniformly distributed customers (which, of course, does not occur in reality as shipper locations tend to cluster around certain geographic areas such as the Gulf Coast for petrochemical producers), (2) customers have a common travel cost (which also does not hold), (3) customers have access at zero cost to information on prices at all locations (also does not occur, as shippers request confidential quotes

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131. J. Baker, *Error Cost*, 2015 at 16.

132. Moresi et al. at 14. "The single monopoly profit theory still remains embedded in the thinking of many economists and enforcers. By contrast, even while retaining a number of the assumptions analogous to those in the Bowman (1957) model (i.e., homogeneous products, inelastic consumer demand, and a second price auction), our model finds that vertical mergers involving monopolists at the upstream level are not competitively neutral. Nor are they procompetitive. Instead, when the production costs of the downstream firms are private information, such mergers are systematically anticompetitive. This both rebuts the single monopoly profit theory and a presumption that such mergers are either procompetitive or neutral."

133. Verified Statement of Mark Israel, ¶65.

134. Verified Statement of Mark Israel, ¶76.

135. G. F. Mathewson and R.A. Winter, *An Economic Theory of Vertical Restraints*, THE RAND JOURNAL OF ECONOMICS, Vol. 15, No. 1 (Spring, 1984), pp. 27-38.

from each railroad on each segment for Rule 11 pricing, for example and have less insight into through rates). Dr. Israel has made no attempt to show these conditions are satisfied.

94. Dr. Israel also posits that "However, given that this model assumes that railroads are already engaged in sophisticated non-linear contracting to ensure the fully integrated outcome pre-merger, there is no reason to believe they could not write a contract replicating that outcome post-merger, and in that case, the merger would not change anything."[136] Yet if any benefits of the merger can be achieved without it, then they do not represent cognizable (i.e., merger-specific) benefits. Dr. Israel's entire position rests on a reversal of the definition of such benefits to apply to harms. Specifically, Dr. Israel argues that if the same harms that the merger creates can result from other conduct (e.g., contractual arrangements), then these cannot be merger-related harms. Dr. Israel's tortured logic is tantamount to arguing that because lung cancer can result through means other than smoking, then smoking must be innocuous.

B. Dr. Israel overstates merger-related efficiencies, misrepresents the literature, and ignores similar benefits that could result through contractual agreements absent the merger.

95. Dr. Israel essentially posits that vertical mergers always produce the most beneficial outcome. But beneficial for whom? Consistent with his criticism of the Moresi et al. paper, Dr. Israel appears to consider merger impacts on collective profits, i.e., total welfare. That merging parties expect an increase in post-merger profits simply reflects the obvious (and potentially anticompetitive) motivation for entering into the agreement in the first place. As both the STB and antitrust regulatory authorities have previously recognized, benefits to the merging companies do not constitute cognizable efficiencies. Procompetitive benefits accrue to downstream consumers. The relevant question is not which arrangement yields greater profits, but rather whether UP's acquisition of NS will, on net, benefit or harm consumers. We argue that the evidence unambiguously points to consumer harm.

96. Dr. Israel opines that "Independent railroads operating complementary networks cannot coordinate their operations and investments as efficiently as a single combined railroad," an outcome to which he refers as a "double moral hazard."[137] He refers to this as an "incentive" problem. This argument recycles the same economic position he takes with respect to EDM and thus embodies the same inherent flaws as we discussed above.

97. Dr. Israel argues that "Only a merger that brings the railroads under common control can fully align incentives to maximize joint profits and solve this problem."[138] Again, he is wrong

136. Verified Statement of Mark Israel, ¶76.

137. Verified Statement of Mark Israel, ¶95.

138. Verified Statement of Mark Israel, ¶96.

for two reasons. *First*, joint rather than individual profit maximization in a horizontal arrangement constitutes evidence of anticompetitive conduct. Thus, at least within a geographic area in which UP and NS operate overlapping routes, such an outcome would harm competition on net, absent any countervailing procompetitive justifications. *Second*, Dr. Israel suggests that the work of Bengt Holmstrom supports his conclusion that only a merger can achieve his purported joint profit maximizing scenario. Yet Holstrom's work, for which he received the Nobel Prize in Economics alongside Oliver Hart in 2016, related to the development of theories on contracts (not mergers), particularly between a principal (e.g., a company owner) and the company's agents (including, for example, the Chief Executive Officer (CEO) or other board members).[139]

98. In this context, Holmstrom identified certain incentive problems such as moral hazard and adverse selection.[140] The claimed inefficiency to which Dr. Israel refers as a double moral hazard posits that each side has the incentive to shirk its responsibility in a joint arrangement if only joint output can be observed. This is because any negative effect of such conduct cannot be traced to its causal agent.[141] But this problem occurs *even within a single entity*. Holmstrom's research focuses on the principal-agent relationship within teams, i.e., the role of the owner vs. the employees of the firm. Indeed, nowhere in the Holmstrom (1982) paper to which Dr. Israel cites do the terms "merger" or "vertical" even appear.

99. As noted above, much of Holmstrom's work involves agency models, i.e., economic scenarios when one or more parties act on behalf of a principal. Though this situation does not comport directly to the instant case, Holmstrom's and Hart's seminal paper, *Theory of Contracts*, appears to address the vertical integration issue to which Dr. Israel refers (though he does not reference this paper).[142] Specifically, Dr. Israel argues that "In practice, it is impossible to write a complete contingent contract that specifies how the two railroads must manage their interline business on a day-to-day basis. Such a contract would require dictating decisions or rules in every state of the world: every service choice, every investment decision, every price, and so on,

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139. https://www.nobelprize.org/prizes/economic-sciences/2016/holmstrom/facts/

140. Bengt Holmstrom, *Moral Hazard in Teams*, THE BELL JOURNAL OF ECONOMICS, Vol. 13, No. 2. (Autumn, 1982), pp. 324-340 at 324, ("Moral hazard refers to the problem of inducing agents to supply proper amounts of productive inputs when their actions cannot be observed and contracted for directly. Adverse selection refers to a situation where actions can be observed, but it cannot be verified whether the action was the correct one, given the agent's contingency, which he privately observes.")

141. *Id.* at 325, ("The reason is that agents who cheat cannot be identified if joint output is the only observable indicator of inputs.")

142. Oliver Hart and Bengt Holmstrom, *The Theory of Contracts*, in ADVANCES IN ECONOMIC THEORY, Cambridge Univ. Press, 1987 [hereafter, "Hart and Holmstrom, 1987"] at 75, ("Agency relationships are ubiquitous in economic life. Wherever there are gains to specialization there is likely to arise a relationship in which agents act on behalf of a principal, because of comparative advantage. Examples abound: workers supplying labor to a firm, managers acting on behalf of owners, doctors serving patients, lawyers advising clients."). Available at https://economics.mit.edu/sites/default/files/2022-09/Theory%20of%20Contracts-1987.pdf.

accounting for every possible outcome of everything that is uncertain."[143] Yet railroads frequently enter into interline agreements. UP's own Committed Gateway Pricing (CGP) prescription is based on the I-5 proportional rate agreement it currently has with BNSF, which has existed for nearly three decades.[144]

100. Dr. Israel appears to implicitly dismiss any contracts that have residual right of control as inefficient.[145] He is again wrong for three reasons. *First*, residual right of control resulting from contract incompleteness exists in most contracts, as parties cannot foresee every possible scenario with metaphysical certainty.[146] It is true that, if parties could foresee every single such outcome a priori, no reason for vertical integration would exist, as parties could just explicitly address such conditions in the contract.[147] *Second*, Hart and Holmstrom offer an example where integration increases efficiency but specifically note that "this is in no way a general conclusion," citing to other research showing that vertical integration can lower efficiency.[148] *Third*, the concept of "double moral hazard" that Dr. Israel advances in his statement appears to reflect his own

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143. Verified Statement of Mark Israel, ¶97.

144.https://investor.unionpacific.com/static-files/4b48295c-0959-47ed-aef6-6d95c72a342f; https://www.stb.gov/wp-content/uploads/BV-5-Sep00-Dec01-1173.pdf.

145. Residual right of control refers to decision-making authority over an asset that a contract between the parties does not address.

146. Hart and Holmstrom, 1987 at 139, ("It is sometimes suggested that when transaction costs prevent the writing of a complete contract, there may be a reason for firm integration.") Note that this does not imply that vertical integration must occur, but only that such a condition *may* offer a reason for it. See Id. at 140, ("For example, in the type of model we have analyzed, although the parties cannot describe the state of the world or quality characteristics, they are still supposed to be able to write a contract that is unambiguous and anticipates all eventualities. This is very unrealistic.")

147. Hart and Holmstrom, 1987 at 140, ("Note that if action α [α refers to some action that buyer B takes with respect to seller S's assets] could be specified in the initial contract then there would be no need for integration: The initial contract would simply say that B has the right to choose a at date 1. Ownership becomes important, however, if (i) α is too complicated to be specified in the date-0 contract and therefore qualifies as a residual right of control; and (ii) residual rights of control over an asset are in the hands of whomever owns that asset. The point is that, under incompleteness, the allocation of residual decision rights matters because the contract cannot specify precisely what each party's obligations are in every state of the world. To the extent that ownership of an asset guarantees residual rights of control over that asset, vertical and lateral integration can be seen as ways of ensuring particular - and presumably efficient - allocations of residual decision rights.)

148. *Id.* ("Although in the above example integration increases efficiency, this is in no way a general conclusion. In Grossman and Hart (1986; in press), examples are presented where integration reduces efficiency."). See Sanford Grossman and Oliver Hart, The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration, Journal of Political Economy 94(4), (1986): 691-719 at 692, ("When it is too costly for one party to specify a long list of the particular rights it desires over another party's assets, it may be optimal for that party to purchase all the rights except those specifically mentioned in the contract. Ownership is the purchase of these residual rights of control. We show that there can be harmful effects associated with the wrong allocation of residual rights. In particular, a firm that purchases its supplier, thereby removing residual rights of control from the manager of the supplying company, can distort the manager's incentives sufficiently to make common ownership harmful.")

unpublished work, co-authored with his colleague at Compass Lexecon, Daniel O'Brien.[149] Their work explicitly focuses on the profits of the firms themselves, not any cognizable procompetitive benefits.

101. As explained previously and the STB has noted, cost reductions that simply represent pecuniary benefits to the railroad do not reflect cognizable efficiencies. The only merger-specific efficiencies would be the marginal benefits from vertical integration over what the parties could otherwise achieve absent a merger, and the proportion of those benefits, if any, that the merging parties pass on to shippers. As others have recognized, the merging firm may pass on only a portion of the claimed benefits from EDM or from internalizing the Cournot effect.[150] Finally, Dr. Israel's conclusion ignores the substantial literature explaining the risk of foreclosure in vertical integration such as the instant matter, which we addressed *supra*.[151] Thus, any such benefits would need to be balanced against the harms resulting from the reduction of competition in the wake of UP's acquisition of NS.

I, Hal J. Singer, declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge. Further, I certify that I am qualified and authorized to file this statement.

Executed this 29th day of October, 2026.

/s/ Hal J. Singer

Hal J. Singer

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149. Mark Israel and Daniel P. O'Brien, Vertical Mergers with Bilateral Contracting and Upstream and Downstream Investment, Aug. 16, 2021 ("When negotiating bilaterally with a given downstream firm, the upstream firm (jointly with the negotiation partner) treats sales stolen from downstream rivals as increasing profits, even though they do not increase total profits for the "ecosystem" that sits under the upstream firm. As such, the series of bilateral negotiations fails to maximize the profits to be shared between the upstream firm at the top of the ecosystem and its downstream partners.") Available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3886048.

150. Id. ("They [the Vertical Merger Guidelines] make the key point that the cost-savings from EDM may not be passed through in full (if at all) to downstream customers as a result of an 'opportunity cost': that is, such a price reduction would reduce the sales of the merged firm's rivals in the relevant market and thereby reduce the input profits of the upstream merging firm, *ceteris paribus*.")

151. See also, Steven Salop, *Assessing the Advances Made on Vertical Mergers in the Final Merger Guidelines*, PROMARKET, Dec. 20, 2023, ("The [draft Vertical Merger] Guidelines sometimes use the lay terminology of limiting access to the related product instead of the technical antitrust term of 'foreclosure.' Either way, the concern is that the merged firm might raise the prices of upstream inputs, deny or delay their provision, or degrade their quality when selling them to some or all of the rivals of the downstream division. The merged firm also might discriminate against the rivals in other terms. In a digital market, it might reduce or eliminate interoperability, either technically or by contract. As a result, the merging firms may divert customers from these rivals and gain the power to raise or maintain prices in the relevant downstream market.")

I, Ted P. Tatos, declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge. Further, I certify that I am qualified and authorized to file this statement.

Executed this 29th day of October, 2026.

/s/ Ted P. Tatos

Ted P. Tatos

BEFORE THE

SURFACE TRANSPORTATION BOARD

STB DOCKET NO. FD

36873

UNION PACIFIC CORPORATION AND UNION PACIFIC RAILROAD COMPANY

---- CONTROL ----

NORFOLK SOUTHERN CORPORATION AND NORFOLK SOUTHERN RAILWAY COMPANY

Prepared on Behalf of the
AMERICAN CHEMISTRY COUNCIL
ALLIANCE FOR CHEMICAL DISTRIBUTION
AMERICAN FUEL AND PETROCHEMICAL MANUFACTURERS
THE FERTILIZER INSTITUTE
THE NATIONAL INDUSTRIAL TRANSPORTATION LEAGUE

Verified Statement of Karen M. Burchfield

November 18, 2026

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I. Qualifications of Karen M. Burchfield

1. My name is Karen M. Burchfield, I am submitting this verified statement on behalf of The American Chemistry Council (ACC), The Fertilizer Institute (TFI), the Alliance for Chemical Distribution (ACD), the American Fuel and Petrochemical Manufacturers (AFPM), and The National Industrial Transportation League (NITL) (collectively, the "Joint Shipper Associations"). Each of these shipper associations represents sectors that depend on safe, reliable, and competitive rail transportation. On their behalf, I submit my study and insights into the effects of the proposed acquisition of Norfolk Southern (NS) by Union Pacific (UP) (collectively "Applicants"). My assignment for this verified statement is to apply my rail industry experience to:

a. Analyze how the proposed merger would fundamentally restructure the rail industry in the United States and alter the state of competition between Class I rail carriers, including how a combined UP-NS could foreclose competition; and

b. Review and critique the traffic diversion analyses of the Applicants' witness, David T. Hunt.

2. I worked 35 years in the rail industry, first for Burlington Northern and then BNSF Railway Company (BNSF), before retiring in 2025. My railroad experiences are varied across functional lines, cultivating a unique perspective on the effects of rail consolidation and line rationalization. Since retiring from BNSF in 2025, I have provided strategic advisory services through Supply Chain Acumen, LLC and PraxiChain Consulting concerning rail operations, transportation economics, economic development, network access, interchange, market development, rate reasonableness, and the competitive and operational implications of the proposed UP-NS merger. I have attached my *curriculum vitae* as Appendix A. In this Part I of

my testimony, I detail how my rail industry experience directly relates to the opinions that I provide herein.

3. I earned an undergraduate degree from Texas Wesleyan University in International Business, a Master of Supply Chain Management from Penn State University. In 1989 I signed on with the Burlington Northern Railroad. During the years that followed, I experienced the evolution of the United States rail network firsthand, including multiple mergers with attendant conditions, acquisitions, and line rationalizations. My expertise is defined by my years in the industry, and my credentials are the personal rail industry experiences across multiple functional areas within a Class I railroad.

4. Since the late eighties, the rail industry has made great strides toward improved efficiency and operating ratios. I participated directly in that transformation. I am intimately familiar with changes in service design, train makeup, locomotive and crew balance, service-interruption recovery, commercial strategy, and fleet management intended to optimize assets and earn an adequate return on invested capital. My qualifications are unusual because they cross four principal functional areas essential to rail carrier longevity and success. I spent approximately fifteen years in commercial leadership, nine years in BNSF network operations, six years in fleet optimization, and four years in interchange design, line rationalization, joint facilities, short line development, and acquisition studies. These qualifications bear directly upon my verified statement and fall into four functional areas.

A. Commercial Strategy, Pricing, and Market Development

5. Through fifteen years leading commercial organizations, I was responsible for teams that developed and executed market-share, pricing, and growth strategies across BNSF's key commodity portfolios, including petroleum products, forest products, construction products, and

coal. In these commercial jobs, my responsibility was not only for commercial strategy and execution, but I was also responsible for the underlying unit volume forecast driving fleet sizing, resource planning, and capital project approval. My commercial teams were diverse in market and equipment needs, requiring knowledge of rail-controlled equipment and distribution, private asset utilization and payload maximization, and attributes of both manifest and unit train service. During my commercial tenure, it was my privilege to lead four different teams responsible for commercial portfolios exceeding $1 billion in annual revenue. Our work required us to increase volume, maintain revenue quality, account for changes in railroad input costs, earn adequate returns on the assets required to serve customers, and ensure integrated commercial and service design plans for consistent and reliable service.

6. Commodity teams developed strategies based on emerging market opportunities, customer requirements, competitive conditions, equipment needs, and operating capabilities. Geographically dispersed sales teams evaluated those strategies in the marketplace. Their direct knowledge of customer experience, competitor behavior, demand, and service performance often required us to refine conclusions drawn from internal data. We were proponents of growth and competitive options. Our shippers looked to rail to provide them with the services they needed to grow, and the competitive intelligence to extend their market reach.

7. It was this critical time serving on the rail commercial team that I came to understand the common carrier responsibility, moving beyond what is required to what is mutually beneficial, and most importantly, working with our shippers to achieve their growth goals. Growth objectives rely upon the best use of the existing infrastructure and strategic expansion of the legacy lines to meet emerging opportunities. I led teams through multiple location and expansion projects which required capital approval to build needed industry access or add the

critically needed fleet capacity. Market demand drove the forecast, and contract committed volume secured the capital needed to expand.

8. The practical reality is that rail service cannot happen without rail access, and rail access only survives with density. These two prerequisites must precede reliable rail service, and an operating design that can be executed efficiently and profitably. These commercial experiences inform my analysis of the Applicants' claims concerning growth, truck-to-rail conversion, pricing, and new single-line service.

B. Asset Utilization and Optimization

9. As General Director of Grain operations and Assistant Vice President (AVP) of intermodal and automotive equipment, I led teams that evaluated fleet sizing, deployment, and utilization across grain, intermodal, automotive, and aggregates. Each market presents different requirements involving payload, equipment design, loading and unloading, wear, inspection and repair, interchange, storage, seasonal demand, and network balance. Fleet adequacy depends most upon cycle time, minimization of empty miles, maintenance of equipment condition, and the contractual incentives governing use and return.

10. Our equipment teams optimized railroad-owned and controlled equipment, privately owned or leased fleets, and equipment supplied through the railroad-owned TTX pooling system. My master's thesis examined the effectiveness of railroad-controlled fleets, including rail owned rolling stock and shared pools. During my years as BNSF's AVP of Intermodal & Automotive Equipment, I led a team responsible for optimizing the railroad's intermodal and automotive fleets and managing approximately $650 million in annual operating expense for hub and automotive facility operations. This combination of academic work and direct management

experience supports my opinions concerning equipment pooling, fleet allocation, empty-mile exposure, carrier incentives, and the asset consequences of consolidation.

11. I consider my time on the BNSF's Demurrage team as an integral part of understanding cycle delay and lost fleet utilization. Our team worked to solve the underlying service or facility structural design limitations driving inadequate rail throughput and elongated cycle. We treated accessorial charges as evidence of operating inefficiency, not solely as an alternative revenue stream. By connecting billing information to movement data and equipment utilization, we improved fleet cycles, reduced avoidable charges, and strengthened customer relationships. That experience taught me to look beyond financial measures to understand the operating conditions that produced those results.

C. Network Optimization and Train Plan Execution

12. I spent nine years working in the BNSF Network Operations Center in grain operations, North Region Operations, and Intermodal Fleet operations. While in both grain and intermodal fleet operations, I led teams responsible for fleet sizing and deployment, equipment utilization, payload improvement, customer car-order fulfillment, and execution of transportation products with different priorities and service commitments. Through analysis and operating experimentation, our team evaluated whether apparent efficiencies survived the entire equipment cycle. We also rewrote grain train service schedules aligning train plan design to meet both customer requirements and equipment-cycle objectives. The work improved payload, equipment utilization, transit performance, cycle time, customer satisfaction, and financial contribution.

13. For three years, I was General Superintendent of Transportation for BNSF's North Region in the Network Operations Center. I was the first woman to serve as a General Superintendent on the BNSF and on either predecessor road. The weight of this opportunity did

not escape me. My team was responsible for continuous train-plan execution from the Twin Cities to the Pacific Northwest, with connections to the principal coal routes and Upper Midwest. Seven superintendents reported directly to me. Their organizations provided continuous Network Operations Center coverage and included approximately 240 scheduled train dispatchers.

14. The North Region carried premium intermodal traffic and passenger trains over many of the same routes used by manifest, agricultural, coal, and other bulk trains. Daily execution required continuous balancing of track and terminal capacity, locomotive availability, crew supply, maintenance windows, customer commitments, and differing service priorities. We often ran through difficult winter conditions, with strong preparedness and winter action plans. Our team measured performance against plan, reported material interruptions, coordinated recovery resources following service interruptions, and monitored service restoration. This experience informs my assessment of the Applicants' integration plans, claimed efficiencies, and the possible network-wide consequences of a merger-related operating plan.

D. Joint Facilities Gateways and Short Line Relationships

15. For approximately five years, I was responsible for developing relationships with key short line partners through which BNSF expanded its reach and improved first-mile and last-mile service. My work included acquisition studies, line-rationalization analysis, industrial-park development, third-party switching arrangements, joint-facility solutions, and other service enhancements. My relationships within the short line industry continued throughout my railroad career, and my recent work has included collaboration with several strategic short lines intent upon growth, as well as first and last mile service improvements.

16. Shippers understand that short line railroads extend Class I reach, protecting service on rail line segments with lower density. Short line operators are extensions of the Class I carrier

sales teams in that they excel in developing new customers. Most importantly, short lines are a service presence for the shippers, providing localized operating know-how. The short line value to shippers is critically reliant on practical gateways. The survival of the American short line(s) and the businesses they serve depends on strong Class I partnerships for reliable, competitive service. During my short line relationship assignments through the merger-era, I gained practical experience in joint facilities negotiations, proportional rate agreements, and interchange rationalization arrangements. I made analytical arguments to our senior leaders during the negotiations of the well-known I-5 Proportional Rate Agreement between the BNSF and UP. These experiences support my opinions concerning merger conditions, gateway utilization, jointly owned terminals, and the downstream effects of Class I consolidation.

E. Merger, Line Rationalization, and Industry Consolidation

17. Spanning my experience in these four functional areas, I served both the Burlington Northern Railroad and the combined BNSF Railway and experienced the integration of the two BNSF predecessor railroad systems firsthand. A merger combines far more than people and infrastructure. When carriers combine, they must align their unique operating practices and languages. When two strong railroads merge, they bring together practical and philosophical differences. Functional areas requiring new team alignment include train schedule and routing design, equipment-distribution, car-reporting conventions, information systems, customer commitments, joint facilities, and interchange relationships.

18. The tough times endured during the mergers of the 90's exposed all railroaders to the effects of consolidation. Every merger had integration challenges. During those years, the entire

supply chain was distressed.[1] Shippers looked to other carriers for a way around the integration service challenges created by the Union Pacific–Southern Pacific (UP-SP) merger.

19. The memory and pain of that merger lived in the memory of the shippers, the Surface Transportation Board (STB or Board), and the courts, who together slow-rolled a merger approval between BNSF and Canadian National Railway (CN), delaying it for enough time to kill the deal. The other Class I carriers and shippers voiced concerns about the U.S. supply chain's ability to recover from another complex combination, and the STB issued a 2-year moratorium on rail mergers.[2]

20. The latest and most prominent merger in my memory is the recent merger of the Canadian Pacific and the Kansas City Southern (now CPKC), which has suffered its own integration challenges, and in my opinion is still in the proving stage as to impact on competition.[3]

21. History reminds us, rail industry consolidation creates heightened pressure for rail employees, for shippers heavily reliant upon rail, and manufacturing receivers reliant on rail inbound. Serious supply chain disruptions, emergency reroutes, and materials stock-outs were some of the financial consequences shippers bore. Mergers disrupt traffic flows as merged

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[1] Carl Nolte, *Transcontinental Rail Gridlock: Merging of SP, UP Tracks Creates a Snarl of Trains That Has Nearly Paralyzed Freight Traffic in the Wes*t, S.F. CHRON. (Oct. 19, 1997), https://www.sfgate.com/business/article/Transcontinental-Rail-Gridlock-Merging-of-SP-2802425.php; *see* Workpaper "Transcon Rail Gridlock Article.pdf."

[2] *STB Ban Halts BNSF–CN Merge*r, RY. GAZETTE INT'L (Apr. 1, 2000), https://www.railwaygazette.com/news/stb-ban-halts-bnsf-cn-merger/27030.article; *see* Workpaper "Merger Freeze April 2000.pdf."

[3] *CPKC to Remedy Service Disruptions Impacting Dwell Times, Switches*, SUPPLY CHAIN DIVE (June 27, 2025), https://www.supplychaindive.com/news/cpkc-action-plan-service-disruptions/751642/; *see* Workpaper "CPKC To Remedy Service.pdf."

carriers rationalize classification yards and shift work; there is a ripple effect at gateways and interchanges. Railroads are connected. A disruption on one carrier affects all.

22. When one rail carrier in an integrated network is disrupted, it requires the entire network in cooperation to reset it. To get the system up and operational again, competitors must work together. Adjacent terminals will have planning calls to coordinate inbound and delayed flows into the service impacted area. I clearly remember these operations coordination calls, and the joint effort required to reset the U.S. rail network. Given the impact, the benefits to all must justify the disruption.

F. Foundational Insights

23. As in any industry, our collective memory fades as those individuals experiencing recent history retire or leave the industry. Thirty years after the UP-SP merger there has been a change of the guard, and fading institutional memory presents a risk that potential network disruption will be underestimated. Approving the proposed UP-NS merger is not just a historic transaction; it is a structural change with the potential to disrupt equilibrium in an integrated and interdependent national network. If approved, the merger will benefit UP, NS, and their shareholders, while shippers and connecting carriers will bear the risk of network disruption and increased market concentration.[4]

24. Industry experience shapes my perspective and allows me to evaluate the proposed Union Pacific-Norfolk Southern merger not solely as the combination of two individual railroads, but as a catalyst of significant downstream effects. My life inside this industry provides the

[4] *See* Steve Blinn & Dan Bostek, *UP+NS: Why We Keep Asking the Question*s, RY. AGE (Aug. 21, 2026) (discussing merger integration risks, potential losses of meaningful competitive alternatives, and whether railroad efficiencies translate into benefits for shippers); *see* Workpaper "Blinn and Bostek.pdf."

foundational insight that any rail merger is a structural change to an interconnected national network in which operating disruption, altered incentives, and reduced competitive options affect carriers and shippers beyond the Applicants' own lines.

25. The opinions in this Verified Statement are grounded in 35 years of direct rail industry experience. My view is firsthand and intimate, not external as an observer. I believe it is that combination of education, experience, and front-line execution that uniquely qualifies me to offer these opinions to the Board.

II. Prologue: Data and Methodology

26. A Class I rail merger requires analysis of extraordinary scale and complexity. There are unique challenges associated with the scale analytics required to evaluate a proposed consolidation of the magnitude of Union Pacific Railroad and Norfolk Southern Railway (UP-NS). In this section, I review the data sources, methods, and analyses upon which I have based this testimony.

A. Traffic Data Sources

27. To firmly base my observations upon common established facts, I began with the 2023 and 2024 traffic data set that was prepared for analysis and presented in the Verified Statement of Katherine Bailey, submitted on behalf of the Applicants.[5] This allowed me to begin using a data set with less detail and more manageable scale. For the integrity of the verified statement, I will level set understanding on the sources, scope, treatment, and limitations of the data. In this way, I

[5] *See* Verified Statement of Elizabeth M. Bailey ("Bailey V.S."), App. C, "Data," at C1–C50, *in* Amended Railroad Control Application, Vol. 2 (UP-40/NS-38*), Union Pac. Corp.-Control-Norfolk S. Co*rp., No. FD 36873, at 109–58 (S.T.B. filed Apr. 30, 2026).

aim to clarify methodology, assumptions, and findings, while pointing out the nuances of the data and limits of methodology.

28. To facilitate a clear understanding of projected merger benefits and the potential downstream effects, the Surface Transportation Board directed the Applicants, in Decision No. 2, served August 25, 2025, to produce their 100 percent traffic tapes maintained for the six-year period 2019 to 2024. The appendix to the decision specifically identified required field details. The movement data provided by the Applicants was complex. They addressed this complexity with files defining the data, including a data dictionary and a documented explanation of the dataset, its sources, nuances, and revision date.

29. In addition to the data supplied by the Applicants, I reviewed the movement data from other Class I carriers under protective order. Access to the other Class I data provided a more complete picture of the network outside the merging carriers and facilitated calculation of plausible downstream effects.

30. For those familiar with rail movement data, it goes without saying that the scale of the data presented a substantial analytical challenge. That challenge was compounded by the incremental production of information in response to multiple requests and by the absence of certain readily identifiable geographic fields. It became practicable for those working quickly to evaluate large scale data to use the work done by the Applicants' witness, Katherine Bailey, on the 2023 and 2024 traffic data which was developed by Bailey to remove outliers and empties.[6]

[6] *Id.*; electronic source data: Bailey-Waybills-2023-2024-Copy001.parquet.

31. Nuances with the less detailed and more manageable data set included required workarounds to address detail gaps. My methodology employed other authoritative rail industry data table overlays to identify the "open" and "closed" industry status. Since details were removed to better manage the scale of the analysis, rather than origin station and state, the abridged data employed broader geographic definitions: Freight Station Accounting Codes (FSACs), Standard Point Location Codes (SPLCs), and Bureau of Economic Analysis (BEA) areas to identify geography.

32. Given the reduced detail in the abridged files, I elected to overlay a single authoritative station-level cross-reference to tighten the focus on endpoint access. In this way I translated the broader geographic definitions to "open" and "closed" access points. As the authoritative station-level cross reference, I used the stations listed in the Open and Prepaid Station List, or OPSL, and cross referenced the BEA(s), FSAC(s) and SPLC(s) in the abridged data.[7]

33. To verify data in comparison to publicly reported traffic volumes, I compared the total volume in the Bailey 2024 data with the Class I reporting in their weekly unit handlings report to the STB, and in the individual carriers' annual 10-k public releases. The data set that I analyzed contained 7.562 million Union Pacific units, compared with the approximately 8.334 million units reported in Union Pacific's 2024 Form 10-K.[8] The validated Bailey data set was therefore approximately 9.3 percent smaller than the 10-K publicly reported total.

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[7] *Open & Prepaid Station List (OPSL)*, Tariff OPSL 6000-AU, Supp. 5; *see* Workpaper "Master OPSL_6000_AU-5.pdf".

[8] Union Pacific Corp., *Annual Report (Form 10-K*) 26 (Feb. 7, 2025), https://www.sec.gov/ix?doc=/Archives/edgar/data/0000100885/000010088525000042/unp-20241231.htm ("Revenue Carloads" table reporting 8.334 million revenue carloads, including intermodal units); *see* Workpaper "UNP Annual Report 2024.pdf."

34. While the unreconciled 9.3% is not *de minimis*, it should not be seen as a computational error, or deficiency in the data source. The difference in the movement data totals and public reporting is in part explained by two differently defined populations. Union Pacific's Form 10-K reports company-level operating volume, while the Bailey data build contains the Applicants' combined waybill data with specific exclusions, e.g., revenue empty movements and non-revenue empties and company materials movements.

35. The findings presented in this verified statement are derived from that curated data set unless otherwise stated.[9]

B. Identification of "Open" and "Closed" Locations

36. By overlaying the RAILINC published OPSL onto the FSAC-coded movement records, I used the station FSAC and junction information to identify the carriers serving each location. This station defined "overlay" allows me to closely capture the "open" access stations served by multiple carriers to differentiate the exclusively served stations with "closed" status. For clarity, the end point access scenarios that I provide in Appendix B, "End Point Access Scenarios," are not the industry specific definitions found in the Open & Prepaid Station List (OPSL) kept by RAILINC. Because this analytical data set was not at the industry level, I used the station FSAC and SPLC in both sources to overlay and match. I then audited these counts against station counts available on the RSI logistics platform, which provides total station(s) tally and access categories, to verify consistency with the "station" status definition and the industry specific count by category.

[9] *See* Bailey V.S., App. C, "Data," at C1–C50.

37. In the first step of this cross-reference analysis method, I defined "open" and "closed/local" as station specific, rather than industry specific. For example, when I found a station that was also a junction (JCT) being served by more than one railroad, I classified all industries within the station as "open." Conversely, when a rail access location/station was only served by one carrier, with no junction status, I classified all industries within the station as "closed." In this manner, the methodology cross referenced and linked all FSAC(s) with a corresponding official station listed in the OPSL which showed either one carrier and no junction, or multiple carriers and a junction.[10]

38. This methodology is conservative by design in that it *understates* the number of "closed" industries. Some stations with junctions that are classified as "open," may still have individual industries that are "closed," exclusively served by one carrier with no switch or restricted access. Because the Bailey data set did not identify traffic at the industry level, I employed this broader station-level classification rather than infer industry-specific access I could not verify with the source data.

39. This limitation makes the methodology conservative in its estimate of the number of "closed" industry locations, as it classifies industries within jointly served stations as all "open" when there are often "closed" industries at "open" stations. In this way a station will never count as "closed" when it is "open," because the only points counted as "closed" have a single carrier serving that location with no junction. This practice may classify some traffic involving a "closed" industry as "open," but is prevented through methodology from classifying any "open" industry as "closed." The resulting findings may be understood as a lower-bound estimate of

[10] *See* Workpaper "Foreclosure Analysis v02.docx" at cell 13.

exclusively served industry exposed to "closed" access leverage, rather than a complete count of every single carrier served industry affected by the proposed merger.

C. Carrier Access Defines Shipper Access

40. Once I cross referenced the movement data with the OPSL for station classification, I then compared the totals to what is published in the OPSL by category and made publicly available through the RSI Logistics online station listing, which includes the station and the following classifications: "open," "closed," "local," and "restricted." To evaluate concentration before and after the merger, I utilized the same authoritative data source, through two filters. First, by the process already described, I overlay the OPSL tables and the movement data, using definitions to translate the FSAC and SPLC to an access classification. Then I compared the tally per carrier to the industry status displayed by RSI Logistics.[11]

41. This listing of all access points to the U.S. manifest rail network provides a unique view of "access concentration." This is the concentration of all rail access that is possible, short of capital investment to add access.

42. There are two distinct types of exclusive access, "closed" and "local," listed in the OPSL listing. If an industry or location is classified as "local," that indicates the carrier has exclusive access to that location because there are no other rail carriers. If a location is classified as "closed," that indicates the presence of other carriers that serve the same station or location but the limitation of "no junction" designation (JCT) means that neither carrier has access to industries served by other carriers at that station. A location classified as "open" means more than one carrier has access, either through joint access or a switch provided by the railroad that

[11] *See* Workpaper "RSI_Listings_8_2026_Access_Concentration.xlsx, tab 'RSI 8_3_26'" at cells B17:I23.

physically serves the location. One other classification, "restricted," indicates that the serving carrier will allow access to another carrier only under limited conditions, e.g. unit trains only, delivered at a specific location.

D. Scope of the Carrier-Pair Analysis

43. Once I established what defines possible access to the U.S. rail network, I studied the resulting traffic flow dynamics associated with that access. By looking at actual movement data and filtering unit counts by endpoint access scenarios, we can see the market share, unique BEA to BEA lanes, and revenue participation facilitated by a carrier's unique endpoint-access.[12]

44. My analysis intentionally focuses upon the plausible impact of the merger on the North American manifest, or "merchandise," network. When considering the vast diversity of commodities that move by rail, there are certain portfolio segments with greater or less risk of "closed" industry concentration. Merchandise traffic is highly diverse in commodities and routes and moves in a fluid web of hub and spoke alternative routes, established gateways, and lanes that can be price elastic and frequently competitive. The merchandise network also is characterized by wide variations in routing between "open" and "closed/local" stations.

45. It is in this merchandise network that the greatest number and diversity of shippers are at risk from consummation of the proposed merger. The greater the number of "closed/local" locations on any system, the greater the carrier's negotiating leverage, and lower the competitive pressure due to the exclusivity of the service location.

[12] *See* Workpapers "UP_NS Endpoint Analysis 23 24.xlsx; UP_CSX Endpoint Analysis 23 24.xlsx; BNSF_NS Endpoint Analysis 23 24.xlsx; and BNSF_CSX Endpoint Analysis 23 24.xlsx, tab 'Appendix A Summary' in each workbook" (The 2024 directional tables appear at cells A14:E19 and A27:E32 in the first three workbooks, and A72:E77 and A85:E90 in the BNSF–CSX workbook.).

46. I have further narrowed my focus on the potential impact of the merger on manifest traffic moving in interline service between four principal roads: BNSF and UP in the west to CSX Transportation (CSX or CSXT) and NS in the east, and vice versa. For the most part, the carrier-pair analysis is limited to:

* Union Pacific⇔Norfolk Southern.

* Union Pacific⇔CSX Transportation.

* BNSF⇔Norfolk Southern; and

* BNSF⇔CSX Transportation.

47. On behalf of my clients and all other shippers reliant upon the North American manifest network, I first focused on all merchandise train traffic moving between these four carrier pairs. After looking at these patterns for merchandise traffic generally, I looked more specifically at the commodities shipped by members of the Joint Shipper Associations – Chemical & Allied Products, Fertilizer, and Petroleum Products – to compare the lane density, price sensitivity, modal optionality, and concentration of exclusive service points.

48. To keep my analysis bounded by traffic moving in manifest service required narrowing the data set by removing the unit train service centric business lines; intermodal, coal, metallic ores, and crushed stone from the data set. I understand the limits of this methodology. Other commodities can move in unit trains. Grain moves predominately in unit trains, with about one third moving in manifest. Likewise, train service for finished autos is bifurcated between unit and manifest trains, with specific lanes moving in merchandise. I kept both grain and automotive in the data set to assure representation of their interest in the manifest network.

49. Once I defined the target data as merchandise, I applied a filter to the data to calculate total units and distinct BEA to BEA lane density for each of the following endpoint rail access scenarios: 1) "Closed⇔Closed", 2) "Closed⇔Open," 3) "Open⇔Closed", 4) "Open⇔Open."

50. To clearly identify each "closed" point location by carrier, I looked separately at westbound and eastbound flows. This allowed me to accurately assess which carriers had the "closed" points and "open" points, in those combinations of both: as in "open to closed" or "closed to open." I kept the unit endpoint tally and associated revenue specific to individual carriers. I then looked at "closed" point concentration to evaluate the plausible leverage that the merged carrier, with its combined exclusive access points, would have in relation to shippers and other carriers.

51. For purposes of categorizing and attributing endpoint access to individual carriers, each unit had both an origin and destination count. To prevent double counting the units, one-half of each unit counted toward its origin endpoint, and one-half to its destination endpoint. For example, if 100 units moved from a "closed" UP origin to an "open" CSX destination, that unit contributed 50 unit-endpoint-touches to UP's "closed point" count and 50 unit-endpoint-touches to CSX's "open point"count. This endpoint counting method allowed counting and categorizing each point of access/origins and egress/destinations without double counting the units. This method measures each carrier's share of endpoint access, allowing distinction between "open" and "closed" access without double counting the units.

52. I treated revenue separately and measured it distinctly as reported by each carrier. For example, if a unit moves between two "closed" points, there is very specific revenue associated with that "closed" to "closed" move for each carrier. This is why it is important to separate the eastbound and westbound moves, to allow a separation of carrier/location specific revenue

associated with “open” and “closed” endpoints. This is especially important when there is one “open” and one “closed” endpoint for the move. This view also allows revenue quality comparisons for “open” vs “closed” points.

53. The resulting tables in Appendix B capture the 2024 movements between the two principal carriers in the east and the two principal carriers in the west. The results that follow acknowledge four limitations:

1) The curated data set excludes empty movements, including revenue-empties.

2) Analysis boundaries are defined by movements between UP or BNSF in the west and CSX or NS in the east.

3) The data set does not measure all interline traffic or all potentially affected carriers. For this reason, any calculated gross ton-mile (GTM) erosion estimates are conservative and likely understated.

4) As previously noted, the “open”/”closed” designation is assigned at the station level and understates “closed” industries located within otherwise “open” stations.

54. Acknowledging the calculation limitations, I found that these methods produce consistent and replicable results. The “closed” station counts are conservative and demonstrate plausible indications that the proposed UP–NS combination creates access concentration and route leverage for interline movements between “closed/local” origins, “closed/local” destinations, or both. The detailed results of this analysis are provided in Appendix B, with one table for each carrier grouping; BNSF⇔CSX, BNSF⇔NS, UP⇔CSX, and UP⇔NS.

55. Figure 1 below summarizes 2024 movements by endpoint access category, with carrier specifics removed. The primary purpose of the endpoint access analysis is to evaluate and

demonstrate how traffic moves today between the "open" and "closed" points on the four largest Class I carriers which also are the principal participants in east-west movements: BNSF, CSX, NS and UP. This methodology captures a static picture of 2024 traffic patterns. In this way we can see how traffic is influenced by multiple competitors with differing network legacy infrastructures.

Figure 1[13]{{



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[13] *See* Workpapers "UP_NS Endpoint Analysis 23 24.xlsx; UP_CSX Endpoint Analysis 23 24.xlsx; BNSF_NS Endpoint Analysis 23 24.xlsx; and BNSF_CSX Endpoint Analysis 23 24.xlsx, tab 'Appendix A Summary' in each workbook" (The 2024 directional tables appear at cells A14:E19 and A27:E32 in the first three workbooks, and A72:E77 and A85:E90 in the BNSF–CSX workbook.); *see also* Workpaper "Partial Foreclosure Analysis Final.xls, tab 'Foreclosure Risk.'"

56. Across these four carrier-pair combinations and four endpoint-access scenarios, the analysis captured 1.3 million units, and the sum of $10 billion in participating carrier revenue, with a high concentration of exclusively served UP and NS access points. Guided by the insights these movements provide, I then can focus on the implications associated with the potential concentration post-merger.

E. DERCE™

57. In this verified statement I introduce a model, DERCE™ , which considers the impact to “Downstream Effects of Rail Consolidation Economics," an illustrative model of potential fixed-cost transfer at established interchange gateways. The model uses public data and specified assumptions to examine how merger-related traffic shifts could increase the fixed cost per unit borne by the traffic remaining at those gateways.

58. DERCE™ draws on density economics, which describes the relationship between traffic volume and unit cost. Rail terminals require substantial investment in infrastructure and incur ongoing fixed operating costs. Higher throughput allows those costs to be spread over more units. When traffic leaves a terminal, fixed costs may not decline proportionately. To the extent those costs remain, fewer units must support the terminal’s fixed-cost requirements.

59. The merger could concentrate traffic on selected routes while reducing throughput at established interchange gateways. DERCE™ examines the gateway consequence of that redistribution. If UP–NS shifts traffic away from a terminal, the traffic remaining there could bear a larger share of its fixed costs. The extent of that effect depends on the volume shifted and the terminal’s ability to reduce its fixed-cost requirements.

60. The DERCE™ model was developed to better quantify the possible impacts of large volume and linehaul revenue shifts. This model uses public data and specified assumptions to

illustrate the impact of unit share shifts and possible linehaul erosion associated with interchange shifts following the UP–NS merger. Specifically, the model considers linehaul revenue erosion under "partial foreclosure" and potential fixed-cost transfer at established interchange gateways associated with the merger benefits claimed by the Applicants

61. The DERCE™ model is built upon established theory. Density economics characterizes the relationship between traffic density and unit cost. Because of the tremendous investment in underlying infrastructure in the rail industry, increased density and throughput allow greater utilization of assets and reduced fixed cost per unit. As volume increases over a largely fixed-cost rail network, those costs are spread over more units. Improvements in profitability can occur as traffic density reaches thresholds that support more efficient use of the underlying infrastructure and operating resources.

62. A second established concept contributing to DERCE™ is the effect of lin segment traffic concentration, or the redistribution of traffic to fewer carriers or routes. This consolidation increases traffic density on some network segments while reducing density on other routes. By concentrating density in selected lanes, routes and interchange gateways, carriers can improve profitability and productivity on those routes. In contrast, routes losing traffic density can experience increased cost per unit and reduced profitability. Carriers may respond by modifying or withdrawing service from lanes that no longer earn an adequate return. This relationship provides context for the model's gateway fixed-cost analysis.

63. Using public data and specified assumptions, DERCE™ illustrates potential linehaul revenue erosion under partial foreclosure and increased fixed cost per unit at established interchange terminals. The gateway analysis includes volume sensitivities for Chicago, St. Louis, Kansas City, Memphis and New Orleans. These scenarios evaluate how traffic shifts away from

these gateways could spread remaining terminal fixed costs over fewer units. Any resulting increase in charges borne by remaining carriers and shippers would depend on how those costs are recovered

III. Insight: Five Reasons Why the Proposed Merger Is Not in the Public Interest

64. This Verified Statement is the culmination of the significant industry analysis and large-scale data analytics described in the preceding section, the results of which consistently indicate that the proposed UP-NS merger would create a substantial risk to competition. The opinions and conclusions in this Verified Statement are my own.

65. After in depth analysis, and considerable weighing of the potential downstream effects of the merger, I firmly believe that the approval of the proposed UP- NS merger has the potential for serious and potentially irreversible harm to the U.S. rail network and the supply chains that depend upon it.

66. As the rail industry has consolidated, it has moved decidedly toward increased concentration. Since the Staggers Act of 1980, the rail industry has seen significant reduction in Class I carrier mileage owned, down from a U.S. rail network of about 162,822 operable Class I miles in 1980 to roughly 91,000 Class I miles today.[14] It is highly improbable that any new Class I railroads will be built.

67. As a result, when the industry consolidates or rationalizes rail lines, the effect is unavoidably a more concentrated network. If the proposed merger does nothing else, it will increase the concentration of rail access points in a single carrier, leaving shippers fewer options

[14] Bureau of Transp. Stat., U.S. Dep't of Transp., *National Transportation Statistic*s, tbl. 1-1, System Mileage Within the United States, https://www.bts.gov/content/system-mileage-within-united-states (last visited Sept. 15, 2026); *se*e Workpaper "BTS Table 1_1 Rail Miles.xlsx."

for accessing the North American rail network. If approved, the merger of UP and NS will combine two independent Class 1 railroads, concentrating rail access in even fewer carriers.

68. Whenever two giants in the industry combine, they bring their legacy networks of "closed" industries, "local" stations, alternative gateways, joint facilities, terminal interests, interchange relationships, and jointly owned assets with powerful incentives to internalize traffic on the merged network to the greatest extent possible. The resulting competitive risk to the United States rail network in a merger of this scope and magnitude is fivefold:

1. Concentration of Rail Access. Each carrier has a unique portfolio of access points to the North American rail network. If any two Class I railroads combine, the resulting merged carrier "inherits" the legacy and access power of both predecessors. This means concentration and control of substantial complementary shares of rail stations. The high capital cost of building access to the U.S. rail network is a barrier to entry, which makes each station valuable as a non-replicable access point.

2. The Price of Exclusivity. When rail carriers enjoy single line access with no other competitive rail options, that exclusivity comes with market value. As we look together at the high concentration of "closed" and "local" access points on the UP and NS, it will be evident that the power in concentration of access is leveraged through exclusivity. Shippers at these stations must depend upon a single carrier for physical access to the broader rail network.

3. Concentration Leverage and Routing Influence. With concentrated access, the combined carrier gains greater leverage to influence new routings and change existing routings. A carrier with a disproportionately greater concentration of both exclusive and

open points on its network will have a similarly disproportionate ability to leverage those exclusive locations to capture other traffic, including competitive traffic and extended long hauls. Greater routing influence translates into potential shifts in standard interchange protocols. Most concerning is the plausible effect of the merged carrier extending its linehaul deeper into the non-merged interline partner's territory, creating longer haul efficiencies for the merged carrier, with the inverse impact on the non-merged interline partner(s).

4. Disruption of Established Gateways: Fixed Cost Transfer, Linehaul Density and Revenue Erosion.

Over the decades, interline traffic flows and optimal interchange designs have evolved for improved utilization of existing gateways. This is the result of many generations of railroaders sharing terminal and belt road capacity to execute smooth interchange. This evolution and optimization is a continuous, on-going collaborative effort between Class I interchange partners. When two carriers independently pull away from those thoughtfully developed plans to independently internalize interchange away from the established gateways, this triggers a series of events. As UP-NS traffic is removed from legacy interchange terminals or shifted to alternative gateways, the fixed costs of those facilities will not disappear. They will be redistributed across the remaining traffic of the non-merging carriers.

Linehaul revenue erosion and total linehaul cost redistribution among the non-merging carriers compounds the effects of gateway fixed cost transfers from this merger. When a merged carrier uses its access concentration leverage to capture a greater portion of its interline hauls, the non-merged interline partner(s) faces three related economic forces:

linehaul revenue erosion, cost per car mile increase, and lost GTM(s) density affecting every other unit moving over the affected line. These three economic forces have significant opposing effects on the merged and non-merged carriers, creating a structural cost "rift" and operating ratio spread impacting the rival carriers' ability to compete.

5. Ultimately, the U.S. Consumer Pays. As the structural cost rift changes what is commercially feasible for the merged carrier relative to its competitors and increases the average cost per car mile for rival railroads, the long-term viability of competing routes weakens and ultimately raises the cost of rail transportation in the United States. The U.S. consumer relies upon efficient, cost-effective transportation of the nation's goods. That outcome is threatened by any deal that increases market concentration and disrupts the network equilibrium.

69. The following subsections expand upon the foregoing summary of competitive risks, including the presentation of analyses, as described in Part II above, that utilize established economic principles of traffic density and market concentration to evaluate and to quantify potential impacts of the proposed merger. This concentration will give the merged carrier leverage to reduce the GTM(s) moving on other carriers both through share shift and linehaul incursion. If this strategy is successful, it will ultimately reach the U.S. consumer impacted by compounded inflationary factors.

A. Concentration of Rail Access

70. In the rail industry, commercial leverage increases as market concentration increases. Even though "closed" industry concentration reduces the rate discipline provided by competitive alternatives, essentially reducing rail competition in certain lanes, the Applicants do not address

the combined UP-NS concentration of "closed" industries, nor the implications of upward price pressure and route/gateway influence if the merger is approved. Nowhere in the application is there mention of the two strong "closed/local" networks that, when combined, will create concentration risks from exclusive access. We have seen this repeatedly, as the U.S. rail network has consolidated through merger and acquisition, with predecessor roads bringing their "dowry" of "closed/local" locations.

71. With each prior rail combination, the "closed/local" station concentrations have increased, creating greater leverage on the part of the combined carrier(s). This is especially important when considering the cumulative effect of the last 40 years of combination and rationalization in the North American rail network. The degree of such concentration has increased with each subsequent merger to a point that it can no longer be ignored. The STB's 2001 merger rules requiring applicants to assess cumulative and downstream effects appear to acknowledge this fact.

72. In this section, I focus on the impact of this merger on the concentration of rail access in this country. I performed the analyses in this section through the processes described in Parts II.B. & C. above. Figure 2 below depicts all listings in RSI, as of 8/3/26, of "Open," "Closed," "Local", and "Restricted" industry locations. if the merger is approved, UP-NS will have access to 6,034 of the 11,224 "closed" industry locations shown, representing approximately 54% of all "closed" industry locations accessible to the four carriers. When I include the "local" locations in the exclusive count, the UP-NS also would have 54% concentration. When I include the "restricted" locations, the merged UP-NS still would have 54%. Regardless of the definition I use for "exclusive access," a merged UP-NS would control more than half of the exclusive access points to the U.S. network for the four largest Class I carriers.

Figure 2[15]

Figure 3

Serving Carrier	Industry Open	Industry Closed	Industry Restricted	Industry Local	Four C1C(s) Total by C1C	Percent of Total % by C1C	Post Merger % by C1C
UP	345	3,613	815	2,750	7,523	30%	***54%***
NS	436	2,421	336	2,696	5,889	24%	0%
BNSF	417	1,872	214	1,984	4,487	18%	18%
CSXT	247	3,318	168	3,282	7,015	28%	28%
Updated 8/3/2026	**1,445**	**11,224**	**1,533**	**10,712**	**24,914**		

Open: Industry availble to other carriers serving that station through switch fee by serving carrier

Closed: More than one carrier serves the station, but industry is not open to reciprocal switch

Restricted: Serving carriers allows access via switch under specific operating conditions, eg "unit t rain only"

Local: Station is only served by one carrier, no access by other roads

Post-Merger UPNS has 54% of all industry locations for the 4 carriers, and 54% of all "Closed" industry locations

73. By evaluating each rail carrier's exclusive access concentration, it is possible to assess likely commercial incentives and potential operating responses. My definition of "exclusive access" includes both (a) "closed" stations that may have access to more than one carrier, but the industries served by each carrier are inaccessible to the other carrier(s), and (b) "local" stations that are accessed by just a single rail carrier. I consider both "closed" and "local" stations in Figure 2 to be "exclusive" access points in my analyses because there is no current rail alternative. These exclusive access points are unique to each carrier and become more concentrated as legacy networks combine through merger and acquisition.

74. In Figure 3 below, the graphic combines three tables summarizing the concentration evident in the OPSL listings from the RSI Logistics on-line database. The top table in the chart presents the same data from Figure 2 above in a different format. It depicts the current concentration of access for four Class I railroads, the two primary western carriers and two primary eastern carriers. The green highlights in the top table show that UP has the highest

[15] *See* Workpaper "RSI_Listings_8_2026_Access_Concentration.xlsx, tab 'RSI 8_3_26'" at cells B17:I28.

concentration of "closed" and "restricted" access points today. As depicted, pre-merger there is a 12-point spread between the lowest concentration in BNSF at 18% and the highest concentration in UP at 30%.

75. The middle table in Figure 3 depicts the post-merger change. The access-share gap between the UP and the BNSF would widen from 12 percentage points before the merger to 36 percentage points afterward and UP-NS would have a 26-percentage point advantage over CSX.

Figure 3[16]

Table Captures All Access for BNSF, CSXT, NS, UP

RSI Listing	UP	UP%	NS	NS %	BNSF	BNSF %	CSXT	CSXT%
Open	345	24%	436	30%	417	29%	247	17%
Closed	3,613	32%	2,421	22%	1,872	17%	3,318	30%
Restricted	815	53%	336	22%	214	14%	168	11%
Local	2,750	26%	2,696	25%	1,984	19%	3,282	31%
Totals	7,523	30%	5,889	24%	4,487	18%	7,015	28%

Table Captures Access for BNSF, CSXT and UPNS Concentration

All RSI Locations		UPNS	UPNS %	BNSF	BNSF %	CSXT	CSXT%
Open	1,445	781	54%	417	29%	247	17%
Closed	11,224	6,034	54%	1,872	17%	3,318	30%
Restricted	1,533	1,151	75%	214	14%	168	11%
Local	10,712	5,446	51%	1,984	19%	3,282	31%
Totals	24,914	13,412	54%	4,487	18%	7,015	28%

Table Captures All Rail Access in the U.S. and UPNS Concentration

All RSI Locations		UPNS	UPNS %	BNSF	BNSF %	CSXT	CSXT%
Open	5,649	781	14%	417	7%	247	4%
Closed	16,691	6,034	36%	1,872	11%	3,318	20%
Restricted	9,992	1,151	12%	214	2%	168	2%
Local	15,243	5,446	36%	1,984	13%	3,282	22%
Totals	47,575	13,412	28%	4,487	9%	7,015	15%

Source Data: RSI August 3, 2026

[16] *See* Workpaper "RSI_Listings_8_2026_Access_Concentration.xlsx, tab 'RSI 8_3_26'" at cells Y24:AF45.

76. For purposes of my study, the middle table is most critical because it depicts an increase in post-merger UP-NS concentration relative to its nearest competitors in the east and west. This middle table best depicts what is possible in post-merger rail access, with the combined UP-NS having 54% of all access points, 54% of the "closed" access points, 51% of the "local" points, 75% of "restricted" points, and 54% of "open" points, all of which would be substantially greater than either BNSF or CSX.

77. The bottom table in Figure 3 depicts the four focal Class I carriers within the context of the broader U.S. rail network, including access provided by short-line, terminal, and Canadian railroads operating in the United States. In this broader context, the proposed combination would give UP-NS access to 28% of all listed locations, and 36% of "closed" and "local" points. In every category, UP-NS would have *at least* twice the concentration of either BNSF or CSX.

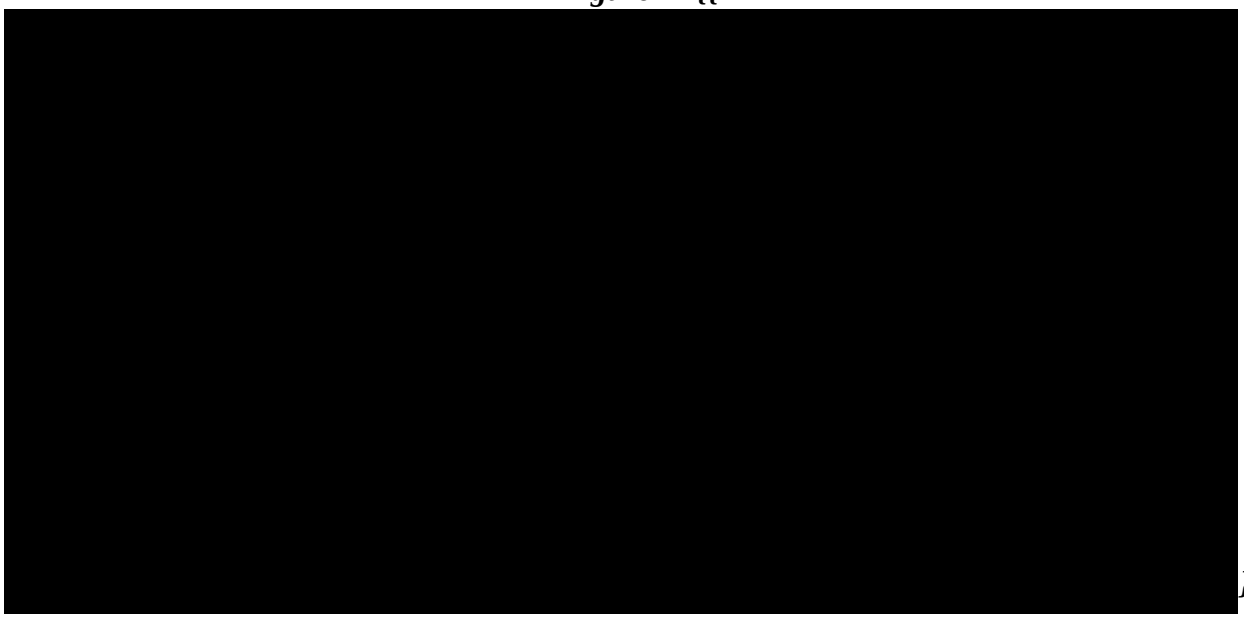
78. As demonstrated in the RSI endpoint analysis depicted in Figure 2, a merged UP-NS railroad would have more than half of the exclusive endpoint access locations between the four major class one carriers. When we overlay the 2024 movement data between those carriers, we see the flow patterns that are plausible with the increased concentration of exclusive endpoint concentration post-merger. The table below in Figure 4 depicts the current merchandise traffic flows between "open" and "closed" or exclusively served endpoints.

79. This is the same data that was depicted in Figure 1; specifically, 1.3 million units measured in merchandise service in 2024 moved as shown in Figure 4. The green highlight shows the 1.3 million units, with each unit having two endpoints, an origin and destination. As clarified earlier, because each unit touches two endpoints, each endpoint receives 1/2 count as a

unit count. In this way, we count the number of "open" endpoints touched, and "closed" endpoints touched by the total movement sample.[17]

80. In Figure 4 below, the 2024 flow patterns are shown between endpoints. Across the measured 2024 flows, 52% of the endpoints were classified as "open" and 48% as "closed." The yellow highlight shows that a merged UP-NS would account for {{[redacted]}} of activity at open endpoints and {{[redacted]}} of activity at closed endpoints. These percentages measure UP-NS's share within each category. Thus, UP-NS would hold an incumbent position in more than {{[redacted]}} of the unit/volume activity in both categories. Incumbency can provide a commercial advantage, including a "last look" at pricing in competitive bids.

Figure 4[18]{{



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81. Looking at the same 2024 flows, I associated each carrier's reported share of line-haul revenues with the endpoint it served. The originating carrier's revenue was assigned to the

[17] Source: Applicants' 2019–2024 shipment movement data provided by the Class I rail carriers for evaluation of the proposed Union Pacific–Norfolk Southern merger, STB Finance Docket No. 36873. Calculations and analysis by the author.

[18] *See* Workpaper "E_W Split final 11_12_26, tab 'Summary Table 2024'" at cells Y26:AK38.

origin's access category. The terminating carrier's revenue was assigned to the destination's access category. Unlike the allocation of units between endpoints, the revenue reflects the actual carrier-specific amounts reported in the data set

82. Figure 5 below summarizes this allocation of the $10 billion in interline revenue previously shown in Figure 1 that can be attributed to the "open" and "closed" points by considering the division of linehaul revenue. As each measured merchandise unit moved in interline service and had two endpoints, two carriers, and two divisions of revenue, it is possible to attribute the associated carrier specific interline revenue with the origin and destination depending upon which location that specific carrier served and identify if the associated revenue was connected to an "open" or "closed" endpoint.

Figure 5[19]{{



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[19] *See* Workpaper "E_W Split final 11_12_26, tab 'Summary Table 2024'" at cells Y40:AK52.

83. As mentioned earlier, each carrier's reported linehaul revenue share is specifically assigned with the endpoint classification. The view in Figure 5 shows that the revenues, bold and black bordered, were split {{[redacted]}} in revenue associated with carriers serving "open" points and {{[redacted]}} associated with carriers serving "closed" points. The potential post-merger look, highlighted yellow, demonstrates that UP-NS would have pricing authority[20] over more than {{[redacted]}} of the current revenues measured.

84. It is critical to evaluate the concentration effects of a merged carrier's combined "closed/local" exclusive endpoint access to the North American rail network, to clearly understand foreseeable price leverage. By combining their exclusive access to "closed/local" locations, UP and NS would gain pricing leverage and greater opportunities to bundle rates and terms across routes. This leverage could help the merged carrier capture traffic at "open" locations and secure longer hauls.

B. Access Concentration and The Price of Exclusivity

85. Exclusivity comes with market value for the merged carrier. Shippers require rail access for reasons that preexist any merger. Companies shipping rail are sophisticated and have supply chains built upon rail access, deeply invested infrastructure, and underlying supply chain systems. Access to the U.S. rail network is like a commodity market with entrance barriers, priced dynamically based upon availability of supply and scarcity of capacity.

86. When one carrier controls access to a high concentration of exclusive locations, the supply can be constrained, and the value of that access increases. Rail rates increase. As we

[20] "Pricing authority" has two uses in the rail industry; it may refer to pricing documents or to a carrier's right to establish commercial terms for transportation on its own behalf or on behalf of another carrier. I use the term here as a carrier's right to take commercial action on behalf of itself and other carriers through pricing.

look together at the high concentration of "closed" and "local" access points on the UP and NS, it is evident that the power in access concentration is leveraged through this exclusivity. Shippers at these stations must depend upon a single carrier for physical access to the broader rail network, and they must be willing to pay a price that reflects that exclusivity.

87. In the rail industry, a carrier's negotiating leverage is strengthened by its "closed/local" network. To the extent that carriers have an expansive network of exclusively served points, they enjoy competitive advantages. These exclusively served locations allow the carrier to leverage its captive traffic for expanded participation in more competitive lanes and longer hauls. The marketing strategy of linking pricing across a shipper's portfolio is commonly referred to as "bundling." This practice allows rail carriers with a concentration of exclusively served points to leverage the rates they offer at "closed" locations to secure the more competitive book of business at those "open" locations and to secure longer interline hauls.

88. Post-merger, UP-NS will have incumbent status for over {{[redacted]}} of measured 2024 movements between "open" and "closed/local" access points served by the four largest Class I carriers. In the rail industry, incumbent status is a coveted position. The relationship that develops over time may allow the incumbent to have the last look in a competitive bid. Post-merger, the UP-NS could benefit from this incumbency advantage across their consolidated network.

89. Every carrier has legacy infrastructure and unique competitive strengths. When carriers combine their infrastructure, they can address existing route limitations and reduce infrastructure weaknesses. But any such benefits from consolidation also are accompanied by some degree of concentration. Concentration of exclusively served access points increases the combined carriers' market power over their customers and interline partners.

C. Concentration Leverage and Routing Influence

90. When concentration enables increased leverage, the carrier with the leverage exerts the most influence over the route. In response to the financial incentive to improve length of haul and avoid terminal handling charges at shared interchange terminals, the merged carrier exercises options to do both. The costs associated with using joint facilities, including performing interchange, often is activity-based, e.g. a charge per handling, or in some cases the member carriers are assessed as a portion of the operating expense based upon GTM(s) consumption.

91. Regardless of the mechanism for recovering costs, with two significant partners moving away from the interchange, they are no longer sharing costs based upon usage. The volumes go down at that interchange; the associated revenues go down as well. Fixed costs remain and are absorbed by those still using the interchange, whether by activity-based billing or GTM(s) usage assessment.

92. The merged carrier has multiple opportunities to influence routing with effects that compound upon each other. The low-hanging fruit will be the conversion of UP-NS interline routes to single line routes. This is likely to occur in three phases. First, UP-NS immediately will convert UP-NS interline routes where there is no existing alternative route ("Closed⇔Closed"). Next, as existing contracts expire, UP-NS can convert "Closed⇔Open" and "Open⇔Closed" routes. Finally, they are likely to convert many "Open⇔Open" routes to single line service by bundling that competitive traffic with their substantial portfolio of captive traffic.

93. The routing leverage of the merged UP-NS, however, will not end with single-line conversions; its leverage will extend to routes that will remain interline post-merger, but the merger offers UP-NS the opportunity for a longer haul. These are primarily Closed⇔Closed

interline moves between UP and CSX and between NS and BNSF, where UP-NS exclusively serves one endpoint and either BNSF or CSX serves the other.

94. All these traffic shifts reduce traffic at established gateways, reduce line-haul volume, increase average per-unit costs, and in all but the first example of a single line conversion, redistributes the linehaul revenue to UP-NS from non-merging carriers. Through those effects, each successive group of traffic diversions facilitates the next.

95. Beginning with "Closed⇔Closed" single-line conversions, UP's operating plan will internalize existing interchanges by moving them from established gateways to locations that are completely internal to the merged entity. As UP-NS begins to "internalize" interchange at its classification locations, it bypasses the infrastructure built to connect them. By changing the handoff to one of its classification yards, and away from the current gateway, UP-NS will experience heightened advantages in the combination that allow it an even greater influence and control over routing that enables it to capture competitive traffic, renegotiate interchange locations, extend its line haul, and weaken a rival's practical ability to participate or compete, even where gateway access remains physically available.

96. These advantages are incremental and compound with each successive group of diverted traffic. As ever-increasing volumes of traffic are diverted from the pre-merger gateways, the costs of interchanging through those gateways increase for the non-merging carriers who continue to rely upon them, rendering those carriers less competitive. The internalization of interchange locations on the "Closed⇔Closed" single-line conversions thus makes it easier to then convert the "Closed⇔Open" and "Open⇔Closed" routes because UP-NS also can internalize those interchanges and bypass the gateway while simultaneously achieving greater

line-haul density, and hence lower per-unit costs, on its internalized routes, while the non-merging carriers are left with higher per-unit costs at legacy gateways.

97. That cycle continues by making it easier to convert the "Open⇔Open" competitive routes to single line service. As the lost volume and revenue takes an increasing toll upon the non-merging carriers, their alternative route offerings via the gateways become less competitive because their costs have increased while UP-NS's have decreased.

98. Therefore, once UP has converted a critical mass of traffic to its single-line service and bypassed the pre-merger gateways, it becomes more difficult for the non-merging carriers, primarily BNSF and CSX, to defend their long-haul interline routes over the pre-merger gateways against incursions by UP on Closed⇔Closed interline moves when UP exclusively serves one endpoint and either BNSF or CSX exclusively serves the other.

99. Specifically, Union Pacific will have leverage to force interchange further east with CSX and further west with BNSF by blocking that traffic in the same trains as the single-line traffic diversions for even greater density and operating efficiencies. This routing leverage perpetuates the cycle of decline for CSX and BNSF, as lower density and higher costs reduce their competitiveness. But unlike single line conversions, there is no benefit argument like the Applicants make for single-line service because the interchange has not been eliminated, just relocated.

100. Much of UP's leverage to influence routing will be directly attributable to its concentration of rail access that I discuss in the preceding two subsections. The Applicants, however, provide no analysis of the concentration of "closed/local" facilities on the combined UP-NS network. And while the Hunt analysis touches on "extended" hauls, he focuses only upon the effects of extended hauls that result in single-line conversions. He does not address the

effects of extended hauls on interline moves where the interchange shifts deeper into the interline partner's service territory.

101. In this section I have addressed that critical omission, and my concentration analysis in the preceding two subsections addressed gaps in the Hunt and Bailey studies. In the next subsection, I examine how the enhanced leverage of UPNS over routes will raise its rivals' costs through fixed cost transfer, and linehaul density erosion and revenue redistribution.

D. Disruption of Established Gateways: Fixed Cost Transfer, Linehaul Density and Revenue Erosion.

102. As legacy infrastructure, including affected line segments, terminals and interchange locations experience volume reductions, the assets and fixed operating costs for the base level of service remain. This reduced density raises the remaining fixed cost per unit and may cause the non-merging carriers to increase rates, reduce service frequency, or both.

103. These problems are particularly acute when the merged carrier moves away from established gateways and extends its linehaul deeper into an interline partner's territory. In these cases, the interline partner loses revenue and traffic density over the displaced portions of its routes. Even if the original gateway remains physically open, the resulting cost disadvantage can weaken the interline partner's ability to offer a competitive alternative route through that gateway.

104. These cost disadvantages take two forms: fixed cost transference at gateways and linehaul density and revenue erosion. Both forms increase the costs of non-merging rival carriers, and the latter also reduces their revenue. In this section, I discuss each of these and attempt to quantify the potential magnitude of the impacts.

1. Gateway disruption and fixed cost transfers.

105. As legacy gateways experience a reduction in volume, the fixed cost to support that volume remains, distributed over fewer units. The physical infrastructure and operating resources that support the existing gateways remain largely fixed: underlying track infrastructure, yards and terminal facilities. Even the variable costs associated with switching operations, like crews and joint dispatching, remain in the near term. In many terminal and joint facilities agreements, the burden of maintenance and expansion is divided among member roads based upon their Gross Ton Mile (GTM) usage or activity-based charges.

106. Moving traffic away from the legacy gateways reduces switching revenues for the shared facilities, shifts the fixed cost previously recovered from the vacated units to the remaining units, and allows the Applicants to shift their share of maintenance and expansion costs based on GTM usage. In a manner of speaking, the merged carrier abandons its contributions to the best use of shared facilities and leaves the cost of their decision to those who remain. This is what I call "fixed cost transfer."

107. This merger will cause substantial fixed cost transfers at the five major gateways in three ways. The first cause will be single line conversions on UP-NS interline routes when there is no existing alternative route ("Closed⇔Closed") and where Union Pacific plans to internalize the interchange away from the major gateways to new locations on its network. The plan to move away from established interchange is explicit in the merger application operating plans, and implicit in the recent Union Pacific/Canadian National agreement to use the EJ&E route as a bypass around the Chicago interchange terminal complex.

108. The second cause of fixed cost transfer at legacy gateways is conversion of "Closed⇔Open" and "Open⇔Closed" interline moves to single-line service, as the combined

carrier builds density by routing that traffic through the same internalized interchanges as the ("Closed⇔Closed") single line conversions. These moves present the type of foreclosure concern that the STB has addressed in prior mergers when an upstream bottleneck carrier merges with one of two downstream competing carriers. I refer to this as "Traditional Foreclosure." [21]

109. The third cause is UP's extension of its long-haul on Closed⇔Closed interline moves with BNSF and CSX where UP exclusively serves one endpoint and either BNSF or CSX serves the other. The Union Pacific's leverage to negotiate longer routes means that the interchange will shift further west on BNSF interline moves and further east on CSX interline moves. I refer to this as "raising rivals' costs" or "RRC Foreclosure."[22]

110. The cumulative loss of traffic at the major gateways will transfer a substantial portion of the current UP and NS cost shares to the other Class 1 carriers that will continue to interchange at those gateways. Those cost increases could require the non-merging carriers to raise rates, reduce service, or some combination of both. Those actions, in turn, will make their alternative routes via the legacy gateways even less competitive for the "Traditional" and the "RRC Foreclosure" moves.

[21] *See Canadian Pac. Ry. Ltd.—Control—Kan. City S.*, FD 36500, Decision No. 35, slip op. at 43 n.52, 44–47 nn.56, 58–59 (STB served Mar. 15, 2023) (defining rail bottlenecks, recognizing the potential for competitive harm from vertical combinations, and rejecting a presumption that such combinations will not cause competitive harm); *Canadian Nat'l Ry. Co. & Grand Trunk Corp.—Control—EJ&E W. Co.*, FD 35087, Decision No. 16, slip op. at 14–16 (STB served Dec. 24, 2008) (recognizing that acquisition of a neutral connecting carrier could impair competing carriers' interchange and service options or raise their costs, and enforcing an open-gateway commitment to protect competitive interline options).

[22] I borrow the nomenclature of "Traditional" and "RRC" foreclosure from the Joint Verified Statement of Dr. Hal Singer and Mr. Ted Tatos, who also testify on behalf of the Joint Shipper Associations, to establish a clear connection between the economic concepts that they present and the real-world practical manifestations of those concepts that I present.

2. Linehaul density and revenue erosion.

111. As UP converts the foregoing traffic to its single line and extended long-haul interline routes, the "Traditional" and "RRC Foreclosures" are comprised of traffic diverted from the non-merging Class 1 carriers. In the case of Traditional Foreclosure, 100% of the current interline volume and linehaul revenue attributable to the interline partner is lost to UP. In the case of "RRC Foreclosure," the traffic is retained by the non-merging interline partner carriers but most of the linehaul revenue is lost due to a substantially shorter length of haul. Both scenarios reduce the traffic and revenue available to cover the infrastructure and operating costs of the non-merging carriers over their alternative linehaul routes via the legacy gateways from which that traffic has been diverted. This linehaul erosion results in lower revenue per move and higher cost per car-mile associated with the shorter haul.

112. These two forces, linehaul revenue erosion and short haul cost per mile escalation, work simultaneously to compress the profitability of the non-merged carriers, while improving the profitability of the merged carrier. As the merged carrier captures longer lengths of haul, it experiences commensurate revenue gains and enjoys the efficiencies inherent in the longer haul: improved locomotive and crew utilization, and density economics of fixed cost spread over more miles and GTM(s).

113. This windfall to the merged carrier comes with an opposite and deleterious impact for the interline partners: linehaul revenue degradation, reduced density driving higher cost per mile, and both factors combined ultimately raising the interline partners' operating ratios. The short-term damage of reduced revenue and immediate increases in cost per mile pale in comparison to the persistent and longer reaching consequences of higher operating ratios, which increases the cost of *every* unit that moves over the affected segments, including moves for which UP-NS

could not offer service and thus never touch the UP network, e.g., single line CSX and BNSF moves, and interline moves between CSX, BNSF, CN, and CPKC endpoints to which UPNS does not have access.

114. Together, these forces can impact traffic profitability so that they no longer generate sufficient contribution to support reinvestment, increasing the likelihood that the non-merged carriers will specialize away from the less profitable business lines, abandoning that business to UP-NS. On its face, this outcome reduces competition by rendering the non-merged carriers less competitive on a cost per GTM(s) basis. In other words, it increases the costs of UP's potential rivals, as reflected in the "RRC" acronym, "raising rivals' costs."

3. Analysis of Gateway Disruption Impacts.

115. From a railroad operations perspective, vertical foreclosure extends beyond the diversion of traffic to new single-line service. It also encompasses the redistribution of line-haul participation, interchange activity, network density, and fixed-cost recovery among the remaining carriers. A balanced evaluation of foreclosure risks requires consideration of not only the benefits accrued to the merged carrier, but the corresponding economic consequences experienced by others.

116. While the Applicants state clearly in their operating plans an intent to "block deeper eastbound" and "block deeper westbound" and consider that in their benefit analysis, they do not explore the consequential downstream effects arising directly from the proposed operational changes as offsets for the claimed benefits. For example, the operating plan laid out in the joint Verified Statement of Eric Gehringer and John F. Orr, describes plans to build east furtherance blocks at North Platte for Bellevue, Ohio, and Conway, Pennsylvania, with the specific objective

of building a N. Platte to Conway merchandise train, by-passing Chicago and reducing switching at Elkhart, IN.[23]

117. These deeper east and west blocks are a necessary element of the internalization of interchange between the UP-NS interline moves today, but the Applicants also will benefit when they use the same blocks to move traffic converted to single line service on otherwise competitive routes, *i.e.*, the traffic that is vulnerable to "Traditional" and "RRC" foreclosure. By blocking deeper eastbound, it allows UP-NS to bypass the major gateways, facilitating interchange closer to CSX destinations and blocking deeper westbound facilitates interchange closer to BNSF destinations.

118. It is the concentration of access points analyzed in Parts III.A. through C., above, that allows the newly merged carrier to exercise greater influence in routing interchange. These actions on the part of the merged carrier threaten to redistribute fixed costs, while simultaneously reducing the linehaul revenues of the unmerged carriers serving as interline partners.

119. When the merged carrier extends its length of haul by relocating interchanges, it results in shorter hauls for interline partners, changes the division of revenue, and redistributes the value of existing interline movements. Although the Applicants, through the testimony of Mr. Hunt, evaluate modal and carrier share shift, their analysis of linehaul extension only addresses movements that become single line service after the merger. Their calculations do not consider the extended long-haul incursions deeper into the BNSF and CSX networks that will remain

[23] *See* Joint Verified Statement of Eric Gehringer and John F. Orr ("Gehringer/Orr V.S.") ¶¶ 190, 206, *in* Amended Railroad Control Application, Vol. 2 (UP-40/NS-38), *Union Pac. Corp.-Control-Norfolk S. Co*rp., No. FD 36873 (S.T.B. filed Apr. 30, 2026) (describing the proposed North Platte–Conway manifest train and explaining that North Platte will build blocks for Bellevue and Conway in addition to Elkhart, reducing intermediate switching).

interline moves post-merger. Nor do they evaluate the likely exclusive access concentration, GTM(s) and fixed cost shifts or explore the structural change in the non-merging Class I operating ratios as a downstream effect of concentrated exclusive access to a limited "universe" of rail stations on the U.S. rail network.

120. With the prospect of more consolidation, it is important to consider the offsetting costs associated with the merger benefits. In this section, I perform three analyses to estimate the volume and revenue effects of single line conversions, the linehaul erosion impacts on short-hauled interline traffic, and the fixed cost transfer impacts at gateways. For the single line conversions and linehaul erosion impacts, I use the traffic data and methods described in Part II.A through D. above. For the fixed cost transfer impact at gateways, I employ the DERCE™ model introduced in Part II.E.[24]

a. Single line conversion volume and revenue impacts.

121. I evaluated two groups of single line conversions, both of which are vulnerable to "Traditional Foreclosure." First, I considered all routes between "closed" points on the UP or NS and "open" points on the BNSF or CSX. I expect that UP will move to quickly convert most, if not all, of this traffic to UP-NS single line routes, with the actions of UP on the "closed" location bottleneck segment driving the route affordability of other carriers to compete for the "open" location segment. The newly merged carrier is likely to focus on executing this share shift first to realize the short-term merger-related projections.

[24] *See* Workpaper "DERCE Model 11_14_26.xlsx" (supporting the Downstream Effects of Rail Consolidation Economics (DERCE™) analysis); *see also* Workpapers "DERCE Descriptive Narrative.docx" and "Appendix_D_DERCE Methodology.docx."

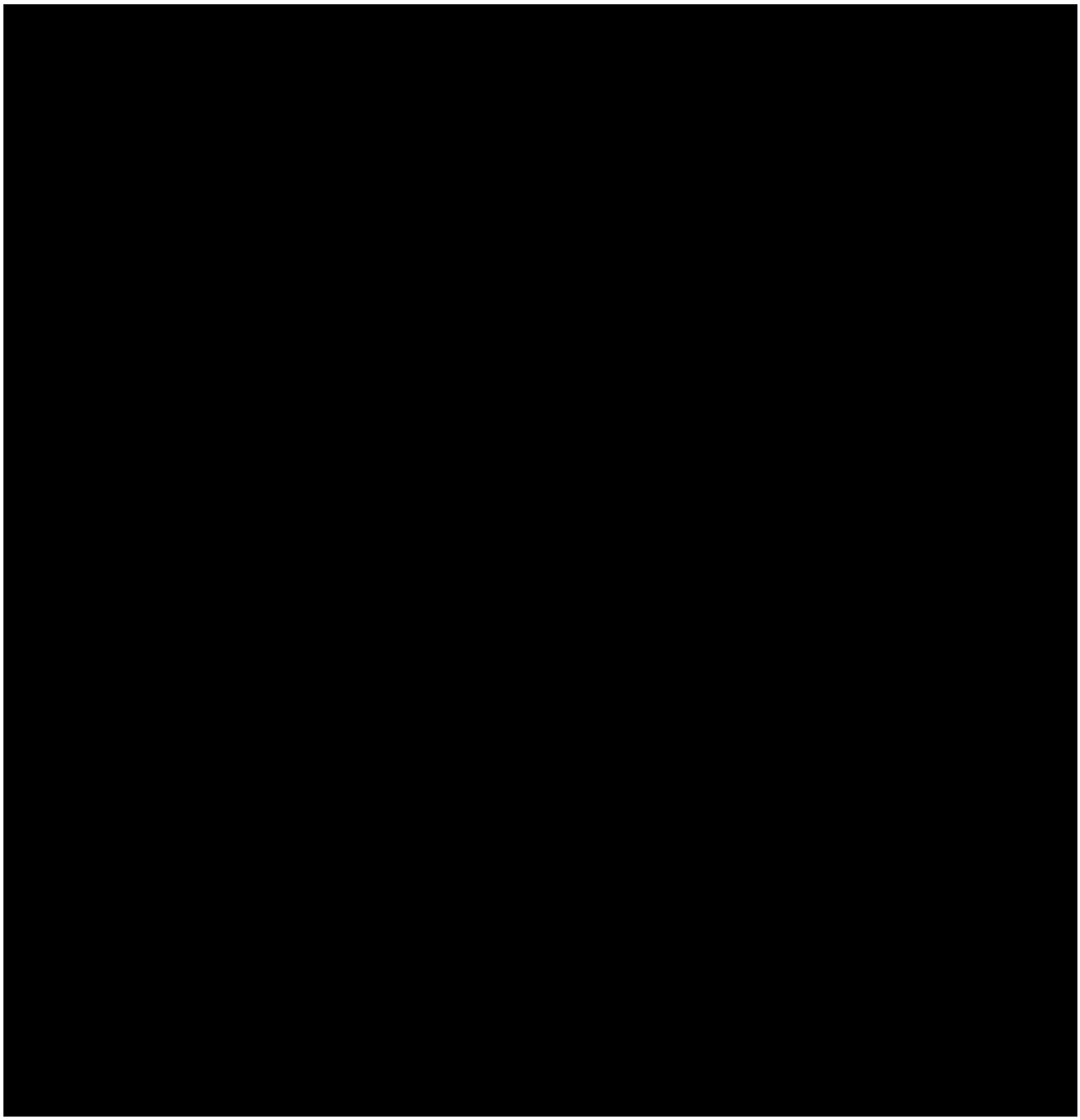
122. In addition to this traffic, there is a segment of competitive business that can be converted to a UP single line route between "open" to "open" points, as UPNS uses newly enhanced leverage from its greater concentration of "closed/local" access points to bundle exclusive access for a greater share of this competitive business.

123. For both groups of traffic, I applied a 5-50% sensitivity factor to all units in 2024 moving in "closed⇔open" and "open⇔open" routes that could be converted to single line service. I chose this range because the high watermark of 50% conservatively aligns with Mr. Hunt's predicted conversions of competitive points to single-line service where UP-NS offers the lowest linehaul rail impedance.[25] This methodology is consistent with his assumption that the absence of interchange impedance could facilitate 50% capture in competitive lanes. For the "closed⇔open" traffic, however, I believe the volume shift will be much closer to 100%, which makes my analysis conservatively understated.

124. Figure 6 below depicts the results of my analysis. It visually demonstrates the "closed⇔open" traffic with a red dotted line that shows the volume sensitivity from a 0-50% shift and the dark blue bar represents the associated revenue risk. The blue dotted line and light blue bar demonstrate the same results for the "open⇔open" traffic. When I apply the 50% sensitivity factor, the cumulative impact of both groups is {{[redacted]}} units and {{[redacted]}} in share shift. This share shift does not include the potential linehaul erosion and fixed cost transfer effects.

[25] *See* Verified Statement of David T. Hunt ("Hunt V.S."), Ex. 6-1, "Estimated rail-to-rail diversion to UP-NS," *in* Amended Railroad Control Application, Vol. 2 (UP-40/NS-38*), Union Pac. Corp.-Control-Norfolk S. Co*rp., No. FD 36873, at 454 (S.T.B. filed Apr. 30, 2026*), as corrected* by Applicants' Second Table of Errata, Attach. 6 (Sept. 4, 2026) (projecting 467,000 annual carloads and intermodal units diverted to UP-NS, comprising 349,000 extended-haul units and 118,000 new-traffic units).

Figure 6[26]{{



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[26] *See* Workpaper "E_W Split final 11_12_26, tab 'Summary Table 2024'" (supporting calculations and sensitivity exhibit at cells X186:BB229).

125. It is important to note that the estimated share shift represents a transfer of existing business between carriers rather than new traffic growth. Its significance extends beyond the revenue transferred. The loss of gross ton-miles (GTMs) associated with this shift reduces traffic density on rival carriers, spreading remaining fixed cost over less traffic and increasing cost per car mile. I consider those effects in the next subsection.

b. Linehaul erosion effects.

126. Linehaul erosion has two effects. First, when a non-merging carrier is short-hauled, it receives less revenue for that shorter haul. Second, there is a fixed cost transfer that occurs on the non-merging carrier's mainline segment that is bypassed. Those fixed costs remain but, because there is less traffic from which to recover those costs, the remaining traffic must support a higher share. In this section, I estimate the former, but I am unable to estimate the latter because the broad array of variables across many different line segments makes it difficult to draw the multitude of assumptions necessary for such an assessment.

127. With respect to the revenue loss, I have used the Endpoint Access scenarios that I developed in Appendix B based on the 2024 traffic data to identify the types of movements that are vulnerable to "Partial," or RRC Foreclosure and "Complete," or Traditional Foreclosure. I summed the carloads and associated revenue to estimate the total possible exposure to RRC Foreclosure for BNSF and CSX individually. Figure 7 below shows the results of this first step, and Appendix C shows the details underlying my determination of which traffic to include in each group.

Figure 7[27]**{{**



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128. Next, I assumed an average revenue of $5 per loaded car-mile based on the 2024 STB R-1 reports filed by CSX and BNSF. I divided the freight revenue in Schedule 210 by loaded freight car-miles in Schedule 755. BNSF averaged $3.76 per loaded car-mile ($23.229 billion / 6.173 billion miles) and CSX averaged $5.22 ($13.168 billion / 2.524 billion miles). Their combined weighted average was $4.19, but that includes intermodal traffic. I chose $5 per loaded car-mile as an approximation informed by the BNSF and CSX averages to illustrate the potential magnitude of the revenue consequences from RRC Foreclosure.

129. I then applied a 50% and 90% revenue loss sensitivity. At 50%, there are approximately 434 miles of lost linehaul participation per unit. At 90%, there are approximately 781 miles of lost linehaul participation per unit.[28]

130. The results are summarized in Figure 8 in the next section, in a chart that combines the linehaul erosion and fixed cost transfer effects. At 50%, the potential annual revenue losses for

[27] *See* Appendix C and Workpaper "Partial Foreclosure Analysis Final.xls, tab 'Foreclosure Risk.'"

[28] To illustrate the mileage calculation: For BNSF: $344,406,000 ÷ 79,409 cars = $4,337.13 per car; $4,337.13 × 50% = $2,168.56 lost revenue per car; $2,168.56 ÷ $5.00 per car-mile = 434 miles per car. For CSX: $783,006,000 ÷ 180,561 cars = $4,336.52 per car; $4,336.52 × 50% = $2,168.26 lost revenue per car; $2,168.26 ÷ $5.00 per car-mile = 434 miles per car.

BNSF and CSX, respectively are estimated to be {{[redacted]}}. At 90%, the potential annual revenue losses for BNSF and CSX, respectively are estimated to be {{[redacted]}}.

c. Fixed cost transfer effects.

131. I employ the DERCE™ model introduced in Part II.E. to evaluate the linehaul erosion and fixed cost transfer (FCT) effects of this merger. The DERCE™ model uses relational tables combining public data, established economic principles, and flexible stated assumptions. It evaluates how moving interchange away from legacy gateways could increase the fixed-cost burden on remaining traffic. These results then drive a sensitivity analysis to illustrate the potential effects on earnings. In this way DERCE™ estimates the cost pressures on interline partners experiencing GTM(s) loss and ultimately to those shippers remaining at the established legacy interchanges.

132. The gateway and linehaul sensitivities depicted in Figure 8 examine related effects of traffic diversion. The chart evaluates 50% and 70% linehaul revenue erosion scenarios. These revenue-loss assumptions are separate from the assumed percentage of traffic diverted from legacy gateways. A 70% gateway diversion does not necessarily produce a 70% linehaul revenue loss. Traffic may move to another gateway while the interline partner retains a substantial haul, a shorter haul, or no participation in the movement. The resulting revenue loss depends on the traffic affected and the haul and revenue the carrier retains. Gateway diversion and linehaul erosion may occur together, but neither percentage determines the other.

133. The Fixed Cost Transfer effects have two components: Fixed Operating & Maintenance (O&M) costs and a capital allowance. The O&M component represents the higher infrastructure (i.e., fixed) costs that the remaining post-merger gateway traffic must support when that cost is

spread among fewer units. For the capital allowance shown in Figure 8, I allocated 10% of the assumed $500 switching charge, or $50 per car, to a margin/return allowance. A separate workbook calculation assumes).

134. Figure 8 below presents both the Fixed Cost Transfer effects measured with DERCE™ and the Linehaul Erosion effects from the previous section, which are the combined result of the extended longhauls associated with "RRC Foreclosure." The amounts in Figure 8 are additive to those in Figure 6, which estimates the revenue shift from single-line conversions (i.e., "Traditional Foreclosure").

Figure 8[29]

Fixed Cost Transfer & Partial Foreclosure CONFIDENTIAL

Annual exposure ($ millions)

Measure	BNSF	CSXT	Combined
Fixed O&M transfer*	$78.0	$39.6	$117.6
Capital allowance transfer*	$13.0	$6.6	$19.6
Partial foreclosure: 50% loss**	$172.2	$391.5	$563.7
Combined: 50% loss	**$263.2**	**$437.7**	**$700.9**
Partial foreclosure: 90% loss**	$310.0	$704.7	$1,014.7
Combined: 90% loss	**$401.0**	**$750.9**	**$1,151.9**

Scenario Assumptions: At an assumed revenue of $5.00 per loaded car-mile, the 50% revenue loss sensitivity represents approximately 434 miles of lost linehaul participation per carrier unit. The 90% sensitivity represents approximately 781 miles lost, retaining 10% of exposed revenue for switching or a significantly shortened haul.

Fixed Cost Transfer: Gateway fixed O&M and capital costs shifted to remaining carriers and traffic when interchange volume leaves.

Linehaul Revenue Erosion / Partial Foreclosure: Loss of existing carrier revenue as its haul is shortened or reduced to terminal service. These scenarios retain 50% or 10% of exposed revenue.

Sources: * DERCE™ 2026. ** 2024 Confidential Movement Data.
Gross revenue loss before avoided operating costs.

135. It is important to note that there remains another source of cost increases associated with linehaul revenue erosion that my analyses do not capture. When UPNS divert interline traffic to take advantage of longer hauls, the connecting carrier loses density on its mainline segments that are bypassed by the UPNS long-haul. Just as there are FCT effects from bypassing those gateways that I have estimated in Figure 8, there is an FCT effect from bypassing those mainline segments. Unfortunately, I lacked sufficient information and resources to develop a reasonable estimate of those effects.

136. The cumulative effect of these cost increases and revenue decreases illustrate how this merger "raises rivals' costs." The takeaway is that, as density shifts, fixed costs remain even as

[29] *See* Workpaper "DERCE Model 11_14_26.xlsx, tab 'Foreclosure Risk'" at cells B3:E8.

linehaul revenue declines, which means that those costs must be covered by rate increases, service reductions, or both.

E. Ultimately, Rail Customers Bear the Consequences

137. Non-merged carriers may respond to lost traffic and revenue by increasing prices to increase revenue or reducing service to reduce costs. While those responses may mitigate the financial effects on the non-merged carriers, these actions will increase the burden on the shipper. Customers may face higher rates, reduced local train frequency, and train route redesign and cycle impacts.

138. In my experience, both service levels and pricing dynamics impact a shipper's delivered cost and ability to compete. Reduced frequency impacts transit variability, private fleet performance, supply chain reliability, and inventory requirements to protect receivers from the increased uncertainty in delivery times.

139. As with any business, the shipper must make the decision to pass costs through to its customers, absorb the costs by reducing its own profits, or find ways to reduce its other costs. The extent to which a shipper can pass through rate increases varies by product and market. Regardless of the shipper methods to balance these cost pressures, the financial and operational consequences of the merger will not stop with the railroads.

140. These consequences must be weighed against the Applicants' claimed benefits. The public interest inquiry should consider whether the merger preserves effective competitive alternatives and protects customers from higher costs and service degradation. It also should examine whether any proposed conditions can address the lasting effects of greater concentration of access and erosion of competing carrier's density and revenues.

IV. Implausibility of the Hunt Share Shift Analysis

141. In addition to assessing the competitive impacts of the proposed merger, my assignment includes a review and assessment of the modal shift analyses performed by Applicants' witness David T. Hunt. Mr. Hunt has submitted both a Verified Statement, dated April 29, 2026, and a Supplemental Verified Statement, dated July 20, 2026. While his analyses have been through multiple iterations, with the most recent results and statement of Errata released September 2026, there has been no material improvement to the plausibility of the original and amended modal shift analysis.

A. Rail-to-Rail Diversions

142. My overall assessment of Mr. Hunt's analysis of rail-to-rail diversions is that it is incomplete because he focuses only upon diversions that result from converting interline service to single-line service. He fails to consider partial conversions that result from the extended linehaul distances on interline moves. These are the moves that I have referred to as "RRC Foreclosure" in Part III.D above. The resulting understatement in rail-to-rail conversions sidesteps any consideration of much greater consequences in the Applicants' downstream effects analysis.

143. Single-line conversions can occur only when UP serves one end of a movement and NS serves the other end. Where both carriers possess exclusive access, the single-line conversion is a foregone conclusion. Where either endpoint is an "Open" location, there is at least a theoretical possibility that the movement could remain interline, but as I discuss in Part III.D. above, the merged carrier will have the means to foreclose the interline option, enhancing the likelihood that those movements also will convert to UP-NS single line service. Mr. Hunt himself presents data showing that, in markets where a shipper has a choice between single line and interline rail

service, the single-line route has the higher share of traffic in 72% of those markets.[30] He makes the argument that converting interline movements to single-line service benefits shippers by eliminating interchange between carriers.

144. Partial conversions, in contrast, occur only when UP or NS serves one end of a movement, they have connecting lines that enable an extended length of haul post-merger, and a non-merging carrier possesses exclusive access at the other endpoint. This last factor is why the conversion can only be partial, since it is not possible to completely bypass the non-merging carrier. The greatest potential for partial conversions exists for UP-CSX moves and NS-BNSF moves due to the large volume of qualifying moves.

145. I call these "partial conversions" because, although the non-merging interline partner still participates in the movement, that participation is for a much shorter distance and much less revenue, which is redistributed to the merged carrier. Unlike with single-line conversions, however, there is no corresponding benefit to shippers because the interchange has not been eliminated but merely relocated.

146. Figure 9 below is a reproduction of Figure 6 from Part III.D.3.b. above. It contains my estimate, based on 2024 traffic data, of the universe of BNSF and CSX traffic and revenue that is exposed to both single-line (i.e., "complete") conversions and extended long-haul (i.e., "partial") conversions. This is not a prediction of how much of that traffic will divert, but an identification of how much could be diverted.

[30] Hunt V.S. at 413, Ex. 3-3 & n.26 (Apr. 30, 2026) (Hunt's analysis uses 2023 traffic and 100% Waybill data, defining markets by origin SPLC, destination SPLC, and seven-digit STCC. It includes Class I, regional, and short line railroads when distinguishing single-line from interline service).

Figure 9[31]**{{**



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147. The foregoing estimate is understated because, as described in Part II.B. above, I employed a definition of "Open" stations that includes "Closed" industries within the station, resulting in an undercount of moves to/from exclusively served endpoints and hence understates traffic that is exposed to complete or partial conversion. In addition, my estimates omit {{ }} units from interline routes where UP-NS already was the incumbent carrier in 2024 but in which CSX and BNSF potentially could participate via alternative routes. All the "complete foreclosure" revenue is at-risk, whereas BNSF and CSX would retain a fraction of the "partial foreclosure" revenue that reflects their reduced length of haul.

148. Mr. Hunt, in his supplemental response to Board question PB-2 concerning the reduction in market share for the non-merging carriers, BNSF and CSXT, estimates the merged carrier will capture from other Class I railroads between 183,000 and 237,000 manifest carloads (excluding intermodal). His estimate only accounts for the "Complete Foreclosure" scenario in Figure 9 above and the high-end of his range is approximately {{ }} of the BNSF and CSXT carloads that I have identified as vulnerable to that scenario. Even at the low end of his range, there would be a substantial revenue impact. Assuming a conservative average revenue per carload of $5,000,

[31] *See* Appendix C and Workpaper "Partial Foreclosure Analysis Final.xls, tab 'Foreclosure Risk.'"

the revenue impact to other roads using Hunt's range of affected carloads is between $915 million and $1.2 billion. These estimates resulting from my assumption line up very closely with the more complicated estimates provided by Hunt in his exhibits PB2.5-8.

149. Regardless of the actual number, the shifting of traffic and related revenue is just that, a shift. It is not growth. It is redistribution. Most importantly, and of greatest impact to shippers, the merger estimates of share shift do not include the impact on competing carriers' operating ratios and the down-stream effects of higher fixed costs spread over fewer units on the non-merged carriers. This cost will either pass through to shippers or drive service reductions in geographies where the reduced density renders existing service levels uneconomical.[32]

150. With specific reference to the Hunt Supplemental information filed September 7, 2026, he acknowledges that downstream mergers could impact/reduce the share shift estimates. These differentials are addressed in Hunt's subsequent Errata filed September 11, 2026. While both filings recognize the sensitivity of the projected benefits to the downstream market reaction, neither of the filings speak to the effects of the single line conversions and the associated interchange internalization impact on the legacy infrastructure that accommodates interchange today if there are no downstream mergers.

B. Truck-to-Rail Diversions

151. In his testimony, Mr. Hunt projects that target lanes moving truck today will move by UP-NS rail post merger because new single line service will win traffic from trucks in the watershed.

[32] U.S. Dep't of Agric., Agric. Mktg. Serv., *Study of Rural Transportation Issues* ch. 8, at 280–81 (2010) (discussing longer waits for rail service associated with limited traffic volumes and decreased local service forcing shipments to trucks) *see* Workpaper "USDA Rail Service.pdf."

I believe that his projected truck-to-rail diversions are substantially overstated because he relies upon unrealistic assumptions.

152. Based upon a study showing that there is a higher percentage of rail traffic when single-line rail service is available in contrast to only interline service, Mr. Hunt assumes that, but for interchange, existing truck traffic would shift to single line rail service. He then falls into the trap of concluding that this proves that the deciding factor for a shipper is the number of rail carriers involved, without considering more important factors such as the existence of rail loading and unloading infrastructure.

153. The most important criteria in any potential truck to rail conversion is the existence of an industry track and existing local train service, requiring an existing crew base and switching equipment. Shippers cannot convert from truck to rail if the rail infrastructure does not exist, and if the density does not justify local service/frequency. These criteria are missing from Mr. Hunt's analysis.

154. Mr. Hunt's truck-to-rail conversion study makes two unfortunate assumptions. First, the analysis assumes that if a given county has rail service, then rail direct service is feasible for the target truck to rail conversion. Second, it assumes that improved single line haul economics are sufficient to drive a modal conversion from truck to rail. In practice, the modal selection of a shipper depends upon criteria other than price and transit speed.

155. Rail direct service requires facility specific infrastructure, commercial agreements, and density to justify local service. The necessary investments for local switching resources rely upon density for an adequate return. Removing an interchange does not create these essential prerequisites to support a modal shift to rail. Mr. Hunt neither acknowledges nor discusses these prerequisites.

156. As for rail, the capital investment needed to establish service is a significant hurdle, and in the opposite direction of current trends. A study completed in 2024 of warehouse construction in the northeast indicated regional trends for building big box warehouses without rail service. It is improbable that there will be significant build out of rail infrastructure to reach low density truck served warehouses.[33]

157. Additionally, Mr. Hunt's assumption that rail service in a county equates to access at a target industry in that county assumes either that there is existing rail service at the target facility, or there is a nearby transload facility and the commodity characteristics are conducive to using transload services. Not all commodities will tolerate transloading, and increasingly the newer warehouses are not rail served. Many shippers also choose to ship by rail due to commodity sensitivities, private fleets, and safe handling.

158. Past, present and future capital spending also strongly influences price elasticity for modal shifting. Planned future expansion without rail, along with legacy investment by a shipper in trucking capacity, private fleets, and facility design with truck doors instead of industry rail spurs, will strongly influence modal decisions. There also is no discussion about the requisite timeline for the planning, engineering, and permitting of any kind of new infrastructure.

159. When I consider all these limitations in the Hunt analysis, I find that the conversion projections give insufficient weight to the challenges associated with physical infrastructure, commercial relationships, and density economics underlying any needed capital investment in

[33] Marty Schlenker, Head of Strategy, Parallel Systems, Inc., Testimony Before the Surface Transportation Board, *Growth in the Freight Rail Industry*, EP 775 at 4 & Ex. 1 (Sept. 17, 2024), see Workpapers "MS Testimony EP 775.pdf" and "MS Testimony EP 775 Exhibits.pdf."

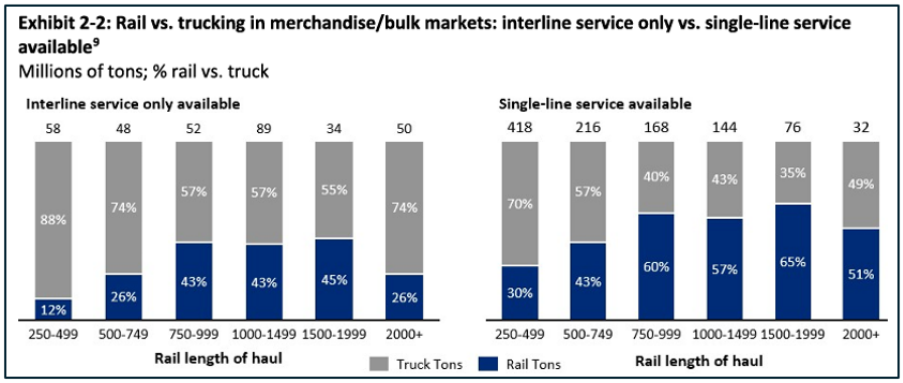
rail access. For these reasons, I find that the analysis significantly overstates the volume of traffic that could reasonably be expected to make the modal shift post merger.

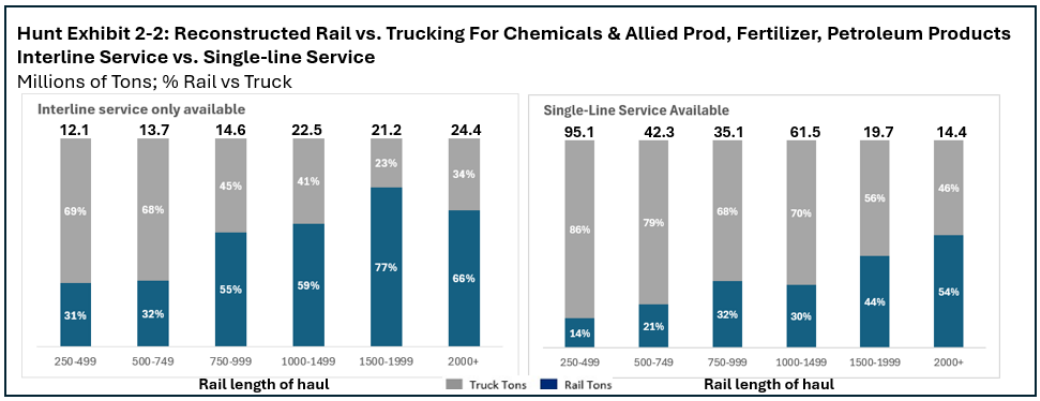
160. Instead of considering the foregoing real-world factors that most influence modal choice, Mr. Hunt relies upon a comparison of the modal market share for single line versus interline moves to validate his diversion projections. His analysis, however, assumes homogeneity in merchandise traffic that masks significant variability in results when examined at more commodity specific levels.

161. In his Exhibit 2-2, Mr. Hunt compares the volume of merchandise/bulk traffic that moves by truck versus rail for movements where only interline rail service is available and then compares those proportions to movements where single-line rail service is also available. He further delineates these comparisons into six mileage bands. The results in Hunt's Exhibit 2-2 show that rail has a greater share of the traffic in all six mileage bands when single-line service is available than when only interline service is available. From that result, Mr. Hunt concludes that shippers of merchandise/bulk traffic prefer single-line service.

162. In Figure 10 below, I have reconstructed Mr. Hunt's Exhibit 2-2 to determine if the results change when focusing on the commodities shipped by the Joint Shipper Association members, namely Chemicals & Allied Products, Fertilizer, and Petroleum Products. The results are completely reversed. Rail has a greater market share only when interline service is available. If we apply Mr. Hunt's logic to those results, we must conclude that shippers of those commodities prefer interline service. Since I do not concur with Mr. Hunt's logic, I do not draw that conclusion, but neither do I believe that Exhibit 2-2 supports Mr. Hunt's conclusion.

Figure 10: Reconstruction of Hunt Exhibit 2-2[34]

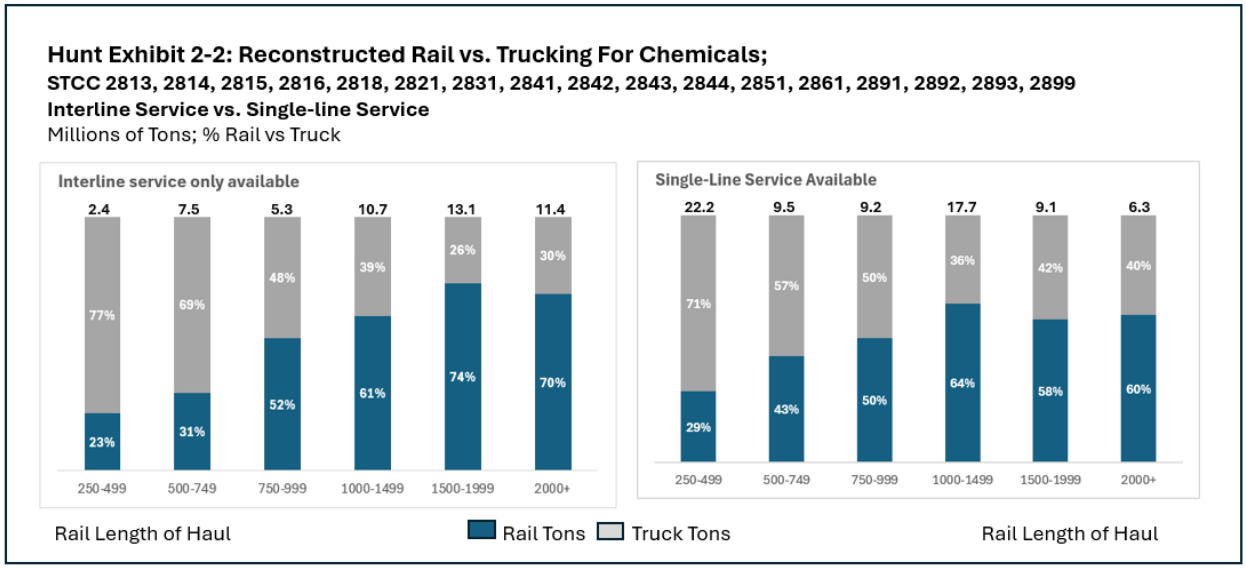




163. To test my findings further, I also reconstructed Hunt's Exhibit 2-2 separately for Chemicals & Allied Products, Fertilizer, and Petroleum Products. The results show more variability between these commodities but still trend towards interline service in all three analyses. For Chemicals, the results in Figure 11 below are consistent with Mr. Hunt's analysis in just the two lowest mileage bands, show no material difference in the middle two bands, and indicate a strong interline advantage in the highest two bands.

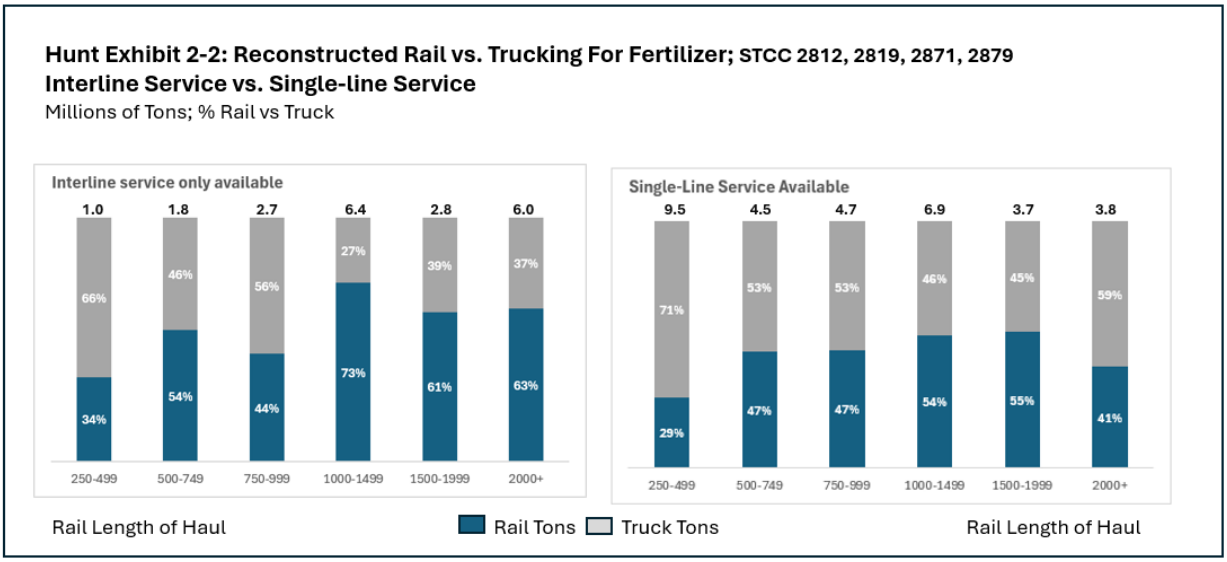
[34] Amended App., Vol. 2 at 402, Hunt V.S., Ex. 2-2 & n.9; *see id*. at 411, Hunt V.S., Ex. 3-1 & n.24 (Sources include 2023 Transearch data from S&P Global Markets and 100% Waybill data for competitive county-to-county lanes where both truck and rail compete. Mr. Hunt defines interline service as a route requiring two or more Class I carriers.); *see also* Hunt Workpapers "HC-Section 2 Exhibits vFinal.xlsx" and "C-Section 3 Exhibits vFinal.xlsx"; Burchfield Workpaper "Hunt Rebuttal2.xlsx, tab 'Data 6 Bands'" at cells A1:N21216 (regarding commodity-specific reconstruction).

Figure 11[35]



164. For Fertilizer, the results in Figure 12 favor interline service in all but one mileage band.

Figure 12[36]

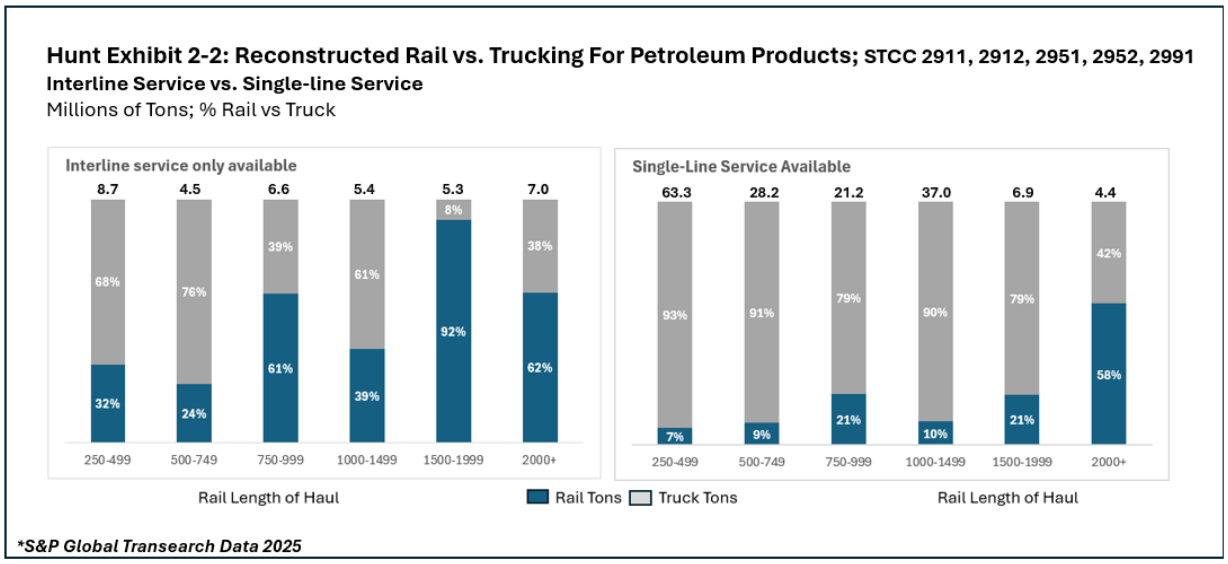


[35] *See* Workpaper "Hunt Rebuttal2.xlsx, tab 'Initial Pivot All' and tab 'Data 6 Bands'" at cells A5:G12 & cells A1:N21216 (filtered to the chemical STCCs identified in Figure 11).

[36] *See* Workpaper "Hunt Rebuttal2.xlsx, tab 'Fertilizer,' with underlying data in tab 'Data 6 Bands'" at cells A1:N21216 (filtered to STCCs 2812, 2819, 2871, and 2879).

165. For Petroleum Products, the results in Figure 13 overwhelmingly favor interline service in every mileage band.

Figure 13[37]



166. Overall, my reconstructions of Mr. Hunt's Exhibit 2-2 indicate that his analysis is too aggregated to draw any conclusion about the preference of shippers for single-line service and, to the extent there may be a preference, that is but one factor among many, and hardly the most significant.

167. The findings of my study are consistent with bulk commodities moving at scale, with relatively price-inelastic demand. While a rail merger may reduce line-haul costs for the merged road, it cannot create rail access, transload infrastructure, traffic density, or economic justification for capital investment where those prerequisites do not already exist. This demonstrates that for most rail shippers, commodity characteristics and infrastructure are the

[37] *See* Workpaper "Hunt Rebuttal2.xlsx, tab 'Petroleum,' with underlying data in tab 'Data 6 Bands'" at cells A1:N21216 (filtered to STCCs 2911, 2912, 2951, 2952, and 2991).

primary drivers for modal choice. Ultimately, these findings suggest that the nature of the product and the capability of the infrastructure influence modal choice beyond the price difference, even between single-line and interline service.

C. Failure to Consider Impacts of Overstating Traffic Diversions.

168. The Application does not evaluate several categories of effects that are material to the Applicants' claimed shipper benefits and the competitive consequences of the proposed transaction. More specifically, it does not present a complete assessment of the economic effects of overstating traffic diversions and their associated benefits.

169. The application assumes that the merger will yield benefits to shippers and to the stockholders of the newly merged road. What is unclear in the application, or more specifically in Mr. Hunt's verified statement on traffic diversions, is the mitigating action the merged road will take if the projected benefits do not manifest.

170. When an industry with high fixed costs takes on debt, there must be a business case to finance the debt. If the volume forecast does not materialize, or the revenue per unit faces market pressure and is lower than projected, the resulting reduction to operating revenue must be offset elsewhere in the operation.

171. Rail shippers are all too familiar with the sensitivity of rail network health in economic cycles. As an industry, rails are highly sensitive to external shocks: weather, economic cycles, world currency relationships and pandemics. As volume drops the carriers can respond in several ways. They can reduce operating costs through fewer road crews, yard production crews, and reduced local train frequency. They can increase rates on traffic with inelastic demand and that is not contractually bound. They also can reduce spending in capital budgets, defer maintenance, and delay planned expansion.

172. Each of these economic levers are consequential to rail shippers. The supply chain stakeholders need to see how the merged carrier will offset the fixed cost liability of the merger-related debt in the event there is an external shock and projected growth cannot be achieved.

173. If we consider the $1.4 billion in fixed cost exposure for the merged carrier, and the possibility of a failed business forecast, the reasonable approach for any carrier under fixed cost pressure is a careful combination of three actions; 1) cost reduction, 2) price increase, 3) capital program delay. To put these actions in terms impactful to the shipper, we can consider the employee reduction needed to offset $1.4 Billion per year, at an average salary of $140,000 per employee, a carrier would need to reduce headcount by 10,000 employees. To reduce operating costs by the total fixed cost would require reducing local switching by ~153 local trains per day, or ~56,000 trains annually. If rate increases of 6% were applied across all carloads, or a 14% increase just to merchandise carloads, it would offset the debt service for one year, assuming market share retention. These illustrations retain the $1.4 billion estimate from my completeness petition, based on a 7% interest assumption; Applicants' pro forma instead assumes 5% and projects $1.016 billion in additional annual interest expense.[38]

174. The lack of a stated plan to cover the fixed cost associated with merger-related debt is a serious omission in the application. The industry has seen how rail carriers survive economic cycles. Shippers have experienced headcount reductions that happen quickly in response to downturns, but with slower rehiring in economic up cycles due to practical limitations in testing and training.

[38] Amended App., Vol. 1 at 141–42, App. F, Ex. 17 (filed Dec. 19, 2025) (projecting $1.016 billion in additional annual interest expense based on financing the entire cash consideration with new debt at an assumed 5% interest rate).

V. Final Observations.

175. In this verified statement, I explore five reasons why the merger is not in the public interest. History cautions the rail industry against the inevitable concentration that occurs with consolidation, and the five critical outcomes plausible with that concentration. Together we have explored the probable impact of the "five reasons," the consequences of the proposed merger on competition and the shipping public, and why those consequences matter in the Board's decision.

176. The U.S. rail network is critical to military deployment, energy resilience, and the many manufacturers that rely upon it for inbound materials and outbound finished products. The disruption(s) we faced in recent merger(s) have been geographically constrained, and recoverable with all carriers working together to reset the network. Strikingly different, a disruption associated with this merger will have a profound impact on the spine of this nation, known as the east-west interchange of all transcontinental traffic.[39]

177. As we weigh the benefits of the first Atlantic to Pacific transcontinental railroad under single ownership, we must acknowledge potential disruption of all east-west flows on existing transcontinental routes for every other Class I railroad and the shippers that rely upon them. We are obliged to ask, in a time of global unrest and inflationary factors, if the risk of a meltdown impacting all east-west interchange and driving freight rate escalation is an acceptable risk.

178. We cannot stop progress for fear of our past collective experience. But we can stop mergers that are not progress. If the UP-NS merger is not in the interest of the shipping public, it is not progress. If the proposed merger causes irreparable harm to other carriers, it is not

[39] Karen Burchfield, *Navigating the UP–NS Rail Merger: What Every Shipper Needs to Know Before the Clock Restart*s 13 (Mar. 25, 2026) (presentation to the Pacific Northwest Association of Rail Shippers Spring Meeting) (slide titled "Too Big to Fail?" and map comparing UP–SP and proposed UP–NS network overlap), *see* Workpaper "PNWARS2026.pptx.".

progress. If it creates a structural rift between the operating ratios of the merged and non-merged carriers, it is not in the best interest of competition or the public.

179. I have endeavored to make a clear case that the concentration of exclusive rail access resulting from this merger exposes the shipping public to high value rents and endows the merged carrier with leverage over interchange and routing that will disrupt established gateways, redistribute fixed costs, and impose linehaul erosion on interline partners rendering them less competitive. None of this is progress. It is a perpetuation of rail consolidation, rail network access concentration, and the harbinger of competitive decline.

180. The amended merger application does not account for the linehaul erosion and fixed-cost redistribution examined in this statement. I used a model to estimate the impact of reduced GTM(s) and the competitive impact of concentrated access. The DERCE™ model estimates how those effects impact revenue quality and cost allocation for the merged carrier and its rivals.

181. Both verified statements offered by Mr. Hunt and Dr. Bailey are silent as to the concentration effects on rail network access, established gateways, and routing leverage of the merged carrier. Neither attempts to calculate the damage to other supply chain stakeholders mirrored in the calculated benefits to the merged carrier.

182. I found Mr. Hunt's volume estimates for rail to rail and truck to rail conversions to be flawed. Rail to rail diversions are understated because they are limited to diversions attributable to single-line route conversions and neglect diversions due to extended long-haul routes that only partially convert a rail movement but still have a significant impact on the non-merged carrier's density and revenue. Truck to rail diversions are overstated, as they were unfettered by the burdens of physical infrastructure or shipper investment in modal options. Silence on the planned mitigation of a truck diversion volume shortfall also raises concerns about the merged

carrier's probable response to failed volume forecasts under the burden of fixed cost associated with merger debt.

183. Most critical is how this decision impacts the public interest. My testimony raises concerns regarding upward price pressure created by the exclusive access that UP-NS will have to a concentrated number of endpoints on the U.S. rail network. I looked at the possible price increases associated with closed point access and the probable price increases to offset fixed cost of merger debt if volumes do not materialize. If the merger volumes do not materialize as forecasted, the actions that a carrier can take are raise price, reduce service, and defer maintenance. None of those actions are in the public interest. Potential price escalation is the most impactful unknown, which could have ripple effects that reach the final consumer. As manufacturing supply chains are complex and involve movement of products in every part of the production cycle, freight rate increases can compound to impact the production and delivered cost.

184. In summary, and for reasons explored in this verified statement, I find the proposed merger puts competition and the shippers who depend upon it at risk, without demonstrating benefits sufficient to justify that risk.

PraxiChain

VERIFICATION

I, Karen M. Burchfield, declare under penalty of perjury that the foregoing is true and correct. Further, I certify that I am qualified and authorized to file this statement.

Executed this 17th day of November, 2026.



Karen M. Burchfield

PUBLIC VERSION

[redacted]

Karen M. Burchfield
Principal, Supply Chain Acumen LLC
Rail Industry & *Supply Chain Expert*



Strengths:
Proven strengths include leading through change, negotiating for mutual wins, rail operations, and market strategy innovation.

Personal:

kmburch01@gmail.com
112 San Jacinto Ct.
Southlake, Texas 76092
817 995 8018

Degrees & Certifications:
B.B.A International Business Texas Wesleyan Univ. 1984 G.P.A. 3.6/4.0

Graduate Certificate Supply Chain Mgt. Penn State University 2013

Masters Supply Chain Mgt. Penn State University 2014 G.P.A. 3.7/4.0

Public Speaker/Trainer:
Women's conferences
BNSF Leadership Training
Industry Panels

Industry leader with an established record in people development, business strategy, cross functional alignment, market share growth, and profitable performance.

Principal, Supply Chain Acumen LLC
May 2025- Current

Strategic advisory services focused on complex rail-industry and supply chain challenges, serving shippers, industry associations, and stakeholders navigate operational, commercial, and regulatory issues across North American freight rail networks. Consulting engagements in network strategy, market access, transportation economics, interchange dynamics, and merger-related competitive analysis. Currently leading a multidisciplinary team evaluating the competitive, operational, and economic impacts of the proposed Union Pacific Railroad–Norfolk Southern Railway merger, with emphasis on interchange internalization, gateway displacement, shipper access, and the broader implications for rail competition and common carrier service.

BNSF Assistant Vice President (AVP) Industrial Products:
May 2020 - April 2025

Team leader for sales and marketing organization creating and executing strategies to optimize rolling stock while growing BNSF market share of industrial construction materials moving via rail. Portfolio responsibility for $1.9 billion in revenue and 660 thousand rail car movements annually. Increased in portfolio of 21% in volume, and 36% in revenue in 3 years.

BNSF AVP Coal Marketing:
February 2016- April 2020

Team leader focused on increasing market share in a mature commodity market challenged by regulation and product competition. Financial Impact; won competitive contracts valued at 188 million tons and $1.3 billion dollars annually and $4.9 billion dollars over the life of the contracts

BNSF AVP Industrial Products Sales:
March 2013 – February 2016

Team leader focused on profitable growth in the forest products, food and beverage, and dimensional equipment market sectors. Financial impact: Achieved revenue goals for $1.2 billion in annual revenues and improved contribution through market-based price increases and efficiency initiatives that reduced out of route miles and empty miles.

BNSF AVP Intermodal Equipment:
July 2010 – March 2013

Portfolio responsibility OPEX budget of $650 million. KPI accountability for right sizing and optimizing of intermodal and automotive fleets for efficiency. Financial Impact: $13 Million in annual cost savings through optimized mix, & favorable per diem arbitration decisions, and reduced operating expense. contribution over two years for increased number of shuttles and improved fleet cycle.

[redacted]

[redacted]

Karen M. Burchfield

Awards:

Influential Women 2026

Women in Operations
Northwest Division

Mentoring Award
Hispanic Leadership Council

YWCA Tribute to
Women in Business

North Region Transportation
Excellence

Texas Wesleyan University
Women in Leadership

Community:
Texas Wesleyan University
Board of Trustees

BBC
Finance Committee

Fort Worth Symphony
Executive Committee

LinkedIn Articles:

- Railroad Proud Series
- "Challenging the Status Quo: Supply Chain Evolution and Endurance"
- "Finding Clarity and Moving Forward"

https://www.linkedin.com/in/karen-burchfield-18b7325a/detail/recent-activity/posts/

Social Media:
LinkedIn
https://www.linkedin.com/in/karen-burchfield

Industry Experience (continued)

BNSF General Superintendent of Transportation North Region:
May 2007 – July 2010

Team leader focused on velocity and train plan execution on the BNSF North Region. Organization composed of 240 union and non-union employees Impact: $300 Million improved contribution over three years through fleet and velocity initiatives.

BNSF General Director of Grain Operations:
May 2005 – May 2007

Implemented operating changes to improve fleet velocity, increase fleet capacity, improve customer satisfaction. Impact: $186 Million improved contribution over two years for increased number of shuttles and improved fleet cycle.

BNSF Director Demurrage, Storage and Extended Services:
October 2002- May 2005

After five years of operating a successful rail industry consulting business, Burchfield returned to BNSF to lead a new team formed to improve velocity through reduced customer time and improved fleet utilization. Team results; improved accuracy of billing for cars dwelling at customer locations, improved collection of "demurrage" for customer time, reduced customer dwell, and improved velocity. $200 Million in contribution through improved billing accuracy, increased collection of assessorial charges, and reduced billing cycle through electronic dispute resolution and higher % billed:collected ratio**.**

Owner/Consultant, Priority Solutions:
1997-2001

For five years Burchfield served clients in the short line rail industry in the areas of marketing, training, research, and business process. Projects include line acquisition studies, market segment profitability analysis, market share growth projections, customer satisfaction surveys, and development of family friendly benefits. Interest and support of senior management maintained by timely communication throughout the process, and presentation of final proposed solutions at the senior level of client companies.

Burlington Northern Santa Fe Railway Company:
January 1989 – March 1997

Professional development and rapid progression through eight promotions in eight years; from Corporate Management Trainee through various positions in business analysis, logistics, marketing and operations culminating in a commercial position as the General Director of Forest Products Marketing, leading a marketing/sales team responsible for optimization of $240 million in annual sales.

[redacted]

Prior to entering the transportation industry, Burchfield worked through various positions in childcare agencies; both non-profit and for profit. Primary job responsibilities included administration

Appendix B

[HIGHLY CONFIDENTIAL]

Appendix C

[HIGHLY CONFIDENTIAL]

Appendix D

[HIGHLY CONFIDENTIAL]

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BEFORE THE SURFACE TRANSPORTATION BOARD

Docket No. FD 36873

UNION PACIFIC CORPORATION AND UNION PACIFIC RAILROAD COMPANY
—CONTROL—
NORFOLK SOUTHERN CORPORATION AND NORFOLK SOUTHERN RAILWAY COMPANY

Verified Statement of Stephen Trombetta of Arkema Inc.

I. Witness Qualifications

1. My name is Stephen Trombetta. I am Director of Logistics at Arkema Inc. ("Arkema" or "Company").

2. I have held my current position at the Company since May 2022. In this role, I am responsible for overseeing supplier selection, contracting and negotiating of all modes of transportation, managing procurement of Arkema's transportation equipment (including railcars and tank trailers), and overseeing inbound and outbound shipments.

3. I am submitting this statement to provide information about the Company's experience with rail and truck freight transportation options. I have personal knowledge of the facts in this statement, based on my responsibilities at Arkema and my review of Arkema's business records.

II. Company Background

4. The Company is a global manufacturer of specialty materials and chemicals, with approximately 44 manufacturing sites in North America.

5. Arkema relies on rail and truck transportation to receive raw materials and ship finished products to customers in North America.

6. Arkema has the following rail-served facilities:

Docusign Envelope ID: 0635DD52-66BD-8739-8387-8ADC3B52988B

Facility (City, State)	Inbound / Outbound / Both	Serving Railroad(s)	Service via shortline
Alsip, IL	Inbound		IHB
Bayport, TX	Outbound	UP	
Becancour, PQ	Outbound	CN	
Calumet City, IL	Inbound		IHB
Calvert City, KY	Outbound		PAL
Chester, SC	Inbound		LC
Houston, TX	Outbound		PTRA
Mobile, AL	Inbound		TASD
Piedmont, SC	Inbound	NS	
Taft, LA	Both	UP	
Torrance, CA	Inbound	BNSF	
Woodstock, TN	Outbound	CN	

III. Rail Competition

7. Where the Company's interline traffic is captive to a single carrier over one end, but has access to competition to or from a gateway interchange, the Company uses that competition to obtain better rates, service, and contract terms.

8. Arkema has Rule 11 rates for interline movements. Those rates do not vary based on the connecting segment. Instead, each rate applies to all traffic of the same commodity moving between the same origin or destination and gateway.

9. The Company's rail contracts with UP do not include service standards.

IV. Rail Speed, Reliability, and Administration

10. A 20-to-24-hour improvement in rail transit time would not materially change the Company's operations, inventory, or fleet size. Reliable, consistent service matters more to the Company than average transit time because production schedules, inventory levels, and fleet sizing depend on predictable arrivals.

11. In the Company's experience, delays in first-mile and last-mile service (local pickup and delivery) are more common and more disruptive than delays at interchange between railroads. Getting consistent, 5-day per week service is not always possible for some locations, especially

Docusign Envelope ID: 0635DD52-66BD-8739-8387-8ADC3B52988B

when there are crew shortages. We regularly see these challenges getting cars picked up or dropped off, which causes production issues as well as extra charges from the railroads.

12. To support interline rail movements, the Company uses Quality Transportation Services, Inc. for third-party car-tracking, bill payment, and invoice auditing. The Company uses them to track all railcars, manage urgent shipments, and work with the railroads to ensure cars move timely. The Company would still use this type of third-party service, and incur the costs of it, even if traffic between UP- and NS-served facilities converts to single-line service, because the Company will still use CN, BNSF, and CSX.

V. Truck Transportation

13. For shipments between two rail-served facilities, the Company uses truck mainly for short-distance moves, small or time-sensitive orders, narrow customer delivery windows, and emergency shipments.

Docusign Envelope ID: 0635DD52-66BD-8739-8387-8ADC3B52988B

VERIFICATION

I, Stephen Trombetta, verify under penalty of perjury that the foregoing is true and correct.

Further, I certify that I am qualified and authorized to file this statement.

Executed on 11/18/2026

DocuSigned by:

2BD64386A3264FD...

Name

BEFORE THE SURFACE TRANSPORTATION BOARD

Docket No. FD 36873

UNION PACIFIC CORPORATION AND UNION PACIFIC RAILROAD COMPANY
—CONTROL—
NORFOLK SOUTHERN CORPORATION AND NORFOLK SOUTHERN RAILWAY COMPANY

Verified Statement[1] of Michael Vogt of
BASF Corporation

I. Witness Qualifications

1. My name is Michael Vogt. I am the Director of Logistics Procurement at BASF Corporation ("BASF" or "the Company").

2. I have held my current position at the Company since March 2020. In this role, I am responsible for the team that negotiates and contracts all North American surface transportation and storage logistics activities with 3rd party entities. These entities include firms responsible for rail, truck, intermodal, barge, transload, container storage, and warehousing. My team is also responsible for our private railcar fleet.

3. I am submitting this statement to provide information about the Company's experience with rail and truck freight transportation options. I have personal knowledge of the facts in this statement, based on my responsibilities at BASF and my review of BASF's business records and information provided by employees under my supervision.

[1] This verified statement contains highly confidential material, which is enclosed in double braces (e.g., {{…}}). This material is subject to the protective order in this proceeding.

II. Company Background

4. BASF is a global chemical company that combines economic success with environmental protection and social responsibility, providing products and solutions across a wide range of industries. Its portfolio serves customers in sectors such as chemicals, automotive, agriculture, construction, consumer goods, and industrial manufacturing, helping them improve efficiency, performance, and sustainability

5. BASF relies on rail and truck transportation to receive raw materials and ship finished products to customers in United States.

6. BASF has the following rail-served facilities:

Facility (City, State)	Inbound, Outbound, Both	Serving Railroad(s)	Service via shortline (name)?
Freeport, TX	Both	Union Pacific	
Geismar, LA	Both	CN and CPKC	
Channelview, TX (Lyondell)	Outbound	Union Pacific	
Pasadena, TX	Both	Union Pacific and BNSF	PTRA
Monaca, PA	Both	CSXT	
Chattanooga (Boyce), TN	Both	Norfolk Southern	
Chickamauga, TN	Both	CSXT	
McIntyre, GA	Both	Norfolk Southern	
Attapulgus, GA	Both	CSXT	FGA
Wyandotte, MI	Both	Norfolk Southern, CSXT	
McIntosh, AL	Both	Norfolk Southern	
Whitestone, SC	Both	Norfolk Southern	
Mauldin, SC	Both	CSXT	CPDR
Bayonne, NJ	Both	Norfolk Southern, CSXT	
Savannah, GA	Both	CSXT	
Cincinatti, OH	Both	Norfolk Southern, CSXT	
Meridian, MS	Both	UP, BNSF	

7. Approximately 33% of BASF ’s rail traffic originates at UP-captive locations.

III. Rail Competition and Contracting Practices

8. Where the Company’s interline traffic is captive to a single carrier over one end, but has access to competition to or from a gateway interchange, the Company uses that competition to

obtain better rates, service, and contract terms (Main interchanges: New Orleans, East Saint Louis, Memphis and Chicago).

9. For example, in 2026, BASF obtained a rate reduction and contract improvement from {{[redacted]}} after getting a competing quote from {{[redacted]}} on a competitive interline rail segment from the {{[redacted]}}.

10. In the most recent (2026) contract negotiations, {{[redacted]}} offered a package tying pricing on captive lanes to volume commitments on competitive lanes.

11. {{[redacted]}}. Approximately {{[redacted]}}% of the Company's interline rail traffic moves under Rule 11 rates, rather than a single joint rate for the entire movement.

12. For Rule 11 movements, railroads typically assess a uniform rate covering all interline traffic of the same type moving on a given leg, without regard to the nature or routing of any connecting segment.

IV. Rail Speed, Reliability, and Administration

13. A 20-to-24-hour improvement in rail transit time would not materially change the Company's operations, inventory, or fleet size because customer material planning and production schedules depend on predictable arrivals.

14. In the Company's experience, delays in first-mile and last-mile service are more common and more disruptive than delays at interchange between railroads. Local service failures can prevent loaded railcars from departing the origin or delay delivery of critical materials to the destination, directly affecting production schedules, customer commitments, inventory levels, and railcar availability. Although interchange delays also occur, they generally take place after

the shipment is already moving and can often be managed more effectively through shipment visibility and coordination with the participating railroads.

15. To support interline rail movements, BASF uses third-party car-tracking software. BASF uses this software to automate shipment creation and waybill generation, along with tracking and exception management. These systems would still be needed if the Company's traffic between UP and NS served facilities converts to single-line service, because the Company will still use multiple railroads and need to manage shipments across them.

V. Service Disruption Risks and Costs

16. BASF's Freeport facility, which is served by only one railroad (UP), can operate for approximately {{ }} days (depending on inventory level at the site) during a rail service failure before the Company must cut production, use emergency trucking or shut down.

PUBLIC

VERIFICATION

I, Michael Vogt, verify under penalty of perjury that the foregoing is true and correct. Further, I certify that I am qualified and authorized to file this statement.

Executed on 11/17/2026

Signed by:
Michael Vogt
506F484E14124F1...

Name

BEFORE THE SURFACE TRANSPORTATION BOARD

Docket No. FD 36873

UNION PACIFIC CORPORATION AND UNION PACIFIC RAILROAD COMPANY
—CONTROL—
NORFOLK SOUTHERN CORPORATION AND NORFOLK SOUTHERN RAILWAY COMPANY

Verified Statement[1] of Michael Gebo of
The Dow Chemical Company

I. Witness Qualifications

1. My name is Michael Gebo. I am the Global Rail Operations and Procurement Director at The Dow Chemical Company.

2. I have ten years of experience in rail with the company. In my current role, I am responsible for negotiating rail transportation contracts, acquiring and managing Dow's private railcar fleet, and overseeing railroad performance across our facilities worldwide.

3. I am submitting this statement to provide information about Dow's experience with rail and truck freight transportation options. I have personal knowledge of the facts in this statement, based on my responsibilities at Dow and my review of Dow's business records, including information provided by employees under my supervision.

II. Company Background

4. Dow is a world leading materials science company that serves customers in markets such as packaging, infrastructure, mobility, and consumer applications. Dow operates manufacturing sites in 29 countries and employs approximately 31,600 people. Dow depends upon railroads to

[1] This verified statement contains highly confidential material, which is enclosed in double braces (e.g., {{…}}). This material is subject to the protective order in this proceeding.

provide safe, secure, reliable, and economic transportation of raw materials and finished products to, from, and between its sites and its customers' sites throughout North America as well to ports that Dow uses to export products.

5. Dow operates 21 rail served production facilities in the US. Dow's sites utilize approximately 3,000 unique rail routes to ship approximately {{[redacted]}} loaded railcars per year; plus an additional {{[redacted]}} annually to SIT yards. Dow safely operates a private fleet of over {{[redacted]}} railcars including both hopper and tank cars, carrying hazardous and non-hazardous products. Safe, reliable, and cost-effective railroad transportation is critical to ensure stable supply to our broad customer base and the consumers and communities they in turn serve.

6. Dow has the following rail-served production facilities:

Facility (City, State)	**Inbound / Outbound / Both**	**Serving Railroad(s)**	**Serving Shortline**
Beaumont, TX	Inbound	CPKC	
Bristol, PA	Inbound	CSX / NS	Conrail
Carrollton, KY	Both	CSX	
Croydon, PA	Inbound	CSX / NS	Conrail
Deer Park, TX	Both	BNSF / CPKC / UP	PTRA
Elizabethtown, KY	Inbound	CN	PADUC / PAL
Freeport, TX	Both	UP	
Hayward, CA	Inbound	UP	
Institute, WV	Inbound	NS	KNWA
Kankakee, IL	Both	NS	
Knoxville, TN	Both	CSX / NS	
Louisville, KY	Both	NS	
Marietta, GA	Both	CSX	ELZBG / GNRR
Midland, MI	Both	CN / CSX	LSRC / HESR
Orange, TX	Both	UP	
Plaquemine, LA	Both	UP	
Seadrift, TX	Both	BNSF / UP	
South Charleston, WV	Both	CSX	
Taft, LA	Both	UP	
Texas City, TX	Both	BNSF / UP	TCT
Victoria, TX	Both	UP	

7. Approximately {{[redacted]}}% of Dow's rail traffic originates at Union Pacific-captive locations. Approximately {{[redacted]}}% of Dow's rail traffic moves from Union Pacific-captive origins to destinations that CSX and Norfolk Southern both serve. Approximately {{[redacted]}}% of Dow's traffic moves from Union Pacific-captive origins to CSX-captive destinations.

8. Approximately {{[redacted]}}% of Dow's rail traffic moves between Union Pacific and Norfolk Southern in interline service.

III. Rail Competition and Contracting

9. Where Dow's interline traffic is captive to a single carrier over one end, but has access to competition to or from a gateway interchange, Dow uses that competition to obtain better rates, service, and contract terms. Dow negotiates Rule 11 rates with each connecting carrier and will leverage competition at the gateway.

10. Railroads often seek to bundle captive traffic with competitive traffic when negotiating contracts. {{[redacted]}}

11. {{[redacted]}}.

12. Each Rule 11 rate that {{[redacted]}} charges Dow applies to a single type of traffic moving on a specific {{[redacted]}} segment between a gateway and origin or destination, regardless of connecting segment factors. That one rate applies across every connecting routing.

IV. Rail Speed, Reliability, and Administration

13. A 20-to-24-hour improvement in rail transit time on a given lane would not materially change Dow's operations, inventory, or fleet size. However, reductions by 24 hours across multiple lanes or the entire network would make a difference if sustainable. Reliable, consistent service matters more than average transit time, as production schedules at both origin and destination depend on predictable railcar arrivals. Our transportation planning and inventory management processes are aligned with railroad transit time performance and service consistency.

14. In Dow's experience, delays in first-mile and last-mile service (local pickup and delivery) are more disruptive than delays at interchange between railroads. Origin and destination facilities depend on predictable railcar arrivals to support production schedules, inventory strategy and customer shipment timing. Delays in spotting at industry can result in production downtime, missed shipments, and the need to cover variability with additional inventory – which adds cost and leads to site congestion.

15. To support interline rail movements, Dow uses transportation management system software for railcar tracking and tracing, monitoring interchange activity, terminal dwell performance, and overall network operations. Additionally, this system is used for Dow's yard management, railcar billing operations, and transportation performance reporting. Furthermore, Dow contracts a third-party to track and escalate dwelling cars in the network with railroads, address lost or out of route cars, customer shutdowns, and general network congestion. These systems would still be needed if Dow's traffic between UP- and NS-served facilities convert to single-line service, because Dow would still use other railroads outside Applicants' network, and using their individual portals is inefficient when managing all of Dow's traffic.

V. Truck Transportation

16. For shipments between two rail-served facilities, Dow uses truck primarily for smaller or time-sensitive shipments, certain packaged products, and when customer delivery requirements are not well suited to rail service. Outside of those types of shipments, if both sites are served by rail, the default mode is rail.

VI. Service Disruption Risks and Costs

17. Dow's Gulf Coast facilities (Freeport, Plaquemine, and Taft), which are served by only one railroad, can operate for approximately {{[redacted]}} during a rail service failure before they must begin to idle production.

18. A recent rail service disruption contributed to a {{[redacted]}} cut in production rates at a Dow facility. That cut alone cost Dow approximately {{[redacted]}} pounds of product across {{[redacted]}} production lines.

VERIFICATION

I, Michael Gebo, verify under penalty of perjury that the foregoing is true and correct. Further, I certify that I am qualified and authorized to file this statement.

Executed on 11/18/2026

Signed by:
Michael Gebo
538FB38058594AB...

Michael Gebo

BEFORE THE SURFACE TRANSPORTATION BOARD

Docket No. FD 36873

UNION PACIFIC CORPORATION AND UNION PACIFIC RAILROAD COMPANY
—CONTROL—
NORFOLK SOUTHERN CORPORATION AND NORFOLK SOUTHERN RAILWAY COMPANY

Verified Statement of Amy Hark of Huntsman International LLC

I. Witness Qualifications

1. My name is Amy Hark. I am Sr. Director, Global Strategic Sourcing COE – Logistics & Packaging at Huntsman International LLC ("Huntsman" or "the Company").

2. I have held my current position at the Company since April 2022. In this role, I am responsible for developing and executing global transportation and logistics sourcing strategies that optimize cost, service, capacity, and risk across Huntsman's transportation network, while managing carrier relationships, transportation contracts, and strategic logistics initiatives.

3. I am submitting this statement to provide information about the Company's experience with rail and truck freight transportation options. I have personal knowledge of the facts in this statement, based on my responsibilities at Huntsman and my review of Huntsman's business records and information provided to me by other Huntsman employees in the course of my duties.

II. Company Background

4. The Company is a global manufacturer of specialty chemicals and advanced materials used in a wide range of consumer and industrial applications, including construction, automotive, aerospace, energy, coatings, adhesives, and electronics.

5. Huntsman relies on rail and truck transportation to receive raw materials and chemical feedstocks, transfer products between manufacturing facilities, and deliver finished products to customers throughout North America and global markets.

6. Huntsman has the following rail-served facilities:

Facility (City, State)	**Inbound / Outbound / Both**	**Serving Railroad(s)**	**Service via shortline? (name)**
Conroe, TX	Both	BNSF	N/A
Freeport, TX	Both	UP	N/A
Port Neches, TX	Both	CPKC	N/A
Houston, TX	Both	UP	PTRA
Pensacola, FL	Both	CSXT	N/A
Geismar, LA	Both	CN/CPKC	N/A
McIntosh, AL	Inbound	NS	N/A
Akron, OH	Inbound	ABC Railway	ABC Railway

III. Huntsman Opposes the Rail Merger

7. Huntsman opposes this rail merger because it will allow Applicants to effectively eliminate access to rail competition at gateways, both for Huntsman's traffic and for other shippers' traffic; this gateway foreclosure will drive up prices for Huntsman, deprive Applicants' competitors of traffic they need to compete effectively, and require Applicants' competitors to recover the lost revenue from their own captive traffic; and these harms far outweigh any claimed benefits from single-line service.

IV. Rail Competition

8. Where the Company's interline traffic is captive to a single carrier over one end but has access to competition to or from a gateway interchange, the Company uses that competition to obtain better rates, service, and contract terms. The Company seeks competing quotes at every contract renewal.

9. The Company prefers Rule 11 rates because it allows us to negotiate with each railroad separately, despite some additional administrative burdens.

10. Union Pacific's Rule 11 rates do not vary based on the connecting rail segment. The same rate applies to all traffic of the same commodity moving between the Union Pacific location and the gateway.

B. Rail Speed, Reliability, and Administration

11. A 20-to-24-hour improvement in rail transit time would not materially change the Company's operations, inventory, or fleet size because consistent reliable service is more important than transit time. Reliable, consistent service matters more to the Company than average transit time because production schedules depend on predictable arrivals and fleet sizing depends more on predictable, reliable service.

12. In the Company's experience, delays in first-mile and last-mile service (local pickup and delivery) are more common and more disruptive than delays at interchanges between railroads. Because these delays occur at the point where railcars must be physically placed at or removed from a facility, they can directly affect production, inventory, customer deliveries, railcar utilization, and the facility's ability to receive or release additional equipment. Interchange delays may extend transit time on occasion, but they generally occur while the shipment is already moving through the rail network and may not create the same immediate operational constraint at the origin or destination.

13. To support interline rail movements, the Company uses Bourque Logistics' RailTrac software, as well as GeoMetrix tracking software. The Company uses them to keep oversight on our rail fleet, track transit times, confirm demurrage charges, etc. These systems would still be needed if the Company's traffic between UP- and NS-served facilities converts to single-line

service, because the Company would continue to have a substantial rail network involving multiple rail carriers. The Company uses RailTrac and GeoMetrix to support visibility and management of its broader rail operations, including railcar movements and equipment across its network. Conversion of certain UP–NS movements to single-line service would reduce or eliminate interchange for those specific movements, but it would not eliminate the Company's overall need for third-party rail shipment and railcar visibility services because the Company still must track its railcars across multiple railroads.

V. Truck Transportation

14. The Company has optimized its logistics operations for rail transportation and prefers to use rail whenever it is available.

15. The Company uses trucks mainly for short-distance moves, small or time-sensitive orders, customers or facilities with inadequate rail sidings, narrow customer delivery windows, packaged products, and emergency trucks. It is very unlikely that this truck traffic would ever convert to rail.

VI. Service Disruption Risks and Costs

16. Rail mergers have caused significant, costly service disruptions for the Company. In May 2025, BNSF's service to one of the Company's facilities in Texas broke down because of system and operational problems associated with CPKC's integration of the former KCS network. The disruption involved significant transit delays, a backlog of railcars in the Port Neches/Port Arthur area, billing and system errors, and misrouting of loaded railcars supplied by Indorama Ventures. Some loaded cars were incorrectly shown as empty and returned to Indorama without reaching the Company's destination, while other cars were incorrectly interchanged to Union Pacific or

remained delayed awaiting interchange. The disruption began by mid-May and continued for more than three weeks into June 2025.

17. Applicants' Alternate Dispute Resolution Program (ADR Program) and Targeted Access Program (TAP) would not have addressed this service disruption event. These programs only apply where the disruption lasts more than 30 days. Also, the programs do not apply to contract traffic.

VERIFICATION

I, Amy Hark, verify under penalty of perjury that the foregoing is true and correct. Further, I certify that I am qualified and authorized to file this statement.

Executed on 11/17/2026

Signed by:
Amy Hark
3D7740F4D0D140F...

Name

Exhibit 1

[HIGHLY CONFIDENTIAL]

Exhibit 2

[HIGHLY CONFIDENTIAL]

Exhibit 3

[HIGHLY CONFIDENTIAL]

Exhibit 4

[HIGHLY CONFIDENTIAL]

Exhibit 5

[HIGHLY CONFIDENTIAL]

Exhibit 6

[HIGHLY CONFIDENTIAL]

Exhibit 7

[HIGHLY CONFIDENTIAL]

Exhibit 8

[HIGHLY CONFIDENTIAL]

Exhibit 9

[HIGHLY CONFIDENTIAL]