

November 26, 2019

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The Honorable Cynthia T. Brown
Chief, Section of Administration
Surface Transportation Board
395 E. Street, S.W., Room #100
Washington, DC 20423-0001

VIA E-FILING

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Office of Proceedings
November 26, 2019
Part of
Public Record

Re: Docket No. EP 761, Hearing on Revenue Adequacy
Docket No. EP 722, Railroad Revenue Adequacy

Dear Ms. Brown:

Pursuant to the Board's Notices of September 12, 2019 and November 22, 2019 in the above referenced dockets, Canadian Pacific submits the enclosed Written Testimony of Tyme Wittebrood.

Please let me know if you have any questions.

Sincerely,

Stinson LLP

/s/ David F. Rifkind

David F. Rifkind

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Enclosure

BEFORE THE
SURFACE TRANSPORTATION BOARD

Docket No. EP 761

HEARING ON REVENUE ADEQUACY

Docket No. EP 722

RAILROAD REVENUE ADEQUACY

WRITTEN TESTIMONY OF TYME WITTEBROOD

NOVEMBER 26, 2019

1. My name is Tyme Wittebrood. I am the Director of Regulatory Finance for Canadian Pacific¹ ("CP"). I received an MBA from the University of Calgary, Haskayne School of Business and a B.Sc. in Geography from the University of Calgary.
2. Canadian Pacific thanks the Board for this opportunity to address some of the issues raised by the Board in its September 12, 2019 Notice. We believe that it is very important that the regulatory changes that the Board is considering are the subject of careful review, with

¹ Canadian Pacific is a trade name under which Canadian Pacific Railway Company and its United States subsidiaries Soo Line Railroad Company, Dakota, Minnesota & Eastern Railroad Corporation, and Delaware and Hudson Railway Company, Inc. operate.

thoughtful input from all affected stakeholders. This hearing is a very important component of that process.

3. All North American corporations are subject to tax law, anti-competition law, labor law, and safety regulations among others. Railroads, however, are subject to a special class of economic regulation due to the position they hold in our markets and in our economy. Because of that, railroads are often referred to as a “regulated industry”.
4. Railroad companies differ in important ways, however, from other regulated industries such as public utilities. A key distinguishing feature is that public utilities have a virtual guaranteed customer base.
5. North America’s railroads do not have a guaranteed customer base. The vast majority of U.S. railroad traffic is not subject to “market dominance”.² Most rail customers have competitive transportation options. Customers can, and frequently do, switch to other carriers and other modes when they deem it beneficial to do so.
6. Most reasonable people would agree that railroads, like any industry, should not be free to apply predatory pricing practices to their customers. That is fair and just. But in the absence of a showing that a specific railroad rate is unreasonable, there is no reason in law or in economic principles that a railroad’s revenue must be constrained, particularly to a

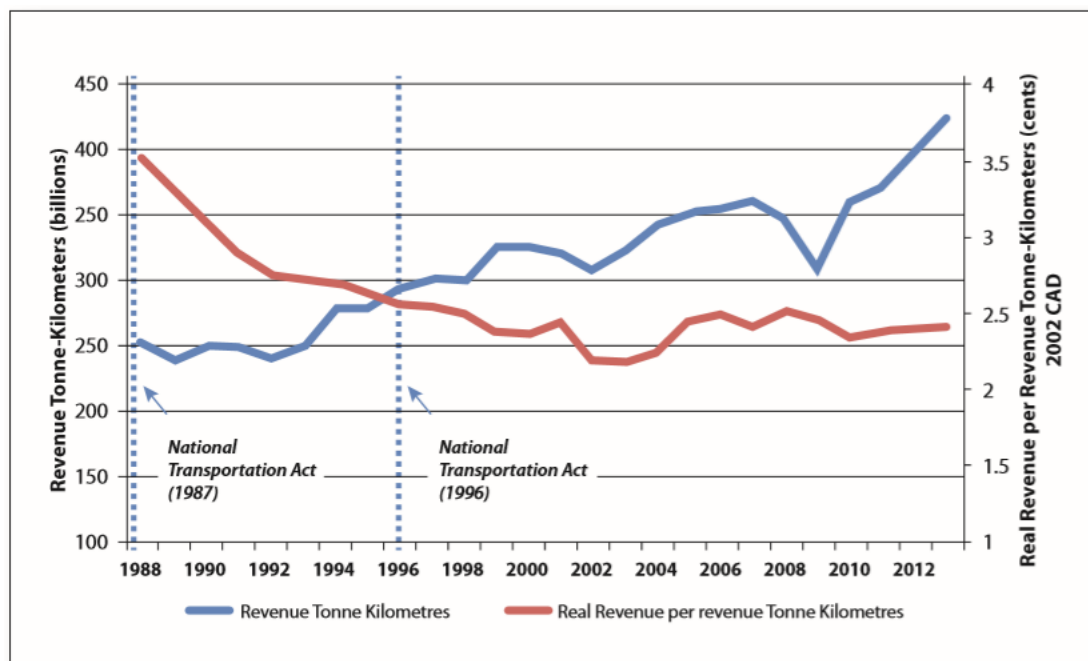
²Comments of the Association of American Railroads at 10, (filed Nov. 26, 2019), Hearing on Revenue Adequacy, Docket No. EP 761; 2012 Expanded Commodity Revenue Stratification Report, available at http://www.stb.dot.gov/stb/industry/econ_reports.html.

somewhat arbitrary standard. That would represent nothing more than an imposed transfer of wealth from railroad investors to railroad customers.

7. History and the economic studies teach us that broad, top-down rate regulations do not work in markets where the players must compete for market share. Rate constraints undermine market incentives, and lead to under-investment, poor service, and eventually to higher costs.³
8. Similar to the experience in the United States, the Canadian regulatory environment for railroads began to move towards “deregulation” in the late 1960’s, with the passage of a new National Transportation Act. With this legislation the industry moved towards market based rates, and the legislation prohibited setting rates that do not adequately compensate a railroad for its costs. As in the United States, the results were overwhelmingly positive for railroads and shippers alike. See for example Figure 1 below, reproduced from a report that was prepared at the request of the Minister of Transport, in support of a comprehensive review of the Canada Transportation Act.

³ Written Testimony of Joseph P. Kalt, Ph.D. at ¶ 17, (filed Nov. 26, 2019), Hearing on Revenue Adequacy, Docket No. EP 761.

FIGURE 1: Rail Workload and Overall Yield, 1998 to 2012⁴



9. The evidence is compelling that top down regulations such as the revenue adequacy based changes under consideration in EP 722 and EP 761, are harmful and would threaten the progress made under deregulation. We would like to share some observations learned from the Canadian regulatory environment that will be informative in this regard. But, first, we would like to illustrate fundamental flaws in the existing revenue adequacy methodology that render it inappropriate as a tool for imposing a restrictive economic construct such as the Rate Increase Constraint.

⁴ David Emerson, *Pathways: Connecting Canada's Transportation System to the World*, at 115 (2015), accessible at https://www.tc.gc.ca/eng/ctareview2014/CTAR_Vol1_EN.pdf.

Revenue Adequacy Calculations Rely on Inconsistent and Inadequate Basis of Measurement

10. The STB computes the regulatory cost of capital on a market basis. It relies on market values of debt and market interest rates. It uses market-based measurements of the Market Risk Premium and company Beta to determine a cost of equity rate, and then applies the rate to the market value of equity. But then the STB applies this market-based cost of capital rate in a Net-Return-On-Investment calculation that is determined entirely on book values. This is internally inconsistent. When one half of the regulatory construct is determined on calculations using book values, and the other half using market values, then the result is not valid. A regulatory construct that would control prices and revenues for a large component of our economy should, at a minimum, be built on sound economic principles and yield reasonably accurate results.
11. In addition to being internally inconsistent, the use of book value is itself improper. Book values do not represent an accurate view of the replacement cost or the current market value of an asset. This is especially true of long-lived assets, such as railway track and ballast, locomotives, bridges and buildings. These assets may have been purchased decades ago, in a time when prices were much lower.
12. Land, which does not depreciate at all, may have been acquired more than a century ago. Prior to CP's acquisition of the DM&E in 2008, CP's U.S. operating companies showed less

than \$7 million in land assets at book value.⁵ At that time, CP operated 4,523 miles of track in the U.S.⁶

13. The following year, when the DM&E acquisition was added to the books, the U.S. track mileage increased by nearly 80%, to 8,084 miles.⁷ Concurrently, the book value of the land increased by nearly 10,000% to \$664 million.⁸ The reason that the newly acquired DM&E lands represent a 100x greater book value per mile is, of course, because they were restated to their modern (at that time) values when they were acquired.

14. Let us say, hypothetically, that CP generated \$7 million of income from its United States land assets in both the year before the DM&E acquisition, and again in the year after. In the first year, this represents a 100% return on its investment, as calculated based on book value. In the second, it represents slightly more than 1% return. This state of affairs demonstrates the distorting effect of using book values, when one attempts to apply them in an economic study.

15. Book values of assets are largely dependent on the timing and circumstances when they were acquired. To continue with the DM&E land example, CP's U.S. regulatory accounting ledger currently records a total of 67,000 acres of land in-use for railroad operational purposes in the United States. Of this, just over 18,000 acres were added under the DM&E

⁵ CP 2009 R1, Schedule 330 (DM&E was consolidated with Soo Line Corporation for regulatory reporting purposes in 2010).

⁶ CP 2009 R1, Schedule 700.

⁷ CP 2010 R1, Schedule 700.

⁸ CP 2010 R1, Schedule 330.

acquisition (the original purchase was larger, but some of the original DM&E lands have been sold since the acquisition). And the remainder are predominantly lands that predated the DM&E purchase.

16. The average book value of the 18,000 DM&E acres is \$18,997 USD per acre. The average book value of the remaining 49,000 acres is \$242 per acre. Based on this comparison, railroad lands acquired in modern times appear to be nearly eighty times (80x) more valuable than historical railroad lands, when assessed on the basis of book value. Yet, they serve the same purpose – namely as the location to build and maintain railway tracks, yards, and other facilities in order to move freight traffic.
17. These examples demonstrate why the Board should have serious concerns about using a Net-Return-On-Investment calculation based on book values as a basis for imposing a broad top-down rate constraint.

Restricting a Company's Ability to Earn a Fair Return against the Replacement Value of its Assets Will Lead to Under-Investment

18. The true value of a company's assets to the business and to the investor, is the value that these assets would fetch on the open market today relative to their income generating potential. If the liquidation value of an asset exceeds its income generating potential, then a prudent business manager would sell the asset.
19. Therefore, if a regulator calculates an industry's return on investment using book values, and then constrains its power to generate income according to those calculations, the regulator is constructing a paradigm that will likely lead to chronic under-investment. Companies may begin to sell assets to other, non-regulated entities who are better able to

use them to generate income under a non-regulated regime. Or at the very least, new capital will be deployed in other, non-regulated industries, where it is likely to generate returns based on its true value.

20. This is not mere economic theory. In Canada, the railroad industry has recent experience with this phenomenon. The Canadian railroad industry is subject to a regulatory rate constraint regime called the Maximum Revenue Entitlement (MRE). The MRE sets an average price ceiling for all Canadian “export” grain (grain flowing to major ports of export).
21. The regulator determines the price ceiling annually according to a price inflation index. The index tracks changes in input prices, rather than input costs. For example, the index will reflect an increase in the average price per-gallon of locomotive fuel; but, it will not reflect an increase in the total amount of fuel per ton mile used by the railway.
22. This approach does a particularly poor job of reflecting the cost of investing in certain long-lived assets, such as the covered hopper cars that are predominantly used to transport grain products. Therefore an unintended consequence of the MRE regulations was to prevent railways from being able to recover adequately the costs of investing in hopper cars. If the railways had invested in new cars, then the shipper would have received the benefits of greater car capacity, reliability and efficiency, but would have continued to pay low rates that were calculated based predominantly on the depreciated book values of an outdated hopper car fleet.
23. As a result, Canada’s hopper car fleet continued to age and suffer from under-investment. Finally in May of 2018, recognizing that Canada’s railway fleet of grain hopper cars was

rapidly becoming old, unreliable, and inefficient, the government passed legislation that allowed the Canadian regulator to recognize specifically the cost of new hopper cars as an adjustment to the index.

24. Within a few weeks, both CP and CN announced hopper car purchase programs totaling more than \$600 million CAD.

25. It is worth noting that prior to the MRE regulations which took effect in the year 2000, the Canadian grain transportation system was subject to an even more restrictive regulatory environment. At that time, it was so unreasonable to expect the railways to invest in hopper cars that most cars were purchased, and owned, by the government. Many of these cars, originally purchased in the 1970's, 1980's and 1990's are still in service today, and still owned by the Canadian government.

26. This experience clearly demonstrates how broad based regulatory constraints on revenue leads to under-investment. It also shows how broad regulatory programs often lead to ever increasing levels of regulatory intervention in order to deal with the unanticipated consequences.

Regulatory Regimes are Subject to Unpredictable and Arbitrary Rule Changes Which Materially Affect the Results

27. Regulatory programs are often subject to review and revision. These may be needed in order to deal with changing circumstances, unforeseen consequences of the original regulation, or simply to reflect a developing understanding of the program itself.

28. This has been our experience in Canada where major regulatory programs are subject to frequent revision and amendment, both at the legislative level and at the executive level. The MRE program has been revised over the years to add or remove commodities and traffic types from the list of regulated movements. Changes have been made to add, remove, or clarify the various deductions and additions to revenues that must be reported. Significant adjustments have been made to the cost base that determines the price index. Changes have been made in how the regulatory cost of capital is determined. Nearly every year it seems, there is some material change to how the regulations are implemented.
29. This constantly shifting regulatory landscape is challenging enough to deal with under a regulatory program that sets a cumulative threshold for the amount of revenue that may be earned. For example, under the MRE program, not only do the railroads not know how much revenue they were allowed to earn until after the year is over, but sometimes they do not even know the exact rules they are operating under until late in the year.
30. However, it would appear that this problem will be significantly compounded in a regulatory regime which seeks to determine whether a railroad is above or below some threshold depending on the results of that year's calculations. Each and every time that the Board issues a decision on some novel problem that arises, it will literally be picking winners and losers. While this is not an enviable position for those with the responsibility of applying the regulation, it will be untenable for those who are the subjects of it as regulatory uncertainty affects the ability both to attract and to invest capital in an economically efficient manner.

31. The Revenue Adequacy methodology itself has been subject to significant and somewhat arbitrary changes over the years. The STB cost of capital procedure underwent such a change with the 2006 rate determination, when the STB decided to move from a DCF model to a CAPM model. The cost of capital rate fell by nearly 20% in one year. Similarly, the STB needed to make a determination in 2018 as to whether the change in railroads' future income tax liability under the Tax Reform Act should be taken into the revenue adequacy determination. In this case, the STB decided that the figures should be restated to remove the impact. Either way, such decisions have a significant impact on the resulting calculations.

32. A methodology that is subject to significant, arbitrary, matters of interpretation and rule changes should not be used to apply broad classes of economic regulation.

The Rate Increase Constraint Regulation Would Create Rate Restrictions Which Are Much More Broad in Effect than Intended

33. The RRTF proposal for the Rate Increase Constraint (RIC) promises that the effect of the regulation will be limited. While rates may be capped, they will not be immediately reduced. Rates that are not subject to market dominance, and those that are under private contract, will not be affected.

34. However, when one walks through the practical implications of managing such a regulatory program from the perspectives of the railroad and the shipper, it quickly becomes apparent that the ultimate effect of the program will be far reaching.

35. For example, customers who are under contract will know whether their rates would be subject to the RIC if and when their contracts expire. Customers would be expected to use

this information during negotiations in order to insist on rate increases that fall short of the RCAF-U requirement. If not, then the customer could threaten to go off-contract in order to make use of the RIC protections. Therefore, contract rates will be subject to the RIC in practice, even if not in theory.

36. From a railroad's perspective, once the railroad is subject to the RIC, then every action it takes to improve its earnings will contribute to next year's surplus. This, in turn, will lead to a tightening of the RIC's grip.

37. Therefore, any time that the railroad takes a rate increase, it will have to consider that this will lead to greater restrictions on rates in the future. More critically, any time that it considers offering a rate incentive in order to secure volume commitments or favorable service terms, it will have to consider whether that discount will be immortalized in a capped rate under the RIC. Contract negotiations will become very difficult. Service terms and volume commitments, which produce efficiency, will take a back seat to the more immediate concern of rates and the RIC.

38. One may imagine a future where it will be possible to determine whether a shipper is subject to market dominance, or not, simply by seeing whether the shipper is on tariff or contract. Any shipper who is subject to market dominance will likely be on tariff in order to take advantage of the protections of the RIC.

39. Perhaps even more insidious is the fact that, every time that the railroad considers making an investment or an operational change that would lead to greater efficiency, this should generate increased earnings which in turn will lead to increased rate restrictions in the

future. Every investment opportunity will be evaluated as to its ultimate impact under the RIC.

40. We see a similar effect in Canada under the MRE regulations. Under the MRE, the railroad must ensure that the average price that it charges for movements of export grain throughout the year comes out below the maximum price that was set by the regulator. Other than by moving greater volumes, there is no direct way for the railroad to increase the amount of revenue it may earn. But the railroad may recoup, over time, certain investments made in “grain handling facilities”.

41. Therefore, every potential investment that affects the grain network is evaluated as to its impact under the MRE regulations. Investments that can be recovered through pricing under the MRE program are likely to go forward. Investments that cannot be recovered through pricing under the MRE Program often do not go forward because there is no way for the railway to adequately recoup its costs.

42. The RIC proposal does not appear to offer any way for the railroad to recoup the costs of its investments. Arguably, anything that the railroad does to improve its earnings under the RIC constraint will eventually be returned to shippers by way of ever tightening rate constraints.

The Revenue Adequacy Test Has Provided Useful, Approximate Guidance to Regulators, but is not Robust Enough to use for Extensive Economic Regulatory Programs

43. The STB has a statutory mandate to assist railroads to attain adequate revenues.⁹ The

Board applies the revenue adequacy test annually as one component of its efforts to achieve this mandate.

44. Despite the concerns and shortcomings related to the revenue adequacy test, described

herein as well as in the submissions of the AAR to this proceeding, it remains the best tool that we have available for the purpose today. While the revenue adequacy test is almost certainly not accurate in an absolute and objective sense, it provides useful guidance as to the state of the railroad industry on a relative basis. For example, the test provides a general sense of whether railroad revenue levels relative to their input costs and cost of capital, are improving over time.

45. However, because the true cost of capital cannot be accurately determined, and because

the test does not consider the replacement value of a railroad's investment, the test is not accurate in an absolute sense. It does not accurately measure what it purports to measure. Furthermore, we do not know the magnitude of the error in the measured results.

46. As discussed in the AAR's and other comments, the Board does not have a statutory

mandate to regulate railroad revenues based on a revenue adequacy test. Also as discussed, such regulations would not be in the public interest. Setting these issues aside, any regulatory process which seeks to constrain industrial earnings to a prescribed and

⁹ 49 U.S.C. § 10704.

mathematically determined level must be predicated on a methodology that is known to be objectively accurate.

47. If not, then the regulations are likely to set an incorrect price level, with potentially disastrous results. And because the test that is used to apply the regulatory construct will be the same test that is used to determine its effectiveness, the scale of the error may not be known until it is far too late.
48. In conclusion, while the revenue adequacy test has provided some useful guidance to industry and to regulators, it is not robust enough to use it as the basis for applying sweeping economic regulations that attempt to manipulate the economic health of an industry that is crucial to the North American economy. Further, such economic regulations would be contrary to the STB's mandate and would have unintended consequences including distorting railroad's ability to attract and invest capital.