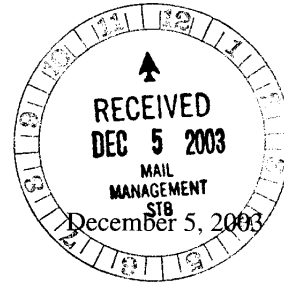


209547



ASSOCIATION
OF AMERICAN
RAILROADS

Craig F. Rockey
Vice President - Policy & Economics



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 first quarter 2004 All-Inclusive Index and Rail Cost Adjustment Factor, filed in Ex Parte No. 290 (Sub-No. 5) (2004-1), *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 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 2004 results on the fourth quarter 2002 base, and shows the percentage changes from the previous quarter.

	<u>2003Q4</u>	<u>2004Q1</u>	<u>% Change</u>
All-Inclusive Index	102.0	101.8	-0.2
Preliminary RCAF	1.020	1.018	-0.2
Forecast Error Adjustment	-0.003	0.007	
RCAF (Unadjusted)	1.017	1.025	0.8
Productivity Adjustment Factor	1.9741	1.9834	
RCAF (Adjusted)	0.515	0.517	0.4
PAF-5	2.0754	2.0852	
RCAF-5	0.490	0.492	0.4

ENTERED
Office of Proceedings

DEC 05 2003

Part of
Public Record

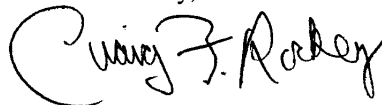
50 F Street, N.W. ♦ Washington, D.C. 20001-1564
Voice (202) 639-2319 ♦ Fax (202) 639-2499 ♦ crockey@aar.org

Page 2
December 5, 2003

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, reading "Craig F. Rockey". The signature is written in a cursive style with a large, looping initial "C".

Craig F. Rockey

Attachments

**First Quarter 2004
All-Inclusive Index**

Ex Parte No. 290 (Sub-No. 5) (2004-1)

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

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

December 5, 2003

Table of Contents

Subject	Page
Introduction	1
Index Weights	2
All-Inclusive Index - First Quarter 2004	3
Forecast vs. Actual All Inclusive Index - Third Quarter 2003	4
Productivity	5
Rail Cost Adjustment Factor - First Quarter 2004	6
Appendices	
A Labor	
B Fuel	
C Materials & Supplies	
D Equipment Rents	
E Depreciation	
F Interest	
G Other Expenses	
H Railroad and Union Abbreviations	

Introduction

On January 2, 1985, the Interstate Commerce Commission (ICC) [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 first quarter of 2004.

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 (2001) weights were used for the fourth quarter of 2002 through the third quarter of 2003. Beginning with the fourth quarter of 2003, the 2002 weights are used. The biggest change in the weights was for Fuel, which decreased by 1.5 percentage points, close to its weight based on 1996 data. The Other component increased by 1.3 percentage points. The changes for the remaining components were by three tenths of a percentage point or less. The 2002 (current) and 2001 (previous) weights are shown below.

RCAF Weights		
	Previous 2001	Current 2002
Labor	37.8 %	38.0 %
Fuel	10.5	9.0
Materials & Supplies	4.6	4.6
Equipment Rents	10.5	10.3
Depreciation	10.6	10.9
Interest	3.8	3.7
Other	22.2	23.5

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 First Quarter 2004

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.

	2002 Weights	Forecast		Percent Change
		Previous 2003Q4	Current 2004Q1	
1. Labor	38.0%	278.3	276.8	-0.5 %
2. Fuel	9.0%	113.3	110.8	-2.2
3. M&S	4.6%	154.8	160.3	3.6
4. Equipment Rents	10.3%	175.7	176.7	0.6
5. Depreciation	10.9%	152.4	150.7	-1.1
6. Interest	3.7%	98.0	98.0	0.0
7. Other	23.5%	162.6	163.9	0.8
8. Weighted Average				
a. 1980 = 100		199.6	199.3	
b. 1980 = 100 (linked)		195.9	195.6 ¹	
c. 4Q02 = 100		102.0	101.8 ²	-0.2

¹ To calculate the 1980 = 100 Linked Index:

$$\begin{aligned} \text{Index}_{80} &= (\text{Current Index} / \text{Previous Index}) * \text{the Previous Quarter Linked Index} \\ &= 199.3 \quad \text{divided by} \quad 199.6 \quad \text{times} \quad 195.9 \\ &= 195.6 \end{aligned}$$

² To calculate the 4Q02 = 100 index:

$$\begin{aligned} \text{Index}_{4Q02} &= (\text{Current Linked Index} / 4Q02 \text{ Linking Factor}) * 100 \\ &= 195.6 \quad \text{divided by} \quad 192.1 \quad \text{times} \quad 100 \\ &= 101.8 \end{aligned}$$

4Q97 based index = 112.9
4Q92 based index = 124.7
4Q87 based index = 148.0

Forecast vs. Actual All-Inclusive Index Third Quarter 2003

As shown below, the third quarter actual index of 101.3 is 0.7 index points above the forecast value of 100.6. Thus, the forecast error adjustment in the first quarter 2004 is 0.7 index points.

	2001	Third Quarter 2003		Amt
	Weights	Forecast	Actual	Difference
1. Labor	37.8%	273.5	273.5	
2. Fuel	10.5%	106.3	108.0	
3. M&S	4.6%	152.7	152.7	
4. Equipment Rents ¹	10.5%	175.8	175.9	
5. Depreciation	10.6%	149.9	151.7	
6. Interest	3.8%	98.6	98.6	
7. Other	22.2%	163.2	162.6	
8. Weighted Average				
a. 1980 = 100		195.9	196.1	
b. 1980 = 100 (linked)		193.3	194.6 ²	
c. 4Q02 = 100 ³		100.6	101.3	0.7

Forecast error —————> **0.7 index points**

¹	2001	Third Quarter 2003	
	Weights	Forecast	Actual
Car-Hire	51.5%	177.4	177.4
Lease Rentals	48.5%	163.2	162.6
Weighted Average		170.5	170.2
Weighted Average (linked)		175.8	175.9

² Linked actual index = (actual index / previous actual index) x previous linked actual index.
 194.6 = 196.1 / 195.1 x 193.6

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 January 31, 2003, the Surface Transportation Board (STB) served a decision in Ex Parte 290 (Sub-No. 4) which added the year 2001 to the Productivity Adjustment Factor (PAF) and deleted the year 1996. This creates an average annual productivity for 1997 through 2001 of 1.9 percent – a decrease from the 1996 through 2000 average of 4.2 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			
1997 - 2001			
Year	Output Index (1)	Input Index (2)	Productivity Changes (3)
1997	1.008	1.019	0.989
1998	1.006	1.018	0.988
1999	1.032	1.008	1.024
2000	1.029	0.953	1.080
2001	0.971	0.955	1.017
Average			1.019
Previous Average (1996-2000)			1.042

Note: To be consist with their recent requirement that CSX Transportation (CSXT) include expenses and operating statistics for CSX Intermodal traffic carried by CSXT, the STB has recalculated all of the Input and Output Indexes used to develop the latest 5-year average. The impact of this change was insignificant.

Calculation of PAF and PAF-5			
For 1997-2001 use fourth root of avg. productivity change			1.0047
For 1996-2000 use fourth root of previous avg. change			1.0103
Quarter	Year	PAF	PAF-5
Q1	2003	1.9466	2.0126
Q2	2003	1.9557	2.0333
Q3	2003	1.9649	2.0542
Q4	2003	1.9741	2.0754
Q1	2004	1.9834	2.0852

1996-2000

1997-2001

Rail Cost Adjustment Factor

First Quarter 2004

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 2003Q4	Current 2004Q1	Percent Change
All-Inclusive Index ¹	102.0	101.8	-0.2
Preliminary RCAF ²	1.020	1.018	-0.2
Forecast Error Adjustment ³	-0.003	0.007	
RCAF (Unadjusted) ⁴	1.017	1.025	0.8
Productivity Adjustment Factor ⁵	1.9741	1.9834	
RCAF (Adjusted) ⁶	0.515	0.517	0.4
PAF-5 ⁷	2.0754	2.0852	
RCAF-5 ⁸	0.490	0.492	0.4

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 2004

The first quarter 2003 Labor Index is forecast to decrease 0.5 percent, caused by decreases in supplements. Supplements were impacted by lower Tier II rates for Railroad Retirement, and lower Unemployment Insurance tax rates. The wage rate increased.

New National Contracts

National BRS Contract: On September 24, 2003, the Brotherhood of Railroad Signalmen (BRS) signed a new agreement with the National Carriers' Conference Committee. The agreement is similar to the Transportation Communications International Union (TCU) agreement from earlier in the year, and affects a group of railroads that includes 5 Class I railroads. Highlights of the decision are as follows: 27 cents of the cost-of-living allowance (COLA) is rolled into basic rates of pay effective October 1, 2001; COLAs terminate effective June 30, 2002; a 2.5 percent (retroactive) general wage increase effective June 30, 2002; a 3.5 percent (retroactive) general wage increase effective July 1, 2002; and a 3.0 percent (retroactive) general wage increase effective July 1, 2003. A 3.25 percent wage increase is effective July 1, 2004. COLAs could resume in 2005. In addition, BRS employees will participate in health & welfare cost sharing by making a pre-tax contribution toward health & welfare premiums. The monthly per employee health & welfare contribution will be \$33.39, \$81.18, and \$79.74 – effective July 1, 2001, 2002, and 2003, respectively. Effective July 1, 2004, the cost sharing rate changes to \$100 per month per employee. Retroactive employee health & welfare cost sharing will be offset against retroactive wage payments.

National UTU H&W Contract: On August 20, 2002, the United Transportation Union (UTU) signed a new national agreement that contained wage increases and agreed to continue negotiating health & welfare issues. In November 2003, an agreement was reached that called for employee health & welfare cost sharing of \$119.61 per employee per month effective November 1, 2003 through June 30, 2004. Effective July 1, 2004, the cost sharing rate will change to \$100. The wage increase scheduled for July 1, 2004, will be moved to December 1, 2004. This health & welfare agreement, and the wage increase delay, also affects the UTU's Yardmasters Department.

Tentative National BLE Contract: According to the Web site for the Brotherhood of Locomotive Engineers, that union has reached a tentative agreement with the National Carriers' Conference Committee that covers work rules, wages, and health & welfare. If this agreement is ratified and signed, it will be incorporated in the second quarter RCAF filing in March.

Unions with Recent National Agreements:

2001 - BMWE (signed May 31)

2002 - UTU & UTU Yardmasters (signed August 20), IBBM (signed November 1)

2003 - TCU & TCU Carmen (signed March 21), BRS (signed September 24)

Labor

First Quarter 2004

Wage Index

National Increases: Effective January 1, 2004, unions still participating in the 1996 national agreements will receive a 3 cent COLA increase. This does not affect the newer national agreements for the Brotherhood of Maintenance of Way Employees (BMWE), UTU and UTU-Yardmasters, International Brotherhood of Boilermakers and Blacksmiths (IBBM), TCU and TCU-Carmen, and the BRS. Non-union employees were assigned the same 2.5 percent wage increase that the UTU, UTU-Yardmasters, and IBBM received in July 2003, effective January 1, 2004.

Independent Contracts: All Grand Trunk Western unions, except the UTU and BLE, receive 3 percent wage increases effective January 1. The non-union increase of 2.5 percent was assigned to UP and IC's dispatchers, plus various employee groups from CN's Wisconsin Central and Chicago, Central & Pacific. UP's yardmasters and all Soo Line unions, except Soo's BMWE, received a 3 cent increase in their COLA.

Lump Sums: The lump sum adjustment decreased by 0.3 cents as two lump sum amounts were completely amortized and removed. No new lump sum amounts were added.

Back Pay: The back pay adjustment decreased 0.8 cents. Back pay amounts were added, with offsets for health & welfare cost sharing, for the new BRS contract. Negative back pay amounts for November and December were added for the new UTU & UTU-YMD agreement that began employee cost sharing on November 1, 2003. In addition, more negative back pay amounts were added for independent unions that mimic the national health & welfare agreements but already had their wage increases.

Other: This component contains the amortization of a profit sharing payment that the BNSF made to its Brotherhood of Locomotive Engineers employees from the former Atchison, Topeka and Santa Fe Railway in early 2003 for performance in 2002. This hourly adjustment was unchanged.

Supplements Index

The Supplements Index is forecast to decrease by 2.3 percent from the fourth quarter filing. Most of this decrease was caused by lower Tier II and Unemployment Insurance payroll taxes.

Health & Welfare: The Health & Welfare hour rate increased 3.5 percent from the fourth quarter level because of the new 2004 rates. Page 5 of this appendix compares various supplement rates, and page 6 shows the National Railway Labor Conference memo that lists the 2004 rates to be paid by participating employers. Some of the cost of the increase in Health & Welfare premiums was diluted by new employee cost sharing added for the UTU, UTU-Yardmasters, BRS, and independent contracts.

Labor

First Quarter 2004

Railroad Retirement: Higher wages and tax maximums for 2004 were offset by the lower (13.1 percent) Tier II tax rate, which caused the Railroad Retirement and Medicare hourly rate to decrease 4.6 percent.

Unemployment Insurance: Railroad unemployment insurance rates are experienced-rated by employer and will range from 2.15 (0.65 plus a 1.5 percent surcharge) to 12 percent on monthly employee compensation up to \$1,130. The weighted-average 2004 unemployment insurance rate for the Class I railroads is 2.88 percent. 2004's lower surcharge contributed to the lower Class I average tax rate, helping the Unemployment Insurance rate to decrease by 36.9 percent.

Other: The "Other" category, a reflection of a quarterly employer matching 401(k) contribution by BNSF to certain BMW and Brotherhood of Locomotive Engineers employees, increased by one tenth of one cent because of a much higher dollar contribution.

Labor Index Calculation

As shown in table A-1 on the next page, the 0.7 percent increase in the Wage Index and the 2.3 percent decrease in the Supplements Index had a combined effect of a 0.5 percent decrease in the Labor Index. The linked first quarter 2004 index is 276.8.

Labor
First Quarter 2004

Table A-1 Labor Index

	2003Q4	2004Q1	Change	
			Percent	Amount
Base Wage – Straight Time & Pay For Time Not Worked	\$28.057	\$28.271	0.8%	\$0.214
Adjustments:				
Lump Sum	0.054	0.051	-5.6%	-0.003
Back Pay	0.033	0.025	-24.2%	-0.008
Other	0.010	0.010	0.0%	0.000
Total Wages	<u>28.154</u>	<u>28.357</u>	0.7%	0.203
Health & Welfare Benefits	4.466	4.623	3.5%	0.157
RR Retirement & Medicare	6.332	6.038	-4.6%	-0.294
Unemployment Insurance	0.328	0.207	-36.9%	-0.121
Other	0.010	0.011	10.0%	0.001
Total Supplements	<u>\$11.136</u>	<u>\$10.879</u>	-2.3%	-0.257
Total Labor	\$39.290	\$39.236		
Wage Index¹	240.9	242.7	0.7%	
Supplements Index²	411.5	402.0	-2.3%	
Total labor Index, 2002 Weights ³	291.6	290.0		
Labor Index (linked)⁴	278.3	276.8	-0.5%	

¹ 1980 wage rate	\$11.685		
² 1980 supplements rate	\$2.706		
³ 2002 weights: wages, supplements	70.3%	29.7%	
⁴ 2004Q1 linked Index = 2003Q4 _{linked} x	(2004Q1	/	2003Q4)
	= 278.3	x	290.0 / 291.6

Labor First Quarter 2004

Supplement Comparisons

Health and Welfare Rates

Plan	Railroad Contribution Per Employee Per Month				
	2002	2003	2004	Change	
				'02-'04	'03-'04
Group Health & Life	\$836.48	\$875.93	\$935.45	11.8%	6.8%
Early Retirement Major Medical*	40.09	65.73	70.93	76.9%	7.9%
Group Dental	43.41	52.20	52.20	20.2%	0.0%
Group Vision	8.40	8.61	9.37	11.5%	8.8%
Supplemental Sickness					
Maintenance of Way	33.32	39.25	38.00	14.0%	-3.2%
Shop Crafts	46.22	47.50	61.00	32.0%	28.4%
Signalmen	32.24	31.75	33.00	2.4%	3.9%
Yardmasters	32.18	31.33	40.74	26.6%	30.0%

* Early Retirement Major Medical rate was \$31.00 for January and February of 2002.

Railroad Retirement and Medicare

	Earnings Base			Employer Rate		
	2002	2003	2004	2002	2003	2004
Tier I	\$84,900	\$87,000	\$87,900	6.20%	6.20%	6.20%
Tier II	63,000	64,500	65,100	15.60%	14.20%	13.10%
Medicare	no limit	no limit	no limit	1.45%	1.45%	1.45%

Unemployment Insurance

Monthly Taxable Earnings Base			Weighted Avg. Class I Rate		
2002	2003	2004	2002	2003	2004
\$1,100	\$1,120	\$1,130	3.81%	4.61%	2.88%

Supplemental Annuity

This payroll tax was abolished effective 2002.

Labor
First Quarter 2004

12-2003 15:25

NRLC

203 862 7257 FAX

NATIONAL RAILWAY LABOR CONFERENCE
EMPLOYEE BENEFITS DEPARTMENT

1981 L STREET, N.W., WASHINGTON, D.C. 20036-3514 ♦♦♦♦ PHONE: (202) 862-7200 FAX: (202) 862-7253

JOSEPH EPSTEIN
Director Employee Benefits
(202) 862-7244
E-mail: jepstein@nrlc.org

SUSAN E. PARKS, CERS
Benefits Administrator
(202) 862-7225
E-mail: sparks@nrlc.org

November 12, 2003

Mr. Clyde Crimmel
Director Statistical Information
Policy & Communications Department
AAR-5th Floor
50 F Street N.W.
Washington, D.C. 20009

Dear Mr. Crimmel:

The revised employer Payment Rates which are effective January 1, 2004 are as follows:

UNUMProvident - Supplemental Sickness Plans	
ShopCrafts	\$ 61.00
Signalmen	\$ 33.00
Maintenance of Way	\$ 38.00
Trustmark - Supplemental Sickness Plans	
Yardmasters	\$ 40.74
Railroad Employees National Health & Welfare Plan & National Railway Carriers/United Transportation Union H&W Plan	
Non-Hospital Road	\$935.45
Railroad Employees National Early Retirement Major Medical Benefit Plan	
Non-Hospital Road	\$ 70.83
Aetna - National Dental Plan	\$ 52.20
VSP - National Vision Plan	\$ 9.37

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

Very truly yours,


Susan E. Parks

Association of American Railroads

Fuel

First Quarter 2004

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 discussions with their major suppliers, and (3) a consensus of petroleum industry experts and general business publications.

Railroad fuel prices were down in September, up in October, and uncertainties surround future prices. The Energy Information Administration expects winter heating oil* prices to be similar to last winter because of healthy inventories and a weakening in crude oil prices. The railroads' first quarter (January 2004) fuel prices are expected to decrease 0.4 percent from the fourth quarter (October) actual level – a 2.2 percent decrease from the fourth quarter forecast.

Forecast fuel index	110.8
Change from previous quarter forecast	-2.2%
Change from previous quarter actual	-0.4%

* Heating oil is very similar to the diesel fuel used by locomotives. Heating oil spot prices and futures prices are monitored by the U.S. Department of Energy and other energy industry groups.

Materials & Supplies

First Quarter 2004

The Materials & Supplies index increased 3.6 percent from the fourth quarter 2003. The price of rail, and regional purchases of ballast, contributed to the increase.

2004Q1 Materials & Supplies Index = 160.3

2003Q4 Materials & Supplies Index = 154.8

Difference	5.5 basis points
	or
	3.6 %

Equipment Rents

First Quarter 2004

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. The increase in the Car Hire portion of the Index was caused by higher rates for privately-owned cars and railroad-owned autoracks.

	2002 Weight	2003Q4	2004Q1	Percent Change
Car Hire	50.6%	177.8	178.6	0.4 %
Lease Rentals	49.4%	162.6	163.9	0.8
Weighted Average		170.3	171.3	0.6
Weighted Average (Linked)		175.7	176.7	0.6

Depreciation

First Quarter 2004

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 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 value for the forecast, down by 1.1 percent from the previous quarter's forecast, reflects an October PPI-RE that is lower than July's peak.

Forecasted depreciation index (1982=100)	136.2
Forecasted depreciation index (1980=100)	150.7
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)	0.7%

Depreciation First Quarter 2004

PPI RAIL EQUIPMENT

Forecast Model for PPIRE
ARIMA(1,0,0)

Term	Coefficient	Std. Error	t-Statistic	Significance
a[1]	0.8557	0.0645	13.2594	1.0000
_CONST	19.5189			

Within-Sample Statistics

Sample size 72	Number of parameters 1
Mean 135.3	Standard deviation 0.6982
R-square 0.6625	Adjusted R-square 0.6625
Durbin-Watson 2.388	Ljung-Box(18)=16.56 P=0.4467
Forecast error 0.4056	BIC 0.4149
MAPE 0.002048	RMSE 0.4028
MAD 0.2776	

Actual Values for the Most Recent 6 Periods:

Date	Actual
2003-05	136.300
2003-06	136.300
2003-07	137.800
2003-08	136.500
2003-09	136.900
2003-10	136.900

Forecasted Values

Date	2.5 Lower	Forecast	97.5 Upper
2003-11	135.881	136.671	137.460
2003-12	135.436	136.475	137.514
2004-01	135.118	136.307	137.496
2004-02	134.875	136.163	137.451
2004-03	134.685	136.040	137.396
QTR AVG	134.893	136.170	137.448
2004-04	134.532	135.935	137.338
2004-05	134.408	135.845	137.282
2004-06	134.307	135.768	137.229

Interest

First Quarter 2004

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

2002	Interest Rate	7.69%
1980	Interest Rate	7.85%
2004Q1	Interest Index	98.0
2003Q4	Interest Index	98.0
	Percent Change	0.0%

Other Expenses

First Quarter 2004

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 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-LF figures that have been increasing for the last three months.

Forecasted Other Expense (1982=100)	146.2
Forecasted Other Expense (1980=100)	163.9
Change from previous quarter forecast	0.8%
Change from actual first month of previous quarter	0.2%
Change from same quarter of prior year (actual)	1.0%

Other Expenses First Quarter 2004

PPI INDUSTRIAL COMMODITIES LESS FUEL AND RELATED PRODUCTS AND POWER

Forecast Model for PPILF
ARIMA(1,1,0) with log transform

Term	Coefficient	Std. Error	t-Statistic	Significance
a[1]	0.3052	0.1193	2.5589	0.9873

Seasonal Indexes

January - March	1.00021	0.99987	1.00000
April - June	0.99987	0.99969	1.00004
July - September	1.00014	0.99980	0.99973
October - December	1.00119	0.99997	0.99950

Within-Sample Statistics

Sample size 72	Number of parameters 1
Mean 4.955	Standard deviation 0.01534
R-square 0.9826	Adjusted R-square 0.9826
Durbin-Watson 1.939	Ljung-Box(18)=16.48 P=0.441
Forecast error 0.002021	BIC 0.2932
MAPE 0.001524	RMSE 0.2866
MAD 0.217	

Actual Values for the Most Recent 6 Periods:

Date	Actual
2003-05	144.900
2003-06	144.800
2003-07	144.800
2003-08	145.000
2003-09	145.100
2003-10	145.900

Forecasted Values

Date	2.5 Lower	Forecast	97.5 Upper
2003-11	145.567	146.145	146.725
2003-12	145.271	146.220	147.175
2004-01	144.998	146.243	147.498
2004-02	144.759	146.250	147.756
2004-03	144.548	146.252	147.976
QTR AVG	144.768	146.248	147.743
2004-04	144.359	146.253	148.171
2004-05	144.187	146.253	148.348
2004-06	144.029	146.253	148.511

Railroad and Union Abbreviations

First Quarter 2004

Railroads

ATSF	The Atchison, Topeka & Santa Fe Railway (Merged with Burlington Northern to form BNSF.)
BNSF	The Burlington Northern and Santa Fe Railway
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 (Most 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
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 (Most of 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 Department of the Brotherhood of Locomotive Engineers
BLE	Brotherhood of Locomotive Engineers
BMWE	Brotherhood of Maintenance of Way Employees
BRC	(see TCU-Carmen)
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
IBFO	International Brotherhood of Firemen and Oilers (predecessor to NCFO)
NCFO	National Conference of Firemen and Oilers (labeled in AAR data bases as IBFO)
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)