

SERVICE DATE – DECEMBER 20, 2022

SURFACE TRANSPORTATION BOARD

DECISION

Docket No. EP 290 (Sub-No. 5)

(2023-1)

QUARTERLY RAIL COST ADJUSTMENT FACTOR

Digest:¹ The rail cost adjustment factor (RCAF) is an index formulated to represent changes in railroad costs incurred by the nation's largest railroads over a specified period of time. The Surface Transportation Board (Board) is required by law to publish the RCAF on at least a quarterly basis. Each quarter, the Association of American Railroads computes three types of RCAF figures and submits those figures to the Board for approval. In addition, a new base level for the index is calculated here, as the statute requires be done every five years. The Board has reviewed the submission and adopts the RCAF figures for the first quarter of 2023.

Decided: December 20, 2022

In Railroad Cost Recovery Procedures, 1 I.C.C.2d 207 (1984), the Interstate Commerce Commission (ICC) outlined the procedures for calculating the all-inclusive index of railroad input prices and the method for computing the rail cost adjustment factor (RCAF). Under the procedures, the Association of American Railroads (AAR) is required to calculate the index on a quarterly basis and submit it to the agency on the fifth day of the last month of each calendar quarter. In Railroad Cost Recovery Procedures—Productivity Adjustment, 5 I.C.C.2d 434 (1989), aff'd sub nom. Edison Electric Institute v. ICC, 969 F.2d 1221 (D.C. Cir. 1992), the ICC adopted procedures that require the adjustment of the quarterly index for a measure of productivity.

The provisions of 49 U.S.C. § 10708 direct the Surface Transportation Board (Board) to continue to publish both an unadjusted RCAF and a productivity-adjusted RCAF. In Productivity Adjustment—Implementation, 1 S.T.B. 739 (1996), the Board decided to publish a second productivity-adjusted RCAF called the RCAF-5. Consequently, three indices are now filed with the Board: the RCAF (Unadjusted); the RCAF (Adjusted); and the RCAF-5. The RCAF (Unadjusted) is an index reflecting cost changes experienced by the railroad industry, without reference to changes in rail productivity. The RCAF (Adjusted) is an index that reflects

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).

national average productivity changes as originally developed and applied by the ICC, the calculation of which is currently based on a five-year moving average. The RCAF-5 is an index that also reflects national average productivity changes; however, those productivity changes are calculated as if a five-year moving average had been applied consistently from the productivity adjustment's inception in 1989.

As required by statute, the denominator of the RCAF is to be rebased every five years. See 49 U.S.C. § 10708(a). The Board has verified AAR's proposed rebasing calculations, and they comply with the statute. The rebasing calculations are shown in Table C of the Appendix.

The index of railroad input prices, RCAF (Unadjusted), RCAF (Adjusted), and RCAF-5 for the first quarter of 2023 are shown in Table A of the Appendix to this decision. Table B shows the third quarter 2022 index and the RCAF calculated on both an actual and a forecasted basis. The difference between the actual calculation and the forecasted calculation is the forecast error adjustment.

AAR's calculations have been examined by the Board's Office of Economics, and the Board finds that AAR has complied with agency procedures. The Board finds that the first quarter 2023 RCAF (Unadjusted) is 1.010, an increase of 1.0% from the fourth quarter 2022 RCAF (Unadjusted) of 1.000. The RCAF (Adjusted) is calculated, in part, using the RCAF (Unadjusted) and a five-year moving geometric average of productivity change for U.S. Class I railroads from 2016-2020, which is 1.025 (2.5% per year). The first quarter 2023 RCAF (Adjusted) is 0.408, an increase of 0.2% from the fourth quarter 2022 RCAF (Adjusted) of 0.407.²

In accordance with Productivity Adjustment—Implementation, 1 S.T.B. at 748-49, the RCAF-5 for this quarter will use a productivity trend for the years 2016-2020, which is 1.025 (2.5% per year). The RCAF-5 for the first quarter of 2023 is 0.390, an increase of 0.3% from the fourth quarter 2022 RCAF-5 of 0.389.³

This action is categorically excluded from environmental review under 49 C.F.R. § 1105.6(c).

Authority: 49 U.S.C. § 10708.

² The first quarter 2023 RCAF Adjusted (0.408) is calculated by dividing the first quarter 2023 RCAF Unadjusted (1.010) by the first quarter productivity adjustment factor (PAF) of 2.4740. The first quarter 2023 PAF is calculated by multiplying the fourth quarter 2022 productivity adjustment of 2.4588 by the fourth root (1.0062) of the 2016-2020 annual average productivity growth rate of 2.5%.

³ The first quarter 2023 RCAF-5 (0.390) is calculated by dividing the first quarter 2023 RCAF Unadjusted (1.010) by the first quarter productivity adjustment factor-5 (PAF-5) of 2.5898. The first quarter 2023 PAF-5 is calculated by multiplying the fourth quarter 2022 PAF-5 of 2.5738 by the fourth root (1.0062) of the 2016-2020 annual average productivity growth rate of 2.5%.

It is ordered:

1. The Board finds that the first quarter 2023 RCAF (Unadjusted) is 1.010, RCAF (Adjusted) is 0.408, and RCAF-5 is 0.390.
2. Notice of this decision will be published in the Federal Register.
3. The effective date of this decision is January 1, 2023.

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

APPENDIX**TABLE A**

EP 290 (Sub-No. 5) (2023-1)
All Inclusive Index of Railroad Input Costs
 (Endnotes Following Table C)

LINE NO.	INDEX COMPONENT	2021 WEIGHTS	FOURTH QUARTER 2022 FORECAST	FIRST QUARTER 2023 FORECAST
1	LABOR	31.4%	479.6	546.0
2	FUEL	14.2%	475.2	467.1
3	MATERIALS AND SUPPLIES	4.5%	335.3	328.9
4	EQUIPMENT RENTS	4.9%	253.8	250.1
5	DEPRECIATION	17.5%	233.3	234.8
6	INTEREST	2.4%	50.1	50.1
7	OTHER ITEMS ¹	25.1%	290.6	280.0
8	WEIGHTED AVERAGE	100.0%	360.6	377.4
9	LINKED INDEX ²		331.3	346.7
10	PRELIMINARY RAIL COST ADJUSTMENT FACTOR ³		96.8	101.3
11	FORECAST ERROR ADJUSTMENT ⁴		0.032	-0.003
12	RCAF (UNADJUSTED) (LINE 10 +LINE 11)		1.000	1.010
13	RCAF (ADJUSTED)		0.407	0.408
14	RCAF-5		0.389	0.390

TABLE B

EP 290 (Sub-No. 5) (2023-1)
Comparison of Third Quarter 2022 Index
Calculated on Both a Forecasted and an Actual Basis

LINE NO.	INDEX COMPONENT	2020 WEIGHTS	THIRD QUARTER 2022 FORECAST	THIRD QUARTER 2022 ACTUAL
1	LABOR	32.4%	472.4	472.4
2	FUEL	9.7%	459.6	484.4
3	MATERIALS AND SUPPLIES	4.5%	305.0	305.0
4	EQUIPMENT RENTS	5.2%	256.0	251.4
5	DEPRECIATION	18.5%	233.2	233.7
6	INTEREST	2.7%	51.1	51.1
7	OTHER ITEMS	27.0%	302.4	289.7
8	WEIGHTED AVERAGE	100.0%	350.8	349.7
9	LINKED INDEX		328.7	327.7
10	RAIL COST ADJUSTMENT FACTOR		96.0	95.7

TABLE C

**Rebasing the Denominator of the RCAF
to the Fourth Quarter 2022 Level**

1.	Fourth Quarter 2022 Linked Index	331.3
2.	Second Quarter 2022 Linked Index Calculated Using Actual Data	324.8
3.	Second Quarter 2022 Linked Index Calculated Using Forecasted Data	313.8
4.	Difference	11.0
5.	Rounding Adjustment to Force 1.000	0.0
6.	Fourth Quarter 2022 Linked Index Adjusted for Second Quarter 2022 Forecast Error (Line 1 plus Line 4 plus Line 5)	342.3

Endnotes:

¹ “Other Items” is a combination of Purchased Services, Casualties and Insurance, General and Administrative, Other Taxes, Loss and Damage, and Special Charges, price changes for all of which are measured by the Producer Price Index for Industrial Commodities Less Fuel and Related Products and Power.

² Linking is necessitated by a change to the 2021 weights beginning in the fourth quarter of 2022. The following formula was used for the current quarter’s index:

$$\frac{\text{1st Qr. 2023 Index (2021 Weights)}}{\text{4th Qr. 2022 Index (2021 Weights)}} \text{ Times 4th Quarter Linked Index (1980 = 100 Linked)} = \text{Equals Linked Index (Current Quarter)}$$

Or

$$\frac{377.4}{360.6} \times 331.3 = 346.7$$

³ The first quarter 2023 RCAF was rebased using the October 1, 2022 level of 342.3 in accordance with the requirements of the Staggers Rail Act of 1980 (10/1/2022 = 100). For the purpose of calculating the fourth quarter 2022 linked index (2022Q4 = 100), where the fourth quarter 2022 linked index equals 100 after the forecast error adjustment, the fourth quarter 2022 RCAF is also recalculated using the October 1, 2022 level of 342.3.

⁴ The first quarter 2023 forecast error adjustment was calculated as follows: (a) third quarter 2022 RCAF using forecasted data equals 96.0; (b) third quarter 2022 RCAF using actual data equals 95.7; and (c) the difference equals the forecast error (b-a) of -0.3. Because the actual third quarter value is less than the forecast value, the difference is subtracted from the Preliminary RCAF.