

ASSOCIATION
OF AMERICAN
RAILROADS

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September 6, 2011

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

Dear Ms. Brown:

This submission is the AAR forecast of the fourth quarter 2011 All-Inclusive Index and Rail Cost Adjustment Factor, filed in Ex Parte No. 290 (Sub-No. 5) (2011-4) *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 fourth quarter 2011 results on the fourth quarter 2007 base, and shows the percentage changes from the previous quarter.

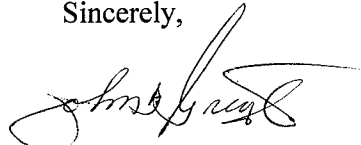
	<u>2011Q3</u>	<u>2011Q4</u>	<u>% Change</u>
All-Inclusive Index	118.6	118.2	-0.3
Preliminary RCAF	1.186	1.182	-0.3
Forecast Error Adjustment	0.020	0.026	
RCAF (Unadjusted)	1.206	1.208	0.2
Productivity Adjustment Factor	2.2566	2.2645	
RCAF (Adjusted)	0.534	0.533	-0.2
PAF-5	2.3823	2.3894	
RCAF-5	0.506	0.506	0.0

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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.

Two copies of the quarterly non-proprietary workpapers underlying this submission are hand-delivered and 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. A small set of highly confidential workpapers essential for the fourth quarter rebenchmarking and reweighting are also included. A third copy of the workpapers has been delivered to Paul Aguiar in the STB office handling this proceeding. All workpapers are available for STB inspection. Questions should be directed to me or Clyde Crimmel (202 639-2309) of this office.

Sincerely,



John T. Gray

Attachments

**Fourth Quarter 2011
All-Inclusive Index**

Ex Parte No. 290 (Sub-No. 5) (2011-4)

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

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

September 6, 2011

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Introduction

On January 2, 1985, the Interstate Commerce Commission (ICC) [now the Surface Transportation Board (STB)] adopted the All-Inclusive Index of Railroad Costs as the basis for the Rail Cost Adjustment Factor (RCAF). The quarterly projection of railroad costs, as documented herein, employ 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 (but does not endorse) the RCAF-5, which was instituted by an STB decision served October 3, 1996 in Ex Parte No. 290 (Sub-No. 7), *Productivity Adjustment - Implementation*. This quarter's projection of railroad costs is for the fourth quarter 2011.

Each year's fourth quarter calculation utilizes new weights, which can be found on page 2. New annual report and wage statistics data are also utilized to rebenchmark labor (see Appendix A).

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 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 2010 (current) and 2009 (previous) weights are shown below. The previous (2009) weights were used for the fourth quarter of 2010 through the third quarter of 2011. Beginning with the fourth quarter of 2011, the 2010 weights are used. The year 2010 was a recovery year from the reduced traffic levels of 2009, and operating expenses increased in every category. Fuel expenses increased by the highest percentage and amount, caused by increased traffic and higher fuel prices. Not surprisingly, Fuel's weight rebounded from 14.9 percent to 18.0 percent. This is the fourth highest weight ever for Fuel. The only other category to have its weight increase was Other, which had the second highest percentage increase in expenses. (Most of Other is purchased services, portions of general & administrative expenses, and property taxes.) Labor's weight decreased from 34.7 to 33.3 percent, despite increases in expenses. Weights for Depreciation and Equipment Rents decreased by 1.1 and 0.9 percentage points, respectively. Changes for the remaining categories were decreases of 0.1 percentage points.

RCAF Weights		
	Previous 2009	Current 2010
Labor	34.7 %	33.3 %
Fuel	14.9	18.0
Materials & Supplies	5.1	5.0
Equipment Rents	7.1	6.2
Depreciation	13.9	12.8
Interest	3.0	2.9
Other	21.3	21.8

Reweighting 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 times 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 Fourth Quarter 2011

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.

	2010 Weights	Forecast		Percent Change
		Previous ¹ 2011Q3	Current 2011Q4	
1. Labor	33.3%	382.1	375.3	-1.8 %
2. Fuel	18.0%	392.3	396.9	1.2
3. M&S	5.0%	257.9	265.7	3.0
4. Equipment Rents	6.2%	208.8	205.9	-1.4
5. Depreciation	12.8%	206.1	208.4	1.1
6. Interest	2.9%	84.5	90.6	7.2
7. Other	21.8%	222.3	220.3	-0.9
8. Weighted Average				
a. 1980 = 100		301.0	299.8	
b. 1980 = 100 (linked)		291.8	290.6 ²	
c. 4Q07 = 100		118.7	118.2 ³	-0.4

Note: The 301.0 weighted average for 2011Q3 is recalculated with 2010 weights to eliminate any changes in the fourth quarter index that would be caused by changing weights. The Q3 weighted average with 2009 weights is 297.6.

¹ For calculation purposes, Q3 includes a revision made to the M&S Index. This revision caused the M&S Index and all Weighted Averages to increase by 0.1 index points. The as-filed 4Q07 Index was 118.6. See note in Appendix C for more detail.

² To calculate the 1980 = 100 Linked Index:

$$\begin{aligned} \text{Index}_{80} &= (\text{Current Index} / \text{Previous Index}) * \text{the Previous Quarter Linked Index} \\ &= (299.8 / 301.0) \times 291.8 \\ &= 290.6 \end{aligned}$$

³ To calculate the 4Q07 = 100 index:

$$\begin{aligned} \text{Index}_{4Q07} &= (\text{Current Linked Index} / 4Q07 Linking Factor) * 100 \\ &= 290.6 \text{ divided by } 245.9 \text{ times } 100 \\ &= 118.2 \end{aligned}$$

Indexes based on other periods: 4Q02 based index = 290.6 / 192.1 x 100 = 151.3
 4Q97 based index = 290.6 / 173.2 x 100 = 167.8
 4Q92 based index = 290.6 / 156.9 x 100 = 185.2
 4Q87 based index = 290.6 / 132.2 x 100 = 219.8

Forecast vs. Actual All-Inclusive Index Second Quarter 2011

Because of data availability, the forecast error adjustment has a two-quarter lag from each filing. As shown below, the second quarter actual index of 118.3 is 2.6 index points above the forecast value of 115.7. Therefore, the forecast error adjustment for fourth quarter 2011 is 2.6 index points.

	2009 Weights	Second Quarter 2011		Amt Difference
		Forecast	Actual	
1. Labor	34.7%	379.6	379.6	
2. Fuel	14.9%	368.4	408.3	
3. M&S	5.1%	249.0	249.0	
4. Equipment Rents ¹	7.1%	203.1	205.7	
5. Depreciation	13.9%	204.6	205.8	
6. Interest	3.0%	84.5	84.5	
7. Other	21.3%	212.9	216.6	
8. Weighted Average				
a. 1980 = 100		290.1	297.1	
b. 1980 = 100 (linked)		284.4	291.0 ²	
c. 4Q07 = 100 ³		115.7	118.3	2.6

Forecast error \longrightarrow **2.6 index points**

1	2009 Weights	Second Quarter 2011	
		Forecast	Actual
Car-Hire	42.2%	178.6	178.9
Lease Rentals	57.8%	212.9	216.6
Weighted Average		198.4	200.7
Weighted Average (linked)		203.1	205.7

² Linked actual index = (actual index / previous actual index) x previous linked actual index.
 $291.0 = 297.1 / 283.2 \times 277.4$

³ The 4Q07 based indexes are 1980 based indexes divided by the 4Q07 linking factor (245.9/100).
 Other linking factors are: 4Q02 = 192.1; 4Q97 = 173.2; 4Q92 = 156.9; and 4Q87 = 132.2.

Productivity

On February 7, 2011, the Surface Transportation Board (STB) served a decision in Ex Parte 290 (Sub-No. 4) which added the year 2009 to the Productivity Adjustment Factor (PAF) and removed the year 2004. This creates a geometric average annual productivity change, for the five-year period 2005 through 2009, of 1.4 percent per year. 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 quarter productivity adjustment factors (PAF) 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			
2005 - 2009			
Year	Output Index (1)	Input Index (2)	Productivity ¹ Changes (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
Average			1.014
Corrected Previous Avg. (2004-2008)			1.012

¹ The values shown in Column 3 are based on full float calculations and may not exactly match numbers calculated using the rounded numbers displayed in Columns 1 and 2.

Calculation of PAF and PAF-5			
For 2005-2009, use fourth root of avg. productivity change = 1.0035			
For 2004-2008, use fourth root of avg. productivity change = 1.0030			
Quarter	Year	PAF	PAF-5
Q1	2011	2.2409	2.3681
Q2	2011	2.2487	2.3752
Q3	2011	2.2566	2.3823
Q4	2011	2.2645	2.3894
Q1	2012	2.2724	2.3978

Rail Cost Adjustment Factor Fourth Quarter 2011

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 the All-Inclusive Index is on a 2007Q4=100 basis.

	Previous 2011Q3	Current 2011Q4	Percent Change
All-Inclusive Index ¹	118.6	118.2	-0.3
Preliminary RCAF ²	1.186	1.182	-0.3
Forecast Error Adjustment ³	<u>0.020</u>	<u>0.026</u>	
RCAF (Unadjusted) ⁴	1.206	1.208	0.2
Productivity Adjustment Factor ⁵	<u>2.2566</u>	<u>2.2645</u>	
RCAF (Adjusted) ⁶	0.534	0.533	-0.2
PAF-5 ⁷	2.3823	2.3894	
RCAF-5 ⁸	0.506	0.506	-

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

Fourth Quarter 2011

The fourth quarter 2011 Labor Index is forecast to decrease 1.8 percent. Much of the change was caused by rebenchmarking to 2010 wage statistics and annual report data.

Rebenchmarking and Reweighting: Rebenchmarking, as well as updating the internal weights (i.e., the proportion of labor costs represented by wages and supplements, respectively), is reflected each year in the fourth quarter filing. The Labor rate is basically a group of benchmarks from annual data that are updated each quarter using additional information such as labor agreements, payroll tax rates, health & welfare rates, and other data. By rebenchmarking to newer annual data, the number of quarterly updates from the benchmark year to the current quarter becomes fewer – increasing the probability that the updated values match reality. Therefore, the impact of rebenchmarking is captured in the Labor Index, and by itself can cause a change in the index.

The new benchmark year is 2010, and it replaces data for 2009. The 2010 data underlying the fourth quarter rebenchmarking are obtained from a summary of the railroads' 112-Class Wage Statistics and a summary of the railroads' Annual Report Form R-1 submitted to the Surface Transportation Board. Statistics for 2009 revealed a rare decrease in many categories. Statistics for 2010 reflect a partial recovery from the drop in 2009.

Statistics for the Delaware & Hudson Railway and the Dakota, Minnesota & Eastern Railroad were added to the data set because Canadian Pacific's Class I railroad (Soo Line Corporation) began including those railroads (along with Soo Line Railroad) in its 2010 reporting. [See Appendix H for common railroad and union abbreviations.]

The source for the wage and supplements internal weights, like the external weights, is also the Annual Report Form R-1 Summary. Unlike rebenchmarking, reweighting by itself is prevented from causing a change in the index. A linking process, where the previous quarter unlinked index is recalculated using the new weights, eliminates changes that would be caused solely by changing weights.

Wage Rate Index

The Wage Rate Index portion of the Labor Index decreased 3.2 percent from the previous quarter because of rebenchmarking to 2010 wage statistics. A large decrease in non-union bonuses, typically paid for performance in the previous year (2009), caused some of the decrease in the wage rate, and shifts in the mix of employees may have also contributed. The improvement in the economy during 2010 (at least, compared to 2009) contributed to an 8 percent decrease in the newly-re benchmarked pay for time not worked portion of wages – a return to "normalcy" from last year's sharp increase.

Wage Increases: There are no wage increases of any type scheduled for the fourth quarter in the national labor agreements. One independent labor agreement was added, but it did not have any impact on the index because of the small number of railroad employees involved with the agreement.

Labor

Fourth Quarter 2011

Lump Sums: The fourth quarter lump sum rate decreased 0.5 cents (or \$0.005). The decrease was caused by a combination of rebenchmarking and one lump sum that was completely amortized and removed from the index.

Back Pay: The fourth quarter back pay rate was too small to be impacted by rebenchmarking or the addition of one tiny back pay amount.

Other: In wages, "Other" contains the amortization of incentive compensation payments that a large railroad makes each year to its dispatchers, yardmasters, and engineers. Rebenchmarking caused the very small decrease (0.2 cents).

Supplements Index

The Supplements Index decreased 0.1 percent from the previous quarter. A decrease in employer contributions to 401(k) accounts was mostly offset by an increase in Railroad Retirement costs caused by rebenchmarking.

Health & Welfare: The Health & Welfare rate increased by 0.9 cents because of rebenchmarking.

Railroad Retirement: The Railroad Retirement & Medicare rate increased 1.5 percent because of rebenchmarking. Lower taxable income kept this component from increasing higher.

Unemployment Insurance: The unemployment insurance hourly rate decreased by 0.7 cents because of rebenchmarking.

Other: The "Other" category is a reflection of all other fringe benefits, and currently contain known employer contributions to employee 401(k) accounts and employer contributions to employee stock plans that are recorded as fringe benefits. The hourly rate decreased 12 cents, as this quarter typically does not have as many employer contributions or matches. Rebenchmarking had only a very small impact.

Labor Index Calculation

As shown in Table A-1 on the next page, the 3.2 percent decrease in the Wage Rate Index and the 0.1 percent decrease in the Supplements Index combined to cause a 1.8 percent decrease in the Labor Index. The linked fourth quarter 2011 index of 375.3 is determined by multiplying the third quarter linked index of 382.1 times the change between the fourth quarter labor index (395.5) and the original third quarter labor index recalculated (402.7) using the *original* third quarter Wage Rate and Supplements indexes weighted with the new 2010 weights. This method eliminates changes caused by the new weights, but captures changes caused by rebenchmarking. Therefore, the purpose of the center "Updated to Reflect..." column in table A-1 is only to enable the reader to discern the impact of rebenchmarking.

Labor
Fourth Quarter 2011
Table A-1 Labor Index

	<u>2011Q3</u>		<u>2011Q4</u>	
	Used in Previous Index Filing	Updated to Reflect 2010 Actual Data	Based on 2010 Data	Pct Chg From Prev. Filing
<u>Base Wage</u> – Straight Time & Pay For Time Not Worked	\$36.203	\$35.027	\$35.027	-3.2%
Adjustments:				
Lump Sum	0.228	0.226	0.223	-2.2%
Back Pay	0.038	0.038	0.038	0.0%
Other	0.199	0.197	0.197	-1.0%
Total Wages	<u>36.668</u>	<u>\$35.488</u>	<u>35.485</u>	-3.2%
Health & Welfare Benefits	8.631	8.640	8.640	0.1%
RR Retirement & Medicare	7.002	7.105	7.105	1.5%
Unemployment Insurance	0.606	0.599	0.599	-1.2%
Other	0.217	0.215	0.097	-55.3%
Total Supplements	<u>\$16.456</u>	<u>\$16.559</u>	<u>\$16.441</u>	-0.1%
Total Labor	\$53.124	\$52.047	\$51.926	
Wage Index¹	313.8	303.7	303.7	-3.2%
Supplements Index²	608.1	611.9	607.6	-0.1%
Total labor Index, 2009 Weights ³	401.8			
Total labor Index, 2010 Weights ⁴	402.7	396.8	395.5	
Labor Index (linked)⁵	382.1		375.3	-1.8%

¹ 1980 wage rate \$11.685
² 1980 supplements rate \$2.706
³ 2009 weights: wages, supplements 70.1% 29.9%
⁴ 2010 weights: wages, supplements 69.8% 30.2%
⁵ 2011Q4 linked Index = 2011Q3_{linked} X (2011Q4_{WT2010} / 2011Q3_{WT2010})
= 382.1 x 395.5 / 402.7

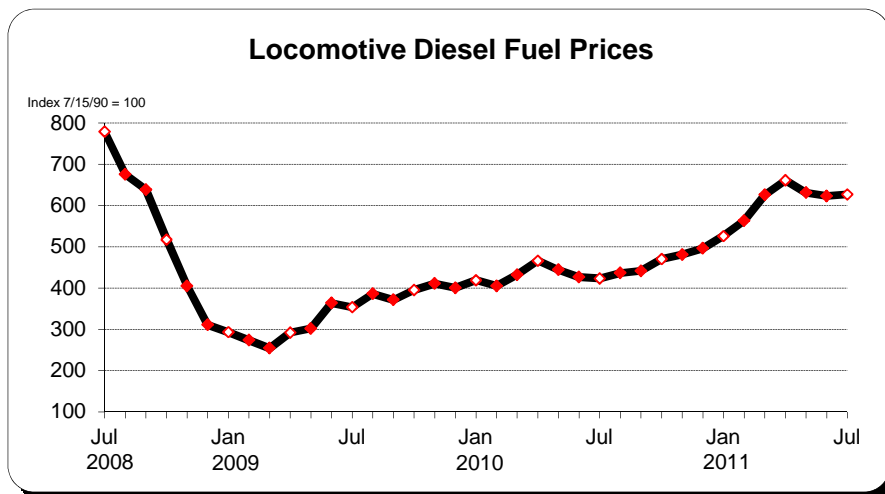
Fuel Fourth Quarter 2011

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.

Crude oil spot prices peaked in April at almost \$110 per barrel, but subsequently dipped below \$100.* In recent weeks, prices began rising again after reaching a low in mid August. Prices for heating oil also followed a pattern similar to that of crude oil.**

Locomotive diesel fuel prices also reached a peak in April 2011, continuing a trend upward that began after March 2009 (with a few "dips"). July 2011 is the latest month available for locomotive diesel fuel prices. Although July's average price continues the long-term upward trend, July's average is lower than the average for April.

Railroads believe locomotive diesel fuel prices for October 2011 (Q4) will be 1.2 percent higher than the third quarter forecast (represented by July in the Fuel Index). Because the third quarter forecast was slightly high, the fourth quarter 2011 forecast is 2.6 percent higher than the average price actually paid in July.



Forecast Fuel Index	396.9
Change from previous quarter forecast	1.2%
Change from previous quarter actual	2.6%

* Diesel fuel used by locomotives is made from refined crude oil, and therefore usually has some price correlation.

** Heating oil 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

Fourth Quarter 2011

The fourth quarter 2011 Materials & Supplies Index increased 3.0 percent from its corrected third quarter value.* The increase was again caused by higher prices paid for two of the three major materials categories: Metals (rail, wheels, etc.) and Miscellaneous (ballast, creosote, lube oil, and others) products.

2011Q4 Materials & Supplies Index =	265.7
2011Q3 <u>Materials & Supplies Index =</u>	<u>257.9 *</u>
Difference	7.8 basis points
	or
	3.0 %

* During August, the AAR received a correction to the price for one item used for the 2011Q3 RCAF. This item price change caused the original M&S Index (257.83 rounded to 257.8) to round up (257.85 rounded to 257.9) instead of rounding down. The AAR notified the Surface Transportation Board of the correction, and any differences caused by this revision will be accounted for in the 2012Q1 forecast error calculation. Additional workpapers showing the M&S calculation, and its impact on the RCAF, are available.

In the 2012Q1 forecast error calculation (which compares data effective two quarters earlier), the forecast version of the 2011Q3 M&S Index will be the original 257.8, and the actual version of the M&S Index will be the corrected 257.9 index. For the current 2011Q4 RCAF calculation, the M&S Index has been calculated as if the 2011Q3 version had used the corrected price, as has the RCAF.

Equipment Rents Fourth Quarter 2011

The Equipment Rents Index consists of two components – car hire and lease rentals. The methodology 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 the most recent month available. For the first quarter, December 1 of the previous year is used. For the second, third and fourth quarters; March 1, June 1, and September 1 are used, respectively. Using data retrieved from the latest CHARM file, an average rate per car is developed. Next, those average rates are grouped into car type categories to create an overall summary of car hire rates. The summary rates are then compared from quarter to quarter 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 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

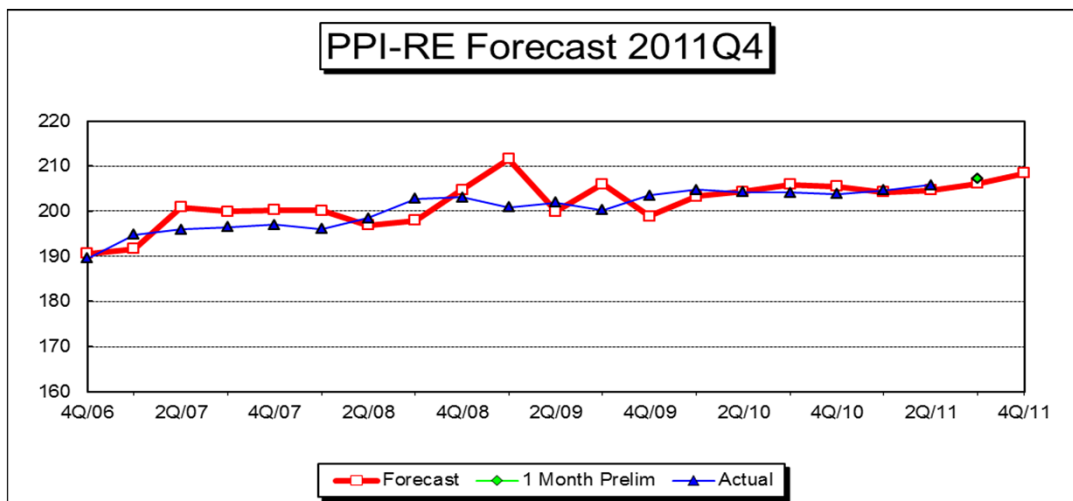
The table below calculates the Equipment Rent Index, and features new weights based on 2010. To eliminate any changes caused by the new weights, the third quarter weighted average (but not the linked value) has been recalculated using the new weights. The original third quarter weighted average using 2009 weights is 204.0. The fourth quarter Car Hire portion of the Index decreased 2.1 percent because of lower rates for privately-owned tank cars. A 0.9 percent decrease for the PPI-LF (See Appendix G) used as a proxy for Lease Rentals, combined with the 2.1 percent decrease for Car Hire, caused the Equipment Rent Index to decrease 1.4 percent.

	2010 Weight	2011Q3	2011Q4	Percent Change
Car Hire	45.8%	178.9	175.2	-2.1 %
Lease Rentals	54.2%	222.3	220.3	-0.9
Weighted Average		202.4	199.6	-1.4
Weighted Average (Linked)		208.8	205.9	-1.4

Depreciation Fourth Quarter 2011

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 reflects monthly PPI-RE figures that have been jumping up and down in the last five months.

Forecast of Depreciation Index (1982=100)	188.4
Forecast of Depreciation Index (1980=100)	208.4
Change from previous quarter forecast	1.1%
Change from actual first month of previous quarter	0.5%
Change from same quarter of prior year (actual)	2.3%



Depreciation Fourth Quarter 2011

PPI RAILROAD EQUIPMENT

Recommended model: Exponential Smoothing
 Forecast Model for PPIRE
 Holt exponential smoothing: Linear trend, No seasonality

Component	Smoothing Weight	Final Value
Level	0.83361	187.22
Trend	0.02184	0.30211

Within-Sample Statistics

Sample size 72	Number of parameters 2
Mean 178	Standard deviation 7.109
R-square 0.9958	Adjusted R-square 0.9754
Durbin-Watson 2.037	Ljung-Box(18)=18.07 P=0.5488
Forecast error 1.115	BIC 1.166
MAPE 0.004629	RMSE 1.099
MAD 0.8231	

Actual Values for the Most Recent 6 Periods:

Date	Actual
2011-02	185.100
2011-03	187.000
2011-04	185.200
2011-05	187.000
2011-06	185.800
2011-07	187.400

Forecasted Values

Date	2.5 Lower	Forecast	97.5 Upper
2011-08	185.233	187.519	189.805
2011-09	184.818	187.821	190.824
2011-10	184.545	188.123	191.702
2011-11	184.351	188.425	192.499
2011-12	184.212	188.727	193.243
QTR AVG	184.369	188.425	192.481

Interest Fourth Quarter 2011

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 available. Typically in the fourth quarter filing, the interest rate is updated to the new level. The source for interest expense is Schedule 210, column b, from the R-1 annual report. The lines used from current R-1 annual reports are listed below. The source for average total debt is Schedule 200 from the R-1 annual report. 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 are listed below. Beginning with fourth quarter 2011, the Interest Index is based on data for 2010.

The interest index is the latest year's interest rate divided by 7.85 percent, which was the interest rate in the 1980 base period.

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

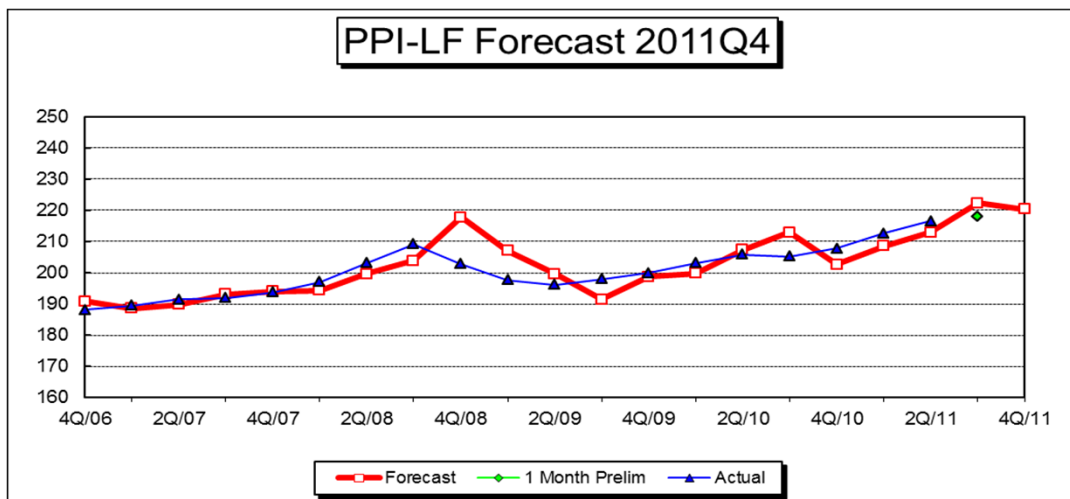
2010	Interest Rate	7.11%
1980	Interest Rate	7.85%
2011Q4	Interest Index	90.6
2011Q3	Interest Index	84.5
	Percent Change	7.2%

Other Expenses Fourth Quarter 2011

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 for the fourth quarter reflects monthly PPI-LF figures that began to have lower rates of increase in recent months.

Forecast of Other Expense Index (1982=100)	196.5
Forecast of Other Expense Index (1980=100)	220.3
Change from previous quarter forecast	-0.9%
Change from actual first month of previous quarter	1.1%
Change from same quarter of prior year (actual)	6.0%



Other Expenses Fourth Quarter 2011

**PPI INDUSTRIAL COMMODITIES LESS FUELS
AND RELATED PRODUCTS AND POWER**

Recommended model: Exponential Smoothing
 Forecast Model for PPILF
 Additive Winters: Linear trend, Additive seasonality

Component	Smoothing Weight	Final Value
Level	1.00000	194.50
Trend	0.99847	0.50015
Seasonal	0.00396	

Within-Sample Statistics

Sample size 72	Number of parameters 3
Mean 176.1	Standard deviation 9.123
R-square 0.9927	Adjusted R-square 0.9925
Durbin-Watson 1.97	** Ljung-Box(18)=16.31 P=0.4293
Forecast error 0.7897	BIC 0.8451
MAPE 0.00327	RMSE 0.7731
MAD 0.5764	

Actual Values for the Most Recent 6 Periods:

Date	Actual
2011-02	190.200
2011-03	191.200
2011-04	192.300
2011-05	193.400
2011-06	194.000
2011-07	194.500

Forecasted Values

Date	2.5 Lower	Forecast	97.5 Upper
2011-08	193.344	195.000	196.657
2011-09	191.799	195.500	199.202
2011-10	191.035	196.000	200.966
2011-11	190.533	196.501	202.469
2011-12	190.176	197.001	203.825
QTR AVG	190.581	196.501	202.420

Railroad and Union Abbreviations

Fourth Quarter 2011

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.)
CSX	CSX Transportation
D&H	Delaware & Hudson (Canadian Pacific's U.S. operations, to be included beginning 2011Q4.)
DME	Dakota, Minnesota & Eastern (Canadian Pacific's U.S. operations, to be included beginning 2011Q4.)
DMIR	Duluth, Missabe & Iron Range Company (Part of CN's Grand Trunk Corp.)
DWP	Duluth, Winnipeg & Pacific Railway (Part of CN's Grand Trunk Corp.)
EJE	Elgin, Joliet & Eastern Railway (Part of CN's Grand Trunk Corp.)
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 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
SMW	Sheet Metal Workers' International Association
TCU	Transportation Communication International Union
TCU-Carmen	Brotherhood of Railway Carmen Division of the Transportation Communications International Union
UTU	United Transportation Union
UTU-Yard	United Transportation Union Yardmaster Department (also noted as UTU-YMD)

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)