

ASSOCIATION
OF AMERICAN
RAILROADS

John T. Gray
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December 5, 2012

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

Dear Ms. Brown:

This submission is the AAR forecast of the first quarter 2013 All-Inclusive Index and Rail Cost Adjustment Factor, filed in Ex Parte No. 290 (Sub-No. 5) (2013-1) *Quarterly Rail Cost Adjustment Factor*. The versions of RCAF-related indices covered in this filing are: the All-Inclusive Index (initiated in the second quarter of 1985), the Unadjusted RCAF (produced since October 1982), the Adjusted RCAF (first published in the second quarter of 1989), and the RCAF-5 (created by the STB in its Ex Parte No. 290 (Sub-No. 7) decision served October 3, 1996). The table below summarizes the first quarter 2013 results on the **fourth quarter 2012 base**, and shows the percentage changes from the previous quarter.

	<u>2012Q4</u>	<u>2013Q1</u>	<u>% Change</u>
All-Inclusive Index	100.5	99.9	-0.6
Preliminary RCAF	1.005	0.999	-0.6
Forecast Error Adjustment	-0.005	-0.002	
RCAF (Unadjusted)	1.000	0.997	-0.3
Productivity Adjustment Factor	2.2861	2.2907	
RCAF (Adjusted)	0.437	0.435	-0.5
PAF-5	2.4231	2.4279	
RCAF-5	0.413	0.411	-0.5

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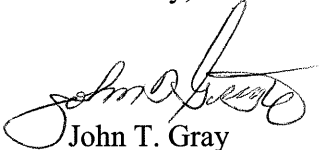
The Staggers Act requires the RCAF to be rebased every five years. The procedure necessary to calculate this rebasing was outlined by the ICC in Ex Parte No. 290 (Sub-No. 5) effective January 1, 1988. The rebasing calculation which will bring the index to the fourth quarter 2012 base is shown on page 1A of the attached filing.

Due to the fact that many people may need to compare the current RCAF to an older version that was calculated using a different base, the AAR has provided Attachment A, which contains historical RCAFs converted to a fourth quarter 2012 base. The AAR's recommended method for converting to another base is shown in the same attachment, as well as factors and indexes necessary to make those calculations.

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.

We have notified Paul Aguiar, in the STB office handling this proceeding, of our plan to e-file the submission and the non-proprietary work papers in accordance with the ICC's order in Ex Parte No. 290 (Sub-No. 2), Railroad Cost Recovery Procedures, served February 8, 1990. A second copy of the submission and non-proprietary work papers, plus selected highly confidential work papers, will be hand-delivered to a member of Mr. Aguiar's Data Collection and Auditing Team. All workpapers are available for STB inspection. Questions should be directed to me or Clyde Crimmel (202 639-2309) of this office.

Sincerely,



John T. Gray

Attachments

Rail Cost Adjustment Factor — 2012Q4 Base

Attachment A
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Yr/Qtr (Col 1)	Preliminary RCAF (Col 2)	Forecast Error Adjustment (Col. 3)	RCAF (Unad- justed) (Col 4)	Productivity-Adjusted RCAF		STB's 2nd Productivity- Adjusted RCAF (Not endorsed by AAR)		
				Productivity Adjustment Factor (Col 5)	RCAF (Adjusted) (Col 6)	PAF-5 (Col 7)	RCAF-5 (Col 8)	
2002	Q1	0.627	0.000	0.627	1.8686	0.336	1.9513	0.321
	Q2	0.619	-0.002	0.617	1.8878	0.327	1.9648	0.314
	Q3	0.624	-0.006	0.618	1.9072	0.324	1.9784	0.312
	Q4	0.638	0.008	0.646	1.9268	0.335	1.9921	0.324
2003	Q1	0.641	0.003	0.644	1.9466	0.331	2.0126	0.320
	Q2	0.653	0.006	0.659	1.9557	0.337	2.0333	0.324
	Q3	0.650	0.009	0.659	1.9649	0.335	2.0542	0.321
	Q4	0.658	-0.002	0.656	1.9741	0.332	2.0754	0.316
2004	Q1	0.657	0.004	0.661	1.9834	0.333	2.0852	0.317
	Q2	0.663	0.005	0.668	1.9943	0.335	2.0950	0.319
	Q3	0.681	0.011	0.692	2.0053	0.345	2.1048	0.329
	Q4	0.694	0.014	0.708	2.0163	0.351	2.1147	0.335
2005	Q1	0.708	0.006	0.714	2.0274	0.352	2.1263	0.336
	Q2	0.722	0.019	0.741	2.0420	0.363	2.1380	0.347
	Q3	0.729	0.004	0.733	2.0567	0.356	2.1498	0.341
	Q4	0.757	0.008	0.765	2.0715	0.369	2.1616	0.354
2006	Q1	0.753	0.008	0.761	2.0864	0.365	2.1772	0.350
	Q2	0.752	0.009	0.761	2.0962	0.363	2.1929	0.347
	Q3	0.773	-0.003	0.770	2.1061	0.366	2.2087	0.349
	Q4	0.791	0.017	0.808	2.1160	0.382	2.2246	0.363
2007	Q1	0.773	0.007	0.780	2.1259	0.367	2.2351	0.349
	Q2	0.773	-0.033	0.740	2.1348	0.347	2.2456	0.330
	Q3	0.787	-0.013	0.774	2.1438	0.361	2.2562	0.343
	Q4	0.812	0.014	0.826	2.1528	0.384	2.2668	0.364
2008	Q1	0.855	0.012	0.867	2.1618	0.401	2.2763	0.381
	Q2	0.877	0.014	0.891	2.1683	0.411	2.2859	0.390
	Q3	0.956	-0.007	0.949	2.1748	0.436	2.2955	0.413
	Q4	0.955	0.036	0.991	2.1813	0.454	2.3051	0.430
2009	Q1	0.833	0.011	0.844	2.1878	0.386	2.3120	0.365
	Q2	0.785	-0.082	0.703	2.1944	0.320	2.3189	0.303
	Q3	0.825	-0.049	0.776	2.2010	0.353	2.3259	0.334
	Q4	0.825	-0.002	0.823	2.2076	0.373	2.3329	0.353
2010	Q1	0.864	-0.006	0.858	2.2142	0.387	2.3399	0.367
	Q2	0.863	0.013	0.876	2.2208	0.394	2.3469	0.373
	Q3	0.881	0.002	0.883	2.2275	0.396	2.3539	0.375
	Q4	0.884	0.029	0.913	2.2342	0.409	2.3610	0.387
2011	Q1	0.916	-0.013	0.903	2.2409	0.403	2.3681	0.381
	Q2	0.956	0.015	0.971	2.2487	0.432	2.3752	0.409
	Q3	0.981	0.016	0.997	2.2566	0.442	2.3823	0.419
	Q4	0.977	0.022	0.999	2.2645	0.441	2.3894	0.418
2012	Q1	0.972	-0.007	0.965	2.2724	0.425	2.3978	0.402
	Q2	0.997	-0.018	0.979	2.2769	0.430	2.4062	0.407
	Q3	0.973	-0.005	0.968	2.2815	0.424	2.4146	0.401
	Q4	1.005	-0.005	1.000	2.2861	0.437	2.4231	0.413
2013	Q1	0.999	-0.002	0.997	2.2907	0.435	2.4279	0.411

Rail Cost Adjustment Factor — 2012Q4 Base

Yr/Qtr (Col 1)	Preliminary RCAF (Col 2)	Forecast Error Adjustment (Col. 3)	RCAF (Unad- justed) (Col 4)	Productivity-Adjusted RCAF		STB's 2nd Productivity- Adjusted RCAF (Not endorsed by AAR)		
				Productivity Adjustment Factor (Col 5)	RCAF (Adjusted) (Col 6)	PAF-5 (Col 7)	RCAF-5 (Col 8)	
1991	Q1	0.508	0.000	0.508	1.0755	0.472	Beginning 1989Q2, a productivity adjustment was added to the RCAF. What was formerly called the RCAF is now called the "RCAF (Unadjusted)" because it does not have a productivity adjustment. The productivity-adjusted RCAF is called the "RCAF (Adjusted)". In its October 3, 1996 decision, the Surface Transportation Board added another version of a productivity-adjusted RCAF called the "RCAF-5". This second productivity adjustment factor began being used with the 1997Q1 Rail Cost Adjustment Factor.	
	Q2	0.501	0.006	0.507	1.0871	0.466		
	Q3	0.514	-0.003	0.511	1.0988	0.465		
	Q4	0.523	-0.001	0.522	1.1107	0.470		
1992	Q1	0.519	0.000	0.519	1.1227	0.462		
	Q2	0.514	0.002	0.516	1.1348	0.455		
	Q3	0.516	-0.001	0.515	1.1471	0.449		
	Q4	0.525	0.003	0.528	1.1595	0.455		
1993	Q1	0.531	0.002	0.533	1.1720	0.455		
	Q2	0.529	0.001	0.530	1.1847	0.447		
	Q3	0.533	0.001	0.534	1.1975	0.446		
	Q4	0.540	0.000	0.540	1.2104	0.446		
1994	Q1	0.545	-0.002	0.543	1.2253	0.443		
	Q2	0.539	0.001	0.540	1.2404	0.435		
	Q3	0.552	0.000	0.552	1.2557	0.440		
	Q4	0.550	0.001	0.551	1.2711	0.433		
1995	Q1	0.556	0.001	0.557	1.2867	0.433		
	Q2	0.562	0.003	0.565	1.3052	0.433		
	Q3	0.567	0.003	0.570	1.3240	0.431		
	Q4	0.568	0.001	0.569	1.3431	0.424		
1996	Q1	0.565	-0.002	0.563	1.3624	0.413		
	Q2	0.563	-0.003	0.560	1.3820	0.405		
	Q3	0.568	-0.002	0.566	1.4019	0.404		
	Q4	0.573	0.003	0.576	1.4221	0.405		
1997	Q1	0.587	0.001	0.588	1.4426	0.408	1.4733	0.399
	Q2	0.584	0.004	0.588	1.4603	0.403	1.4945	0.393
	Q3	0.587	-0.001	0.586	1.4783	0.396	1.5160	0.387
	Q4	0.582	0.000	0.582	1.4965	0.389	1.5378	0.378
1998	Q1	0.581	-0.001	0.580	1.5149	0.383	1.5567	0.373
	Q2	0.576	0.004	0.580	1.5503	0.374	1.5758	0.368
	Q3	0.583	-0.003	0.580	1.5866	0.366	1.5952	0.364
	Q4	0.583	0.001	0.584	1.6237	0.360	1.6148	0.362
1999	Q1	0.582	-0.002	0.580	1.6617	0.349	1.6526	0.351
	Q2	0.578	-0.001	0.577	1.6850	0.342	1.6913	0.341
	Q3	0.586	-0.003	0.583	1.7086	0.341	1.7309	0.337
	Q4	0.585	0.004	0.589	1.7325	0.340	1.7714	0.333
2000	Q1	0.603	0.004	0.607	1.7568	0.346	1.7962	0.338
	Q2	0.606	0.005	0.611	1.7719	0.345	1.8213	0.335
	Q3	0.610	0.001	0.611	1.7871	0.342	1.8468	0.331
	Q4	0.617	0.002	0.619	1.8025	0.343	1.8727	0.331
2001	Q1	0.628	0.003	0.631	1.8180	0.347	1.8888	0.334
	Q2	0.624	0.002	0.626	1.8305	0.342	1.9050	0.329
	Q3	0.628	0.000	0.628	1.8431	0.341	1.9214	0.327
	Q4	0.626	0.003	0.629	1.8558	0.339	1.9379	0.325

Sample Rebasing Calculations

Preliminary RCAF:

Recommended Method

The All-Inclusive Index (AII) Forecast is divided by the appropriate Basing Factor.

Example calculations (AII and Basing Factors are listed on page 4):

$$2011Q1 \text{ on a } 4Q12 \text{ basis} = 272.4 / 297.5 = 0.9156303 = 0.916$$

$$2011Q1 \text{ on a } 4Q07 \text{ basis} = 272.4 / 245.9 = 1.1077674 = 1.108$$

$$2011Q1 \text{ on a } 4Q97 \text{ basis} = 272.4 / 173.2 = 1.5727483 = 1.573$$

Alternative Method

An alternative method can be used to convert a Preliminary RCAF from one basis to another basis without knowing the All-Inclusive Index. This method will occasionally have small rounding differences, and is not recommended except as a "check" or as an approximation.

New Base Index = (Old Basing Factor / New Basing Factor) x Old Base Index.

Example for converting 2011Q1 on a 4Q07 basis to a 4Q12 basis:

$$(245.9 / 297.5) \times 1.108 = 0.9158225 = 0.916$$

Forecast Error Adjustment:

Recommended Method

1. Use the All-Inclusive Indexes (AII) for the two quarters prior to the quarter to be adjusted.
2. The All Actual is divided by the appropriate Basing Factor and rounded 3 digits after decimal.
3. The All Forecast is divided by the appropriate Basing Factor and rounded.
4. Take the result from step 2 and subtract the result from step 3.

Example calculation for 2011Q1:

$$1. \text{ Use A-I Index from 2 quarters prior, } 2010Q3: 258.3 = \text{Actual}, 262.0 = \text{Forecast}$$

$$2. \text{ Actual} = 258.3 / 297.5 = 0.8682353 = 0.868$$

$$3. \text{ Forecast} = 262.0 / 297.5 = 0.8806723 = 0.881$$

$$4. \text{ Forecast Error} = 0.868 - 0.881 = -0.013$$

Alternative Method

This method has occasional rounding differences, and is not recommended except as a check or an approximation. The new base Forecast Error Adjustment equals:

(Old Basing Factor / New Basing Factor) x Old Forecast Error Adjustment.

Example for converting 2010Q3 on a 4Q07 basis, which was used for 2011Q1, to a 4Q12 basis:

$$\text{Forecast Error } 4Q12 \text{ basis} = (245.9 / 297.5) \times -0.015 = -0.0123983 = -0.012 \text{ (which is close, but not exact)}$$

RCAF (Unadjusted)

RCAF (Unadjusted) = Preliminary RCAF + Forecast Error Adjustment.

Example for 2011Q1, on a 4Q12 basis: $0.916 + -0.013 = 0.903$

Productivity Adjustment Factor

Use the Productivity Adjustment Factor as originally calculated for each quarter.

For 2011Q1, the Productivity Adjustment Factor is 2.2409.

RCAF (Adjusted)

RCAF (Adjusted) = RCAF (Unadjusted) / Productivity Adjustment Factor.

Example for 2011Q1, on a 4Q12 basis: $0.903 / 2.2409 = 0.4029631 = 0.403$

PAF-5

Use the STB's alternative productivity adjustment factor, PAF-5, as originally calculated.

For 2011Q1, the Productivity Adjustment Factor is 2.3681.

RCAF-5

RCAF-5 = RCAF (Unadjusted) / PAF-5

Example for 2011Q1, on a 4Q12 basis: $0.903 / 2.3681 = 0.3813184 = 0.381$

Indexes & Factors for RCAF

Yr/Qtr	All-Inclusive Index 1980 = 100		Prod. Adj. Factor	PAF-5	Original Prelim RCAF	Original Forecast Error	Basing Factor	
	Forecast	Actual						
1991	Q1	151.2	150.1	1.0755	-	1.144	0.001	132.2
	Q2	149.1	148.8	1.0871	-	1.128	0.015	132.2
	Q3	153.0	152.8	1.0988	-	1.157	-0.009	132.2
	Q4	155.5	156.1	1.1107	-	1.176	-0.002	132.2
1992	Q1	154.5	154.1	1.1227	-	1.169	-0.001	132.2
	Q2	152.9	153.7	1.1348	-	1.157	0.005	132.2
	Q3	153.5	154.1	1.1471	-	1.161	-0.003	132.2
	Q4	156.1	156.5	1.1595	-	1.181	0.006	132.2
1993	Q1	158.1	158.4	1.1720	-	1.008	0.004	156.9
	Q2	157.3	157.5	1.1847	-	1.003	0.002	156.9
	Q3	158.6	158.0	1.1975	-	1.011	0.002	156.9
	Q4	160.7	161.0	1.2104	-	1.024	0.001	156.9
1994	Q1	162.1	162.1	1.2253	-	1.033	-0.004	156.9
	Q2	160.4	160.7	1.2404	-	1.022	0.002	156.9
	Q3	164.1	164.6	1.2557	-	1.046	0.000	156.9
	Q4	163.7	164.4	1.2711	-	1.043	0.002	156.9
1995	Q1	165.5	166.2	1.2867	-	1.055	0.003	156.9
	Q2	167.1	167.6	1.3052	-	1.065	0.005	156.9
	Q3	168.8	168.0	1.3240	-	1.076	0.004	156.9
	Q4	168.9	168.2	1.3431	-	1.076	0.003	156.9
1996	Q1	168.0	167.6	1.3624	-	1.071	-0.005	156.9
	Q2	167.4	168.4	1.3820	-	1.067	-0.004	156.9
	Q3	169.0	169.4	1.4019	-	1.077	-0.003	156.9
	Q4	170.4	171.7	1.4221	-	1.086	0.006	156.9
1997	Q1	174.7	174.4	1.4426	1.4733	1.113	0.003	156.9
	Q2	173.7	173.7	1.4603	1.4945	1.107	0.008	156.9
	Q3	174.6	174.4	1.4783	1.5160	1.113	-0.001	156.9
	Q4	173.2	174.2	1.4965	1.5378	1.104	0.000	156.9
1998	Q1	172.7	172.1	1.5149	1.5567	0.997	-0.001	173.2
	Q2	171.5	171.8	1.5503	1.5758	0.990	0.006	173.2
	Q3	173.4	172.9	1.5866	1.5952	1.001	-0.003	173.2
	Q4	173.3	173.2	1.6237	1.6148	1.001	0.002	173.2
1999	Q1	173.0	172.3	1.6617	1.6526	0.999	-0.003	173.2
	Q2	172.1	173.2	1.6850	1.6913	0.994	-0.001	173.2
	Q3	174.2	175.4	1.7086	1.7309	1.006	-0.004	173.2
	Q4	174.1	175.6	1.7325	1.7714	1.005	0.006	173.2
2000	Q1	179.4	179.8	1.7568	1.7962	1.036	0.007	173.2
	Q2	180.3	180.8	1.7719	1.8213	1.041	0.009	173.2
	Q3	181.6	182.5	1.7871	1.8468	1.048	0.002	173.2
	Q4	183.5	184.1	1.8025	1.8727	1.059	0.003	173.2
2001	Q1	186.9	186.8	1.8180	1.8888	1.079	0.006	173.2
	Q2	185.6	186.4	1.8305	1.9050	1.072	0.004	173.2
	Q3	186.9	186.8	1.8431	1.9214	1.079	0.000	173.2
	Q4	186.1	185.7	1.8558	1.9379	1.074	0.004	173.2
2002	Q1	186.4	184.7	1.8686	1.9513	1.076	0.000	173.2
	Q2	184.2	186.4	1.8878	1.9648	1.064	-0.002	173.2
	Q3	185.6	186.4	1.9072	1.9784	1.072	-0.010	173.2
	Q4	189.9	191.7	1.9268	1.9921	1.096	0.012	173.2
2003	Q1	190.6	193.3	1.9466	2.0126	0.992	0.004	192.1
	Q2	194.3	193.6	1.9557	2.0333	1.011	0.009	192.1
	Q3	193.3	194.6	1.9649	2.0542	1.006	0.014	192.1
	Q4	195.9	197.2	1.9741	2.0754	1.020	-0.003	192.1

Indexes & Factors for RCAF

Yr/Qtr	All-Inclusive Index 1980 = 100		Prod. Adj.	PAF-5	Original Prelim	Original Forecast	Basing Factor
	Forecast	Actual	Factor		RCAF	Error	
2004 Q1	195.6	198.7	1.9834	2.0852	1.018	0.007	192.1
Q2	197.1	201.3	1.9943	2.0950	1.026	0.007	192.1
Q3	202.6	204.5	2.0053	2.1048	1.055	0.016	192.1
Q4	206.5	212.2	2.0163	2.1147	1.075	0.022	192.1
2005 Q1	210.7	211.9	2.0274	2.1263	1.097	0.010	192.1
Q2	214.9	217.2	2.0420	2.1380	1.119	0.030	192.1
Q3	217.0	219.2	2.0567	2.1498	1.130	0.006	192.1
Q4	225.3	227.8	2.0715	2.1616	1.173	0.012	192.1
2006 Q1	223.9	223.1	2.0864	2.1772	1.166	0.011	192.1
Q2	223.8	228.7	2.0962	2.1929	1.165	0.013	192.1
Q3	230.0	232.0	2.1061	2.2087	1.197	-0.005	192.1
Q4	235.2	225.6	2.1160	2.2246	1.224	0.026	192.1
2007 Q1	229.9	226.0	2.1259	2.2351	1.197	0.011	192.1
Q2	230.0	234.1	2.1348	2.2456	1.197	-0.050	192.1
Q3	234.0	237.7	2.1438	2.2562	1.218	-0.021	192.1
Q4	241.7	245.6	2.1528	2.2668	1.258	0.022	192.1
2008 Q1	254.4	252.3	2.1618	2.2763	1.035	0.015	245.9
Q2	260.9	271.6	2.1683	2.2859	1.061	0.016	245.9
Q3	284.3	287.8	2.1748	2.2955	1.156	-0.009	245.9
Q4	284.1	259.7	2.1813	2.3051	1.155	0.044	245.9
2009 Q1	247.8	233.2	2.1878	2.3120	1.008	0.014	245.9
Q2	233.4	232.8	2.1944 *	2.3189	0.949	-0.099	245.9
Q3	245.3	243.8	2.2010 *	2.3259	0.998	-0.060	245.9
Q4	245.5	249.4	2.2076 *	2.3329	0.998	-0.002	245.9
2010 Q1	256.9	257.6	2.2142 *	2.3399 *	1.045	-0.007	245.9
Q2	256.8	265.3	2.2208	2.3469	1.044	0.016	245.9
Q3	262.0	258.3	2.2275	2.3539	1.065	0.003	245.9
Q4	262.9	267.5	2.2342	2.3610	1.069	0.035	245.9
2011 Q1	272.4	277.4	2.2409	2.3681	1.108	-0.015	245.9
Q2	284.4	291.0	2.2487	2.3752	1.157	0.019	245.9
Q3	291.7	289.8	2.2566	2.3823	1.186	0.020	245.9
Q4	290.6	285.3	2.2645	2.3894	1.182	0.026	245.9
2012 Q1	289.2	287.6	2.2724	2.3978	1.176	-0.007	245.9
Q2	296.7	295.2	2.2769	2.4062	1.207	-0.022	245.9
Q3	289.4	288.8	2.2815	2.4146	1.177	-0.006	245.9
Q4	299.0	-	2.2861	2.4231	1.216	-0.007	245.9
2013 Q1	297.3	-	2.2907	2.4279	0.999	-0.002	297.5

Preliminary RCAF = All-Inclusive Index Forecast / Basing Factor
Forecast Error = (A-II Actual/Basing Factor) - (A-II Forecast/Basing Factor)
 where each is rounded to 3 digits after the decimal
 where A-II for forecast error calculation is from 2 quarters earlier
RCAF Unadjusted = Preliminary RCAF less Forecast Error
RCAF Adjusted = RCAF Unadjusted / Productivity Adjustment Factor
RCAF-5 = RCAF Unadjusted / PAF-5

Note: Each RCAF is rounded to 3 digits after the decimal. Productivity Adjustment Factors are always 4 digits after the decimal.

Basing Factors

10/1/80 = 102.7
 10/1/82 = 120.9
 4Q/87 = 132.2
 4Q/92 = 156.9
 4Q/97 = 173.2
 4Q/02 = 192.1
 4Q/07 = 245.9
 4Q/12 = 297.5

* restated by STB in Docket No. EP 290 (Sub-No. 4) served January 20, 2012.

<http://www.stb.dot.gov/decisions/readingroom.nsf/fc695db5bc7e2c852572b80040c45f1a795c3435475db088525798b004eb3ca?OpenDocument>

**First Quarter 2013
All-Inclusive Index**

Ex Parte No. 290 (Sub-No. 5) (2013-1)

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

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

December 5, 2012

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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 first quarter 2013.

49 U.S.C. § 10708 requires the RCAF to be rebased every five years, and therefore this quarter's RCAF has been calculated to a rebased figure that uses a fourth quarter 2012 base. The basing calculation is shown on the following page 1A. Attachment A contains earlier versions of the RCAF recalculated on the 4Q2012 base for comparison purposes.

Rebasing

The statute relating to the Rail Cost Adjustment Factor (49 U.S.C. § 10708) requires the RCAF to be rebased every five years. This means that the new base period will be the fourth quarter of 2012, since the previous base period was the fourth quarter of 2007. The calculations are shown below.

Rebasing the Denominator of the RCAF to the Fourth Quarter 2012	
1. Fourth Quarter 2012 Linked Index	299.0
2. Second Quarter 2012 Linked Index	
Calculated Using Actual Data	295.2
Calculated Using Forecasted Data	<u>296.7</u>
Difference	(1.5)
3. Fourth Quarter 2012 Linked Index	
Adjusted for Second Quarter 2012 Forecast Error	297.5
Rounding Adjustment to Force 1.000	Not necessary
New Basing Factor for 2012Q4 = 100	297.5
Note: Linked Indexes on this page refer to the All Inclusive Index, 1980=100 basis.	

Test of Basing Factor Fourth Quarter 2012 = 100	
1. Fourth Quarter 2012 Linked Index (1980 = 100)	299.0
Divided by 2012Q4 Basing Factor	297.5
Fourth Quarter 2012 Linked Index (2012Q4 = 100)	1.005
2. Second Quarter 2012 Linked Index	
Calculated Using Actual Data (1980 = 100)	295.2
Calculated Using Forecasted Data (1980 = 100)	296.7
Divide both by 2012Q4 Basing Factor	297.5
Calculated Using Actual Data (2012Q4 = 100)	0.992
Calculated Using Forecasted Data (2012Q4 = 100)	<u>0.997</u>
Difference (Forecast Error Adjustment)	(0.005)
3. Fourth Quarter 2012 Linked Index (2012Q4 = 100)	
Adjusted for Second Quarter 2012 Forecast Error	1.000
Note: Fourth Quarter 2012 Linked Index (2012Q4 = 100), after forecast error adjustment, must equal 1.000.	

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 2011 (current) and 2010 (previous) weights are shown below. The 2010 weights were used for the fourth quarter of 2011 through the third quarter of 2012. Beginning with the fourth quarter of 2012, 2011 weights are used. In 2011, expenses increased for every category with the exception of interest expenses. However, fuel expenses increased by the highest percentage and amount, caused by a huge increase in fuel costs and a much smaller increase in traffic. Not surprisingly, Fuel's weight increased from 18.0 percent to 22.5 percent. This is the second-highest weight ever for Fuel. The only other category to have its weight increase was Materials & Supplies, which increased 0.1 percentage points. Labor's weight decreased from 33.3 to 31.3 percent, despite an 8 percent increase in expenses. Weights for the remaining categories decreased by 0.4 to 1.2 percentage points.

RCAF Weights		
	Previous 2010	Current 2011
Labor	33.3 %	31.3 %
Fuel	18.0	22.5
Materials & Supplies	5.0	5.1
Equipment Rents	6.2	5.6
Depreciation	12.8	11.6
Interest	2.9	2.5
Other	21.8	21.4

Reweighting of the index is accomplished by calculating both the current quarter (normally the fourth) and prior (normally the third) quarter indexes with the new weights. The relative change between the two quarters is then multiplied times the prior quarter (usually the third) *linked* index. Use of this method ensures that the weight change, by itself, does not cause a change in the level of the All-Inclusive Index.

Internal weights in the labor and equipment rents components are updated at the same time as the external weights. When these weights are changed, they are also linked using the procedure described above in order to eliminate the effect of the change in weighting.

All-Inclusive Index First Quarter 2013

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.

	2011 Weights	Forecast		Percent Change
		Previous 2012Q4	Current 2013Q1	
1. Labor	31.3%	390.5	389.7	-0.2 %
2. Fuel	22.5%	403.3	396.5	-1.7
3. M&S	5.1%	266.1	263.4	-1.0
4. Equipment Rents	5.6%	205.7	206.7	0.5
5. Depreciation	11.6%	213.2	212.2	-0.5
6. Interest	2.5%	92.9	92.9	0.0
7. Other	21.4%	218.0	218.8	0.4
8. Weighted Average				
a. 1980 = 100		311.8	310.0	
b. 1980 = 100 (linked)		299.0	297.3 ¹	
c. 4Q12 = 100		100.5	99.9 ²	-0.6

Note: As required every five years, this index has been rebased. In this case, the new basis is 4Q12 = 100 (where 2012Q4 equals 100.0 after the forecast error adjustment). For the purpose of this calculation, 2012Q4 has been recalculated using the 4Q12 base in item 8c. Items 1 through 8b are unchanged. See page 1A and Attachment A in this filing for more detail.

¹ To calculate the 1980 = 100 Linked Index:

$$\begin{aligned} \text{Index}_{80} &= (\text{Current Index} / \text{Previous Index}) * \text{the Previous Quarter Linked Index} \\ &= (310.0 / 311.8) \times 299.0 \\ &= 297.3 \end{aligned}$$

² To calculate the 4Q12 = 100 index:

$$\begin{aligned} \text{Index}_{4Q12} &= (\text{Current Linked Index} / 4Q12 Basing Factor) * 100 \\ &= 297.3 \text{ divided by } 297.5 \text{ times } 100 \\ &= 99.9 \end{aligned}$$

Indexes based on other periods:

- 4Q07 based index = 297.3 / 245.9 x 100 = 120.9
- 4Q02 based index = 297.3 / 192.1 x 100 = 154.8
- 4Q97 based index = 297.3 / 173.2 x 100 = 171.7
- 4Q92 based index = 297.3 / 156.9 x 100 = 189.5
- 4Q87 based index = 297.3 / 132.2 x 100 = 224.9

Forecast vs. Actual All-Inclusive Index Third Quarter 2012

Because of data availability, the forecast error adjustment has a two-quarter lag from each filing. As shown below, the third quarter actual index of 97.1 is 0.2 index points below the forecast value of 97.3. Therefore, the forecast error adjustment for first quarter 2013 is -0.2 index points.

	2010 Weights	Third Quarter 2012		Amt Difference
		Forecast	Actual	
1. Labor	33.3%	391.4	391.4	
2. Fuel	18.0%	353.4	359.0	
3. M&S	5.0%	274.8	274.8	
4. Equipment Rents ¹	6.2%	205.8	203.6	
5. Depreciation	12.8%	211.7	210.8	
6. Interest	2.9%	90.6	90.6	
7. Other	21.8%	221.6	216.8	
8. Weighted Average				
a. 1980 = 100		298.5	298.2	
b. 1980 = 100 (linked)		289.4	288.8 ²	
c. 4Q12 = 100 ³		97.3	97.1	-0.2

Forecast error \longrightarrow **-0.2 index points**

Note: As required every five years, this index has been rebased. In this case, the new basis is 4Q12 = 100 (where 2012Q4 equals 100.0 after the forecast error adjustment). For the purpose of this calculation, 2012Q3 has been recalculated using the 4Q12 base in item 8c. Items 1 through 8b are unchanged. See page 1A and Attachment A in this filing for more detail.

	2010 Weights	Third Quarter 2012	
		Forecast	Actual
Car-Hire	45.8%	173.6	174.3
Lease Rentals	54.2%	221.6	216.8
Weighted Average		199.6	197.3
Weighted Average (linked)		205.8	203.6

² Linked actual index = (actual index / previous actual index) x previous linked actual index.

$$288.8 = 298.2 / 304.8 \times 295.2$$

³ The 4Q12 based indexes are 1980 based indexes divided by the 4Q12 basing factor (297.5/100). Other basing factors are: 4Q07 = 245.9; 4Q02 = 192.1; 4Q97 = 173.2; 4Q92 = 156.9; and 4Q87 = 132.2.

Productivity

On February 6, 2012, the Surface Transportation Board (STB) served a decision in Ex Parte 290 (Sub-No. 4) which added the year 2010 to the Productivity Adjustment Factor (PAF) and removed the year 2005. This creates a geometric average annual productivity change, for the five-year period 2006 through 2010, of 0.8 percent per year. The components of this average annual value are shown on the following table in ratio format – therefore, 1.008 is the same as an increase of 0.8 percent.

Productivity changes are calculated by multiplying each of the five productivity changes together and taking the result to the one-fifth power. The quarter productivity adjustment factors (PAF) are calculated by increasing the previous quarter's PAF by quarterly versions of the annual rate, which are the fourth root of the geometric average annual growth rate. The difference between the PAF and the PAF-5 is the timing of the five-year productivity trend.

Comparison of Output, Input, & Productivity			
2006 - 2010			
Year	Output Index (1)	Input Index (2)	Productivity ¹ Changes (3)
2006	1.018	1.024	0.994
2007	1.000	0.996	1.004
2008	0.990	0.970	1.021
2009	0.847	0.861	0.984
2010	1.109	1.070	1.036
Average			1.008
Previous Average (2005-2009)			1.014

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 2006-2010, use fourth root of avg. productivity change = 1.0020

For 2005-2009, use fourth root of avg. productivity change = 1.0035

Quarter	Year	PAF	PAF-5
Q1	2012	2.2724	2.3978
Q2	2012	2.2769	2.4062
Q3	2012	2.2815	2.4146
Q4	2012	2.2861	2.4231
Q1	2013	2.2907	2.4279

2005-2009

2006-2010

Rail Cost Adjustment Factor First Quarter 2013

Four RCAF values are presented in this filing. Two are not modified for productivity (Preliminary RCAF and RCAF Unadjusted), and two incorporate a productivity calculation (RCAF Adjusted and RCAF-5). The All-Inclusive Index and all four RCAF values, plus the percent change for each, are shown below. **Note that the All-Inclusive Index is on a 2012Q4=100 basis.**

	Previous 2012Q4	Current 2013Q1	Percent Change
All-Inclusive Index ¹	100.5	99.9	-0.6
Preliminary RCAF ²	1.005	0.999	-0.6
Forecast Error Adjustment ³	<u>-0.005</u>	<u>-0.002</u>	
RCAF (Unadjusted) ⁴	1.000	0.997	-0.3
Productivity Adjustment Factor ⁵	<u>2.2861</u>	<u>2.2907</u>	
RCAF (Adjusted) ⁶	0.437	0.435	-0.5
PAF-5 ⁷	2.4231	2.4279	
RCAF-5 ⁸	0.413	0.411	-0.5

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 2013

The first quarter 2013 Labor Index is forecast to decrease 0.2 percent from the previous quarter. The decrease was caused by lower costs for health & welfare and unemployment insurance.

Wage Rate Index

The Wage Rate Index portion of the Labor Index increased 0.4 percent from the previous quarter. The increase was caused by non-union wage increases, independent wage increases, and new independent labor agreements. Some of the increase was offset by a decrease in the back pay rate. The complete amortization and removal of back pay amounts, mostly for last year's new national agreements with the UTU and UTU-Yardmasters, caused the lower back pay rate. [See Appendix H for railroad and union abbreviations.]

New Labor Agreements: New independent labor agreements affecting 18 railroad-union combinations were added to the index. Some of the agreements affected multiple railroads. Many of these independent agreements involved members of the IBEW, TCU and TCU-Carmen. All new labor agreements featured lump sums and retroactive wage increases that caused back pay.

Wage Increases: There are no national union wage increases scheduled for the first quarter. However, non-union employees, following past index procedure, were assigned a general wage increase (4.3 percent) similar to the increase received by most unions last July. Some independent labor agreements had general wage increases or cost of living allowance increases effective January 1, and the new independent labor agreements had retroactive wage increases.

Lump Sums: The first quarter lump sum rate is unchanged from the previous quarter. Amounts added for new and existing labor agreements offset last year's amounts that were completely amortized and removed from the rate.

Back Pay: The first quarter back pay rate dropped 28 cents (26.4 percent). Most of the decrease was caused by the complete amortization and removal of back pay amounts related to last year's new national UTU and UTU-Yardmaster labor agreements. Back pay amounts for more national unions are currently on their last quarter of amortization, so the back pay rate used for Q2 (March filing) may have another significant decrease.

Other: In wages, "Other" contains the amortization of incentive compensation payments that a large railroad makes each year to its dispatchers, yardmasters, and engineers. This rate is unchanged from the previous quarter.

Supplements Index

The Supplements Index decreased 1.0 percent. Factors affecting supplements such as health & welfare premiums, payroll tax rates, and maximum taxable earnings, are typically adjusted on January 1. The main causes of the decrease in the Supplements Index were lower health & welfare costs and much lower Unemployment Insurance tax rates.

Labor

First Quarter 2013

Health & Welfare: The Health & Welfare rate decreased 1.3 percent from the previous quarter because of lower premiums and higher employee contributions. New health & welfare premiums become effective January 1, 2013 (see pages 4 and 5 of this appendix), and they were mostly lower or unchanged. Employee health & welfare cost sharing contributions remain the same for national-agreement employees, but most of the new independent labor agreements had significant increases in the employee contributions that "caught up" with national rates. Higher employee contributions therefore helped the employer contributions go down.

A non-factor in the change for this quarter is the credit to health & welfare payments caused by overpayments in the first half of 2012. This credit, which is being amortized over four quarters, is unchanged from the previous quarter. The credit will be fully amortized and removed from the rate after the second quarter.

Railroad Retirement: The Railroad Retirement rate increased 3.6 percent. Taxable income was up by only 0.4 percent, but higher maximum taxable earnings go into effect January 1. In addition, the tax rate for Tier II also increased from 12.1 to 12.6 percent. Page 4 of this appendix list tax rates and maximum taxable earnings for 2011 through 2013.

Unemployment Insurance: The Unemployment Insurance rate decreased 86.3 percent, as new tax rates effective January 1 were much lower. Railroad unemployment insurance rates are experience-rated by employer, and railroads were mostly hiring during 2012. The rates for 2013 will range from 0.65 to 12 percent, since no tax rate surcharge will be applied. The average tax rate for Class I railroads is 0.67 percent for 2013 – much lower than the 5.0 percent average for 2012. Maximum taxable earnings increased, although the impact on the Unemployment Insurance rate is minimal compared to the huge decrease in the tax rate. Page 4 of this appendix lists average tax rates and maximum taxable earnings for the three most recent years.

Other: The "Other" category is a reflection of all other fringe benefits, and currently contain known employer contributions to employee 401(k) accounts and employer contributions to employee stock plans that are recorded as fringe benefits. Much of this quarter's increase was caused by stock awards for performance and perfect attendance.

Labor Index Calculation

As shown in Table A-1 on the next page, the 0.4 percent increase in the Wage Rate Index and the 1.0 percent decrease in the Supplements Index combined to cause a 0.2 percent decrease in the Labor Index. The linked first quarter 2013 index is 389.7.

Labor First Quarter 2013

Table A-1 Labor Index

	2012Q4	2013Q1	Change	
			Percent	Amount
<u>Base Wage</u> – Straight Time & Pay For Time Not Worked	\$37.167	\$37.611	1.2%	\$0.444
Adjustments:				
Lump Sum	0.446	0.446	0.0%	0.000
Back Pay	1.060	0.780	-26.4%	-0.280
Other	0.121	0.121	0.0%	0.000
Total Wages	<u>38.794</u>	<u>38.958</u>	0.4%	0.164
Health & Welfare Benefits	7.871	7.765	-1.3%	-0.106
RR Retirement & Medicare	7.709	7.988	3.6%	0.279
Unemployment Insurance	0.431	0.059	-86.3%	-0.372
Other	0.107	0.146	36.4%	0.039
Total Supplements	<u>\$16.118</u>	<u>\$15.958</u>	-1.0%	-0.160
Total Labor	\$54.912	\$54.916		
Wage Index¹	332.0	333.4	0.4%	
Supplements Index²	595.6	589.7	-1.0%	
Total labor Index, 2011 Weights ³	415.0	414.1		
Labor Index (linked)⁴	390.5	389.7	-0.2%	

¹ 1980 wage rate \$11.685

² 1980 supplements rate \$2.706

³ 2011 weights: wages, supplements 68.5% 31.5%

⁴ 2013Q1 linked Index = 2012Q4 linked x (2013Q1 / 2012Q4)
= 390.5 x 414.1 / 415.0

Labor
First Quarter 2013

Supplement Comparisons

Health and Welfare Rates

Plan	Railroad Contribution Per Employee Per Month				
	2011	2012	2013	Change	
				'11-'12	'12-'13
Group Health & Life	\$1,401.06	\$1,349.77	\$1,350.36	-3.7%	0.0%
Early Retirement Major Medical	164.41	154.49	139.04	-6.0%	-10.0%
Group Dental	59.47	55.90	55.90	-6.0%	0.0%
Group Vision	10.46	10.71	8.37	2.4%	-21.8%
Supplemental Sickness					
Maintenance of Way	36.52	36.52	32.87	0.0%	-10.0%
Shop Crafts	48.28	48.28	48.28	0.0%	0.0%
Signalmen	25.62	25.62	30.74	0.0%	20.0%
Yardmasters	33.48	34.95	34.95	4.4%	0.0%

Railroad Retirement and Medicare

	Earnings Base			Employer Rate		
	2011	2012	2013	2011	2012	2013
Tier I	\$106,800	\$110,100	\$113,700	6.20%	6.20%	6.20%
Tier II	79,200	81,900	84,300	12.10%	12.10%	12.60%
Medicare	no limit	no limit	no limit	1.45%	1.45%	1.45%

Unemployment Insurance

Monthly Taxable Earnings Base			Weighted Avg. Class I Rate		
2011	2012	2013	2011	2012	2013
\$1,330	\$1,365	\$1,405	7.09%	5.00%	0.67%

Labor
First Quarter 2013

NATIONAL RAILWAY LABOR CONFERENCE
EMPLOYEE BENEFITS DEPARTMENT

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November 26, 2012

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, 2013 are as follows:

Aetna - Supplemental Sickness Plans		
ShopCrafts	(no change)	\$ 48.28
Signalmen		\$ 30.74
Maintenance of Way		\$ 32.87
Trustmark - Supplemental Sickness Plans		
Yardmasters	(no change)	\$ 34.95
Railroad Employees National Health & Welfare Plan & National Railway Carriers/United Transportation Union H&W Plan		
Non-Hospital Road		\$1,350.36
Railroad Employees National Early Retirement Major Medical Benefit Plan		
Non-Hospital Road		\$ 139.04
Aetna - National Dental Plan	(no change)	\$ 55.90
VSP - National Vision Plan		\$ 8.37

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

Very truly yours,



Susan E. Parks

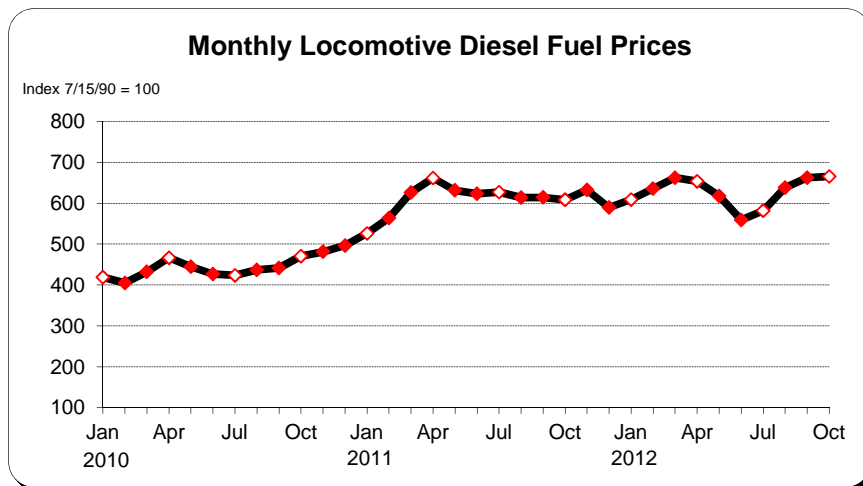
cc: Glen Williams

Fuel First Quarter 2013

The forecast for fuel is based on: (1) a survey of railroad fuel purchasing officers concerning current price and volume levels, (2) expectations of railroad purchasing officers based on their own forecast models and discussions with their major suppliers, and (3) a consensus of petroleum industry experts and general business publications. Fuel purchases are assumed to remain in inventory for 30 days before the fuel is consumed (and therefore expensed). Therefore, prices paid in the first month of each quarter are for fuel expensed in the second (or middle) month of the quarter, and the middle month is used to represent each quarter.

The nation's fuel prices have been relatively stable over the last two months. Concern about the "fiscal cliff" and its effect on the domestic economy may be holding down fuel prices. While the latest average prices for locomotive diesel fuel are available only through October, the Energy Information Administration (EIA) has weekly data through most of November for related fuel types. Recent EIA data show little change in prices for heating oil.* Although inventories of distillates such as heating oil are lower than normal, the current inventory levels may reflect an acceleration of the long-term trend of users switching to more economically competitive fuels such as natural gas.

The average price paid for locomotive diesel fuel has increased for four consecutive months, although the rate of increase is declining. Railroads believe the locomotive diesel fuel price for January 2013 (Q1) will be 1.7 percent lower than the fourth quarter forecast (represented by October 2012), and 3.4 percent lower than the average price actually paid for October.



Forecast Fuel Index (1980 = 100)	396.5
Change from previous quarter forecast	-1.7%
Change from previous quarter actual	-3.4%

* Heating oil and locomotive diesel fuel are part of a group of closely related products, commonly labeled as distillates, that differ mostly by only their sulfur content. Because of these similarities, these fuels are produced together and have similar pricing trends.

Materials & Supplies

First Quarter 2013

The first quarter 2013 Materials & Supplies Index decreased 1.0 percent from the previous quarter. The change was caused by decreases in prices in the Miscellaneous Products category, which contains items such as ballast, lube oil, creosote, batteries, and others. This is the second consecutive decrease for this index, and the current value is the lowest Materials & Supplies Index since the third quarter of 2011.

2013Q1 Materials & Supplies Index = 263.4

2012Q4 Materials & Supplies Index = 266.1

Difference -2.7 basis points
or
-1.0 %

Equipment Rents First Quarter 2013

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 active freight cars using the most recent month available. For the first quarter, December 1 of the previous year is used. For the second, third and fourth quarters; March 1, June 1, and September 1 are used, respectively. Using data retrieved from the latest CHARM file, an average rate per car is developed. Next, those average rates are grouped into car type categories to create an overall summary of car hire rates. The summary rates are then compared from quarter to quarter to determine the Car Hire Index.

Lease Rentals

The lease rentals portion of the Equipment Rents Index uses the Producer Price Index for Industrial Commodities less Fuel and Related Products and Power (PPI-LF). The Commission adopted this surrogate in its decision served March 13, 1987. The AAR uses six years of historical data to derive its forecast for the PPI-LF. The forecast is used not only for lease rentals, but also for the "Other" component of the All-Inclusive Index. Appendix G discusses the forecast in more detail.

Equipment Rents Index Calculation

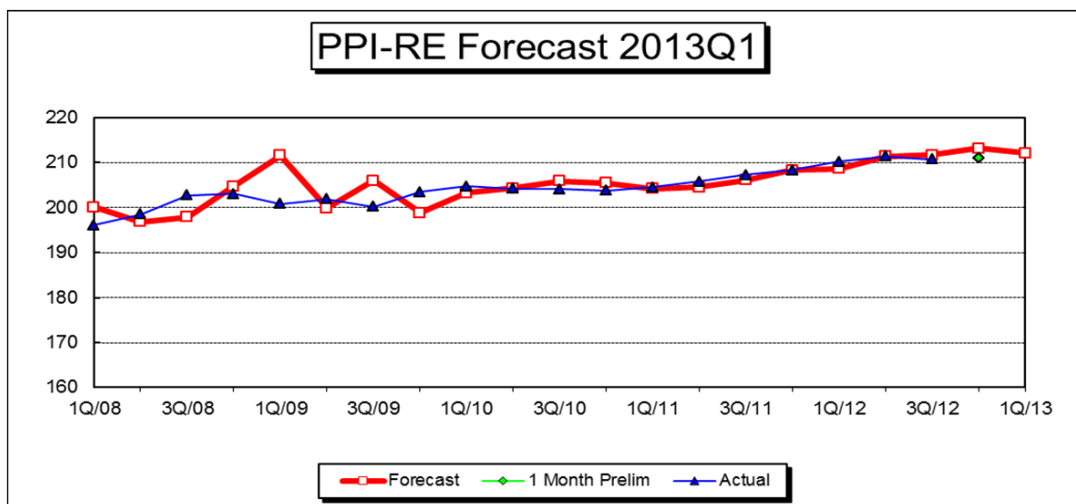
The table below calculates the Equipment Rent Index. The first quarter Car Hire portion of the Index increased 0.6 percent because of higher rates for privately-owned cars. A 0.4 percent increase for the projected PPI-LF (See Appendix G) used as a proxy for Lease Rentals, combined with the 0.6 percent increase for Car Hire, caused the Equipment Rent Index to increase 0.5 percent.

	2011 Weight	2012Q4	2013Q1	Percent Change
Car Hire	48.6%	177.3	178.4	0.6 %
Lease Rentals	51.4%	218.0	218.8	0.4
Weighted Average		198.2	199.2	0.5
Weighted Average (Linked)		205.7	206.7	0.5

Depreciation First Quarter 2013

The Producer Price Index for Railroad Equipment (PPI-RE) is used to index depreciation expense. The PPI-RE is forecast using an ARIMA (Auto-Regressive Integrated Moving Average) process where a statistical package picks the model that best fits the historical data set (see next page), and that model is then used for the forecast. The historical data set contains 6 years of monthly data (a sample size of 72), where the most recent available data point is the first month of the quarter prior to the forecast quarter. For a first quarter forecast, the most recent month of data available would be for October of the prior year. For a second quarter forecast, January would normally be the most recent period available. April and July would be the most recent months available for third and fourth quarter forecasts, respectively. The output from the forecast model is shown on page 2 of this appendix on a 1982=100 basis. The figure forecast by the model reflects monthly PPI-RE figures that gone down and up over the last half year.

Forecast of Depreciation Index (1982=100)	191.8
Forecast of Depreciation Index (1980=100)	212.2
Change from previous quarter forecast	-0.5%
Change from actual first month of previous quarter	0.5%
Change from same quarter of prior year (actual)	0.9%



Depreciation First Quarter 2013

PPI RAILROAD EQUIPMENT

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

Component	Smoothing Weight	Final Value
Level	0.81566	190.80
Trend	0.01668	0.24262

Within-Sample Statistics

Sample size 72	Number of parameters 2
Mean 182.9	Standard deviation 5.098
R-square 0.9599	Adjusted R-square 0.9594
Durbin-Watson 2.031	Ljung-Box(18)=21.45 P=0.7426
Forecast error 1.028	BIC 1.075
MAPE 0.003808	RMSE 1.013
MAD 0.691	

Actual Values for the Most Recent 6 Periods:

Date	Actual
2012-05	191.600
2012-06	191.500
2012-07	191.700
2012-08	189.600
2012-09	190.600
2012-10	190.800

Forecasted Values

Date	2.5 Lower	Forecast	97.5 Upper
2012-11	188.932	191.040	193.147
2012-12	188.544	191.282	194.020
2013-01	188.277	191.525	194.773
2013-02	188.079	191.767	195.456
2013-03	187.929	192.010	196.091
QTR AVG	188.095	191.767	195.440

Interest First Quarter 2013

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 2012, the Interest Index is based on data for 2011.

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

Interest Expense (Schedule 210)

Line	
42	Total Fixed Charges
44	Contingent Interest
less	
22	Release of Premium on Funded Debt

Average Total Debt (Schedule 200)

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

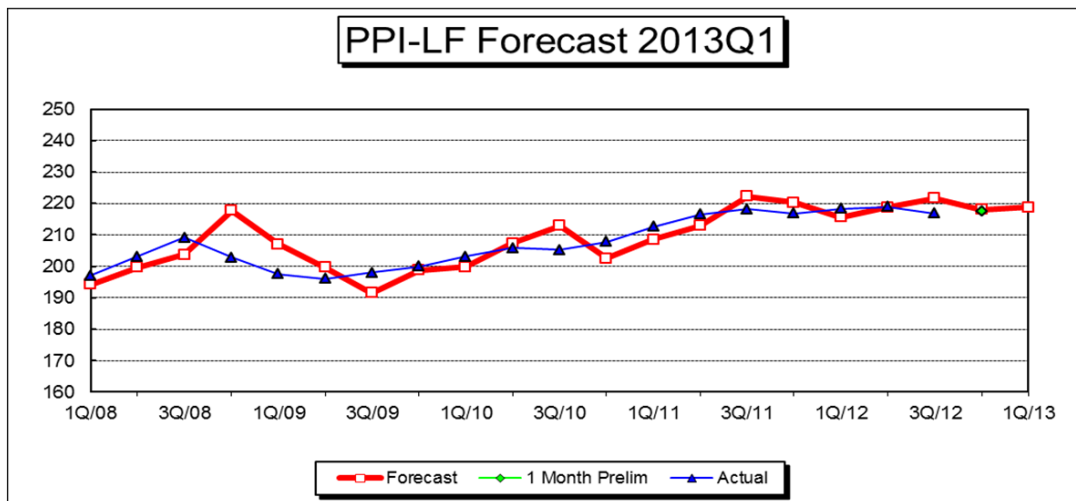
2011	Interest Rate	7.29%
1980	Interest Rate	7.85%
2013Q1	Interest Index	92.9
2012Q4	Interest Index	92.9
	Percent Change	0.0%

Other Expenses First Quarter 2013

The Producer Price Index for Industrial Commodities less Fuels and Related Products and Power (PPI-LF) is used to index purchased services, casualties and insurance, loss and damage, taxes (other than income and payroll), general and administrative expenses, and lease rentals. These expenses, when grouped together, are usually called "Other" expenses.

Like the PPI-RE, the PPI-LF is forecast using an ARIMA process on 6 years of monthly data (a sample size of 72) with the most recent available monthly data being the first month of the quarter prior to the forecast quarter. For a first quarter forecast, the most recent month of data available would be for October of the prior year. For a second quarter forecast, January would normally be the most recent month available. April and July would be the most recent months available for third and fourth quarter forecasts respectively. The output from the forecast model is shown on page 2 of this appendix for 1982=100. The figure forecast by the model for the first quarter reflects monthly PPI-LF figures that have been down and up over the last 6 months.

Forecast of Other Expense Index (1982=100)	195.2
Forecast of Other Expense Index (1980=100)	218.8
Change from previous quarter forecast	0.4%
Change from actual first month of previous quarter	0.6%
Change from same quarter of prior year (actual)	0.2%



Other Expenses First Quarter 2013

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

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

Component	Smoothing Weight	Final Value
Level	1.00000	193.90
Trend	0.01781	0.32015

Within-Sample Statistics

Sample size 72	Number of parameters 2
Mean 182.4	Standard deviation 8.814
R-square 0.9847	Adjusted R-square 0.9845
Durbin-Watson 0.553	**Ljung-Box(18)=85.74 P=1
Forecast error 1.097	BIC 1.148
MAPE 0.004273	RMSE 1.081
MAD 0.7821	

Actual Values for the Most Recent 6 Periods:

Date	Actual
2012-05	195.400
2012-06	193.700
2012-07	193.200
2012-08	193.200
2012-09	193.700
2012-10	193.900

Forecasted Values

Date	2.5 Lower	Forecast	97.5 Upper
2012-11	191.971	194.220	196.469
2012-12	191.331	194.540	197.750
2013-01	190.918	194.860	198.803
2013-02	190.622	195.181	199.739
2013-03	190.399	195.501	200.602
QTR AVG	190.646	195.181	199.715

Railroad and Union Abbreviations

First Quarter 2013

Railroads

BLE	Bessemer & Lake Erie Railroad (Part of CN's Grand Trunk Corp.)
BNSF	BNSF Railway Company
CC	Chicago, Central & Pacific (Part of CN's Grand Trunk Corp. Sometimes noted as CC&P.)
CN	Canadian National Railway (Commonly known as CN, owns Grand Trunk Corporation.)
CNGT	AAR's abbreviation for Grand Trunk Corporation (Almost all of CN's U.S. operations.)
CP	Canadian Pacific (Also noted as CPR. Owns the U.S. Class I railroad Soo Line.)
CSX	CSX Transportation
D&H	Delaware & Hudson (Canadian Pacific's U.S. operations, included beginning 2011Q4.)
DME	Dakota, Minnesota & Eastern (Canadian Pacific's U.S. operations, included beginning 2011Q4.)
DMIR	Duluth, Missabe & Iron Range Company (Part of CN's Grand Trunk Corp.)
DWP	Duluth, Winnipeg & Pacific Railway (Part of CN's Grand Trunk Corp.)
EJE	Elgin, Joliet & Eastern Railway (Part of CN's Grand Trunk Corp.)
GTW	Grand Trunk Western Railroad (Part of CN's Grand Trunk Corp.)
IC	Illinois Central Railroad (Part of CN's Grand Trunk Corp.)
KCS	Kansas City Southern Railway
NS	Norfolk Southern Combined Railroad Subsidiaries (a.k.a. Norfolk Southern Railway or NS Rail)
SOO	Soo Line Railroad (the largest of Canadian Pacific's U.S. operations.)
UP	Union Pacific Railroad
WC	Wisconsin Central and subsidiaries (Part of CN's Grand Trunk Corp.)

Major Unions Involved with Railroads

ATDA	American Train Dispatchers Association
BLET	Brotherhood of Locomotive Engineers and Trainmen Div. of the International Brotherhood of Teamsters
BMWED	Brotherhood of Maintenance of Way Employees Division of the International Brotherhood of Teamsters
BRS	Brotherhood of Railroad Signalmen
IAM	International Association of Machinists and Aerospace Workers
IBBM	International Brotherhood of Boilermakers, Iron Ship Builders, Blacksmiths, Forgers & Helpers
IBEW	International Brotherhood of Electrical Workers
NCFO	National Conference of Firemen and Oilers
SMW	Sheet Metal Workers' International Association
TCU	Transportation Communication International Union
TCU-Carmen	Brotherhood of Railway Carmen Division of the Transportation Communications International Union
UTU	United Transportation Union
UTU-Yard	United Transportation Union Yardmaster Department (also noted as UTU-YMD)

Predecessor Unions (Some AAR databases use these old abbreviations.)

BLE	Brotherhood of Locomotive Engineers (predecessor to BLET)
BMWE	Brotherhood of Maintenance of Way Employees (predecessor to BMWED)
BRC	Brotherhood of Railway Carmen (predecessor to TCU-Carmen)
IBFO	International Brotherhood of Firemen and Oilers (predecessor to NCFO)