

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 first quarter 2025 All-Inclusive Index and Rail Cost Adjustment Factor, filed in Ex Parte No. 290 (Sub-No. 5) (2025 -1) 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 first quarter 2025 results and compares them to the previous quarter. Both quarters are shown on a 4Q\2022=100 base.

	<u>2024Q4</u>	<u>2025Q1</u>	<u>% Change</u>
All-Inclusive Index	97.3	95.7	-1.6%
Preliminary RCAF	0.973	0.957	-1.6%
Forecast Error Adjustment	-0.012	-0.013	
RCAF (Unadjusted)	0.961	0.944	-1.8%
PAF	2.5637	2.5706	
RCAF (Adjusted)	0.375	0.367	-2.1%
PAF-5	2.7120	2.7193	
RCAF-5	0.354	0.347	-2.0%

December 5, 2024

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

**First Quarter 2025
All - Inclusive Index**

Ex Parte No. 290 (Sub-No .5) (2025 - 1)

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

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

December 5, 2024

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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.

This quarter's projection of railroad costs is for the first quarter 2025. Each year's first quarter calculation utilizes new health and welfare rates, which are listed in Appendix A on page 5. New payroll tax rates and maximum taxable earnings (Tier I, Tier II, and Unemployment Insurance) also become effective January 1, and are listed in Appendix A on page 4.

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. Labor increased by 0.8 percentage points, and Materials & Supplies increased 0.3 percentage points. Depreciation increased by 0.5 percentage points. Interest increased 0.3 percentage points. Other increased by 2.3 percentage points. Finally, the weight for Equipment Rents decreased 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

First 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 Appendixes.

	Weights 2023	Forecast		Percentage Change
		Previous 2024Q4	Current 2025Q1	
Labor	30.2%	534.3	532.3	-0.4%
Fuel	16.4%	320.5	290.3	-9.4%
Materials & Supplies	5.0%	372.1	354.9	-4.6%
Equipment Rents	4.2%	292.7	294.6	0.6%
Depreciation	15.7%	240.3	238.7	-0.7%
Interest	2.4%	55.0	55.0	0.0%
Other	26.1%	295.0	298.2	1.1%
Weighted Average				
a.1980 = 100		360.9	355.1 ¹	-1.6%
b.1980 = 100 (linked)		332.9	327.5	-1.6%
c.4Q22 = 100		97.3	95.7 ²	-1.6%

1 Index80 = (Current Index / Previous Index) * the Previous Quarter Linked Index
= (355.1 / 360.9) x 332.9
= 327.5

2 To calculate the 4Q22 = 100 index:
Index4Q22 = (Current Linked Index / 4Q22 Basing Factor) * 100
= 327.5 / 342.3 x 100
= 95.7

Indexes based on other periods:
4Q17 based index = 327.5 / 264.5 x 100 = 123.8
4Q12 based index = 327.5 / 297.6 x 100 = 110.0
4Q07 based index = 327.5 / 245.9 x 100 = 133.2
4Q02 based index = 327.5 / 192.1 x 100 = 170.5
4Q97 based index = 327.5 / 173.2 x 100 = 189.1
4Q92 based index = 327.5 / 156.9 x 100 = 208.7

Forecast vs. Actual All - Inclusive Index Third Quarter 2024

Because of data availability, the forecast error adjustment has a two-quarter lag from each filing. As shown below, the third quarter actual index of 97.0 is 1.3 below the forecast value of 98.3. Therefore, the forecast error adjustment for first quarter 2025 is -1.3 index points.

	2022	Third Quarter 2024		
	Weights	Forecast	Actual	Amount Difference
Labor	29.4%	546.6	546.6	
Fuel	20.4%	329.8	318.7	
Materials & Supplies	4.7%	352.8	352.8	
Equipment Rents ¹	4.4%	281.3	276.8	
Depreciation	15.2%	240.6	238.3	
Interest	2.1%	51.0	51.0	
Other	23.8%	295.7	291.8	
Weighted Average				
a.1980 = 100		365.0	361.2	
b.1980 = 100(linked)		336.5	332.1 ²	
c.4Q22 = 100 ³		98.3	97.0	-1.3
Forecast Error		→ -1.3 index points		

	2022	Third Quarter 2024	
	Weight	Forecast	Actual
1 Car Hire	68.1%	244.8	245.2
Lease Rents	31.9%	295.7	291.8
Weighted Average		261.0	260.1
Weighted Average (Linked)		281.3	276.8

² Linked Actual Index = (Actual Index / Previous Actual Index) x Previous Linked Actual Index
= 361.2 / 359.6 x 330.6
= 332.1

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; 4Q92 = 156.9.

Productivity

On January 18, 2024, the Surface Transportation Board served a decision which proposed to adopt 1.1 percent as the geometric average productivity change for the five most recent years available. Their five year rolling geometric average calculation added the year 2022 and removed the year 2017. The components of this average annual value are shown on the following table in ratio format - therefore, 1.011 is the same as an increase of 1.1 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)	Average of Productivity Changes (3)
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
2022	0.992	1.020	0.972
Average			1.011
Previous Average (2017 - 2021)			1.028

Calculation of PAF and PAF - 5

For 2018 - 2022 , use fourth root of avg. productivity change = 1.0027

For 2017 - 2021 , use fourth root of avg. productivity change = 1.0069

Quarter	Year	PAF	PAF-5
Q1	2024	2.5430	2.6566
Q2	2024	2.5499	2.6749
Q3	2024	2.5568	2.6934
Q4	2024	2.5637	2.7120
Q1	2025	2.5706	2.7193

2017 - 2021

2018 - 2022

Rail Cost Adjustment Factor

First 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 2024Q4	Current 2025Q1	% Change
All-Inclusive Index ¹	97.3	95.7	-1.6%
Preliminary RCAF ²	0.973	0.957	-1.6%
Forecast Error Adjustment ³	-0.012	-0.013	
RCAF (Unadjusted) ⁴	0.961	0.944	-1.8%
PAF ⁵	2.5637	2.5706	
RCAF (Adjusted) ⁶	0.375	0.367	-2.1%
PAF-5 ⁷	2.712	2.719	
RCAF-5 ⁸	0.354	0.347	-2.0%

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

First Quarter 2025

The first quarter 2025 Labor Index is 0.4 percent lower than the previous quarter. The primary driver for this quarter's lower Labor Index is decreased Health and Welfare Benefits.

Wage Rate Index: The Wage Rate Index portion of the Labor Index increased by 1.0 %.

Wage Increase: Wages increased 1.0 percent compared to the prior quarter. There are no national wage increases currently scheduled for the first quarter. There are a few increases for the Other category which drove a slight increase to wages.

Lump Sum: The first quarter lump sum fell 0.2%. One amount was fully amortized and removed, and it was replaced by one new similar amount which drove a slight decrease.

Back Pay: The back pay remains unchanged from the prior quarter. There is one extremely small amount remaining that was impacted by a lowered treasury bill rate, which rounds to zero.

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 first quarter rate is unchanged from the prior quarter.

Labor

First Quarter 2025

Supplements Index

The Supplements Index decreased 2.5 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: The Health & Welfare rate decreased 9.6 percent. Employer premiums (the amount the employer contributes for their employees' insurance) decreased. See pages 4 and 5 of this appendix for details.

Railroad Retirement: The Railroad Retirement rate increased 2.5 percent. Taxable wages increased due to higher wage rate, and the maximum taxable earnings for Railroad Retirement's Tier I and Tier II both increased for 2025. Tax rates for employers did not change. Page 4 of this appendix lists tax rates and maximum taxable earnings for 2023 through 2025.

Unemployment Insurance: The Unemployment Insurance increased 1.3 percent. Effective January 1, the weighted average Class I railroad rate for 2025 is 0.65%, compared to 0.66% for 2024. Basic tax rates can range from a minimum of 0.65 percent to a maximum of 12 percent. There was also a surcharge of 1.5 percent applied to the rate for 2025. Page 4 of this appendix lists tax rates for 2023 through 2025.

Other: 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. The first quarter rate is 32.1 percent higher than last quarter.

Labor Index Calculation

As shown in Table A-1 on the next page, the 1.0 percent increase in the Wage Rate Index and the 2.5 percent decrease in the Supplements Index combined to cause the Labor Index to be 0.4 percent lower than the previous quarter. The linked first quarter 2025 Labor index is 532.3, which is 1.1 percent higher than one year ago.

Labor

First Quarter 2025

Table A-1 Labor Index

	2024Q4	2025Q1	Change	
			Percent	Amount
Base Wage ¹	\$54.681	\$55.242	1.0%	\$0.561
Adjustments:				
Lump Sum	\$0.559	\$0.558	-0.2%	-\$0.001
Back Pay	\$0.098	\$0.098	0.0%	\$0.000
Other	\$0.275	\$0.275	0.0%	\$0.000
Total Wages	\$55.613	\$56.173	1.0%	\$0.560
Health & Welfare Benefits	\$9.047	\$8.178	-9.6%	-\$0.869
RR Retirement & Medicare	\$11.405	\$11.685	2.5%	\$0.280
Unemployment Insurance	\$0.076	\$0.077	1.3%	\$0.001
Other	\$0.187	\$0.247	32.1%	\$0.060
Total Supplements	\$20.715	\$20.187	-2.5%	-\$0.528
Total Labor (as info only)	\$76.33	\$76.36		
Wage Rate Index ²	475.9	480.7	1.0%	
Supplements Index ³	765.5	746.0	-2.5%	
Total labor Index, 2023 Weights ⁴	558.7	556.6	-0.4%	
⬆ Labor Index (Linked) ⁵	534.3	532.3	-0.4%	

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%
 2025Q1 linked index = 2024Q4 linked x (2025Q1 / 2024Q4)
 = 534.3 x (556.6 / 558.7)

Labor
First Quarter 2025
Supplement Comparisons

			Railroad Payment Per Employee Per Month		
Health and Welfare Rates			Change		
Plan	2023	2024	2025	2023 - 2024	2024 - 2025
Group Health & Welfare	\$1,972.43	\$1,972.43	\$1,773.58	0.0%	-10.1%
Early Retirement Major Medical	\$65.94	\$48.95	\$33.15	-25.8%	-32.3%
Group Dental	\$69.10	\$69.15	\$55.38	0.1%	-19.9%
Group Vision	\$8.51	\$8.56	\$10.06	0.6%	17.5%
Supplemental Sickness					
a. Maintenance of Way	\$48.22	\$30.00	\$32.19	-37.8%	7.3%
b. Shop Crafts	\$98.52	\$50.00	\$56.19	-49.2%	12.4%
c. Signalmen	\$62.17	\$30.00	\$35.60	-51.7%	18.7%
d. Yardmasters	\$76.77	\$61.75	\$81.10	-19.6%	31.3%

Railroad Retirement and Medicare

Earnings Base				Employer Rate			
	2023	2024	2025		2023	2024	2025
Tier I	\$168,600	\$160,200	\$176,100	Tier I	6.2%	6.2%	6.2%
Tier II	\$125,100	\$118,800	\$130,800	Tier II	13.1%	13.1%	13.1%
Medicare	no limit	no limit	no limit	Medicare	1.5%	1.5%	1.5%

Unemployment Insurance

Monthly Taxable Earnings Base			Weighted Avg. Class 1 Rate		
2023	2024	2025	2023	2024	2025
\$1,895	\$1,985	\$2,065	7.79%	0.66%	0.65%

Labor
First Quarter 2025

NATIONAL RAILWAY LABOR CONFERENCE
EMPLOYEE BENEFITS DEPARTMENT

251 – 18th Street, South, Suite 750, Arlington, VA 22202 ~~~ PHONE: (571) 336-7600

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November 20, 2024

Ms. Kiara Carter
Director, Financial Reporting
Association of American Railroads
425 Third Street, SW, Suite 1000
Washington, D.C. 20024

Dear Ms. Carter:

The revised employer monthly Payment Rates which are effective January 1, 2025 are as follows:

Railroad Employees National Health & Welfare Plan & SMART-TD H&W Plan	
Non-Hospital Road	\$1,773.58
Railroad Employees National Early Retirement	
Major Medical Benefit Plan	
Non-Hospital Road	\$ 33.15
Aetna - National Dental Plan	\$ 55.38
The Hartford - Supplemental Sickness Plans	
Shop Craft	\$ 56.19
Signalmen	\$ 35.60
Maintenance of Way	\$ 32.19
Trustmark - Supplemental Sickness Plans	
Yardmasters	\$ 81.10
EyeMed - National Vision Plan	\$ 10.06

If you have any questions or need clarification, please contact me.

Very truly yours,
Eureka Norment
Eureka Norment

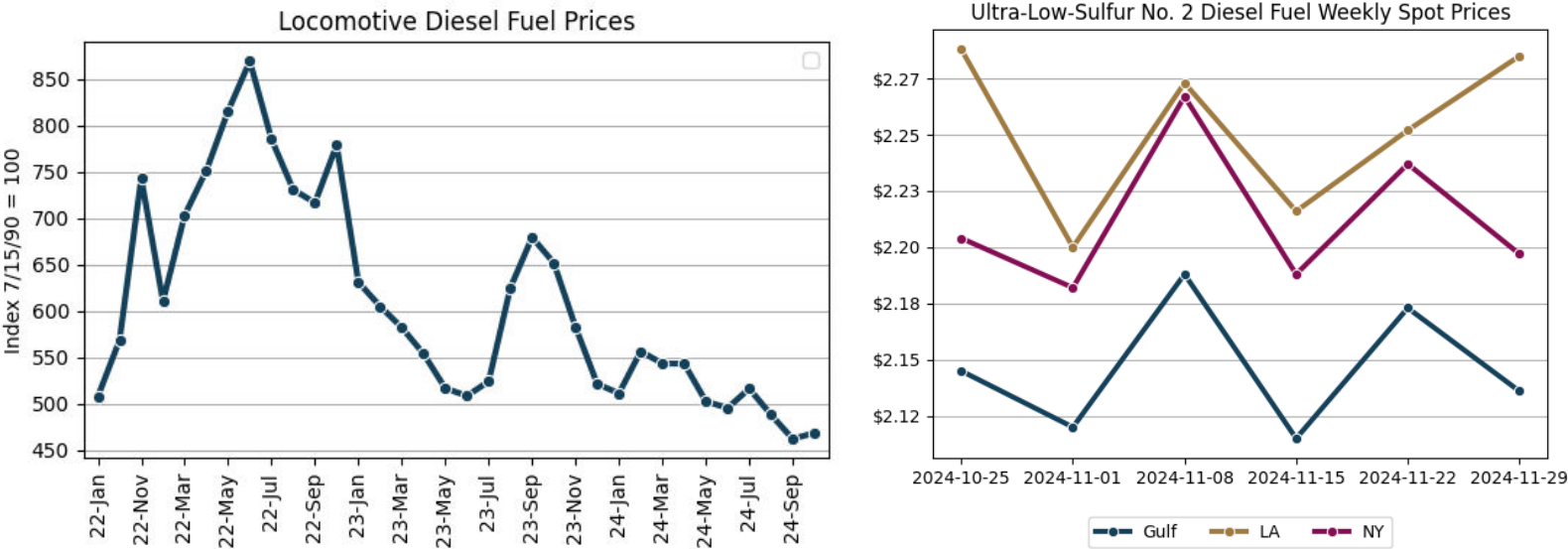
cc: Data@aar.org

Fuel

First 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 declined since then, and reached a trough in September 2024. While average prices for locomotive diesel fuel are available only through November 2024, data through four weeks of December are available for related fuel types. According to the Energy Information Administration, the daily spot price as of December 2 for Ultra-Low-Sulfur Diesel Fuel* is an average of 2.3 percent lower than the average for November. The chart below (on left) shows the AAR's Monthly Locomotive Diesel Fuel Price Index through November 2024. 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 towards the end of December are lower than prices that actually occurred in November. Railroads that responded to the AAR's forecast survey expect prices to decrease by January (Q1) compared to prices that actually occurred for October (Q4). The first quarter 2025 forecast is 9.4 percent lower than the previous quarter forecast, and 0.4 percent higher than the prior quarter actual.

Forecast Fuel Index (1980=100)	290.3
Change from previous quarter forecast	-9.4
Change from previous quarter actual	0.4

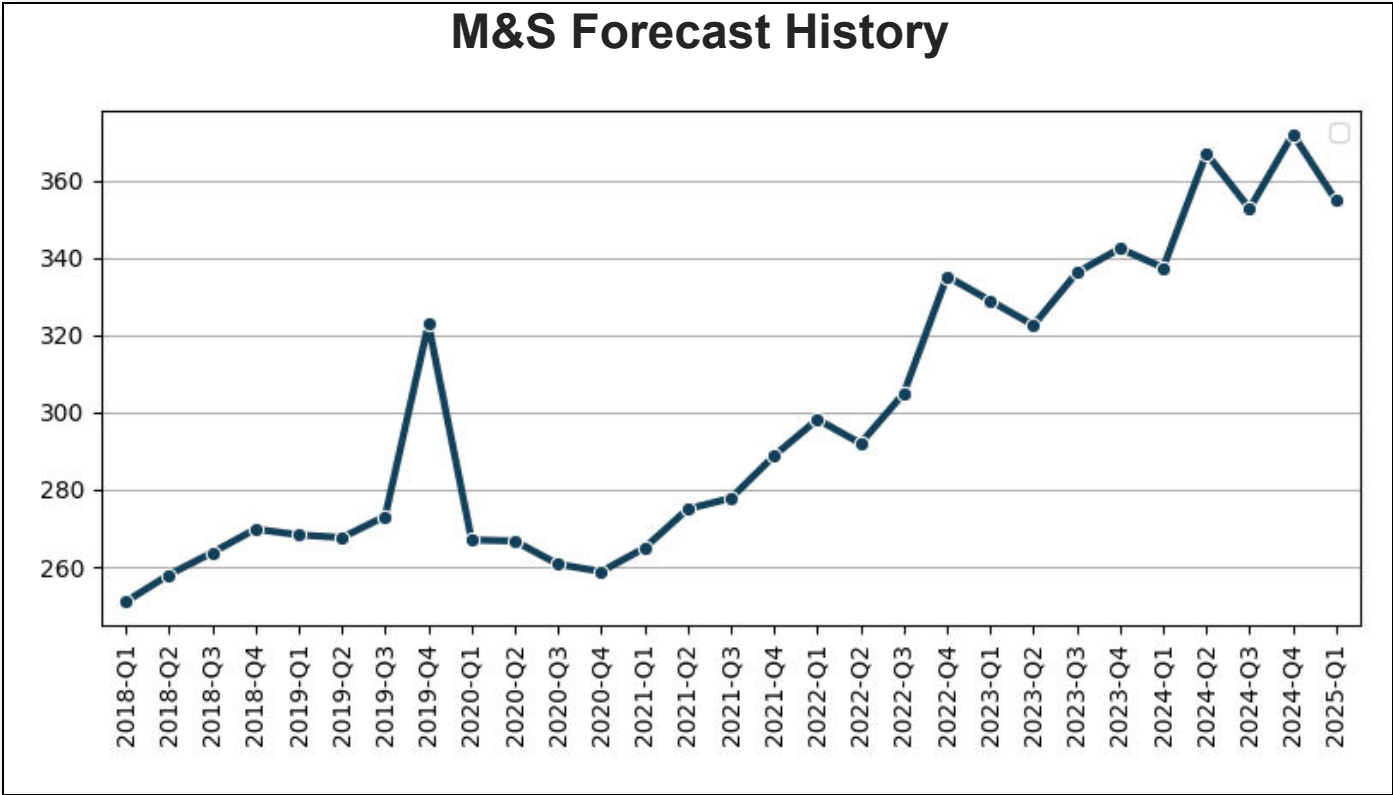
* Heating oil, Ultra-Low-Sulfur No. 2 Diesel Fuel, and locomotive diesel fuel are part of a group of closely related products, commonly labeled as distillates, that differ mostly by their sulfur content. Because of these similarities, these fuels are produced together and have similar pricing trends.

Materials & Supplies

First Quarter 2025

The first quarter 2025 Materials & Supplies Index decreased 4.6 percent from the previous quarter. Prices decreased for all products (Miscellaneous, Metal, and Forest).

2025Q1	Materials & Supplies Index =	354.9
2024Q4	Materials & Supplies Index =	372.1
Basis Points Difference		-17.2 basis points
Percentage Difference		-4.6%



Equipment Rents

First 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 ICC 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 first quarter Car Hire portion of the Index increased 0.4 percent as the latest rates for privately-owned cars were higher compared to three months ago. A 1.1 percent increase in the projected PPI-LF (See Appendix G) used as a proxy for Lease Rentals, combined with the 0.4 percent increase for Car Hire, caused the Equipment Rents Index to increase by 0.649 percent – rounded to 0.6 percent in the table below.

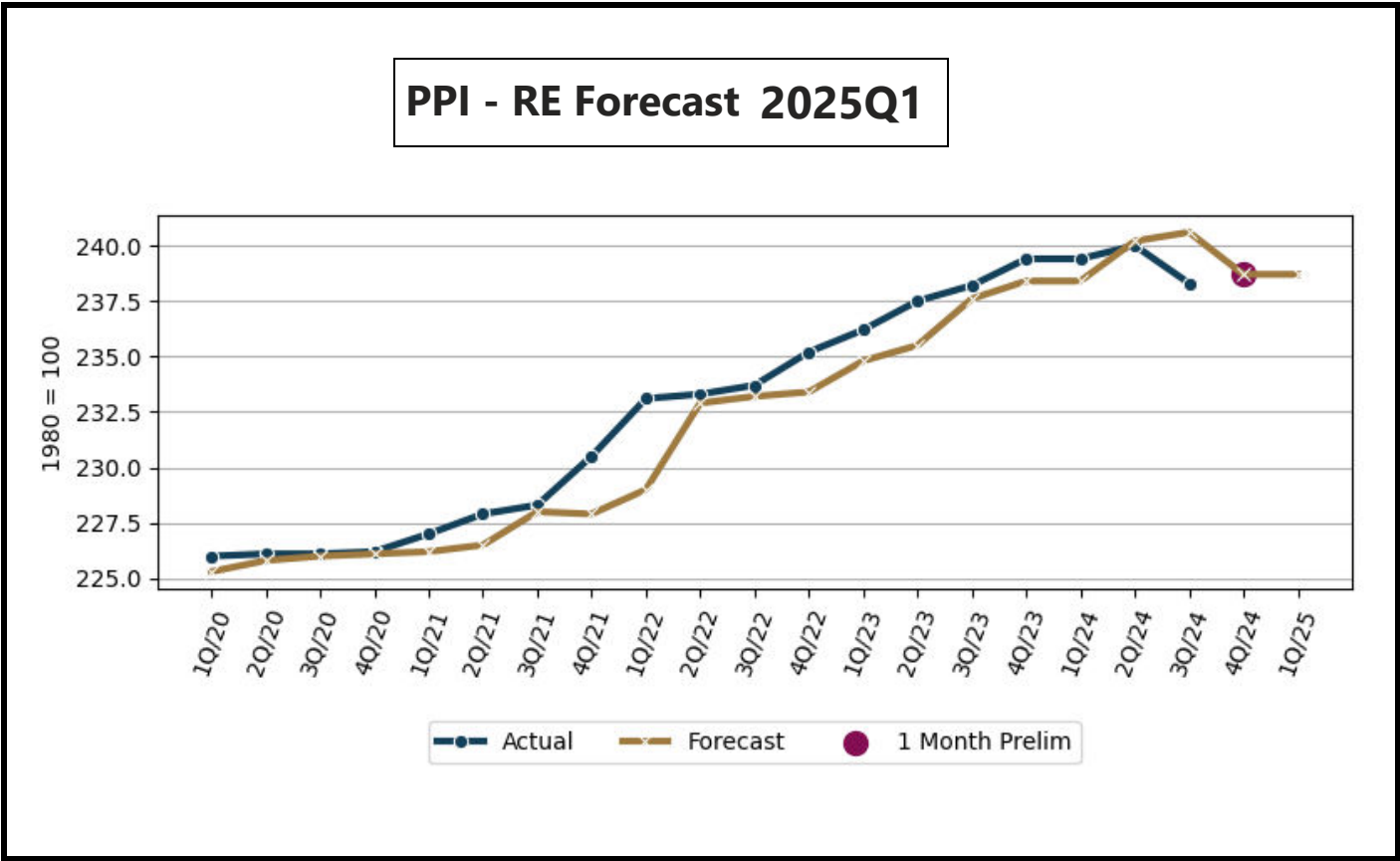
Component	2023 Weights	2024Q4	2025Q1	Percent Change
Car Hire	67.1%	260.9	262.0	0.4%
Lease Rents	32.9%	295.0	298.2	1.1%
Weighted Average		272.1	273.9	0.7%
Weighted Average (Linked)		292.7	294.6	0.6%

Depreciation

First 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 -0.6658 (round to -0.7) lower than the previous quarter's forecast.

Forecast of Depreciation Index (1982 = 100)	215.8%	
Forecast of Depreciation Index (1980 = 100)	238.7%	
Change from previous quarter forecast	-0.7%	-0.6658%
Change from actual first month of previous quarter	0.0%	0.00%
Change from same quarter of prior year (actual)	-0.3%	



Depreciation

First 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 1.23 and for Box-Jenkins was 0.83.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 Box-Jenkins.

Model Details(Expert Selection)

Box-Jenkins
ARIMA(0, 1, 0)

Within-Sample Statistics

Sample size	72.00	No. parameters	0
Mean	209.11	Std. deviation	5.1
R-square	0.98	Adj. R-square	0.98
Durbin-Watson	2.22	Ljung-Box(18)	9.6 P=0.05
Forecast error	0.76	BIC	0.76
MAPE	0.17	SMAPE	0.17
RMSE	0.76	MAD	0.36

Actual Values for the Most Recent 6 Periods

2024-May	217.1
2024-Jun	217.2
2024-Jul	214.7
2024-Aug	215.6
2024-Sep	215.8
2024-Oct	215.8

Forecasted Values

Date	2.5 Lower	Forecast	97.5 Upper
2024-Nov	214.310	215.800	217.290
2024-Dec	213.692	215.800	217.908
2025-Jan	213.219	215.800	218.381
2025-Feb	212.819	215.800	218.781
2025-Mar	212.468	215.800	219.132
Qtr Avg	212.835	215.800	218.765

Interest
First 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

- 29 Total Fixed Charges
- 38 Contingent Interest

less

- 22 Release of Premium on Funded Debt

Average Total Debt(Schedule 200)

Line

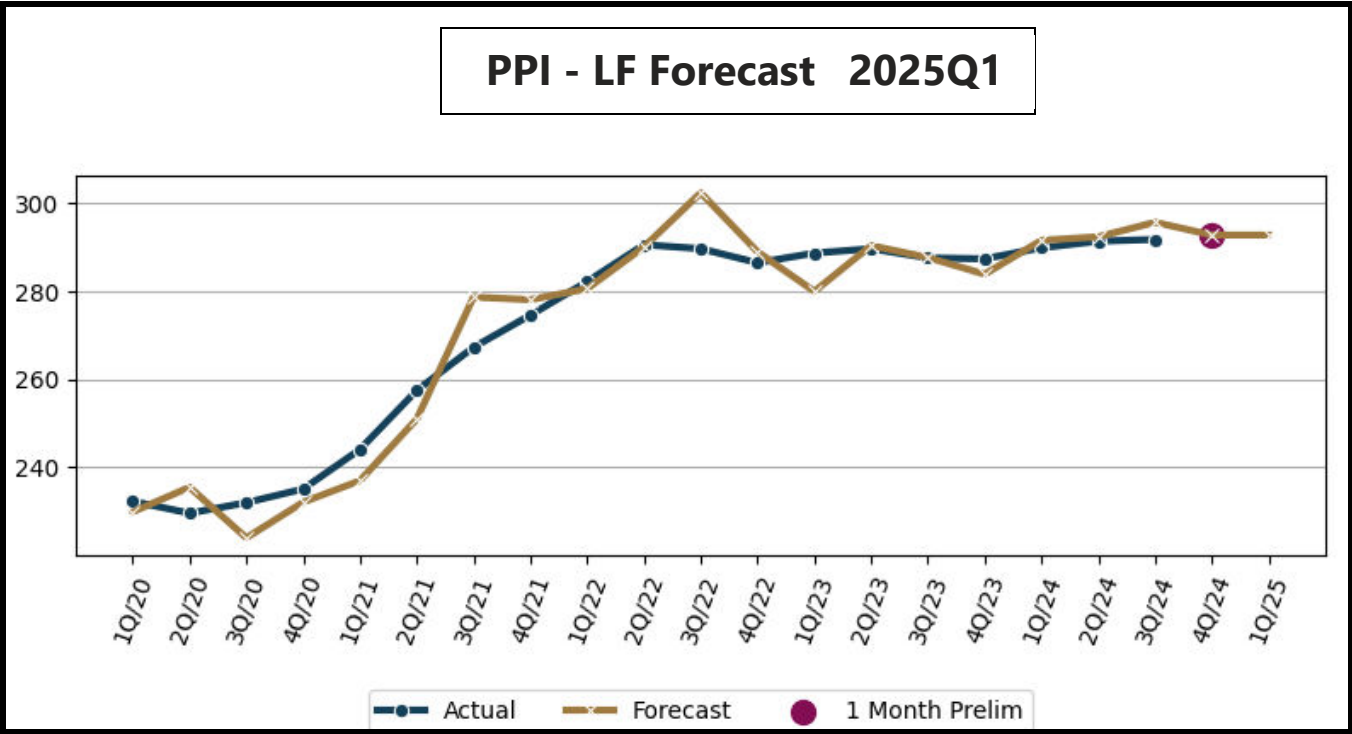
- 29 Current Liabilities, Loans and Notes Payable
- 38 Equipment Obligations and Other Long Term Debt Due Within One Year
- 40 Non-Current Liabilities: Funded Debt Unmatured
- 41 Non-Current Liabilities: Equipment Obligations
- 42 Non-Current Liabilities: Capitalized Lease Obligations
- 43 Non-Current 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%
2024Q4	Interest Index	55.0
2025Q1	Interest Index	55.0
Percent Change		0.00%

Other
First 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 1.0847 (round to 1.1) higher than the previous quarter's forecast

Forecast of Depreciation Index (1982 = 100)	266.0
Forecast of Depreciation Index (1980 = 100)	298.2
Change from previous quarter forecast	1.1 %
Change from actual first month of previous quarter	1.8 %
Change from same quarter of prior year (actual)	2.9 %



Other
First 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 3.24 and for Box-Jenkins was 1.79.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 Box-Jenkins.

Model Details(Expert Selection)

Box-Jenkins				
ARIMA(0, 2, 0)*(1, 0, 0)				
Term	Coefficient	Std. Error	t-Statistic	Significance
A[12]	0.3914	0.1148	3.411	0.9989

Within-Sample Statistics

Sample size	72.00	No. parameters	1
Mean	235.32	Std. deviation	23.44
R-square	1.00	Adj. R-square	1
Durbin-Watson	2.24	Ljung-Box(18)	16.7 P=0.45
Forecast error	0.88	BIC	0.9
MAPE	0.28	SMAPE	0.28
RMSE	0.88	MAD	0.67

Actual Values for the Most Recent 6 Periods

2024-May	260.2
2024-Jun	260.1
2024-Jul	260.3
2024-Aug	260.3
2024-Sep	260.2
2024-Oct	261.2

Forecasted Values

Date	2.5 Lower	Forecast	97.5 Upper
2024-Nov	260.337	262.083	263.828
2024-Dec	259.296	263.200	267.104
2025-Jan	258.216	264.748	271.280
2025-Feb	256.656	266.218	275.780
2025-Mar	254.114	267.061	280.008
Qtr Avg	256.329	266.009	275.689

Abbreviations

First 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)
IBFOR	International Brotherhood of Firemen and Oilers (predecessor to NCFO)
SMW	Sheet Metal Workers' International Association (see SMART-MD)
UTU	United Transportation Union (merged into SMART)
UTU-YMD	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