

SERVICE DATE – FEBRUARY 10, 2023

SURFACE TRANSPORTATION BOARD

DECISION

Docket No. EP 290 (Sub-No. 4)

RAILROAD COST RECOVERY PROCEDURES—PRODUCTIVITY ADJUSTMENT

Digest:¹ Each year the Board calculates the change, if any, in the rail industry's productivity, i.e., how efficiently railroads move freight. The Board calculates this figure by comparing year-to-year the average cost of producing a unit of railroad output. Here, the Board presents its calculation for the change in railroad productivity for the 2017-2021 averaging period.

Decided: February 6, 2023

The Board proposes to adopt 1.028 (2.8% per year) as the measure of average (geometric mean) change in railroad productivity for the 2017-2021 (five-year) period. This represents an increase of 0.3% from the average for the 2016-2020 period.

Since 1989, the cost recovery procedures have required that the quarterly rail cost adjustment factor (RCAF)² be adjusted for long-run changes in railroad productivity. R.R. Cost Recovery Procs.—Productivity Adjustment, 5 I.C.C.2d 434 (1989); see also 49 U.S.C. § 10708. This long-run measure of productivity is computed using a five-year moving geometric average. Productivity Adjustment—Implementation, 9 I.C.C.2d 1072 (1993).

The productivity change for the year 2021 is 1.029, based on changes in input and output levels from 2020, and represents an increase of 0.8% from the rate of productivity growth in 2020 relative to 2019 (1.021). Incorporating the 2021 value with the values for the 2017-2020 period produces a geometric average productivity growth of 1.028 for the five-year period 2017-2021, or 2.8% per year. As the new geometric mean was computed by replacing the 2016 figure of 1.015 with the larger figure of 1.029 for 2021, there was an increase of 0.3% in the geometric mean from last year's value. A detailed discussion of the Board's calculations is contained in the Appendix to this decision.

¹ The digest constitutes no part of the decision of the Board but has been prepared for the convenience of the reader. It may not be cited to or relied upon as precedent. See Pol'y Statement on Plain Language Digs. in Decisions, EP 696 (STB served Sept. 2, 2010).

² The RCAF is an index of railroad input prices that is published by the Board on a quarterly basis. See, e.g., Q. Rail Cost Adjustment Factor, EP 290 (Sub-No. 5) (2023-1) (STB served Dec. 20, 2022).

Comments may be filed addressing any perceived data and computational errors in the Board's calculation.³ Any party proposing a different estimate of productivity growth must, at the time it files comments, furnish the Board with one set of detailed workpapers and documentation underlying its calculations. The same information must be made available to other parties upon request.

It is ordered:

1. Comments are due by February 27, 2023.
2. Notice of this decision will be published in the Federal Register.
3. Unless a further order postponing the effective date is issued, this decision is effective on March 1, 2023.

By the Board, Board Members Fuchs, Hedlund, Oberman, Primus, and Schultz.

³ Comments may be filed via e-filing on the Board's website at www.stb.gov. Comments must be served on all parties appearing on the service list. Comments will be posted to the Board's website.

APPENDIX

The following is a description of the methodology currently used to calculate the RCAF productivity adjustment.⁴ The annual rate of productivity change is calculated by dividing an output index by an input index.

The input index uses constant dollar-adjusted expenses. The inputs in this index—freight expenses, fixed charges and contingent interest—are stated on a constant dollar basis using the most recent year available as the base, and updating the base by the Series Rail Cost Recovery (RCR) Index published by the Association of American Railroads. Freight expenses, fixed charges, and contingent interest were obtained from railroad Annual Report (Form R-1) data. The 2021 Total Expense Constant Dollars for each of the six years was calculated by dividing a given year's RCR index value into the RCR index values for 2021 (576.2) and then multiplying that ratio by the Total Expense Unadjusted. The calculation of the input indices and values used are shown in Table A.

The 2021 output index was developed from the costed Waybill Sample, a commonly used data source. The costed Waybill Sample excludes movements lacking sufficient information for the application of unit costs.

Using the costed Waybill Sample as a base, each movement is assigned to one of the 189 segments or categories used to develop the output index. Segmentation is based on three mileage blocks, seven car types, three weight brackets, and three shipment sizes. The output index is a composite of the year-to-year change in ton-miles for each of the 189 segments weighted by each segment's base-year share of total revenues.

The change in productivity is calculated by dividing the output index by the input index. The multi-year average for the period 2017-2021 is calculated by taking a geometric mean, which was found to be 1.028 (2.8% per year). The input index, the output index, the annual productivity change, and the calculation of the 2017-2021 average are shown in Table B.

⁴ The development and application of the productivity adjustment is explained in Railroad Cost Recovery Procedures, 5 I.C.C.2d at 434.

Table A Calculation of Input Indices 2016-2021				
Year	Total Expense Unadjusted (000s) (1)	RCR Indices 2016-2021 (2)	Total Expense Constant Dollars (3)	Input Index Column (3) 2017/2016 etc (4)
2016	45,711,184	484.3	54,385,266	
2017	48,307,054	515.9	53,953,333	0.992
2018	51,698,466	549.8	54,180,895	1.004
2019	49,822,096	551.2	52,081,806	0.961
2020	43,767,410	535.6	47,085,104	0.904
2021	47,021,399	576.2	47,021,399	0.999

Table B Comparison of Output, Input, and Productivity 2017-2021			
Year	Output Index (1)	Input Index (2)	Productivity Change ⁵ Col (1)/Col (2) (3)
2017	1.045	0.992	1.053
2018	1.032	1.004	1.028
2019	0.968	0.961	1.007
2020	0.923	0.904	1.021
2021	1.028	0.999	1.029
Productivity Change Five-Year Moving Avg			1.028

The five-year (2017-2021) productivity trend calculated using a geometric average is 1.028, or 2.8%.

⁵ The values shown in Column 3 are taken from the spreadsheet used to calculate productivity and, due to rounding, may not equal numbers calculated using the rounded numbers shown in Columns 1 and 2.