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Rail Profits Increase Totally from Captive Traffic

The Surface Transportation Board (STB), which has regulatory oversight over U.S. railroads, provides statistics on the results of railroad operations. The STB recently updated its data from the year of 2005 to 2007 using the costed carload Waybill statistics from each of these years. What these statistics show will likely be an eye-opener for many that follow the rail industry.

Between 2005 and 2007 the profits of Class I railroads increased by 2.36 billion dollars. **What is remarkable is that this increase in profit came completely from captive movements.** In fact, according to the STB, the profit from competitive traffic decreased over this two year time frame.

Table 1
Increase in Railroad Profits
(in millions)

	2005	2007	Change
Captive Traffic Profit	**$8,513**	**$11,137**	**$2,624**
Competitive Traffic Profits	**$4,095**	**$3,829**	**-$266**
Total Profit	**$12,608**	**$14,966**	**$2,358**

Much has changed with rail rates since 2007, but these statistics show that railroads are aggressively going after rate increases on their captive traffic. **This data also demonstrates that the business models of Class I railroads are primarily directed towards increasing profits from their captive traffic.** The article on page 2, *Impact of Big Rate Increases on Railroads*, demonstrates some of the problems railroads are encountering in continuing to go after big rate increases on their captive movements. ❐

Inside this issue

U.S. Rail Rates Increase More than Canadian Rates

The average revenue per car for U.S. railroads increased much more than Canadian railroads over the last five years. Figure 1 shows that CN's average revenue per car always increased substantially below that of US railroads, while CP increases were only equal to US railroads until 2007. These are not small differences! **Table 2 shows that between the second quarters of 2004 and 2008 there was a 38.9% difference between the increases in average revenue per car for the US versus Canadian railroads.**

Figure 1
Change in Average Revenue/Car for Large US and Canadian Railroads
(2Q2004 - 2Q2009)

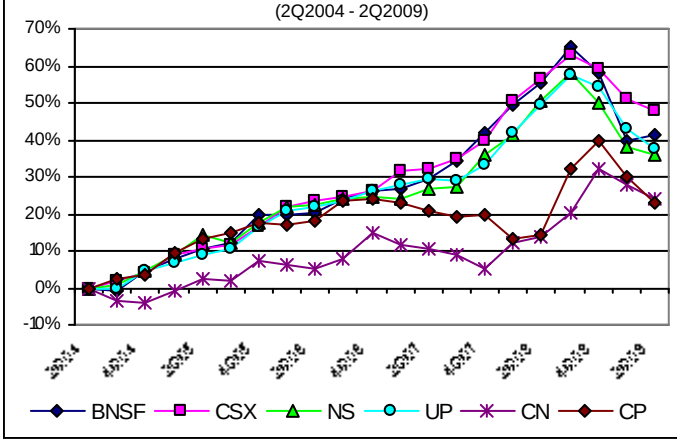

Table 2
Increases in Avg. Revenue/Car between 2Q2004 and 2Q2008 for U.S. versus Canadian Railroads

Canadian Carriers		US Carriers	
CP	14.3%	BNSF	55.3%
CN	13.7%	CSX	56.3%
		NS	50.4%
		UP	49.7%
	Avg. 14.0%		52.9%

Difference 38.9%

(Continued on page 2)

U.S. Rail Rates Increase More Than Canadian Rates

(Continued from page 1)

The question to answer is why are the rate increases of Canadian railroads so different from those of their US counterparts? **There are several potential answers for this rate change difference, but they all come down to the fact that there is greater competition between railroads in Canada than in the US.** Greater competition means it is more difficult for Canadian railroads to obtain large rate increases from customers than it is for US railroads.

The increase in Canadian rail competition results from the rules used to regulate railroads in Canada. A major difference in Canadian regulations is that they allow for inter-switching which is commonly referred to as reciprocal switching in the US.

Interswitching, permits switching from one railroad to another, at rates predetermined by regulators and set by formula, and is allowed if the point of origin or destination is within 18 miles of an interchange. The rate paid by the delivering/originating carrier (New Carrier) to the incumbent railroad is designed to compensate the owner of the infrastructure, the Incumbent Railroad, for use of its track and to compensate for foregone revenues, opportunity cost. This amount is computed by the Canadian regulatory agency, the Canadian Transportation Authority (CTA), by use of a set formula. This option permits a shipper to avoid paying monopoly rates to a rail carrier.

Canadian inter-switching regulations have evolved since 1908. The distance of the interchange location from the origin or destination was extended from four to eighteen miles with the passage of the National Transportation Act of 1987. In addition to the Interswitching regulation, rail access in Canada also includes provisions for Competitive line rates (CLR), Running rights, and Final offer arbitration. CLR are rates set by a railroad or the CTA for hauling traffic from a shipper served by only one railroad to the nearest interchange with another railroad outside the 18-mile Interswitching limit. Running rights allow a railroad to operate over lines owned by a different railroad, if the CTA approves. The New Carrier must compensate the Incumbent Railroad as negotiated by the carriers or if no agreement can be reached as specified by the CTA. Final offer arbitration is a process for resolving disputes over rates or conditions between a shipper and a railroad. The CLR, Running Rights and Final offer arbitration are not utilized to any great extent in Canada, so the primary impact on rail competition and rail rates comes from inter-switching.

The CTA is more directly involved in rail regulation than its US counterpart (the STB) because the CTA enforces reciprocal switching zones and sets revenue thresholds for certain commodities. The CTA is by design a more proactive agency then the STB. How proactive the STB is in establishing rates could potentially change due to the new rail legislation being considered in the US Congress. It is expected that this legislation will make the STB a more proactive agency with a larger budget and greater resources.

It is good to analyze how railroads are being regulated in Canada as the US can learn from other countries successes and failures when looking to change regulations. Discussions with the Canadian Industrial Transportation Association indicate that Canadian shippers are reasonably satisfied with the regulatory system in Canada. That is a far cry from shipper's satisfaction with the current US rail regulatory process. ❐

Impact of Big Rate Increases on Railroads

The percent of rail revenue that is classified as *"Captive"* by the Surface Transportation Board (STB) is growing. Table 3, on page 3, shows the increase in the percentage of rail revenue that is classified as captive for each railroad from the most recent STB assessment.

Class I rail carrier revenue classified as *Captive* increased by 3.7% from 2005 through 2007 according to STB calculations. The STB considers a rail movement to be *Captive* when the Revenue to Variable Cost Ratio (RVC), (Rate ÷ Variable Cost), equals 180% or more. The amount of captive traffic on railroads is extremely important because these captive revenues ultimately determine

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Table 3

Percent of Railroad Revenue Derived From Captive Rates

	2005	2007	Increase
BNSF	26%	28%	2.1%
CSXT	39%	42%	3.0%
NS	45%	47%	1.6%
UP	23%	28%	4.7%
CN (US)	43%	52%	9.3%
CP (US)	32%	34%	1.6%
TOTAL	**35%**	**38%**	**3.7%**

Source: Surface Transportation Board.

profitability of a railroad. Railroads earn more profit from captive than from competitive traffic, as captive rates are frequently two to three times higher than similar movements that are competitive. Table 4, below, lists the 2007 revenues and profits railroads earn by captivity level according to the STB calculations.

Table 4

Percent of Railroad Revenues and Profits from Captive Traffic in 2007

	Percent Profit from Captive Traffic	Percent Revenue from Captive Traffic
CNUS	72%	52%
CPUS	58%	34%
KCS	71%	38%
NS	97%	47%
CSXT	74%	42%
BNSF	60%	28%
UP	81%	28%
TOTAL	**74%**	**34%**

Source: Surface Transportation Board.

Table 4 shows that U.S. Class I railroads obtain 34% of their revenue from Captive traffic, but earn 74% of their total profits from this traffic, a more than two to one ratio. Increasing the amount of Captive traffic by 3.7% has a very big impact on railroad profits. To illustrate this point between 2005 and 2007 railroad stock prices increased between 41% and 108%, not too shabby! Table 5 shows the change in the closing railroad stock prices between July 1, 2005 and July 1, 2007.

When 34% of the revenue generates 74% of the railroads profits a 3.7% increase in revenues attributable to Captive traffic has a big impact. For example, total railroad profits in 2005 were $12.6 billion and in 2007 they were $15.0 billion, an increase of $2.4 billion or 19%. This increase in profits is completely attributable to Captive traffic. (see the article on page 1 for more information.) Now is not the time to be considered a Captive shipper by the railroads.

Table 5

Change in Railroad Stock Prices

	7/1/2005	7/1/2007	Gain
BNSF	$54.25	$82.14	51%
UP	$35.16	$59.57	69%
CSXT	$22.77	$47.41	108%
NS	$37.21	$52.57	41%
CN	$33.23	$52.13	57%
CPRS	$38.84	$73.93	90%

Railroads increased the sheer number of Captive shippers over these years through a de-marketing business model. Railroads said they were near capacity and would only handle the most profitable traffic. Railroads forced higher rate increases on shippers with a tough take it or leave it marketing strategy. Table 6 contains the average rate per car railroads charged shippers during 2005 and 2007. This table compares the change in average rate per railcar for Class I railroads between 2005 versus 2007.

Table 6

Change in Average Revenue Per Car for Class I Railroads

	2005	2007	$ Increase	Percent Increase
BNSF	$1,274	$1,513	$239	19%
CSXT	$1,173	$1,409	$237	20%
CN	$1,496	$1,664	$169	11%
UP	$1,419	$1,591	$172	12%
CP	$1,640	$1,745	$105	6%
NS	$1,095	$1,242	$147	13%
TOTAL	**$1,305**	**$1,497**	**$192**	**15%**

Source: SEC filings as contained in Rail Rate Checker.

Table 6 shows the large Class I railroad's average rate per carload increased by $192/car or 15% between 2005 and 2007. During this period it is safe to say that railroads were walking in high-cotton.

(Continued on page 4)

Impact of Big Rate Increases

(Continued from page 3)

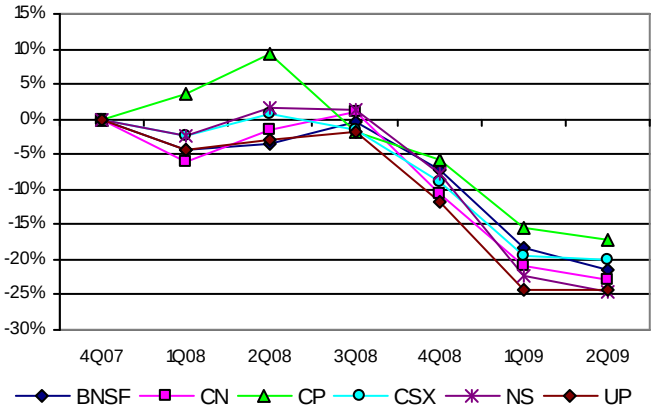
There is always a down-side associated with high prices, especially during a recession. Railroads are now looking at decreased volumes from:

1. A slowdown in economic activity;
2. Increased competition from other modes of transportation; and,
3. Structural changes implemented by shippers to avoid rail.

From the fourth quarter 2007 to the second quarter 2009 rail volumes and carloads have declined significantly. Figure 2 illustrates just how much traffic is off since the fourth quarter of 2007.

Figure 2

Percent Change in Carloads for Major Railroads



Big rate increases have impacted rail volumes, as well as, how many shippers' approach rail transportation. A common goal for many shippers is to avoid railroad transportation as much as possible. Trucks are competing for longer and longer distance traffic and barge companies are happy to discuss destinations and terms with shippers. Most transportation providers have excess capacity. Escalation Consultants' shipper surveys in 2009 show a most telling result, 81% of shippers are taking volume off of rail due to railroads' large rate increases.

Rail carriers frequently fail to realize that when rates increase too much, the freight moves by truck or production/sourcing is relocated to avoid the train. Ever increasing rail rates bump into the shipper's opportunity cost and the freight goes away, for railroads.

If rates are high enough, a resourceful shipper will figure out another way to move some of the freight. One with whom we spoke explained, more than 10% of all of the total freight is trucked to the river, barged south and delivered by truck or another railroad.

Railroad marketing people who believe the decline in railroad volume is entirely attributable to the recession should make inquires about the level of production at their customers' facilities. The answers they receive might be instructive when it comes time to talk about what rates are reasonable for their customers. ❒

2nd Quarter 2009 Rate Increases by Commodity

Rate changes were mixed for different commodities on different railroads in the second quarter 2009. Table 7 shows which commodities are having the largest rate increases versus the largest rate decreases. Table 7 ranks commodity rate increases from high to low, for large volume commodities on railroads, and shows that **between the second quarters of 2008 and 2009 none of the commodities had positive average rate increases on the four major U.S. railroads.** The largest rate decrease was 15.2% for Nonmetallic Minerals, followed by a 13.3% drop in Intermodal and a 13.1% decrease in Farm Product rates.

The decrease in commodity rail rates is primarily caused by the decrease in railroads fuel surcharge revenue resulting from lower fuel prices. Without the drop in fuel surcharge revenue we show that average rates continued to increase between 2.9% and 3.9%.

The increases in Table 7 represents the average increase of the four large U.S. railroads for these commodities on a revenue per ton basis. The commodities listed are the top twelve commodities by volume on the railroads.

Figures 3 and 4 show the commodities that had the largest and lowest rate changes. These graphs provide details on the rate change at each railroad for each commodity. Figure 3 shows that CSX's 12.8% increase for Lumber or Wood Products was the largest rate increase for any commodity between the second quarters of 2008 and 2009.

Figure 4 shows that the largest rate decrease was 16.9% for Nonmetallic Minerals on BNSF. The second biggest decrease was 14.5% for Intermodal movements on BNSF, followed by a 10.6% decrease for Primary Metal movements on BNSF.

Details on the change in tons and revenue per ton between the second quarters of 2008 and 2009 for Class I railroads operating in the U.S. are contained in Table 8 for Eastern railroads and Table 9 for Western railroads (pages 6 and 7). These tables show that all railroads had an average rate of decrease between the second quarters of 2008 and 2009. As mentioned with the rate changes by commodity, these decreases are primarily attributable to the decrease in the railroads fuel surcharge revenue. ❒

Table 7

Ranking of Average 2Q09 Rate Increases by Commodity on the Four Major U.S. Railroads
(2Q2008 to 2Q2009)

24-Lumber or Wood Prod. Exc. Furniture	-2.7%
28-Chemicals or Allied Products	-4.0%
37-Transportation Equipment	-6.9%
29-Petroleum or Coal Products	-7.5%
20-Food or Kindred Products	-8.9%
11-Coal	-9.2%
26-Pulp, Paper or Allied Products	-9.2%
32-Clay, Concrete, Glass or Stone Prod.	-9.3%
33-Primary Metal Products	-11.0%
01-Farm Products	-13.1%
46-Intermodal - Misc. Mixed Shipments	-13.3%
14-Nonmetallic Minerals; Except Fuels	-15.2%

Figure 3

Largest Commodity Rate Increases Per Ton for Major Commodity Groups
(2Q2008 to 2Q2009)

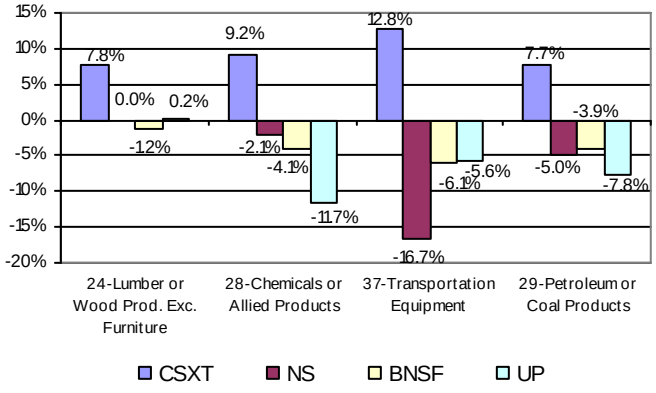


Figure 4

Lowest Commodity Rate Increases Per Ton for Major Commodity Groups
(2Q2008 to 2Q2009)

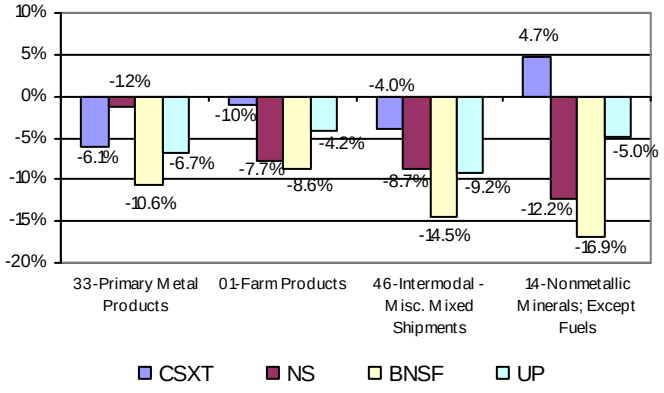


Table 8

Second Quarter 2009 Tons and Revenue Per Ton for Major Commodities on Eastern Railroads

(Tons in Thousands)

Commodities	CSX	Percent Change from 2Q08	CNUS	Percent Change from 2Q08	NSC	Percent Change from 2Q08
01-Farm Products						
Tons	3,947	2.6%	1,986	-47.8%	4,594	-14.6%
$/Ton	$24.41	-6.1%	$13.44	-7.5%	$18.88	-1.2%
11-Coal						
Tons	41,176	-18.4%	9,153	29.2%	37,221	-22.9%
$/Ton	$15.53	12.8%	$5.53	-10.7%	$13.42	-16.7%
14-Nonmetallic Minerals; Except Fuels						
Tons	9,638	-23.3%	1,692	-26.2%	5,053	-24.9%
$/Ton	$8.13	9.2%	$8.27	-0.5%	$9.37	-2.1%
20-Food or Kindred Products						
Tons	5,791	3.0%	2,437	-7.2%	5,278	-9.9%
$/Ton	$26.68	4.8%	$14.71	-3.6%	$25.42	-3.0%
24-Lumber or Wood Products,. Exc. Furniture						
Tons	1,690	-30.3%	1,628	-37.4%	1,586	-31.4%
$/Ton	$24.59	-1.0%	$14.13	-4.3%	$22.75	-7.7%
26-Pulp, Paper or Allied Products						
Tons	2,834	-18.5%	2,204	-27.3%	2,932	-22.0%
$/Ton	$29.37	-4.0%	$19.29	-8.0%	$29.47	-8.7%
28-Chemicals or Allied Products						
Tons	12,041	-16.1%	5,936	-21.7%	7,787	-22.2%
$/Ton	$31.35	7.8%	$15.68	0.0%	$34.44	0.0%
29-Petroleum or Coal Products						
Tons	2,147	-28.1%	1,678	17.2%	1,633	-25.9%
$/Ton	$29.60	7.7%	$12.85	-16.3%	$29.95	-5.0%
32-Clay, Concrete, Glass or Stone Products						
Tons	2,696	-21.3%	936	-27.8%	3,033	-31.0%
$/Ton	$21.19	1.1%	$15.32	-4.1%	$24.16	-0.2%
33-Primary Metal Products						
Tons	2,330	-54.1%	914	-51.3%	3,136	-59.2%
$/Ton	$22.82	-9.7%	$14.45	-22.0%	$21.74	-9.1%
37-Transportation Equipment						
Tons	1,546	-38.8%	480	-38.9%	1,754	-43.0%
$/Ton	$76.61	1.8%	$57.87	4.0%	$65.47	-13.6%
46-Intermodal - Miscellaneous Mixed Shipments						
Tons	4,225	-16.5%	792	0.1%	5,887	-18.6%
$/Ton	$32.99	4.7%	$20.04	-12.1%	$30.53	-12.2%
Total Tons	**95,799**	**-20.0%**	**35,538**	**-21.8%**	**83,693**	**-26.3%**
Average $/Ton	**$21.47**	**5.0%**	**$11.78**	**-10.2%**	**$21.07**	**-10.1%**
Average Haul	**498**	**0.6%**	**283**	**1.1%**	**511**	**-1.7%**

Source: Railroad's Quarterly FCS reports to the STB.

Table 9

Second Quarter 2009 Tons and Revenue Per Ton for Major Commodities on Western Railroads

(Tons in Thousands)

Commodity		BNSF	Percent Change from 2Q08	KCS	Percent Change from 2Q08	UP	Percent Change from 2Q08	SOO	Percent Change from 2Q08
01-Farm Products									
	Tons	12,789	-23.5%	1,577	-12.8%	7,698	-26.7%	2,897	-6.4%
	$/Ton	$31.67	-10.6%	$20.09	-21.4%	$31.05	-6.7%	$16.62	3.0%
11-Coal									
	Tons	69,880	0.3%	7,077	2.3%	54,400	-15.7%	2,125	11.0%
	$/Ton	$12.83	-6.1%	$5.19	-6.4%	$13.27	-5.6%	$5.25	-25.7%
14-Nonmetallic Minerals; Except Fuels									
	Tons	4,083	-25.3%	610	-36.1%	8,853	-27.0%	220	-47.6%
	$/Ton	$16.59	-4.1%	$10.56	-7.2%	$12.48	-11.7%	$12.13	-20.7%
20-Food or Kindred Products									
	Tons	7,916	-7.4%	816	-4.2%	9,224	-4.4%	1,100	-2.5%
	$/Ton	$37.82	-9.8%	$16.91	-4.2%	$42.03	-4.9%	$16.21	-2.1%
24-Lumber or Wood Products, Exc. Furniture									
	Tons	1,520	-38.5%	252	-64.7%	2,057	-40.8%	219	-26.4%
	$/Ton	$45.33	-8.6%	$16.78	8.2%	$48.54	-4.2%	$21.71	-2.7%
26-Pulp, Paper or Allied Products									
	Tons	1,613	-26.9%	1,244	-20.7%	1,891	-15.6%	263	-21.5%
	$/Ton	$43.63	-14.5%	$22.32	-6.9%	$45.93	-9.2%	$20.36	-2.5%
28-Chemicals or Allied Products									
	Tons	8,771	-18.9%	2,604	-13.5%	16,412	-17.6%	1,365	-40.9%
	$/Ton	$33.54	-1.2%	$13.97	1.7%	$32.95	0.2%	$16.46	-9.5%
29-Petroleum or Coal Products									
	Tons	3,747	-16.6%	984	-21.4%	2,820	-22.2%	360	-13.3%
	$/Ton	$34.39	-3.9%	$13.96	-10.1%	$33.72	-7.8%	$12.79	-6.3%
32-Clay, Concrete, Glass or Stone Products									
	Tons	2,341	-39.0%	342	-35.1%	3,426	-28.7%	387	1.2%
	$/Ton	$27.05	5.4%	$15.64	1.6%	$22.61	-7.9%	$14.02	-10.0%
33-Primary Metal Products									
	Tons	1,480	-58.9%	220	-69.4%	1,608	-61.5%	207	-56.4%
	$/Ton	$42.05	1.4%	$25.51	13.3%	$43.56	2.3%	$18.89	-16.5%
37-Transportation Equipment									
	Tons	612	-38.8%	28	-55.3%	1,616	-46.3%	218	-47.3%
	$/Ton	$170.62	-7.1%	$87.31	73.7%	$121.04	-3.0%	$52.33	-2.9%
46-Intermodal - Miscellaneous Mixed Shipments									
	Tons	9,291	-21.3%	555	0.2%	7,285	-19.0%	515	-32.1%
	$/Ton	$71.83	-16.9%	$15.01	-17.8%	$60.56	-5.0%	$22.11	1.0%
Total Tons		**129,116**	**-14.0%**	**16,914**	**-14.7%**	**121,010**	**-20.7%**	**10,248**	**-17.6%**
Average $/Ton		**$26.26**	**-14.9%**	**$12.22**	**-12.0%**	**$27.20**	**-7.8%**	**$15.53**	**-12.2%**
Average Haul		**1110**	**1.3%**	**413**	**9.3%**	**936**	**1.3%**	**447**	**-7.3%**

Source: Railroad's Quarterly FCS reports to the STB.

4th Quarter 2009 RCAF

The Association of American Railroads forecasts the fourth quarter 2009 Rail Cost Adjustment Factor Unadjusted for Productivity (RCAF-U) to be 0.996 representing a 6.2% increase from the third quarter 2009 index value. **The 6.2% increase occurred completely from the forecast error adjustment that is used to correct prior period RCAF-U values.** Without the prior period adjustments, the value of the RCAF-U would not have changed between the third and fourth quarters.

The Other component had the largest increase at 3.8% followed by Equipment Rents at 2.9% and Fuel with an increase of 1.4%. Table 10 lists the components and values of the Association of American Railroads' (AAR) forecast of the third quarter 2009 All-Inclusive Index (AII), the RCAF-U and the RCAF-A.

Figure 5 shows that for the four quarters between the fourth quarters of 2008 and 2009, most components of the RCAF decreased. Fuel, which represents 25.2% of the RCAF, had the largest decrease at 44.7% and the Other component, which represents 20.5% of the content of the RCAF, decreased 8.8%.

Labor which represents 30.2% of the RCAF was the only component that increased over the last four quarters (+4.3%).

The relative importance (weight) for fuel in the RCAF index increased by 4.9% in the fourth quarter. Fuel went from representing 20.3% of the content of the index to 25.2%, This occurred because the fourth quarter weights for the RCAF index are developed from 2008 railroads costs. The old 20.3% weighting for fuel in the index was developed from 2007 rail costs. ❒

Figure 5

Percent Change in Components of the RCAF Between Fourth Quarters 2008 and 2009

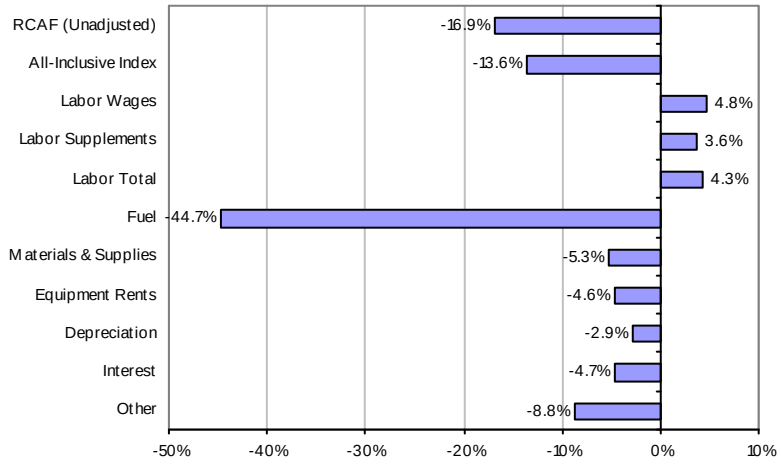


Table 10

AAR Forecast For The Rail Cost Adjustment Factor

	2008 Weight	3Q,09 Forecast	4Q,09 Forecast	Percent Change
Labor	30.2%	347.2	344.8	-0.7%
Fuel	25.2%	231.2	234.4	1.4%
M&S	5.1%	255.9	238.8	-6.7%
Equipment Rents	6.3%	192.4	197.9	2.9%
Depreciation	10.4%	206.0	198.9	-3.4%
Interest	2.3%	88.0	83.9	-4.7%
Other	20.5%	191.5	198.7	3.8%
All-Inclusive		99.8	99.8	0.0%
Preliminary RCAF		0.998	0.998	0.0%
Forecast Error Adjustment		-0.060	-0.002	
RCAF (Unadjusted)		0.938	0.996	6.2%
Productivity Adjustment Factor		2.2040	2.2122	
RCAF (Adjusted)		0.426	0.450	5.6%
PAF-5		2.3259	2.3329	
RCAF-5		0.403	0.427	6.0%
Wage Index	72.3%	307.3	306.9	-0.1%
Supplements	27.7%	497.8	490.0	-1.6%
Labor Index		360.1	357.6	-0.7%
Labor Index (Linked)		347.2	344.8	-0.7%