



Ex Parte 755: Final Offer Rate Review USDA Supplement for Informal Discussion with the Surface Transportation Board

June 25, 2020

Authority and Interest

The Agricultural Adjustment Act of 1938 and the Agricultural Marketing Act of 1946 entrust the Secretary of Agriculture with representing the interests of agricultural producers and shippers in improving transportation services and facilities. As one of many ways to accomplish this mission, the U.S. Department of Agriculture (USDA) initiates and participates in Surface Transportation Board (STB or Board) proceedings involving rates, charges, tariffs, practices, and services.

Introduction

USDA appreciates the Board waiving the general prohibition on ex parte communication in Ex Parte (EP) 755 (Final Offer Rate Review) and the opportunity to visit with the Board on these important issues. USDA offers this supplemental handout for the record, which reiterates and supports the points raised in its June 25 conversations with individual Board members and includes other points for the Board to consider. Given the close tie between this proceeding and EP 756 (Market Dominance Streamlined Approach), this handout also contains commentary on the Board's proposal to streamline the market dominance determination.¹

Summary

The key takeaways discussed in detail in this supplemental handout include:

- USDA strongly supports the steps the Board has made with its Final Offer Rate Review (FORR) and Streamlined Market Dominance proposals.
- The Board should improve rate review. A number of agricultural shippers experience rates above the statutory 180 percent-threshold—some well-above—and yet no cases have been brought. This fact underlies the need for rate review reform.
- There are two types of errors—determining a rate is unreasonable when it is not (a false positive) and determining a rate is reasonable when it is not (false negative). Both are costly, yet current methods only guard against false positive errors. It is important to balance the costs of both errors.
- The Canadian experience with Final Offer Arbitration (FOA)—an approach that parallels the Board's FORR proposal in several respects—offers valuable insight for making FORR even more effective. Contrary to some claims, FOA's tight procedural schedule is a critical element in reducing costs to participants and encouraging the best evidence to be brought forward.

¹ For example, in its decision, STB wrote, "The Board proposes that the FORR procedure may only be used if the complainant also elects to use the streamlined market dominance approach proposed in Docket No. EP 756, Market Dominance Streamlined Approach, served concurrently with this decision." Surface Transportation Board. Decision. Docket No. EP 755: Final Offer Rate Review. Decided September 11, 2019.

- Price markups are a straightforward and economically valid way to measure market dominance and ought to be considered as a main element in the Board’s rate review and market dominance proposals.
- The nature of rail and truck competition is complex. The fact that a shipper uses truck transportation does not mean trucking is an effective check against a railroad’s market dominance. Moreover, data suggest railroads may have market power even over short distances, despite assumptions that trucks would be highly competitive with railroads along shorter routes.

Discussion

The Board Should Act

The Nation’s rail transportation policy (49 U.S. Code § 10101) is designed to ensure a safe, healthy, and efficient rail transportation system, much of which is accomplished through competitive forces. Under this policy, railroads are permitted to differentially price to recover their high fixed costs and earn adequate revenues, but the policy is also designed to provide balance and have regulatory mechanisms in place where competition is lacking. While railroads may use differential pricing, these prices must be “reasonable” if the market is not competitive.²

Regulatory reform for reviewing and challenging unreasonable rates is needed. Shippers are facing rates where the revenue to variable cost (R/VC) ratio exceeds the statutory 180 percent-threshold,³ and some are well-above this level. For example, according to the Board’s confidential Carload Waybill Sample (CWS) data, 31 percent of grain shipments between 2015 and 2018 faced rates with the R/VC ratio higher than 180 percent. Fourteen percent of grain shipments had R/VC ratios higher than 240 percent, while 2 percent had R/VC ratios higher than 360 percent. In terms of tonnage, 47, 18, and 3 percent of grain tonnage are moved at R/VC ratios above 180, 240, and 360, respectively. Yet grain shippers are not bringing rate cases, lending credence to the long-time claim from shippers that existing procedures are too costly, complex, and uncertain.

Where markets lack effective competition, it is the regulatory mechanisms that check severe applications of market power. These mechanisms are the safeguards against unfair rates that disproportionately favor railroads at the expense of shippers (and by extension the larger economy), and these safeguards must be valid and accessible to work properly.

More Emphasis on Identifying True Positives and Less on Avoiding False Positives

In its reply comments, the Association of American Railroads (AAR) contended USDA “gets the Board’s statutory paradigm exactly backwards” when USDA argues that false positives are better than false negatives, but AAR is ignoring the context of the argument.⁴ AAR’s error is in missing the marginal or incremental nature of USDA’s argument and the broader need for balance. Elsewhere, Dr. Jerry Ellig expressed concern over USDA’s suggestion to use a competitive benchmark as the market dominance screen because “all econometric models have prediction errors.”⁵ USDA agrees with this point and further emphasizes that all attempts to measure market dominance and rate reasonableness, econometric or otherwise, will have errors. The Board’s goal should be to account for the costs of both kinds of errors

² 49 U.S. Code § 10101. Rail transportation policy.

³ A shipper can contest the reasonableness of a rate only if the railroad is “market dominant” over the traffic at issue. In 49 U.S. Code § 10707(d)(1)(A), a railroad does not have market dominance if “the rate charged results in a revenue-variable cost percentage for such transportation that is less than 180 percent.”

⁴ Association of American Railroads. January 10, 2020. Reply Comments in EP 755, Final Offer Rate Review.

⁵ Jerry Ellig. January 10, 2020. Reply Comments in EP 755, Final Offer Rate Review, and EP 756, Market Dominance Streamlined Approach.

(truly unreasonable rates deemed reasonable and truly reasonable rates deemed unreasonable) and attempt to minimize the total cost of those errors.

Without agricultural shippers bringing cases, existing rate review procedures are missing 100 percent of their unreasonable rates. That is, the errors have been unbalanced. Despite railroads' satisfaction with the status quo, the Nation's rail transportation policy requires the enforcement of rate reasonableness. USDA believes the Board's proposals are steps towards doing exactly that, and also believes that minor modifications to the proposals can both reduce the number of errors overall and move closer to balance.

The railroads often characterize the shipper position as a demand for "re-regulation." However, this is an exaggeration. USDA and others recognize that it is problematic for all users and society at large if many reasonable rates are incorrectly deemed unreasonable (false positives). Moreover, the R/VC data above suggest the majority of rail rates are reasonable. Therefore, it is important for the Board to have a test with a low rate of false positives. USDA's contention is only that unreasonable rates that remain unregulated (false negatives) are also costly. A balanced approach recognizing those costs means moving away from the 100 percent false negative rate.

Additionally, USDA believes there are many built-in safeguards to avoid false positives. Often, when medical professionals are concerned about how often a test's positive predictions are actually correct (precision), the simple solution is to test twice. The Board effectively does this by having a market dominance test followed up by a rate reasonableness test. Whatever level of precision the Board deems acceptable (and recognizing the tests are not independent), having the two tests means false positive rates can be higher and false negative rates can be lower on each test than if there were only one test.

AAR's reply comments contend "Congress did not instruct the Board to take a broad view of market dominance because a 'market dominance is always followed up by a rate reasonableness test.' Instead, Congress limited the agency's authority to instances where there was a lack of effective competition 'in hopes of removing most rates from rate regulation.'"⁶ AAR's comments seem to apply to a world where these things could be measured perfectly and without cost. In reality, it is unclear how else the Board could effectively implement the various statutory goals in the Nation's rail transportation policy without "taking a broad view" and weighing the costs of the different kinds of errors as USDA has suggested.

In addition, it is helpful to consider comments from Dr. Ellig and the other authors of the Transportation Research Board's (TRB) 2015 landmark study from this perspective. Dr. Ellig states, "The USDA proposal would use benchmarking to create a presumption that a railroad is market dominant. The TRB committee's proposal would use benchmarking to identify rates that should be subject to more extensive scrutiny, but it did not propose to create a legal presumption that a rate above the STB-selected threshold indicates market dominance."⁷

While it is true the TRB committee did not propose benchmarking would solely lead to a presumption of market dominance, it is clear they see value in its implementation. In the report, they recommend "repeal[ing] the 180 percent revenue-to-variable-cost formula by directing [the U.S. Department of Transportation] to develop, test, and refine competitive rate benchmarking methods that can replace [the Uniform Rail Costing System (URCS)] in screening rates for eligibility to be challenged."⁸ In their 2019 comments, they add, "the rate benchmarking procedure outlined in [the 2015 TRB report] provides a

⁶ Association of American Railroads. January 10, 2020. Reply Comments in EP 756, Market Dominance Streamlined Approach.

⁷ Jerry Ellig. January 10, 2020. Reply Comments in EP 755, Final Offer Rate Review, and EP 756, Market Dominance Streamlined Approach.

⁸ Transportation Research Board, *Modernizing Freight Rail Regulation*, Special Report 318, 2015.

superior indicator of whether a railroad may have market dominance and a useful check on inaccuracies introduced by URCS.”⁹

USDA agrees with the thrust of the TRB committee’s comments. The difference between USDA’s suggestion and the TRB authors’ comments appears to be only in whether the competitive benchmark screen would replace the other proposed market dominance screens or add to them. USDA believes the competitive benchmark screen in addition to the proposed screens is too much focus on avoiding false positives.

The R/VC screen alone is intended to avoid the false positive error of determining rate unreasonableness when a railroad is not in fact market dominant. USDA agrees with Dr. Ellig and the TRB authors that URCS is problematic, and agrees with the TRB comments when they cite Wilson and Wolak (2016) in stating, “[T]he benchmark price could supplement the R/VC < 180 test to ensure that failure of this test is in fact due to a non-competitive price, rather than the methodological issues with the URCS ‘variable cost’ measure.”¹⁰ In other words, the competitive benchmark screen could be yet another safeguard to avoid false positives.

Adding the proposed market dominance prongs on top of the R/VC and competitive benchmark screens would further reduce false positives, but only marginally. However, doing so raises the expected number of false negatives. This is because some shippers with legitimate cases will be incorrectly barred from rate review through this abundance of screens. Given the need for balance, and the false positive safeguards already in place, USDA believes the Board should replace the proposed market dominance prongs with a competitive benchmark because the benchmark would likely have fewer errors overall—thereby reducing both false positives and false negatives. If the Board keeps its existing screens, it should not add the competitive benchmark screen on top. Doing so would not be consistent with the need for balance.

Final Offer Arbitration in Canada is a Useful Model

It is worth emphasizing that there are key takeaways from final offer arbitration (FOA) in Canada, a method that is related to the Board’s FORR proposal. The Class I railroads with operations in Canada—Canadian National Railway (CN) and Canadian Pacific Railway (CP)—have considerable experience with FOA and their perspective could be an important part of improving the proposals. However, USDA encourages the Board to “not let perfect be the enemy of good.” While the Canadian railroads present some valid concerns, the conclusion should not be to dismiss the proposal altogether, but to incorporate the concerns to improve it.

For example, the railroads express concern over the restricted schedule of FOA. CP argues the abbreviated schedule does not control costs and instead involves “much uncertainty” and “a substantial amount of preparation.”¹¹ For CP, a typical “FOA team will include 4 to 6 lawyers, 2 to 5 experts/consultants, 7-10 in-house subject matter experts/witnesses, and numerous supporting personnel.”¹² CP contends these costs make FOA inaccessible and, by extension, the Board’s FORR proposal will be similarly flawed. However, the fact that a lot of resources are used is not a valid reason to do away with the restricted procedural schedule proposed in FORR—it is precisely the opposite. The reason why procedural limitations are needed is to act as a constraint and force parties to focus their limited time and resources on only the clearest and most important evidence. FORR coupled with the

⁹ Boyer et al. October 17, 2019. Comments in EP 755, Final Offer Rate Review, and EP 756, Market Dominance Streamlined Approach.

¹⁰ Ibid.

¹¹ Canadian Pacific. November 12, 2019. Comments in EP 755, Final Offer Rate Review.

¹² Ibid.

Streamlined Market Dominant test is still likely to be significantly lower cost than any other available rate review process.

CN raised another concern with differences in information between shippers and railroads coming into FOA. CN writes, “A railroad is given mere days to respond to an economic analysis that a shipper could spend months developing.” While it is true, as the initiator of a case, the shipper can plan in advance, it is also true that a railroad has control over the issue at the center of an FOA case—the level of the rate. A shipper, weighing the costs and benefits of bringing a case—even if months in advance—would not do so if the rate is reasonable.

CN’s argument also misses the advantages FOA affords the railroads, which is why the case results in FORR ought to be made public. Any particular railroad will likely be involved in more cases than any particular shipper, and as cases are brought railroads get more and more information on what works and what the results are in the FOA process. This is explained in a forthcoming paper by Dr. James Nolan. He writes, “As repeat players possessing more and asymmetric information, railways in Canada are much better positioned to build an effective FOA case than any individual shipper.”¹³ In sum, the Board is right to have a short procedural schedule and to make the results public.

USDA supports CN’s suggestion to design an arbitration process for small shippers, as long as it is a complement to effective rate review processes, such as FORR and Streamlined Market Dominance.

Price Markup is a Straightforward and Accessible Measure of Market Dominance

In competitive markets, firms are unable to charge a price above cost because they will lose business to competitors charging less. This is not true in less competitive markets where firms exert market power and are able to charge a price markup above cost. In fact, the size of the price markup is directly related to the level of competition in a market and is used by economists to measure the degree of market power. Therefore, the Board has a straightforward means of estimating rail market dominance through R/VC ratios or through a competitive benchmark measure, like that suggested by the 2015 TRB report and follow-on work by two of that report’s authors.¹⁴

USDA contends price mark-ups are a better measure of market dominance than the proposed prongs for the streamlined market dominance test, and if markups cannot be used directly as screens, they could be used to determine appropriate thresholds in the proposed screens.

The Presence of Alternative Shipping Options Does Not Imply Effective Competition

In their reply comments, AAR states, “[S]hipper organizations would have the Board rule that where the shippers elect to use truck, this is evidence of market dominance,” but AAR has the claim backwards.¹⁵ The correct statement is the presence of truck alternatives does not imply a competitive market. To claim the opposite—that truck presence does imply a competitive market—is called the “cellophane fallacy” in antitrust economics.

The cellophane fallacy refers to the mistake of concluding a market is competitive based solely on observed market shares at prevailing prices without accounting for the market power behind those prices. For instance, at some (high enough) price, a shipper will be deterred and find some alternative. The fact

¹³ James Nolan, “Parallel or Converging? A Comparative Analysis of the Grain Handling and Rail Transportation Systems in Canada and the United States,” forthcoming.

¹⁴ See, for example, Wilson and Wolak, “Benchmark Regulation of Multiproduct Firms: An Application to the Rail Industry,” NBER Working Paper No. 25268, November 2018.

¹⁵ Association of American Railroads. January 10, 2020. Reply Comments in EP 755, Final Offer Rate Review.

that the shipper uses this alternative does not mean the alternative is necessarily competitive or a check against market power.

A hypothetical example helps illustrate this. Imagine a railroad that would—in the absence of all competition (e.g., from truck, barge, or other railroads)—charge, \$7,500 for a 2,000-mile, single-car grain shipment, which costs the railroad \$5,000. Now assume a truck alternative exists for \$7,400. The railroad must now account for the truck option, so it might offer a price of \$7,350, just under the competitor. In this world, trucking is a constraint on rail rates. Nonetheless, the railroad is clearly using its market power over this distant shipment to significantly markup prices above cost (\$7,500 rate versus \$5,000 cost). It is essentially pricing at the monopoly price. So, the mere existence of a truck alternative does not imply *effective* competition.

This example illustrates why markup is a better measure of market dominance than explicit modal market shares. Declaring markets—for example, where more than 10 percent of movements are by trucks—as “competitive” does not necessarily capture reality. While USDA recognizes a markup threshold will still be a somewhat arbitrary threshold, it is less arbitrary than other measures and benefits from its straightforward approach that relies on readily available data. The STB cannot avoid the task of choosing where competition stops and market power begins,¹⁶ and USDA believes a markup threshold is superior to using market shares for this task, as it is directly related to the level of competition and less arbitrary.

Railroads May have Market Power Even Over Relatively Short Distance Shipments

The cellophane fallacy has important implications for the shipment distance, intermodal, and intramodal thresholds, as proposed in EP 756. If “effective” competition is unclear (as it is without a defined allowable level of markup), it is even more unclear where to draw the line on what shipment distance (or distance to intra- or intermodal options) is associated with effective competition. The railroads argue effective competition occurs at the 500- or 750-mile shipment distance threshold. Shippers, on the other hand, contend that distance is around 250 miles. In both cases, it is unclear how one reaches these conclusions without a clearer definition of what “effective” competition is. In the shipment distance band favored by railroads, the 500- to 750-mile range may represent the longest distance shipment for which railroads have to consider the truck rate at all. USDA believes some railroads may have market power at distances even as short as 200 miles.

For example, based on USDA quarterly reports in 2018, surveyed truck rates averaged \$2.97 per truck mile for a 200-mile shipment in the North-Central region.¹⁷ This translates into a truck-carload equivalent at around \$2,610.¹⁸ Using the Board’s 2018 CWS data, a 1-2 car, 200-mile grain shipment originating in similar states had an average variable cost per car around \$1,000, while the average rate per car was \$1,500. For shipments of 101 cars or greater, the average variable cost per car was \$550, while the average rate per car was still \$1,500.

While this is far from a complete analysis, it raises questions over how much market power railroads have even over 200-mile shipments. Of course, truck is quicker and more reliable than rail, which explains part of the difference. A more precise analysis would be needed to ensure an “apples-to-apples” comparison. However, the rail rates include a significant markup above rail costs, which is possibly unsurprising,

¹⁶ Unless the Board defines effective competition as any price below the pure monopoly price or defines ineffective competition as any price above the perfectly competitive price, then the Board must define an arbitrary level of competition as “effective.”

¹⁷ USDA Agricultural Marketing Service, *Grain Truck and Ocean Rate Advisory*, 2018 reports. Values were averaged for the North Central region for the 200-mile distance band. The North-Central region includes Kansas, Kentucky, Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Tennessee, and Wisconsin.

¹⁸ The truck-rail-equivalent is developed using standard measures of a railcar (110 tons) and a large semi (25 tons). Source: Iowa Department of Transportation’s modal comparison chart.

given the higher, unconstraining, truck rate. The existence of the price markup implies railroads have market power even over shipments involving relatively short distances, such as 200 miles, and perhaps even fewer. Whether this distance and its associated level of competition and markup are “effective” is what the Board needs to define. Regardless of the distance chosen, STB should set the distance threshold (and other prongs) with an eye toward the average level of competition or markup associated with that distance.