



June 5, 2025

Rand Ghayad

Senior Vice President - Policy & Economics

The Honorable Cynthia T. Brown
Chief, Section of Administration
Office of Proceedings
Surface Transportation Board
395 E Street, SW
Washington, DC 20423-0001

This submission is the AAR forecast of the third quarter 2025 All-Inclusive Index and Rail Cost Adjustment Factor, filed in Ex Parte No. 290 (Sub-No. 5) (2025-3) *Quarterly Rail Cost Adjustment Factor*. The versions of RCAF-related indices covered in this filing are: the All-Inclusive Index (initiated in the second quarter of 1985), the Unadjusted RCAF (produced since October 1982), the Adjusted RCAF (first published in the second quarter of 1989), and the RCAF-5 (created by the STB in its Ex Parte No. 290 (Sub-No. 7) decision served October 3, 1996). The table below summarizes the third quarter 2025 results and compares them to the previous quarter. Both quarters are shown on a 4Q/2022=100 base.

	<u>2025Q2</u>	<u>2025Q3</u>	<u>% Change</u>
All-Inclusive Index	96.6	96.2	-0.4
Preliminary RCAF	0.966	0.962	-0.4
Forecast Error Adjustment	-0.021	-0.002	
RCAF (Unadjusted)	0.945	0.960	1.6
Productivity Adjustment Factor	2.5796	2.5886	
RCAF (Adjusted)	0.366	0.371	1.4
PAF-5	2.7266	2.7340	
RCAF-5	0.347	0.351	1.2

June 5, 2025

In its October 3, 1996 decision in Ex Parte No. 290 (Sub-No. 7), *Productivity Adjustment - Implementation*, the STB noted its intent to publish, in addition to the RCAF (Unadjusted) and RCAF (Adjusted), an RCAF-5 (i.e., a calculation of the productivity adjusted RCAF values as if the agency had always used a 5-year rolling average to calculate the productivity adjustment). In response to a request by STB staff, the AAR is including a calculation of the RCAF-5 in its quarterly RCAF filing. The AAR and its members, however, do not believe the publication of a third RCAF index is required or permitted by the applicable statute (49 U.S.C. § 10708) and do not endorse its publication.

Our quarterly non-proprietary work papers underlying this submission are e-filed herewith, in accordance with the ICC's order in Ex Parte No. 290 (Sub-No. 2), *Railroad Cost Recovery Procedures*, served February 8, 1990. We have notified Pedro Ramirez, in the STB office handling this proceeding, of our plan to e-file the submission and non-proprietary work papers. A second copy of the submission and non-proprietary work papers, plus selected highly confidential work papers, will be provided to Mr. Ramirez's Data Collection and Auditing Team. All work papers are available for STB inspection. Questions should be directed to me or Kiara Carter (202-639-2327) of this office.

Sincerely,



Rand Ghayad

Attachments

**Third Quarter 2025
All - Inclusive Index**

Ex Parte No. 290 (Sub-No. 5) (2025 -3)

**Quarterly Rail Cost Adjustment Factor
Surface Transportation Board**

**Policy and Economics Department
Association of American Railroads**

June 5, 2025

Table of Contents

Subject	Page
Introduction	1
Index Weights	2
All - Inclusive Index - Third Quarter 2025	3
Forecast vs. Actual All-Inclusive Index - First Quarter 2025	4
Productivity	5
Rail Cost Adjustment Factor - Third Quarter 2025	6

Appendices

- A Labor
- B Fuel
- C Materials & Supplies
- D Equipment Rents
- E Depreciation
- F Interest
- G Other Expenses
- H Railroad and Union Abbreviations

Introduction

On January 2, 1985, the Interstate Commerce Commission (ICC) adopted the All-Inclusive Index as the basis for the Rail Cost Adjustment Factor (RCAF). The quarterly projection of railroad costs, as documented herein, employs the All-Inclusive Index as required by the regulations. Also presented in this submission is the RCAF, both Adjusted and Unadjusted, as required by the ICC in its decision in Ex Parte No. 290 (Sub-No. 4), Rail Cost Recovery Procedures - Productivity Adjustment, served March 24, 1989. In addition, the AAR has included the RCAF-5, which was instituted by a Surface Transportation Board decision served October 3, 1996 in Ex Parte No. 290 (Sub-No. 7), Productivity Adjustment - Implementation. The AAR and its members do not believe the additional productivity - adjusted index is required or permitted by the applicable statute, and do not endorse its publication.

Index Weights

In the Ex Parte No. 290 (Sub-No. 2) final rules, issued in April 1981, the Interstate Commerce Commission mandated that the weights of each major cost component be updated annually. These "external" weights are calculated using expense data from Schedules 410 and 210 of the R-1 annual report filed with the Surface Transportation Board by the Class I railroads. The weights are typically updated with the fourth quarter projection.

The 2023 (current) and 2022 (previous) weights are shown below. Weights calculated from 2022 data were used for the fourth quarter of 2023 through the third quarter of 2024. Beginning with the fourth quarter of 2024, weights calculated using 2023 data are used. The component with the biggest change in weight was Fuel, which decreased by 4.0 percentage points. Other increased by 2.3 percentage points, and Labor increased by 0.8 percentage points. Depreciation increased by 0.5 percentage points. Materials & Supplies increased by 0.3 percentage points. Interest increased by 0.3 percentage points. Finally, the weight for Equipment Rents decreased by 0.2 percentage points.

Weights for RCAF's All-Inclusive Index		
	2023	2022
Labor	30.2%	29.4%
Fuel	16.4%	20.4%
Materials & Supplies	5.0%	4.7%
Equipment Rents	4.2%	4.4%
Depreciation	15.7%	15.2%
Interest	2.4%	2.1%
Other	26.1%	23.8%
Total	100.0%	100.0%

Reweightings of the index is accomplished by calculating both the current quarter (normally the fourth) and prior (normally the third) quarter indexes with the new weights. The relative change between the two quarters is then multiplied by the prior quarter (usually the third) linked index. Use of this method ensures that the weight change, by itself, does not cause a change in the level of the All-Inclusive Index.

Internal weights in the labor and equipment rents components are updated at the same time as the external weights. When these weights are changed, they are also linked using the procedure described above in order to eliminate the effect of the change in weighting.

All - Inclusive Index

Third Quarter 2025

The components and values of the current and previous All-Inclusive Indexes are shown below. Details of the construction of each component of the index are contained in the Appendices.

	Weights 2023	Forecast		Percent Change
		Previous 2025Q2	Current 2025Q3	
Labor	30.2%	532.0	536.2	0.8
Fuel	16.4%	304.8	276.0	-9.4
Materials & Supplies	5.0%	373.3	376.3	0.8
Equipment Rents	4.2%	295.8	298.5	0.9
Depreciation	15.7%	238.6	239.6	0.4
Interest	2.4%	55.0	55.0	0.0
Other	26.1%	298.1	304.1	2.0
Weighted Average				
a.1980 = 100		358.3	356.9	-0.4
b.1980 = 100 (linked)		330.5	329.2 ¹	-0.4
c.4Q22 = 100		96.6	96.2 ²	-0.4

1 Index80 = (Current Index / Previous Index) * the Previous Quarter Linked Index
 = (356.9 / 358.3) x 330.5
 = 329.2

2 To calculate the 4Q22 = 100 index:
 Index4Q22 = (Current Linked Index / 4Q22 Basing Factor) * 100
 = (329.2 / 342.3) x 100
 = 96.2

Indexes based on other periods:
 4Q17 based index = (329.2 / 264.5) x 100 = 124.5
 4Q12 based index = (329.2 / 297.6) x 100 = 110.6
 4Q07 based index = (329.2 / 245.9) x 100 = 133.9
 4Q02 based index = (329.2 / 192.1) x 100 = 171.4
 4Q97 based index = (329.2 / 173.2) x 100 = 190.1
 4Q92 based index = (329.2 / 156.9) x 100 = 209.8

Forecast vs. Actual All - Inclusive Index First Quarter 2025

Because of data availability, the forecast error adjustment has a two-quarter lag from each filing. As shown below, the first quarter actual index of 95.5 is 0.2 below the forecast value of 95.7. Therefore, the forecast error adjustment for third quarter 2025 is -0.2 index points (reflected as -0.002 adjustment).

	2023 Weights	First Quarter 2025		Amount Difference
		Forecast	Actual	
Labor	30.2%	532.3	532.3	
Fuel	16.4%	290.3	299.1	
Materials & Supplies	5.0%	354.9	354.9	
Equipment Rents ¹	4.2%	294.6	290.1	
Depreciation	15.7%	238.7	239.0	
Interest	2.4%	55.0	55.0	
Other	26.1%	298.2	295.3	
Weighted Average				
a.1980 = 100		355.1	355.7	
b.1980 = 100 (linked)		327.5	326.8 ²	
c.4Q22 = 100 ³		95.7	95.5	-0.2
Forecast Error		→ -0.2 index points		

	2023 Weight	First Quarter 2025	
		Forecast	Actual
1 Car Hire	67.1%	262.0	262.1
Lease Rents	32.9%	298.2	295.3
Weighted Average		273.9	273.0
Weighted Average (Linked)		294.6	290.1

² Linked Actual Index = (Actual Index / Previous Actual Index) x Previous Linked Actual Index
= (355.7 / 354.7) x 325.9
= 326.8

³ The 4Q22 based indexes are 1980 based indexes divided by the 4Q22 basing factor (342.3/100).
Other basing factors are: 4Q17 = 264.5; 4Q12 = 297.6; 4Q07 = 245.9; 4Q02 = 192.1; 4Q97 = 173.2; 4Q92 = 156.9

Productivity

On February 28, 2025, the Surface Transportation Board served a decision which proposed to adopt 1.4 percent as the geometric average productivity change for the five most recent years available. Their five year rolling geometric average calculation added the year 2023 and removed the year 2018. The components of this average annual value are shown on the following table in ratio format - therefore, 1.014 is the same as an increase of 1.4 percent. Productivity changes are calculated by multiplying each of the five productivity changes together and taking the result to the one-fifth power. The productivity adjustment factors (PAF) for each quarter are calculated by increasing the previous quarter's PAF by quarterly versions of the annual rate, which are the fourth root of the geometric average annual growth rate. The difference between the PAF and the PAF-5 is the timing of the five-year productivity trend.

Comparison of Output, Input, & Productivity			
Year	Output Index (1)	Input Index (2)	Productivity Changes (3)
2019	0.968	0.961	1.007
2020	0.923	0.904	1.021
2021	1.028	0.999	1.029
2022	0.992	1.020	0.972
2023	0.995	0.956	1.040
Average			1.014
Previous Average (2018-2022)			1.011

Calculation of PAF and PAF - 5			
For 2019 -2023, use fourth root of avg. productivity change = 1.0035			
For 2018 - 2022, use fourth root of avg. productivity change = 1.0027			
Quarter	Year	PAF	PAF-5
Q1	2025	2.5706	2.7193
Q2	2025	2.5796	2.7266
Q3	2025	2.5886	2.7340
Q4	2025	2.5977	2.7414
Q1	2026	2.6068	2.7510

2018 - 2022

2019 - 2023

Rail Cost Adjustment Factor Third Quarter 2025

Four RCAF values are presented in this filing. Two are not modified for productivity (Preliminary RCAF and RCAF Unadjusted), and two incorporate a productivity calculation (RCAF Adjusted and RCAF-5). The All-Inclusive Index and all four RCAF values, plus the percent change for each, are shown below. Note that beginning with the 2023Q1 index, the All-Inclusive Index was rebased to a 2022Q4=100 basis as required in the applicable statute.

	Previous 2025Q2	Current 2025Q3	% Change
All-Inclusive Index ¹	96.6	96.2	-0.4
Preliminary RCAF ²	0.966	0.962	-0.4
Forecast Error Adjustment ³	-0.021	-0.002	
RCAF (Unadjusted) ⁴	0.945	0.960	1.6
Productivity Adjustment Factor ⁵	2.5796	2.5886	
RCAF (Adjusted) ⁶	0.366	0.371	1.4
PAF-5 ⁷	2.7266	2.7340	
RCAF-5 ⁸	0.347	0.351	1.2

1 See All-Inclusive Index on page 3.

2 All-Inclusive Index divided by the All-Inclusive Index in the base period (100.0).

3 The current figure is from Forecast vs. Actual All-Inclusive Index in this filing (page 4). The previous quarter figure is shown in a similar section of the previous quarter's filing.

4 Preliminary RCAF plus the forecast error adjustment.

5 See Productivity on page 5.

6 RCAF (Unadjusted) divided by the Productivity Adjustment Factor (PAF).

7 See Productivity on page 5.

8 RCAF (Unadjusted) divided by the PAF-5.

Appendixes

Labor

Third Quarter 2025

The third quarter 2025 Labor Index is 0.8 percent higher than the previous quarter.

Wage Rate Index:

The Wage Rate Index portion of the Labor Index increased by 0.6%.

Wage Increase:

Wages increased 0.9 percent compared to the prior quarter. The increase is the result of ratified national agreements between railroads and unions that participate in nationwide collective bargaining. The national agreements call for a 4% general wage increase effective July 1, 2025. For railroads and unions which have not reached national or independent labor agreements (according to the NRLC), no wage increase has been applied.

Lump Sum:

The third quarter lump sum increased by 0.3%. A fully amortized payment was removed and replaced with a new lump sum with a similar amount.

Back Pay:

The back pay remains unchanged from the prior quarter.

Other:

In wages, "Other" contains the amortization of incentive compensation payments (similar to lump sums) that one railroad makes each year to its dispatchers, yardmasters, and locomotive engineers. The third quarter rate decreased by 50.5 percent from the prior quarter.

Labor

Third Quarter 2025

Supplements Index

The Supplements Index increased 1.1 percent this quarter. Health and Welfare premiums, payroll tax rates, maximum taxable earnings, and the rate for unemployment insurance are all typically adjusted once per year, effective on January 1.

Health & Welfare:

There was no change to the Health & Welfare rate in the third quarter 2025.

Railroad Retirement:

The Railroad Retirement rate increased 0.4 percent.

Unemployment Insurance:

The Unemployment Insurance stayed unchanged in the third quarter 2025.

Other:

The third quarter rate is 92.2 percent higher than last quarter. The "Other" category is a reflection of all other fringe benefits, and currently contains known employer contributions to employee 401(k) accounts and employer contributions to employee stock plans that are recorded as fringe benefits.

Labor Index Calculation

As shown in Table A-1 on the next page, the 0.6 percent increase in the Wage Rate Index and the 1.1 percent increase in the Supplements Index combined to cause the Labor Index to be 0.8 percent higher than the previous quarter. The linked third quarter 2025 Labor index is 536.2, which is 1.9 percent lower than one year ago.

Labor Third Quarter 2025

Table A-1 Labor Index

	2025Q2	2025Q3	Change	
			Percent	Amount
Base Wage ¹	\$55.242	\$55.714	0.9%	\$0.472
Adjustments:				
Lump Sum	\$0.691	\$0.693	0.3%	\$0.002
Back Pay	\$0.000	\$0.000		\$0.000
Other	\$0.275	\$0.136	-50.5%	-\$0.139
Total Wages	\$56.208	\$56.543	0.6%	\$0.335
Health & Welfare Benefits	\$8.178	\$8.178	0.0%	\$0.000
RR Retirement & Medicare	\$11.690	\$11.736	0.4%	\$0.046
Unemployment Insurance	\$0.077	\$0.077	0.0%	\$0.000
Other	\$0.193	\$0.371	92.2%	\$0.178
Total Supplements	\$20.138	\$20.362	1.1%	\$0.224
Total Labor (as info only)	\$76.35	\$76.91		
Wage Rate Index ²	481.0	483.9	0.6%	
Supplements Index ³	744.2	752.5	1.1%	
Total labor Index, 2023 Weights ⁴	556.3	560.7	0.8%	
Labor Index (Linked) ⁵	532.0	536.2	0.8%	

1. Base wage: Straight Time & Pay For Time Not Worked

2. 1980 wage rate : \$11.685

3. 1980 supplements rate: \$2.706

4. 2023 weights: Wage, Supplements 71.4%, 28.6%

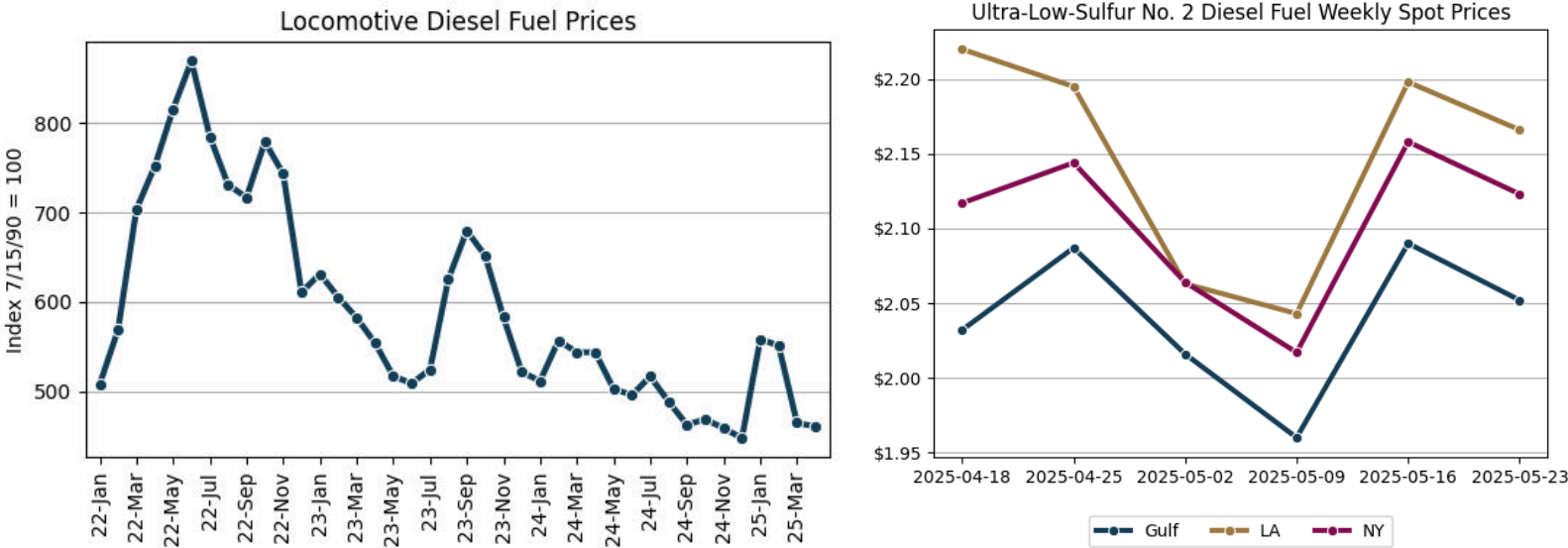
5. 2025Q3 linked index = 2025Q2 linked x (2025Q3 / 2025Q2)
= 532.0 x (560.7 / 556.3)

Fuel

Third Quarter 2025

The forecast for fuel is based on: (1) a survey of railroad fuel purchasing officers concerning current price and volume levels, (2) expectations of railroad purchasing officers based on their own forecast models and discussions with their major suppliers, and (3) a consensus of petroleum industry experts and general business publications. Fuel purchases are assumed to remain in inventory for 30 days before the fuel is consumed (and therefore expensed). Therefore, prices paid in the first month of each quarter are for fuel expensed in the second (or middle) month of the quarter, and the middle month expensed is used to represent each quarter.

The average locomotive diesel fuel price hit a peak point in June 2022, but has trended down since then, and reached a trough in December 2024. While average prices for locomotive diesel fuel are available only through April 2025, data through four weeks of May are available for related fuel types. According to the Energy Information Administration, the daily spot price as of May 27th for Ultra-Low-Sulfur No. 2 Diesel Fuel* is an average of 2.7 percent lower than the average for April. The chart below (on left) shows the AAR's Monthly Locomotive Diesel Fuel Price Index through April 2025. The second chart (on right) shows recent spot prices for Ultra-Low-Sulfur No. 2 Diesel Fuel as reported by the Energy Information Administration.



Using information from the EIA, prices toward the end of May are lower than prices that actually occurred in April. Railroads that responded to the AAR's forecast survey expect prices to decrease by July (Q3) compared to prices that actually occurred for April (Q2). The third quarter 2025 forecast is 9.4 percent lower than the previous quarter forecast, and 2.8 percent lower than the prior quarter actual.

Forecast Fuel Index (1980=100)	276.0
Change from previous quarter forecast	-9.4 %
Change from previous quarter actual	-2.8 %

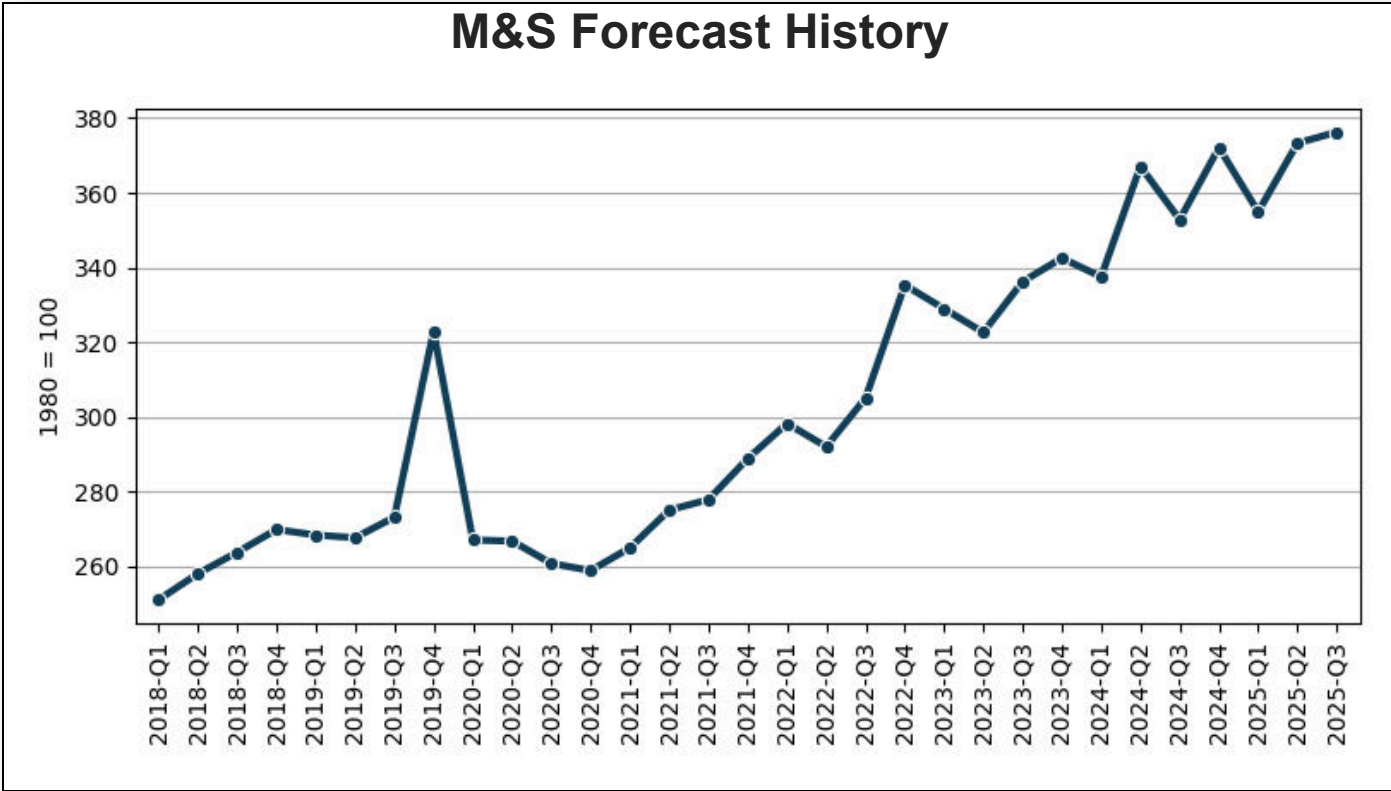
* Heating oil, Ultra-Low-Sulfur No. 2 Diesel Fuel, and locomotive diesel fuel are part of a group of closely related products, commonly labeled as distillates, that differ mostly by their sulfur content. Because of these similarities, these fuels are produced together and have similar pricing trends.

Materials & Supplies

Third Quarter 2025

The third quarter 2025 Materials & Supplies Index increased 0.8 percent from the previous quarter. Prices increased for all products (Miscellaneous, Metal, and Forest).

2025Q3	Materials & Supplies Index =	376.3
2025Q2	Materials & Supplies Index =	373.3
Basis Points Difference		3.0 basis points
Percentage Difference		0.8%



Equipment Rents

Third Quarter 2025

The Equipment Rents Index consists of two components – car hire and lease rentals. The methodologies used to create these two components, and the final Equipment Rents Index, are explained below.

Car Hire

The car hire component is indexed using data from the Car Hire Accounting Rate Master (CHARM) file. Car hire rates for the forecast quarter are estimated based on data for active freight cars using the most recent data available. For the first quarter, December 1 of the previous year is typically used. For the second, third, and fourth quarters, March 1, June 1, and September 1 are usually used, respectively. Using data retrieved from the latest CHARM file, an average rate per car is developed. Next, those average rates are grouped into four car type categories to create an overall summary of car hire rates. The summary rates are then compared from quarter to quarter, and weighted, to determine the Car Hire Index.

Lease Rentals

The lease rentals portion of the Equipment Rents Index uses the Producer Price Index for Industrial Commodities less Fuel and Related Products and Power (PPI-LF). The Interstate Commerce Commission adopted this surrogate in its decision served March 13, 1987. The AAR uses six years of historical data to derive its forecast for the PPI-LF. The forecast is used not only for lease rentals, but also for the "Other" component of the All-Inclusive Index. Appendix G discusses the forecast in more detail.

Equipment Rents Index Calculation

The table below calculates the Equipment Rents Index. The third quarter Car Hire portion of the Index increased 0.3 percent as the latest rates for privately-owned cars were higher compared to three months ago. A 2.0 percent increase in the projected PPI-LF (See Appendix G) used as a proxy for Lease Rentals, combined with the 0.3 percent increase for Car Hire, caused the Equipment Rents Index to increase by 0.913 percent – rounded to 0.9 percent in the table below.

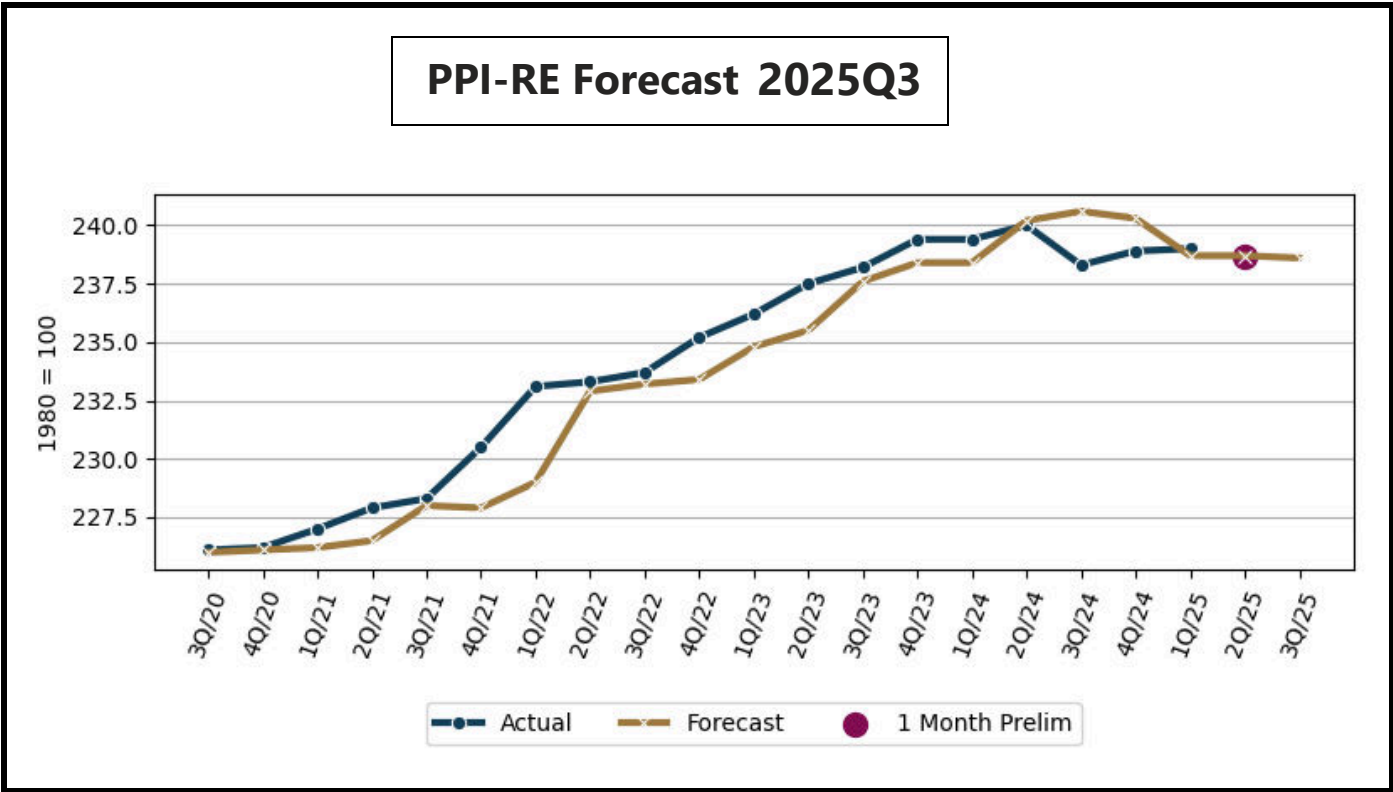
Component	2023 Weights	2025Q2	2025Q3	Percent Change
Car Hire	67.1%	263.7	264.5	0.3
Lease Rents	32.9%	298.1	304.1	2.0
Weighted Average		275.0	277.5	0.9
Weighted Average (Linked)		295.8	298.5	0.9

Depreciation

Third Quarter 2025

The Producer Price Index for Railroad Equipment (PPI-RE) is used to index depreciation expense. The PPI-RE is forecast using an ARIMA (Auto-Regressive Integrated Moving Average) process where a statistical package picks the model that best fits the historical data set (see next page), and that model is then used for the forecast. The historical data set contains 6 years of monthly data (a sample size of 72), where the most recent available data point is the first month of the quarter prior to the forecast quarter. For a first quarter forecast, the most recent month of data available would be for October of the prior year. For a second quarter forecast, January would normally be the most recent period available. April and July would be the most recent months available for third and fourth quarter forecasts, respectively. The output from the forecast model is shown on page 2 of this appendix on a 1982=100 basis. The figure forecast by the model is 0.4% higher than the previous quarter's forecast.

Forecast of Depreciation Index (1982 = 100)	216.6
Forecast of Depreciation Index (1980 = 100)	239.6
<hr/>	
Change from previous quarter forecast	0.4 %
Change from actual first month of previous quarter	0.3 %
Change from same quarter of prior year (actual)	0.5 %



Depreciation

Third Quarter 2025

Expert Analysis

Using rule-based logic I have narrowed down the choice to exponential smoothing or Box-Jenkins. I will perform an out-of-sample test to select between these two approaches.

The cumulative MAD for Exponential smoothing was 1.33 and for Box-Jenkins was 1.95. The rolling out-of-sample test used a maximum horizon of 12 and generated 78 forecasts for each method.

Based on the lower MAD, I will use Exponential Smoothing.

Model Details(Expert Selection)

Holt exponential smoothing: Linear trend, No seasonality LN(0.946, 0.020)		
Component	Smoothing Wgt	Final Value
Level	0.9457	216
Trend	0.01989	0.1523

Within-Sample Statistics

Sample size	72.00	No. parameters	2
Mean	210.20	Std. deviation	5.04
R-square	0.99	Adj. R-square	0.99
Durbin-Watson	1.99	Ljung-Box(18)	12.7 P=0.19
Forecast error	0.49	BIC	0.52
MAPE	0.13	SMAPE	0.13
RMSE	0.49	MAD	0.27

Actual Values for the Most Recent 6 Periods

2024-Nov	216.1
2024-Dec	216.2
2025-Jan	215.8
2025-Feb	216.4
2025-Mar	216.0
2025-Apr	216.0

Forecasted Values

Date	2.5 Lower	Forecast	97.5 Upper
2025-May	215.150	216.162	217.174
2025-Jun	214.909	216.315	217.721
2025-Jul	214.756	216.467	218.178
2025-Aug	214.649	216.619	218.589
2025-Sep	214.573	216.772	218.970
Qtr Avg	214.659	216.619	218.579

Interest

Third Quarter 2025

The Interstate Commerce Commission, in its decision served February 28, 1989, revised the All-Inclusive Index methodology to include a specific interest component, which is to track changes in the average interest rate from year to year. The interest rate is essentially the embedded cost of debt, i.e., total interest expense divided by average total long term debt.

The interest rate is calculated for the most recent year and used until the next year's figures are finalized. The source data are from a summary of the annual reports (Form R-1) submitted by each of the Class I railroads. Although the data set is received at the end of March, it is not used until the September filing. This enables data to be entered into a database and reviewed – and any revisions made, if necessary, before the data are used in the Index. The current Interest Index is based on 2023 data, and was updated in the Q4 filing submitted in September 2024. The Interest Index based on 2023 increased from 51.0 in 2022 to 55.0 in 2023.

The R-1 source for interest expense is Schedule 210, column b. The lines currently used are listed below. The source for average total debt is Schedule 200. The sums of data from columns b and c (ending and beginning balances) are combined and divided by 2 to compute an average balance. The line numbers listed below account for the line number changes effective beginning with the 2016 annual report.

Interest Expense (Schedule 210)

Line

- 42 Total Fixed Charges
- 44 Contingent Interest

- less
- 22 Release of Premium on Funded Debt

Average Total Debt (Schedule 200)

Line

- 29 Current Liabilities, Loans and Notes Payable
- 38 Equipment Obligations and Other Long Term Debt Due Within One Year
- 40 Non-Current Liabilities: Funded Debt Unmatured
- 41 Non-Current Liabilities: Equipment Obligations
- 42 Non-Current Liabilities: Capitalized Lease Obligations
- 43 Non-Current Liabilities: Debt in Default
- 44 Non-Current Liabilities: Accounts Payable: Affiliated Companies
- 45 Non-Current Liabilities: Unamortized Debt Premium

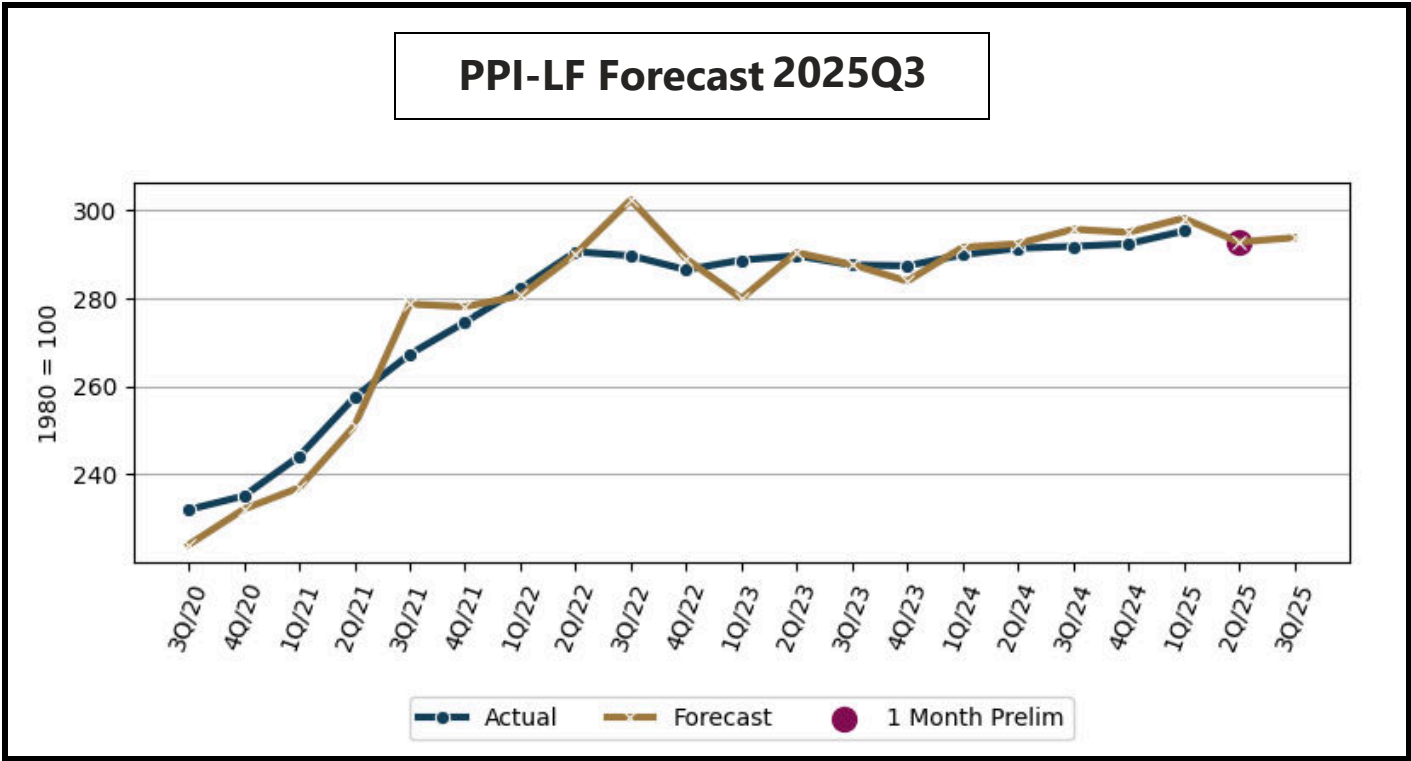
2023	Interest Rate	4.32%
1980	Interest Rate	7.85%
2025Q2	Interest Index	55.0
2025Q3	Interest Index	55.0
	Percent Change	0.00%

Other Expenses

Third Quarter 2025

The Producer Price Index for Industrial Commodities less Fuels and Related Products and Power (PPI-LF) is used to index purchased services, casualties and insurance, loss and damage, taxes (other than income and payroll), general and administrative expenses, and lease rentals. These expenses, when grouped together, are usually called "Other" expenses. Like the PPI-RE, the PPI-LF is forecast using an ARIMA process on 6 years of monthly data (a sample size of 72) with the most recent available monthly data being the first month of the quarter prior to the forecast quarter. For a first quarter forecast, the most recent month of data available would be for October of the prior year. For a second quarter forecast, January would normally be the most recent month available. April and July would be the most recent months available for third and fourth quarter forecasts, respectively. The output from the forecast model is shown on page 2 of this appendix for 1982=100. The figure forecast by the model is 2.0% higher than the previous quarter's forecast.

Forecast of Other Index (1982 = 100)	271.3
Forecast of Other Index (1980 = 100)	304.1
Change from previous quarter forecast	2.0 %
Change from actual first month of previous quarter	1.9 %
Change from same quarter of prior year (actual)	4.2 %



Other Expenses
Third Quarter 2025

Expert Analysis

Using rule-based logic I have narrowed down the choice to exponential smoothing or Box-Jenkins. I will perform an out-of-sample test to select between these two approaches.

The cumulative MAD for Exponential smoothing was 2.17 and for Box-Jenkins was 2.45. The rolling out-of-sample test used a maximum horizon of 12 and generated 78 forecasts for each method.

Based on the lower MAD, I will use Exponential Smoothing.

Model Details(Expert Selection)

Multiplicative Winters: Linear trend, Multiplicative seasonality		
LM(0.922, 1.000, 0.578)		
Confidence limits proportional to indexes		
Component	Smoothing Wgt	Final Value
Level	0.9223	266.3
Trend	1	1.257

Within-Sample Statistics

Sample size	72.00	No. parameters	3
Mean	239.88	Std. deviation	23.04
R-square	1.00	Adj. R-square	1
Durbin-Watson	1.91	Ljung-Box(18)	26.4 P=0.91
Forecast error	0.89	BIC	0.95
MAPE	0.28	SMAPE	0.28
RMSE	0.87	MAD	0.67

Actual Values for the Most Recent 6 Periods

2024-Nov	260.9
2024-Dec	260.6
2025-Jan	262.1
2025-Feb	263.3
2025-Mar	264.9
2025-Apr	266.1

Forecasted Values

Date	2.5 Lower	Forecast	97.5 Upper
2025-May	265.624	267.482	269.340
2025-Jun	264.735	268.634	272.533
2025-Jul	264.756	269.947	275.137
2025-Aug	265.148	271.368	277.589
2025-Sep	265.427	272.530	279.633
Qtr Avg	265.110	271.282	277.453

Abbreviation

Third Quarter 2025

Railroads

BLE	Bessemer & Lake Erie Railroad (Part of CN's Grand Trunk Corp.)
BNSF	BNSF Railway Company
CC	Chicago, Central & Pacific (Part of CN's Grand Trunk Corp. Sometimes noted as CC&P.)
CN	Canadian National Railway (Commonly known as CN, owns Grand Trunk Corporation.)
CNGT	AAR's abbreviation for Grand Trunk Corporation (Almost all of CN's U.S. operations.)
CP	Canadian Pacific (Also noted as CPR. Owns the U.S. Class I railroad Soo Line.)***
CPSL	AAR's abbreviation for Soo Line Corporation (CP's U.S. operations including SOO, D&H, and DME.)
CSX	CSX Transportation
D&H	Delaware & Hudson (Part of Canadian Pacific's U.S. operations, included beginning 2011Q4.)
DME	Dakota, Minnesota & Eastern (Part of Canadian Pacific's U.S. operations, included beginning 2011Q4.)
CMQ	Central Maine & Quebec (Part of Canadian Pacific's U.S. operations, included beginning 2021Q4.)
GTW	Grand Trunk Western Railroad (Part of CN's Grand Trunk Corp.)
IC	Illinois Central Railroad (Part of CN's Grand Trunk Corp.)
KCS	Kansas City Southern Railway***
NS	Norfolk Southern Combined Railroad Subsidiaries (a.k.a. Norfolk Southern Railway or NS Rail)
SOO	Soo Line Railroad (The largest part of Canadian Pacific's U.S. operations.)
UP	Union Pacific Railroad
WC	Wisconsin Central and subsidiaries (Part of CN's Grand Trunk Corp.)

Major Unions Involved with Railroads

ATDA	American Train Dispatchers Association
BLET	Brotherhood of Locomotive Engineers and Trainmen Div. of the International Brotherhood of Teamsters
BMWED	Brotherhood of Maintenance of Way Employees Division of the International Brotherhood of Teamsters
BRS	Brotherhood of Railroad Signalmen
IAM	International Association of Machinists and Aerospace Workers
IBBM	International Brotherhood of Boilermakers, Iron Ship Builders, Blacksmiths, Forgers & Helpers
IBEW	International Brotherhood of Electrical Workers
NCFO	National Conference of Firemen and Oilers
SMART-TD	International Association of Sheet Metal, Air, Rail, and Transportation Workers - Transportation Division*
SMART-MD	International Association of Sheet Metal, Air, Rail, and Transportation Workers - Mechanical Division**
TCU	Transportation Communication International Union
TCU-Carmen	Brotherhood of Railway Carmen Division of the Transportation Communications International Union

Predecessor Unions (Some AAR databases use these old abbreviations)

BLE	Brotherhood of Locomotive Engineers (predecessor to BLET)
BMWE	Brotherhood of Maintenance of Way Employees (predecessor to BMWED)
BRC	Brotherhood of Railway Carmen (predecessor to TCU-Carmen)
IBFO	International Brotherhood of Firemen and Oilers (predecessor to NCFO)
SMWIA	Sheet Metal Workers' International Association (see SMART-MD)
UTU	United Transportation Union (merged into SMART)
UTU-YDMSTRS	United Transportation Union Yardmaster Department (see SMART-TD)

* Represents employees formerly represented by the UTU (conductors and brakemen) and also has a separate yardmasters department.

** Represents employees formerly represented by the SMW (steel workers).

***Represents legacy CP and KCS prior to the CPKC merger.