

ASSOCIATION
OF AMERICAN
RAILROADS

Craig F. Rocky
Vice President - Policy & Economics

September 6, 2005

The Honorable Vernon A. Williams
Secretary
Surface Transportation Board, Room 711
1925 K Street, N.W.
Washington, DC 20423-0001

Dear Mr. Williams:

This submission is the AAR forecast of the fourth quarter 2005 All-Inclusive Index and Rail Cost Adjustment Factor, filed in Ex Parte No. 290 (Sub-No. 5) (2005-4), *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 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 2005 results on the fourth quarter 2002 base, and shows the percentage changes from the previous quarter.

	<u>2005Q3</u>	<u>2005Q4</u>	<u>% Change</u>
All-Inclusive Index	113.0	117.3	3.8
Preliminary RCAF	1.130	1.173	3.8
Forecast Error Adjustment	0.006	0.012	
RCAF (Unadjusted)	1.136	1.185	4.3
Productivity Adjustment Factor	2.0567	2.0715	
RCAF (Adjusted)	0.552	0.572	3.6
PAF-5	2.1498	2.1616	
RCAF-5	0.528	0.548	3.8

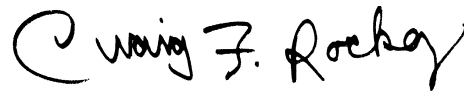
Page 2

September 6, 2005

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 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 third copy of the working papers has been delivered to Jeff Warren 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,

A handwritten signature in black ink that reads "Craig F. Rockey". The signature is written in a cursive, slightly slanted style.

Craig F. Rockey

Attachments

**Fourth Quarter 2005
All-Inclusive Index**

Ex Parte No. 290 (Sub-No. 5) (2005-4)

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

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

September 6, 2005

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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, 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 (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 of 2005.

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 previous (2003) weights were used for the fourth quarter of 2004 through the third quarter of 2005. Beginning with the fourth quarter of 2005, the 2004 weights are used. Like the previous year, Fuel and Other Expenses had the biggest increases in weights. Expenses used for each category's weight calculation all increased by a minimum of five percent, but Fuel and Other experienced the two largest percentage increases in expenses, resulting in an increase in their weights. Labor expenses did not increase as much as most of the others, and had the biggest percentage point (1.5) drop in weighting. All other changes in weights ranged from zero to a decrease of one half of a percentage point. The 2004 (current) and 2003 (previous) weights are shown below.

RCAF Weights		
	Previous 2003	Current 2004
Labor	37.5 %	36.0 %
Fuel	10.6	12.1
Materials & Supplies	4.4	4.4
Equipment Rents	9.4	8.9
Depreciation	10.7	10.6
Interest	3.2	3.0
Other	24.2	25.0

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 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 2005

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.

	2004 Weights	Forecast		Percent Change
		Previous 2005Q3	Current 2005Q4	
1. Labor	36.0%	291.1	287.7	-1.2 %
2. Fuel	12.1%	193.6	276.2	42.7
3. M&S	4.4%	179.8	179.9	0.1
4. Equipment Rents	8.9%	182.8	181.4	-0.8
5. Depreciation	10.6%	180.3	185.1	2.7
6. Interest	3.0%	90.2	92.7	2.8
7. Other	25.0%	179.5	176.2	-1.8
8. Weighted Average				
a. 1980 = 100		219.1	227.5	
b. 1980 = 100 (linked)		217.0	225.3 ¹	
c. 4Q02 = 100		113.0	117.3 ²	3.8

Note: The 219.1 weighted average for 2005Q3 is recalculated with 2004 weights to eliminate any changes in the fourth quarter index that would be caused by changing weights. The original figure with 2003 weights is 220.4.

¹ To calculate the 1980 = 100 Linked Index:

$$\begin{aligned} \text{Index}_{80} &= (\text{Current Index} / \text{Previous Index}) * \text{the Previous Quarter Linked Index} \\ &= \quad 227.5 \quad \text{divided by} \quad 219.1 \quad \text{times} \quad 217.0 \\ &= \quad 225.3 \end{aligned}$$

² To calculate the 4Q02 = 100 index:

$$\begin{aligned} \text{Index}_{4Q02} &= (\text{Current Linked Index} / 4Q02 Linking Factor) * 100 \\ &= \quad 225.3 \quad \text{divided by} \quad 192.1 \quad \text{times} \quad 100 \\ &= \quad 117.3 \end{aligned}$$

4Q97 based index = 130.1

4Q92 based index = 143.6

4Q87 based index = 170.4

Forecast vs. Actual All-Inclusive Index Second Quarter 2005

As shown below, the second quarter actual index of 113.1 is 1.2 index points above the forecast value of 111.9. Therefore, the forecast error adjustment for the fourth quarter 2005 is 1.2 index points.

	2003 Weights	Second Quarter 2005		Amt Difference
		Forecast	Actual	
1. Labor	37.5%	289.5	289.5	
2. Fuel	10.6%	186.9	204.2	
3. M&S	4.4%	176.4	176.4	
4. Equipment Rents ¹	9.4%	182.4	181.6	
5. Depreciation	10.7%	176.3	175.9	
6. Interest	3.2%	90.2	90.2	
7. Other	24.2%	178.9	176.3	
8. Weighted Average				
a. 1980 = 100		218.3	219.4	
b. 1980 = 100 (linked)		214.9	217.2 ²	
c. 4Q02 = 100 ³		111.9	113.1	1.2

Forecast error \longrightarrow **1.2 index points**

1	2003 Weights	Second Quarter 2005	
		Forecast	Actual
Car-Hire	50.1%	174.9	175.1
Lease Rentals	49.9%	178.9	176.3
Weighted Average		176.9	175.7
Weighted Average (linked)		182.4	181.6

² Linked actual index = (actual index / previous actual index) x previous linked actual index.
 $217.2 = 219.4 / 214.0 \times 211.9$

³ The 4Q02 based indexes are 1980 based indexes divided by the 4Q02 linking factor (192.1/100).
 4Q97 based indexes are the 1980 based indexes divided by the 4Q97 linking factor (173.2/100).
 4Q92 based indexes are the 1980 based indexes divided by the 4Q92 linking factor (156.9/100).

Productivity

On February 18, 2005, the Surface Transportation Board (STB) served a decision in Ex Parte 290 (Sub-No. 4) which added the year 2003 to the Productivity Adjustment Factor (PAF) and deleted the year 1998. This creates an average annual productivity for 1999 through 2003 of 2.9 percent – an increase from the 1998 through 2002 average of 2.2 percent. The components of this average annual value are shown on the following table. Productivity changes are calculated by dividing the output index by the input index. The average annual rate is calculated by multiplying each of the five productivity changes together and taking the result to the one fifth power. The quarterly 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 average annual growth rate. The difference between the PAF and the PAF-5 is the timing of the 5-year productivity trend.

Comparison of Output, Input, & Productivity			
1999 - 2003			
Year	Output Index (1)	Input Index (2)	Productivity ¹ Changes (3)
1999	1.032	1.008	1.024
2000	1.029	0.953	1.079
2001	0.971	0.955	1.016
2002	1.012	1.006	1.006
2003	1.039	1.020	1.019
Average			1.029
Previous Average (1998-2002)			1.022

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 1999-2003 use fourth root of avg. productivity change			1.0072
For 1998-2002 use fourth root of previous avg. change			1.0055
Quarter	Year	PAF	PAF-5
Q1	2005	2.0274	2.1263
Q2	2005	2.0420	2.1380
Q3	2005	2.0567	2.1498
Q4	2005	2.0715	2.1616
Q1	2006	2.0864	2.1772

Rail Cost Adjustment Factor

Fourth Quarter 2005

Four RCAF values are presented in this filing. Two of the indexes, the All-Inclusive Index and the Unadjusted RCAF, are not modified for productivity, while the Adjusted RCAF and the RCAF-5 incorporate a productivity calculation. The All-Inclusive Index and all four RCAF values, plus the percent change for each, are shown below.

	Previous 2005Q3	Current 2005Q4	Percent Change
All-Inclusive Index ¹	113.0	117.3	3.8
Preliminary RCAF ²	1.130	1.173	3.8
Forecast Error Adjustment ³	<u>0.006</u>	<u>0.012</u>	
RCAF (Unadjusted) ⁴	1.136	1.185	4.3
Productivity Adjustment Factor ⁵	2.0567	2.0715	
RCAF (Adjusted) ⁶	0.552	0.572	3.6
PAF-5 ⁷	2.1498	2.1616	
RCAF-5 ⁸	0.528	0.548	3.8

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 2005

The fourth quarter 2005 Labor Index is forecast to decrease 1.2 percent, caused mostly by rebenchmarking to 2004 annual reports and wage statistics.

Rebenchmarking: 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 2004 data underlying the fourth quarter rebenchmarking are obtained from the railroads' 112-Class Wage Statistics and the railroads' R-1 Annual Reports (including railroad revisions through July 30) to the Surface Transportation Board. The source for the wage and supplements internal weights, like the external weights, is the R-1 Annual Report Summary.

Wage Index

The Wage Index portion of the Labor Index is forecast to decrease 0.3 percent. All of the decrease was caused by rebenchmarking. An even larger decrease was partially offset by the addition of six new agreements.

New National Agreement: A new national agreement for the International Association of Machinists and Aerospace Workers (IAM) was added to the Wage Index. (Appendix H lists the abbreviations for railroads and unions used in the text below.) IAM employees, including those not part of the national agreement, account for about four percent of Class I railroad employees. The new agreement, which is effective September 1, features retro-active general wage increases of 4.0, 2.5, 3.0 and 2.5 percent. The 4.0 percent increase is effective July 1, 2002. The remaining increases were effective on July 1 of 2003, 2004, and 2005. The 48 cent cost-of-living allowance (COLA) effective on June 30, 2002 is rolled into the wage rate effective on that date. Any subsequent COLAs paid after that date are to be recovered from any retro-active wage increase payments.

Independent Agreements: Five new independent agreements (IAM, IBBM, IBEW, NCFO and SMW) were added for the Soo Line. Most of the new agreements featured retro-active general wage increases.

Wage Increases: There are no known wage increases scheduled for the fourth quarter.

Lump Sums: The lump sum rate decreased by a half cent because of a combination of rebenchmarking and one new independent contract with a lump sum payment.

Back Pay: The back pay rate increased because of back pay amounts added for the new national IAM agreement plus the new independent SOO agreements.

Labor

Fourth Quarter 2005

Other: This component decreased by \$0.006 from the previous quarter because of rebenchmarking.

Supplements Index

The Supplements Index is forecast to decrease 2.5 percent from the third quarter filing. Almost all of the change was caused by rebenchmarking.

Health & Welfare: The Health & Welfare hourly rate decreased by 4.7 percent because of the addition of new cost sharing rates, rebenchmarking to 2004 data, and new contracts beginning employee cost sharing.

Railroad Retirement: The Railroad Retirement and Medicare hourly rate decreased 0.6 percent because of lower (rebenchmarked) taxable wages.

Unemployment Insurance: The Unemployment Insurance rate decreased by one half of a cent because of rebenchmarking.

Other: The "Other" category is a reflection of all other fringe benefits, and currently contains employer contributions to employee 401(k) accounts that are recorded as fringe benefits. The decrease of one half of a cent was caused mostly by lower employer contributions.

Labor Index Calculation

As shown in table A-1 on the next page, the 0.3 percent decrease in the Wage Index and the 2.5 percent decrease in the Supplements Index had a combined effect of a 1.2 percent decrease in the Labor Index. The linked fourth quarter 2005 index of 287.7 is determined by multiplying the third quarter linked index of 291.1 times the change between the fourth quarter labor index (298.4) and a third quarter labor index (301.9) recalculated using the original third quarter wages and supplements indexes weighted with the new 2004 weights. This method eliminates changes caused by the new weights, but captures changes caused by rebenchmarking. 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 2005
Table A-1 Labor Index

	2005Q3		2005Q4	
	Used in Previous Index Filing	Updated to Reflect 2004 Actual Data	Based on 2004 Data	Pct Chg From Prev. Filing
<u>Base Wage</u> – Straight Time & Pay For Time Not Worked	\$29.416	\$29.118	\$29.192	-0.8%
Adjustments:				
Lump Sum	0.137	0.131	0.132	-3.6%
Back Pay	0.115	0.110	0.258	124.3%
Other	0.124	0.118	0.118	-4.8%
Total Wages	\$29.792	\$29.477	29.700	-0.3%
Health & Welfare Benefits	5.115	4.894	4.874	-4.7%
RR Retirement & Medicare	6.140	6.076	6.106	-0.6%
Unemployment Insurance	0.164	0.159	0.159	-3.0%
Other	0.046	0.046	0.041	-10.9%
Total Supplements	\$11.465	\$11.175	\$11.180	-2.5%
Total Labor	\$41.257	\$40.652	\$40.880	
Wage Index¹	255.0	252.3	254.2	-0.3%
Supplements Index²	423.7	413.0	413.2	-2.5%
Total labor Index, 2003 Weights ³	304.4			
Total labor Index, 2004 Weights ⁴	301.9	297.0	298.4	
Labor Index (linked)⁵	291.1		287.7	-1.2%

¹ 1980 wage rate \$11.685

² 1980 supplements rate \$2.706

³ 2003 weights: wages, supplements 70.7% 29.3%

⁴ 2004 weights: wages, supplements 72.2% 27.8%

⁵ 2005Q4 linked Index = 2005Q3_{linked} x (2005Q4_{WT2004} / 2005Q3_{WT2004})
 = 291.1 x 298.4 / 301.9

Fuel

Fourth Quarter 2005

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.

On August 29, Hurricane Katrina slammed into the Louisiana, Mississippi, and Alabama Gulf Coast, and has had a catastrophic impact on the country's oil industry. The huge category 4 hurricane caused significant damage to the area's housing and infrastructure, led to flooding in a vast region including the city of New Orleans, and caused power outages for 2.3 million customers. About one tenth of the nation's refining* capacity, and one fourth of the oil production capacity, was halted because of the storm. Ports that receive crude oil were also affected. Estimates for power restoration range from weeks to months. The damage appears to be more severe to the refining and distribution system than the offshore oil production facilities. As many as nine refineries were closed because of evacuations or damage, including three that were flooded. The Energy Information Administration has estimated that some refineries will probably be "able to restart their operations within the next 1 to 2 weeks, while others will likely be down for a more extended period, possibly several months." In addition to damage and flooding caused by the storm, refiners face challenges relating to evacuated employees and their housing, lack of electricity, and lack of access to crude oil. The lack of electricity is also preventing the distribution of crude oil and refined oil products, causing some refiners located beyond the direct impact of the storm to reduce operations, and causing some shortages of gasoline and jet fuel.

Prior to the hurricane, railroad monthly fuel prices had already been increasing. On September 1 (after the hurricane), the daily price for NYMEX Heating Oil** was 32 percent higher than its July average. The railroads believe that their average fourth quarter (October) 2005 fuel price will be 30 percent above the record prices they paid in July. Because the July forecast was below the prices the railroads actually paid, the fourth quarter forecast represents a 43 percent increase from the third quarter forecast.

Forecast fuel index	276.2
Change from previous quarter forecast	42.7%
Change from previous quarter actual	29.9%

* Diesel fuel used by locomotives is made from refined crude oil.

** Heating oil and locomotive diesel fuel are part of a group of closely related products 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 2005

The Materials & Supplies Index increased just slightly from the third quarter of 2005. Increases in prices for products such as lube oil, ballast and creosote were almost entirely offset by decreases in prices for metal products such as rail, tie plates, and freight car wheels. Overall, the Materials & Supplies Index increased by only 0.1 percent.

2005Q4 Materials & Supplies Index = 179.9

2005Q3 Materials & Supplies Index = 179.8

Difference	0.1 basis points
	or
	0.1 %

Equipment Rents Fourth Quarter 2005

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 rental 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 Rent Index Calculation

The table below calculates the Equipment Rent Index. 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 0.3 percent increase in the Car Hire portion of the Index was caused by higher rates for privately-owned tank cars. A 1.8 percent drop in Lease Rentals combined with the increase in Car Hire to cause the overall Equipment Rent Index to fall 0.8 percent.

	2004	2005Q3	2005Q4	Percent
	Weight			Change
Car Hire	51.0%	175.1	175.6	0.3 %
Lease Rentals	49.0%	179.5	176.2	-1.8
Weighted Average		177.3	175.9	-0.8
Weighted Average (Linked)		182.8	181.4	-0.8

Depreciation Fourth Quarter 2005

The Producer Price Index for Railroad Equipment (PPI-RE) is used to index depreciation expense. The PPI-RE 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 monthly data 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 reflects monthly PPI-RE figures that continue to increase at much higher rates than earlier years.

Forecasted depreciation index (1982=100)	167.3
Forecasted depreciation index (1980=100)	185.1
Change from previous quarter forecast	2.7%
Change from actual first month of previous quarter	4.4%
Change from same quarter of prior year (actual)	13.8%

Depreciation Fourth Quarter 2005

PPI RAIL EQUIPMENT

Recommended model: Box-Jenkins
 Forecast Model for PPIRE
 ARIMA(0,1,4)*(0,1,0) with log transform

Term	Coefficient	Std. Error	t-Statistic	Significance
b[1]	-0.1195	0.1208	-0.9889	0.6730 <-
b[2]	-0.0601	0.1012	-0.5937	0.4448 <-
b[3]	-0.4849	0.1049	-4.6227	1.0000
b[4]	0.4110	0.1203	3.4177	0.9988

Within-Sample Statistics

Sample size 72	Number of parameters 4
Mean 4.934	Standard deviation 0.04989
R-square 0.9827	Adjusted R-square 0.9819
Durbin-Watson 1.967	Ljung-Box(18)=18.93 P=0.6036
Forecast error 0.006707	BIC 1.02
MAPE 0.003432	RMSE 0.9661
MAD 0.4959	

Actual Values for the Most Recent 6 Periods:

Date	Actual
2005-02	156.000
2005-03	161.600
2005-04	157.500
2005-05	158.100
2005-06	161.300
2005-07	160.300

Forecasted Values

Date	2.5 Lower	Forecast	97.5 Upper
2005-08	159.210	161.472	163.767
2005-09	159.953	163.377	166.875
2005-10	159.249	163.598	168.065
2005-11	159.835	165.652	171.680
2005-12	165.889	172.638	179.662
QTR AVG	161.658	167.296	173.136
2006-01	165.484	172.864	180.572
2006-02	167.710	175.794	184.267
2006-03	173.173	182.104	191.496

Interest Fourth Quarter 2005

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.

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

2004	Interest Rate	7.28%
1980	Interest Rate	7.85%
2005Q4	Interest Index	92.7
2005Q3	Interest Index	90.2
	Percent Change	2.8%

Other Expenses

Fourth Quarter 2005

The Producer Price Index for Industrial Commodities less Fuel 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 monthly data 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 reflects early 2005 monthly PPI-LF figures that have been increasing at lower rates than the rates for 2004, plus recent months that are all lower than the April peak.

Forecasted Other Expense (1982=100)	157.2
Forecasted Other Expense (1980=100)	176.2
Change from previous quarter forecast	-1.8%
Change from actual first month of previous quarter	0.1%
Change from same quarter of prior year (actual)	1.4%

Other Expenses Fourth Quarter 2005

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

Forecast Model for PPILF

Additive Winters: Linear trend, Additive seasonality

Component	Smoothing Weight	Final Value
Level	0.90360	157.05
Trend	0.34500	0.026448
Seasonal	0.99950	

Seasonal Indexes

January - March	0.022698	-0.040328	-0.032870
April - June	-0.013770	-0.093915	-0.032220
July - September	0.045807	0.0072782	-0.052933
October - December	0.29104	0.051792	-0.15258

Within-Sample Statistics

Sample size 72	Number of parameters 3
Mean 145.9	Standard deviation 5.112
R-square 0.9959	Adjusted R-square 0.9958
Durbin-Watson 1.447	* Ljung-Box(18)=30.63 P=0.9682
Forecast error 0.3302	BIC 0.3533
MAPE 0.001686	RMSE 0.3232
MAD 0.2474	

Actual Values for the Most Recent 6 Periods:

Date	Actual
2005-02	156.900
2005-03	157.400
2005-04	157.800
2005-05	157.300
2005-06	156.900
2005-07	157.100

Forecasted Values

Date	2.5 Lower	Forecast	97.5 Upper
2005-08	156.395	157.088	157.780
2005-09	155.964	157.054	158.144
2005-10	156.048	157.425	158.802
2005-11	155.598	157.212	158.826
2005-12	155.214	157.034	158.854
QTR AVG	155.620	157.224	158.827

Railroad and Union Abbreviations

Fourth Quarter 2005

Railroads

ATSF	The Atchison, Topeka & Santa Fe Railway (Merged with Burlington Northern to form BNSF.)
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 Railway (Also noted as CPR. Owns the U.S. Class I railroad Soo Line.)
CSX	CSX Transportation
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.)
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 (Canadian Pacific Railway's western U.S. operations.)
SSAM	Sault Saint Marie Bridge Company (Part of CN's Grand Trunk Corp.)
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 Division 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)