

ASSOCIATION  
OF AMERICAN  
RAILROADS

Craig F. Rocky  
Vice President - Policy & Economics

September 5, 2006

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 2006 All-Inclusive Index and Rail Cost Adjustment Factor, filed in Ex Parte No. 290 (Sub-No. 5) (2006-4) *Quarterly Rail 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 2006 results on the fourth quarter 2002 base, and shows the percentage changes from the previous quarter.

	<u>2006Q3</u>	<u>2006Q4</u>	<u>% Change</u>
All-Inclusive Index	119.7	122.4	2.3
Preliminary RCAF	1.197	1.224	2.3
Forecast Error Adjustment	-0.005	0.026	
RCAF (Unadjusted)	1.192	1.250	4.9
Productivity Adjustment Factor	2.1061	2.1160	
RCAF (Adjusted)	0.566	0.591	4.4
PAF-5	2.2087	2.2246	
RCAF-5	0.540	0.562	4.1

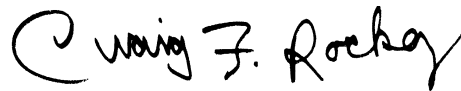
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September 5, 2006

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 2006  
All-Inclusive Index**

**Ex Parte No. 290 (Sub-No. 5) (2006-4)**

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

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

**September 5, 2006**

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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 2006.

## 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 (2004) weights were used for the fourth quarter of 2005 through the third quarter of 2006. Beginning with the fourth quarter of 2006, the 2005 weights are used. As those familiar with the U.S. economy in 2005 would expect; Fuel, Materials & Supplies, and Interest all increased their weight – especially Fuel. Depreciation also increased in weight. Fuel's expense increase was larger than all others combined, and on a percentage increase basis, Fuel expense grew by nearly 43 percent. Labor, despite a 5.6 percent increase in the amount of expenses, decreased as a percentage of total expenses. The 2005 (current) and 2004 (previous) weights are shown below.

<b>RCAF Weights</b>		
	Previous 2004	Current 2005
Labor	36.0 %	35.3 %
Fuel	12.1	16.0
Materials & Supplies	4.4	4.6
Equipment Rents	8.9	8.2
Depreciation	10.6	11.1
Interest	3.0	3.1
Other	25.0	21.7

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 2006

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.

	2005 Weights	Forecast		Percent Change
		Previous 2006Q3	Current 2006Q4	
1. Labor	35.3%	292.1	293.0	0.3 %
2. Fuel	16.0%	265.2	287.0	8.2
3. M&S	4.6%	197.2	204.3	3.6
4. Equipment Rents	8.2%	187.3	189.5	1.2
5. Depreciation	11.1%	191.9	190.6	-0.7
6. Interest	3.1%	92.7	96.9	4.5
7. Other	21.7%	186.3	190.9	2.5
8. Weighted Average				
a. 1980 = 100		234.6	239.9	
b. 1980 = 100 (linked)		230.0	235.2 <sup>1</sup>	
c. 4Q02 = 100		119.7	122.4 <sup>2</sup>	2.3

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Note: The 234.6 weighted average for 2006Q3 is recalculated with 2005 weights to eliminate any changes in the fourth quarter index that would be caused by changing weights. The original figure with 2004 weights is 232.3.

<sup>1</sup> To calculate the 1980 = 100 Linked Index:

$$\begin{aligned} \text{Index}_{80} &= (\text{Current Index} / \text{Previous Index}) * \text{the Previous Quarter Linked Index} \\ &= \quad 239.9 \quad \text{divided by} \quad 234.6 \quad \text{times} \quad 230.0 \\ &= \quad 235.2 \end{aligned}$$

<sup>2</sup> To calculate the 4Q02 = 100 index:

$$\begin{aligned} \text{Index}_{4Q02} &= (\text{Current Linked Index} / 4Q02 Linking Factor) * 100 \\ &= \quad 235.2 \quad \text{divided by} \quad 192.1 \quad \text{times} \quad 100 \\ &= \quad 122.4 \end{aligned}$$

$$4Q97 \text{ based index} = 135.8$$

$$4Q92 \text{ based index} = 149.9$$

$$4Q87 \text{ based index} = 177.9$$

## Forecast vs. Actual All-Inclusive Index Second Quarter 2006

As shown below, the second quarter actual index of 119.1 is 2.6 index points above the forecast value of 116.5. Therefore, the forecast error adjustment for the fourth quarter 2006 is 2.6 index points.

	2004 Weights	Second Quarter 2006		Amt Difference
		Forecast	Actual	
1. Labor	36.0%	292.5	292.5	
2. Fuel	12.1%	227.9	252.8	
3. M&S	4.4%	187.5	187.5	
4. Equipment Rents <sup>1</sup>	8.9%	186.8	187.1	
5. Depreciation	10.6%	180.9	188.1	
6. Interest	3.0%	92.7	92.7	
7. Other	25.0%	185.3	185.7	
8. Weighted Average				
a. 1980 = 100		226.0	229.9	
b. 1980 = 100 (linked)		223.8	228.7 <sup>2</sup>	
c. 4Q02 = 100 <sup>3</sup>		116.5	119.1	2.6

**Forecast error**       $\longrightarrow$       **2.6 index points**

	2004 Weights	Second Quarter 2006	
		Forecast	Actual
Car-Hire	51.0%	177.0	176.5
Lease Rentals	49.0%	185.3	185.7
Weighted Average		181.1	181.0
Weighted Average (linked)		186.8	187.1

<sup>2</sup> Linked actual index = (actual index / previous actual index) x previous linked actual index.  
 $228.7 = 229.9 / 224.3 \times 223.1$

<sup>3</sup> 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 26, 2006, the Surface Transportation Board (STB) served a decision in Ex Parte 290 (Sub-No. 4) which added the year 2004 to the Productivity Adjustment Factor (PAF) and deleted the year 1999. This creates an average annual productivity for 2000 through 2004 of 1.9 percent – a decrease from the 1999 through 2003 average of 2.9 percent. The 1.9 percent matches the figure used three years prior. 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.

Year	Output Index (1)	Input Index (2)	Productivity <sup>1</sup> Changes (3)
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
2004	1.033	1.057	<u>0.977</u>
Average			1.019
Previous Average (1999-2003)			1.029

<sup>1</sup> 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.

For 2000-2004 use fourth root of avg. productivity change		1.0047	
For 1999-2003 use fourth root of previous avg. change		1.0072	
Quarter	Year	PAF	PAF-5
Q1	2006	<u>2.0864</u>	2.1772
Q2	2006	2.0962	2.1929
Q3	2006	2.1061	2.2087
Q4	2006	2.1160	2.2246
Q1	2007	2.1259	2.2351

1999-2003 → (points to 2.1772)  
2000-2004 → (points to 2.2087)

## Rail Cost Adjustment Factor

### Fourth Quarter 2006

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 2006Q3	Current 2006Q4	Percent Change
All-Inclusive Index <sup>1</sup>	119.7	122.4	2.3
Preliminary RCAF <sup>2</sup>	1.197	1.224	2.3
Forecast Error Adjustment <sup>3</sup>	<u>-0.005</u>	<u>0.026</u>	
RCAF (Unadjusted) <sup>4</sup>	1.192	1.250	4.9
Productivity Adjustment Factor <sup>5</sup>	2.1061	2.1160	
RCAF (Adjusted) <sup>6</sup>	0.566	0.591	4.4
PAF-5 <sup>7</sup>	2.2087	2.2246	
RCAF-5 <sup>8</sup>	0.540	0.562	4.1

<sup>1</sup> See All-Inclusive Index on page 3.

<sup>2</sup> All-Inclusive Index divided by the All-Inclusive Index in the base period (100.0).

<sup>3</sup> 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.

<sup>4</sup> Preliminary RCAF plus the forecast error adjustment.

<sup>5</sup> See Productivity on page 5.

<sup>6</sup> RCAF (Unadjusted) divided by the Productivity Adjustment Factor (PAF).

<sup>7</sup> See Productivity on page 5.

<sup>8</sup> RCAF (Unadjusted) divided by the PAF-5.

# Appendixes

## Labor

### Fourth Quarter 2006

The fourth quarter 2006 Labor Index is forecast to increase 0.3 percent, caused mostly by rebenchmarking to 2005 annual report and wage statistics data.

**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 2005 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 June 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 0.5 percent. Rebenchmarking had a net impact of no change on a percentage basis. The complete amortization and removal of a significant back pay amount caused the decrease.

**Wage Increases:** Independent COLA increases were added for one railroad, adding \$0.002 to the wage rate. No other changes were made to the base wage rate.

**Lump Sums:** Rebenchmarking, combined with the complete amortization and removal of one lump sum amount, caused a small decrease in the lump sum rate.

**Back Pay:** The back pay rate decreased significantly because of the complete amortization and removal of an amount relating to last year's new national agreement with the International Association of Machinists and Aerospace Workers (IAM). [Appendix H contains common railroad and union abbreviations.]

**Other:** Other wages contains the amortization of a profit sharing payment that the BNSF Railway makes each year to its dispatchers, yardmasters, and engineers. The current amortization is for a profit sharing payment made in early 2006 for performance in 2005. The small change in the rate was caused by rebenchmarking.

### Supplements Index

Rebenchmarking is the major cause for the Supplements Index to increase 1.6 percent.

**Health & Welfare:** The Health & Welfare hourly rate increased \$0.107 entirely because of rebenchmarking to more recent data.

## Labor

### Fourth Quarter 2006

**Railroad Retirement:** Rebenchmarking caused the 1.4 percent increase in the Railroad Retirement and Medicare hourly rate. The impact of rebenchmarking was higher than 1.4 percent, but it was partially offset by lower taxable earnings that were mostly related to the complete amortization and removal of the IAM back pay.

**Unemployment Insurance:** The Unemployment Insurance rate increased \$0.003 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, plus employer contributions to employee stock plans that are recorded as fringe benefits. Rebenchmarking caused a slight decrease to this hourly rate. The remaining decrease was a result of the lower employer contributions.

### Labor Index Calculation

As shown in Table A-1 on the next page, the 0.5 percent decrease in the Wage Index and the 1.6 percent increase in the Supplements Index had a combined effect of a 0.3 percent increase in the Labor Index. The linked fourth quarter 2006 index of 293.0 is determined by multiplying the third quarter linked index of 292.1 times the change between the fourth quarter labor index (303.5) and a third quarter labor index (302.6) recalculated using the original third quarter wages and supplements indexes weighted with the new 2005 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 2006**  
**Table A-1 Labor Index**

	2006Q3		2006Q4	
	Used in Previous Index Filing	Updated to Reflect 2005 Actual Data	Based on 2005 Data	Pct Chg From Prev. Filing
<u>Base Wage</u> – Straight Time & Pay For Time Not Worked	\$29.518	\$29.519	\$29.521	0.0%
Adjustments:				
Lump Sum	0.099	0.097	0.096	-3.0%
Back Pay	0.163	0.159	0.016	-90.2%
Other	0.165	0.161	0.161	-2.4%
<b>Total Wages</b>	\$29.945	\$29.936	29.794	-0.5%
Health & Welfare Benefits	5.024	5.131	5.131	2.1%
RR Retirement & Medicare	6.203	6.312	6.291	1.4%
Unemployment Insurance	0.170	0.173	0.173	1.8%
Other	0.081	0.079	0.063	-22.2%
<b>Total Supplements</b>	\$11.478	\$11.695	\$11.658	1.6%
Total Labor	\$41.423	\$41.631	\$41.452	
<b>Wage Index<sup>1</sup></b>	256.3	256.2	255.0	-0.5%
<b>Supplements Index<sup>2</sup></b>	424.2	432.2	430.8	1.6%
Total labor Index, 2004 Weights <sup>3</sup>	303.0			
Total labor Index, 2005 Weights <sup>4</sup>	302.6	304.8	303.5	
<b>Labor Index (linked)<sup>5</sup></b>	292.1		<b>293.0</b>	0.3%

<sup>1</sup> 1980 wage rate \$11.685

<sup>2</sup> 1980 supplements rate \$2.706

<sup>3</sup> 2004 weights: wages, supplements 72.2% 27.8%

<sup>4</sup> 2005 weights: wages, supplements 72.4% 27.6%

<sup>5</sup> 2006Q4 linked Index = 2006Q3<sub>linked</sub> x (2006Q4<sub>WT2005</sub> / 2006Q3<sub>WT2005</sub>)  
 = 292.1 x 303.5 / 302.6

## Fuel

### Fourth Quarter 2006

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.

July 2006 railroad locomotive diesel fuel prices were at their second highest monthly average ever, surpassed only by the October 2005 peak of the post-hurricane spike. During August, crude oil\* prices advanced to record price levels as Alaskan oil production was cut because of pipeline leaks. Later in the month, oil prices declined back under \$70 as Israel and Hizbollah stopped fighting in Lebanon, and the summer driving season neared completion. However, the Energy Administration believes that supply disruption in Nigeria, concerns about disruption in supply elsewhere (including Iran), and September's peak in the hurricane season are all factors that should keep crude oil prices from significant declines. In addition, global demand for distillates\*\* has been strong. The strong global demand, combined with domestic seasonal demand related to the upcoming winter heating oil season, should keep October locomotive fuel prices higher than they were in July.

The railroads believe that October (fourth quarter) locomotive diesel fuel prices will be 5.1 percent higher than the July (third quarter) level actually experienced. Because the third quarter fuel forecast was too low, the forecast of a 5.1 percent increase from the actual average price is the equivalent of an 8.2 percent increase from the third quarter forecast.

Forecast Fuel Index	287.0
Change from previous quarter forecast	8.2%
Change from previous quarter actual	5.1%

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\* Diesel fuel used by locomotives is made from refined crude oil, and therefore 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 2006

The Materials & Supplies Index increased 3.6 percent from the third quarter of 2006. Regional ballast purchases and higher prices for rail were major contributors to the increase.

2006Q4 Materials & Supplies Index = 204.3

2006Q3 Materials & Supplies Index = 197.2

Difference	7.1 basis points
	or
	3.6 %



## Equipment Rents Fourth Quarter 2006

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 Rent Index Calculation

The table below calculates the Equipment Rents Index and features new weights based on 2005. To eliminate any changes caused by 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 2004 weights is 181.6. The Car Hire portion of the Index decreased slightly as rate decreases for privately-owned cars other than covered hoppers and tank cars outweighed rate increases for privately-owned tank car rates. A 2.5 percent increase in the PPI-LF used as a proxy for Lease Rentals combined with the decrease in the Car Hire Index caused the overall Equipment Rent Index to rise 1.2 percent.

	2005 Weight	2006Q3	2006Q4	Percent Change
Car Hire	49.2%	177.0	176.5	-0.3 %
Lease Rentals	50.8%	186.3	190.9	2.5
Weighted Average		181.7	183.8	1.2
Weighted Average (Linked)		187.3	189.5	1.2

## Depreciation Fourth Quarter 2006

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 have not been showing a consistent trend, making forecasts difficult. The monthly PPI-RE figure for June was up, while the July figure was lower. The fourth quarter forecast is 0.7 percent lower than the previous quarter's forecast

Forecast of Depreciation Index (1982=100)	172.3
Forecast of Depreciation Index (1980=100)	190.6
Change from previous quarter forecast	-0.7%
Change from actual first month of previous quarter	1.8%
Change from same quarter of prior year (actual)	6.2%

## Depreciation Fourth Quarter 2006

### PPI RAIL EQUIPMENT

Recommended model: Exponential Smoothing  
 Forecast Model for PPIRE  
 Holt exponential smoothing: Linear trend, No seasonality  
 Confidence limits proportional to level

Component	Smoothing Weight	Final Value
Level	0.99994	169.30
Trend	0.10547	0.74911

### Within-Sample Statistics

Sample size 72	Number of parameters 2
Mean 144.2	Standard deviation 12.21
R-square 0.9908	Adjusted R-square 0.9907
Durbin-Watson 1.708	** Ljung-Box(18)=39.38 P=0.9975
Forecast error 1.179	BIC 1.234
MAPE 0.004385	RMSE 1.162
MAD 0.6679	

### Actual Values for the Most Recent 6 Periods:

Date	Actual
2006-02	165.500
2006-03	168.200
2006-04	169.100
2006-05	169.500
2006-06	171.400
2006-07	169.300

### Forecasted Values

Date	2.5 Lower	Forecast	97.5 Upper
2006-08	167.424	170.049	172.675
2006-09	166.885	170.798	174.712
2006-10	166.675	171.548	176.420
2006-11	166.625	172.297	177.968
2006-12	166.675	173.046	179.417
<b>QTR AVG</b>	<b>166.658</b>	<b>172.297</b>	<b>177.935</b>
2007-01	166.794	173.795	180.796
2007-02	166.965	174.544	182.123
2007-03	167.177	175.293	183.409

## Interest Fourth Quarter 2006

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 2006, the Interest Index is based on data for 2005.

### 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

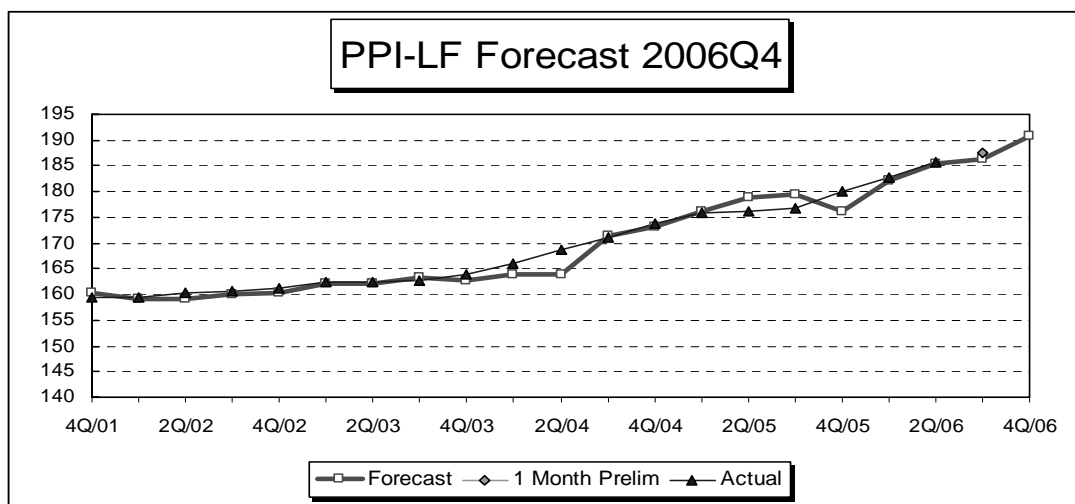
2005	Interest Rate	7.61%
1980	Interest Rate	7.85%
<b>2006Q4</b>	<b>Interest Index</b>	<b>96.9</b>
2006Q3	Interest Index	92.7
	Percent Change	4.5%

## Other Expenses Fourth Quarter 2006

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 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 reflects monthly PPI-LF figures that have been increasing at higher rates. The monthly figures for May, June, and July all increased at an annual rate above five percent.

Forecast of Other Expense Index (1982=100)	170.3
Forecast of Other Expense Index (1980=100)	190.9
Change from previous quarter forecast	2.5%
Change from actual first month of previous quarter	1.8%
Change from same quarter of prior year (actual)	5.9%



## Other Expenses Fourth Quarter 2006

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

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

Term	Coefficient	Std. Error	t-Statistic	Significance
a[1]	0.6430	0.1001	6.4212	1.0000
B[12]	0.7893	0.0575	13.7222	1.0000

**Within-Sample Statistics**

Sample size 72	Number of parameters 2
Mean 5.006	Standard deviation 0.05048
R-square 0.9981	Adjusted R-square 0.9981
Durbin-Watson 2.283	Ljung-Box(18)=21.47 P=0.7434
Forecast error 0.002224	BIC 0.3474
MAPE 0.001512	RMSE 0.3324
MAD 0.2277	

*Actual Values for the Most Recent 6 Periods:*

Date	Actual
2006-02	163.200
2006-03	163.800
2006-04	164.300
2006-05	165.800
2006-06	166.600
2006-07	167.300

*Forecasted Values*

Date	2.5 Lower	Forecast	97.5 Upper
2006-08	167.137	167.932	168.732
2006-09	167.246	168.781	170.330
2006-10	167.793	170.051	172.341
2006-11	167.408	170.335	173.313
2006-12	166.987	170.529	174.146
<b>QTR AVG</b>	<b>167.396</b>	<b>170.305</b>	<b>173.267</b>
2007-01	167.350	171.477	175.705
2007-02	167.443	172.106	176.900
2007-03	167.539	172.702	178.025

## Railroad and Union Abbreviations

### Fourth Quarter 2006

#### *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 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)