

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 2005-2009 averaging period.

Decided: February 7, 2011

We propose to adopt 1.014 (1.4% per year) as the measure of average (geometric mean) change in railroad productivity for the 2005-2009 (5-year) period. This represents a 0.2% increase over the average for the 2004-2008 period.

Since 1989, the cost recovery procedures have required that the quarterly rail cost adjustment factor (RCAF) be adjusted for long-run changes in railroad productivity.² The ICC Termination Act of 1995 continues this requirement. See 49 U.S.C. § 10708. This long-run measure of productivity is computed using a 5-year moving geometric average. Productivity Adjustment—Implementation, 9 I.C.C. 2d 1072 (1993).

Productivity change for the year 2009 is 0.984 based on changes in input and output levels from 2008 and represents a decrease of 3.7% from the rate of productivity growth in 2008 relative to 2007 (1.021). Incorporating the 2009 value with the values for the 2005-2008 period produces a geometric average productivity growth of 1.014 for the 5-year period 2005-2009, or 1.4% per year. As the new geometric mean was computed by replacing the 2004 figure of 0.977 with the higher figure of 0.984 for 2009, there was a 0.2% increase in the geometric mean from

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. Policy Statement on Plain Language Digests 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., Quarterly Rail Cost Adjustment Factor, EP 290 (Sub-No. 5) (STB served Dec. 20, 2010).

last year's value. A detailed discussion of our calculations is contained in the Appendix to this decision.

Comments may be filed addressing any perceived data and computational errors in our 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.

This decision will not significantly affect the quality of the human environment or the conservation of energy resources.

It is ordered:

1. Comments are due by **February 23, 2011**.
2. An original and 10 copies must be filed with:

United States Surface Transportation Board
395 E Street, S.W.
Washington, DC 20423-0001

3. Comments must be served on all parties appearing on the current service list.
4. Unless further order is issued postponing the effective date, this order becomes effective on March 1, 2011.

By the Board, Chairman Elliott, Vice Chairman Nottingham, and Commissioner Mulvey.

³ After the Board determined by decision served March 26, 2010, that there was an error in the productivity adjustment figure for the 2003-2007 period (2007 productivity adjustment), it served a decision on June 11, 2010, requesting comments on whether it should restate the 2007 productivity adjustment, and if so, whether the Board should restate the RCAF (Adjusted) and RCAF-5 values that would be affected by a restatement of the 2007 productivity adjustment. The Board is considering the comments received, and no further comments are requested at this time. A determination on that issue will be addressed in a separate decision. Because the Board used the modified 2007 productivity adjustment in the relevant figures calculated since and within the March 26, 2010 decision, the Board's determination on the 2007 productivity restatement issue would not affect the figure proposed here.

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 2009 constant dollar adjustment factor for each of the 6 years was calculated by dividing the 2009 RCR index value (434.5) by the RCR index values for 2004 and each subsequent year through 2008, inclusive. The calculation of the input indices and values used are shown in Table A.

The 2009 output index was developed from the costed waybill sample, a commonly used data source. The costed waybill sample excludes movements originating in Canada and Mexico and 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 2005-2009 is calculated by taking a geometric mean, which was found to be 1.014 (1.4% per year). The input index, the output index, the annual productivity change, and the calculation of the 2005-2009 average are shown in Table B.

⁴ The development and application of the productivity adjustment is explained in the decision in this proceeding found at 5 I.C.C. 2d 434 (1989).

Table A
Calculation of Input Indices
2004-2009

Year	Total Expense Unadjusted (000s) (1)	RCR Indices 2004-2009 (2)	Total Expense Constant Dollars (3)	Input Index Column (3) 2005/2004 etc. (4)
2004	36,097,189	334.1	46,944,713	xxxxx
2005	38,927,852	376.8	44,888,938	0.956
2006	41,989,707	397.0	45,955,989	1.024
2007	43,778,699	415.5	45,780,613	0.996
2008	48,294,159	472.7	44,391,394	0.970
2009	38,221,745	434.5	38,221,745	0.861

Table B
Comparison of Output, Input, and Productivity
2005-2009

Year	Output Index (1)	Input Index (2)	Productivity Change ⁵ Col (1)/Col (2) (3)
2005	1.021	0.956	1.068
2006	1.018	1.024	0.994
2007	1.000	0.996	1.004
2008	0.990	0.970	1.021
2009	0.847	0.861	0.984

The 5-year (2005-2009) productivity trend calculated using a geometric average is 1.014, or 1.4% per year.

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.