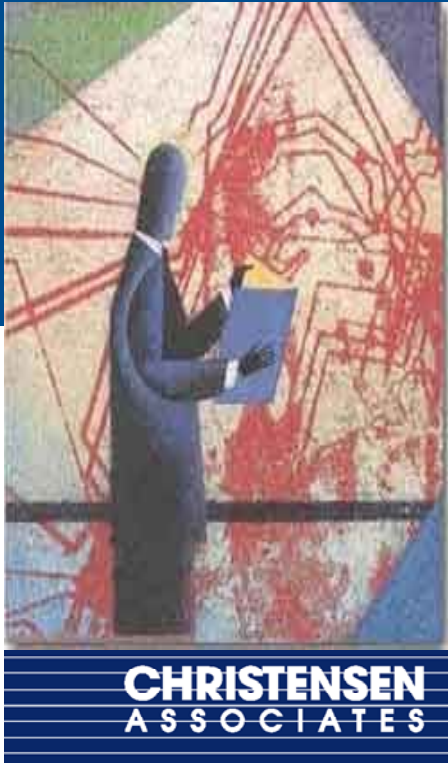


An Update to the Study of Competition in the U.S. Freight Railroad Industry



Presentation to RETAC

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Outline

- ❑ What Was Updated and Why
- ❑ Rates and Productivity
- ❑ Costs, Revenue, and Market Power
- ❑ Commodity Analyses
- ❑ Conclusions

What Was Updated and Why

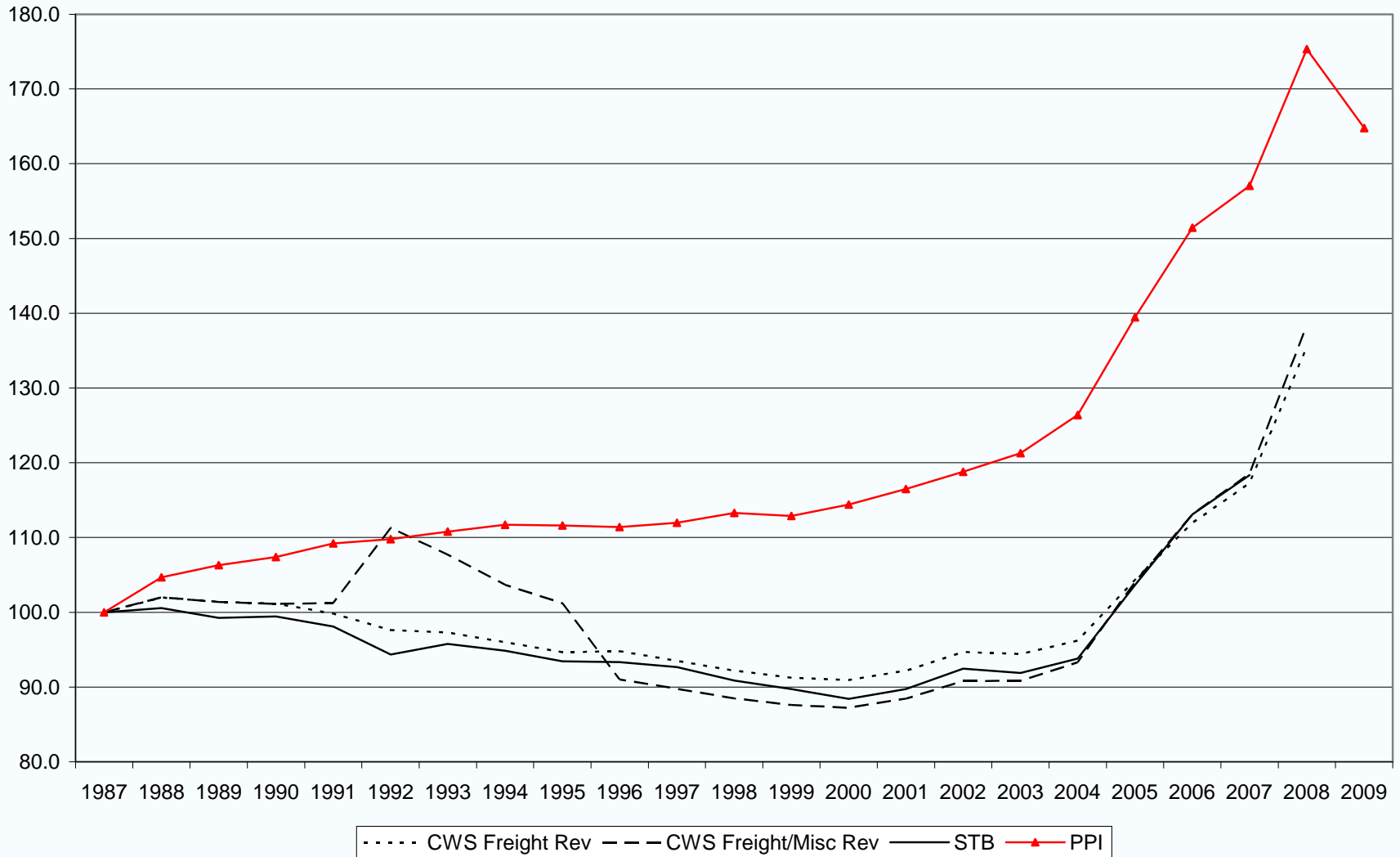
- ❑ The original report, released in November 2008, used data through 2006
- ❑ Since then two additional years of R-1 data and Carload Waybill Sample have become available
- ❑ We updated Chapters 8-15 of original report
- ❑ The basic findings from our original study remain unchanged

Rates and Productivity

- ❑ Overall railroad rates have been steadily increasing since 2004, with a particularly steep increase in 2008
- ❑ Preliminary PPI 2009 rate information suggests that overall railroad rates decreased in that year
- ❑ Trends in input price and productivity growth are generally consistent with the pattern of rate changes
 - 2007 and 2008 input prices continued to increase faster than productivity growth, resulting in unit cost increases
 - Increases in fuel prices have driven the input price increases

Rates Indexes

(1987=100.0)

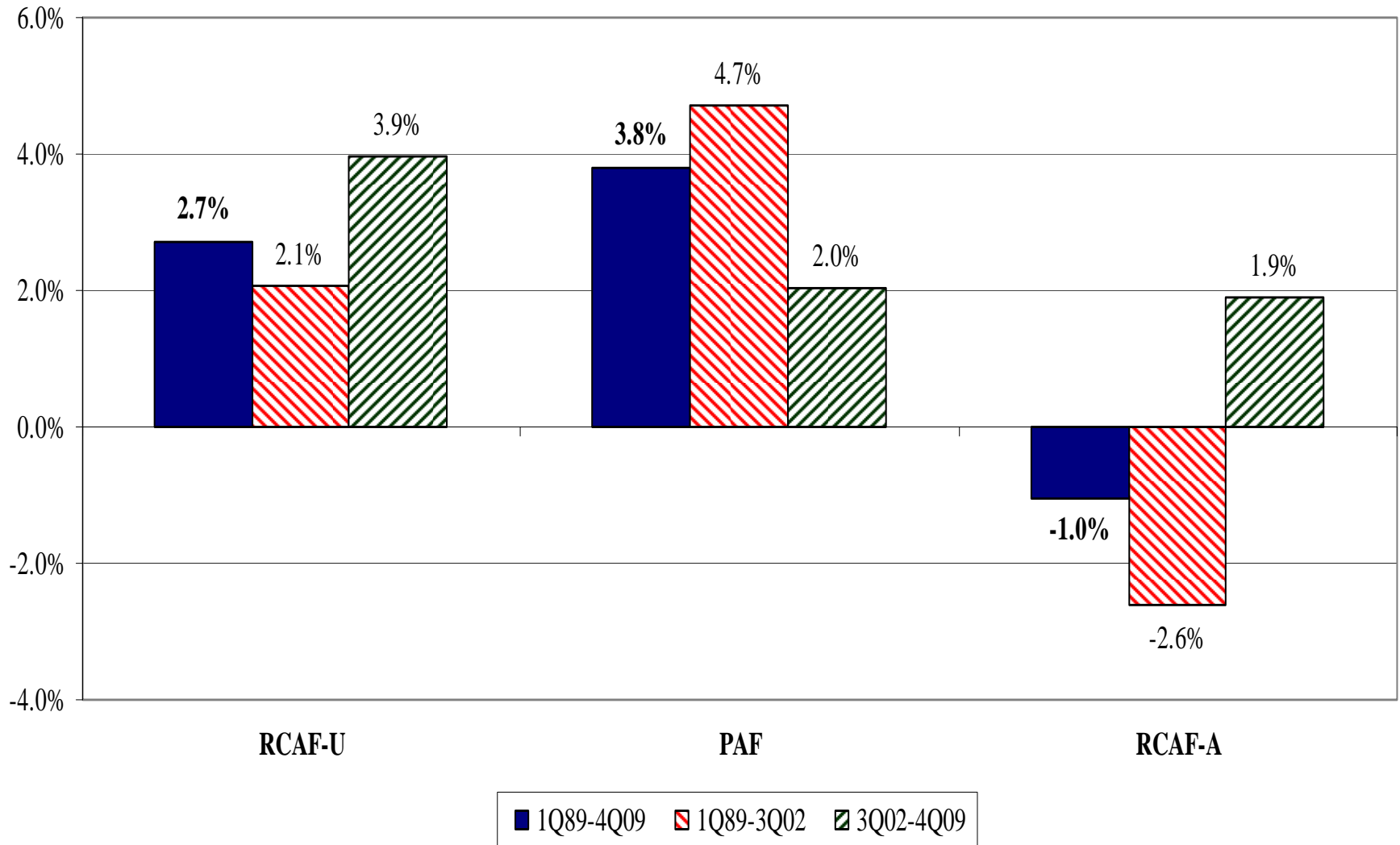


Annual Percentage Increase in Industry-Wide Rate Indexes

Index	Percentage Increase 2007	Percentage Increase 2008	Percentage Increase 2009	Average Annual Percentage Increase 2000-2006
Index Based on CWS Freight Revenue	4.6%	14.5%	---	3.5%
Index Based on CWS Freight & Misc. Revenue	4.7%	15.5%	---	4.3%
STB Index	4.6%	---	---	4.1%
Producer Price Index	3.6%	11.0%	-6.4%	4.7%

Rail Costs and Productivity

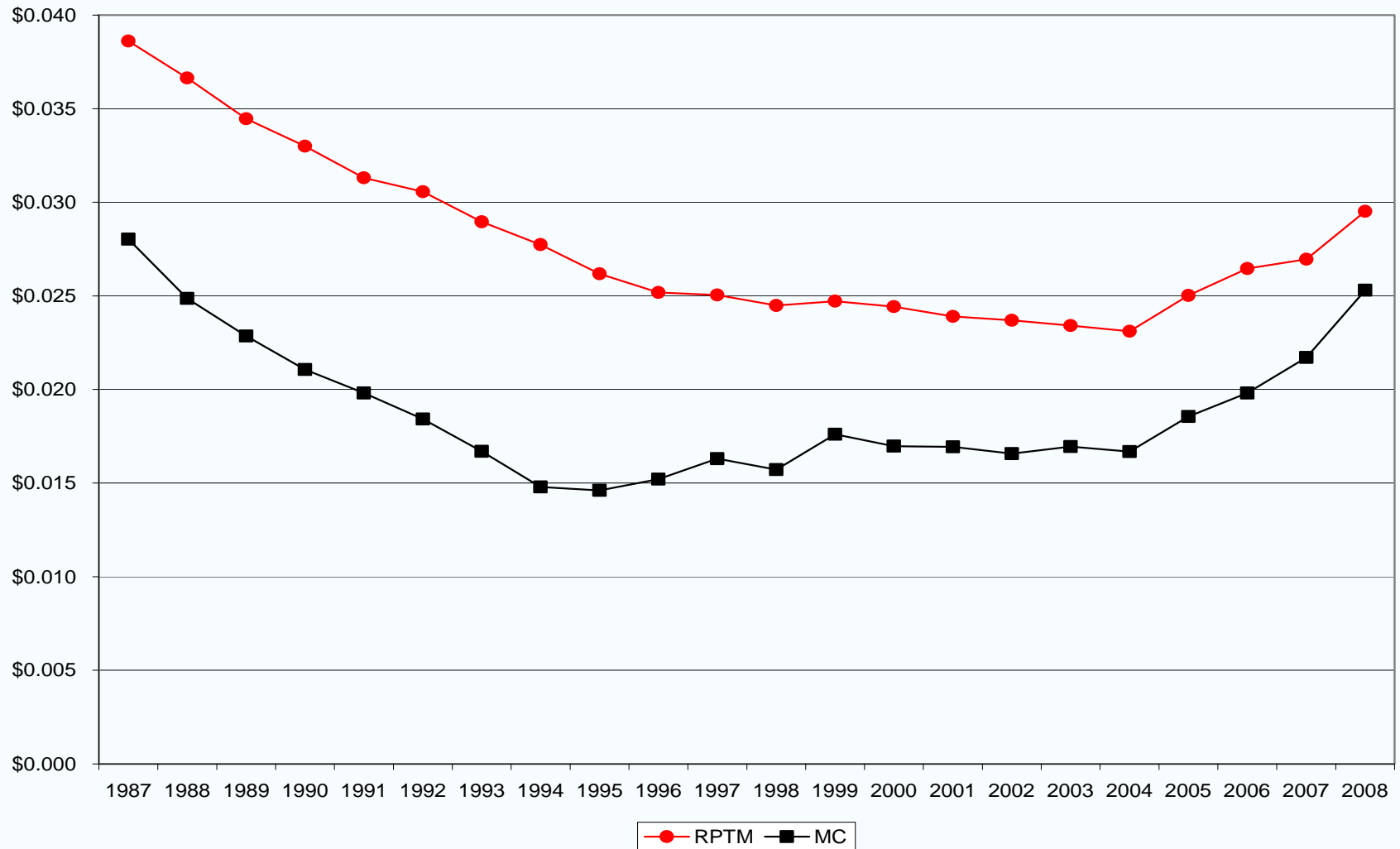
1989-2009



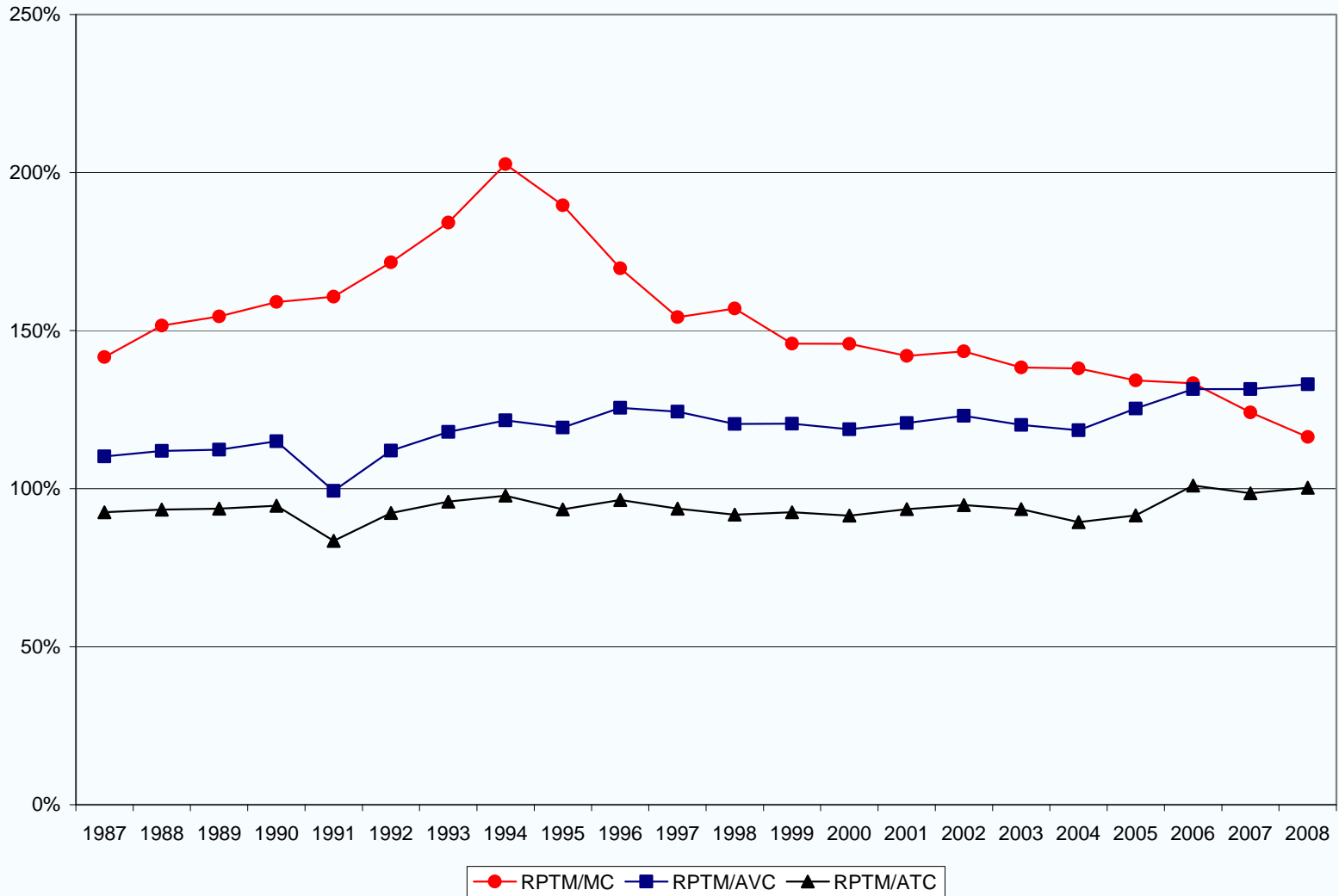
Costs, Revenues, and Market Power

- ❑ Railroad industry marginal cost has been increasing at a faster average annual rate than railroad revenue per ton-mile
 - Consequently, the measure of railroad market power has been decreasing
 - In some years, the exercise of market power in the railroad industry changed by less than what was implied by changing cost conditions, while in other years it changed by more
- ❑ 2007 and 2008 Carload Waybill Sample data show lower shares of tons and ton-miles moving at rates exceeding 180 percent of URCS variable cost than in 2005 and 2006
- ❑ The railroad industry has remained approximately revenue sufficient in recent years

Industry Revenue Per Ton-Mile and Marginal Cost for a Ton Mile (Year 2000 Dollars)



Industry Markup Ratios



Changes in Revenue Per Ton Mile and Cost Variables

	2002	2003	2004	2005	2006	2007	2008
Revenue Per Ton-Mile	-0.90%	-1.16%	-1.29%	8.26%	5.73%	1.89%	9.48%
Marginal Cost	-2.15%	2.27%	-1.54%	11.18%	6.80%	9.59%	16.51%
Average Variable Cost	-3.09%	1.45%	-1.72%	2.40%	0.63%	1.85%	7.97%
Average Fixed Cost	-0.37%	-3.43%	22.76%	17.08%	-17.45%	12.84%	5.36%
Average Total Cost	-2.52%	0.41%	3.32%	5.99%	-4.25%	4.41%	7.31%

Ton-Miles by R/VC Category

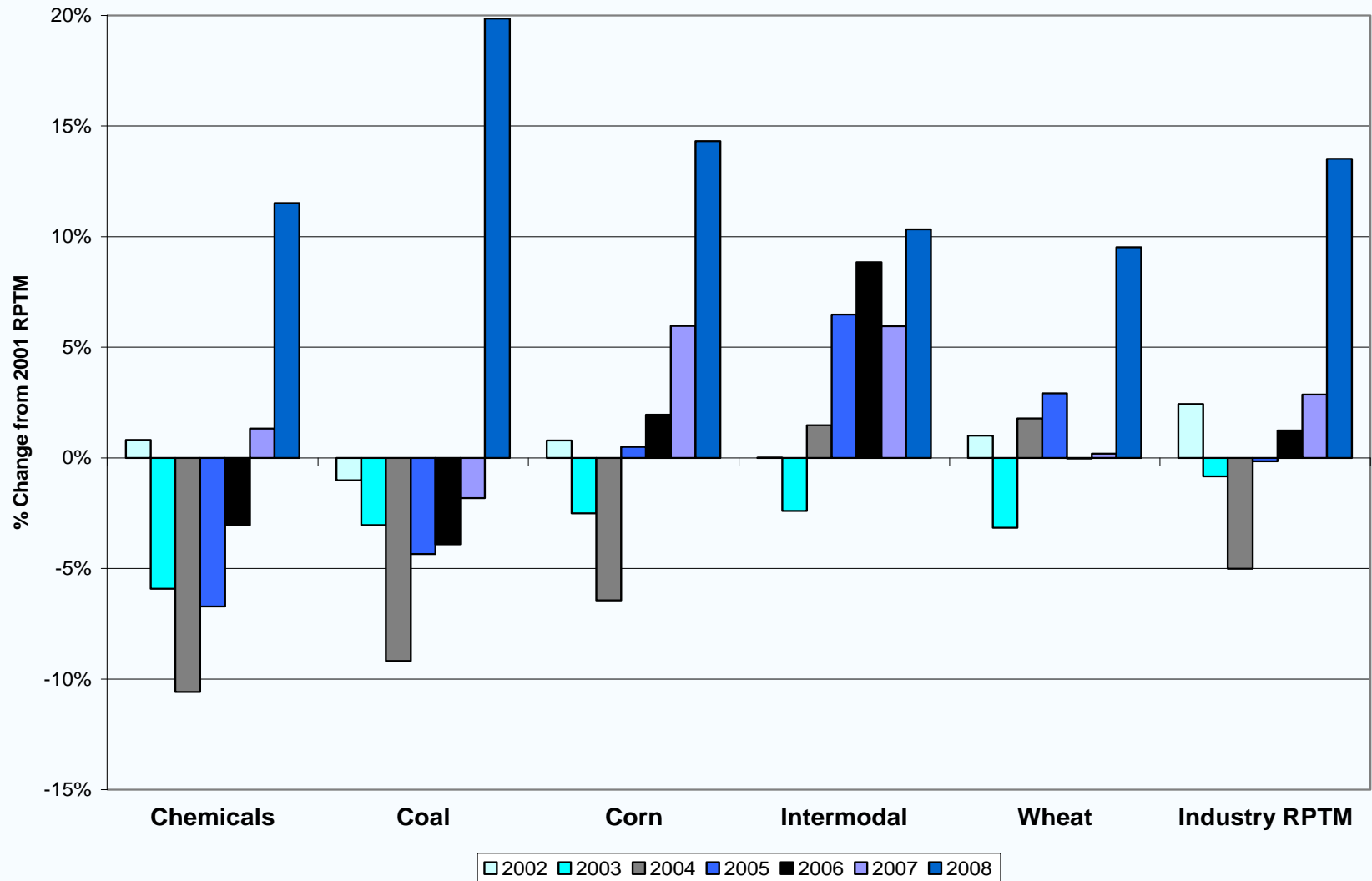
Period	R/VC < 100	R/VC Between 100 and 180	R/VC Between 180 and 300	R/VC > 300	Subtotal R/VC > 180
	Percent	Percent	Percent	Percent	Percent
2001-2002	22%	56%	19%	2%	21%
2003-2004	21%	57%	17%	5%	22%
2005-2006	29%	52%	16%	4%	20%
2007	33%	50%	15%	2%	17%
2008	34%	49%	14%	3%	17%

Commodity Analyses

- ❑ Percentage increases in revenue per ton-mile have not been uniform across commodities
 - Real revenue per ton-mile for the industry increased by about 12 percent in 2007-2008
 - Coal and chemicals experiencing above average increases for 2007-2008

- ❑ Ability to change shipment characteristics varies across commodities

Trends in Real Revenue per Ton-mile by Commodity



Growth Rates for Revenue per Ton-Mile and Industry Marginal Cost

Commodity	2002	2003	2004	2005	2006	2007	2008	2001-2008
Chemicals	0.80%	-6.70%	-5.00%	4.30%	3.90%	4.50%	10.10%	1.60%
Coal	-1.00%	-2.00%	-6.30%	5.30%	0.50%	2.20%	22.10%	2.60%
Corn	0.80%	-3.30%	-4.00%	7.40%	1.40%	3.90%	7.90%	1.90%
Intermodal	0.00%	-2.40%	4.00%	4.90%	2.20%	-2.70%	4.10%	1.40%
Wheat	1.00%	-4.10%	5.10%	1.10%	-2.90%	0.20%	9.30%	1.30%
All (Industry RPTM)	2.40%	-3.20%	-4.20%	5.10%	1.40%	1.60%	10.40%	1.80%
Industry MC	-2.20%	2.30%	-1.50%	11.20%	6.80%	9.60%	16.50%	5.90%

Lerner Markup Indexes by Commodity

Commodity Group	LMI		
	2001-2003	2004-2006	2007-2008
Farm Products	0.55	0.54	0.45
Barley	0.68	0.69	0.50
Corn	0.68	0.68	0.62
Wheat	0.64	0.68	0.58
Soybeans	0.56	0.56	0.47
Metallic Ores	0.32	0.26	0.36
Coal	0.31	0.35	0.25
Nonmetallic Minerals	0.41	0.27	0.44
Food Products	0.50	0.48	0.40
Lumber or Wood Products	0.54	0.53	0.36
Chemicals	0.55	0.47	0.45
Petroleum or Coal Products	0.55	0.56	0.52
Clay, Concrete, Glass, or Stone Products	0.51	0.51	0.43
Primary Metal Products	0.44	0.42	0.41
Transportation Equipment	0.38	0.25	0.20

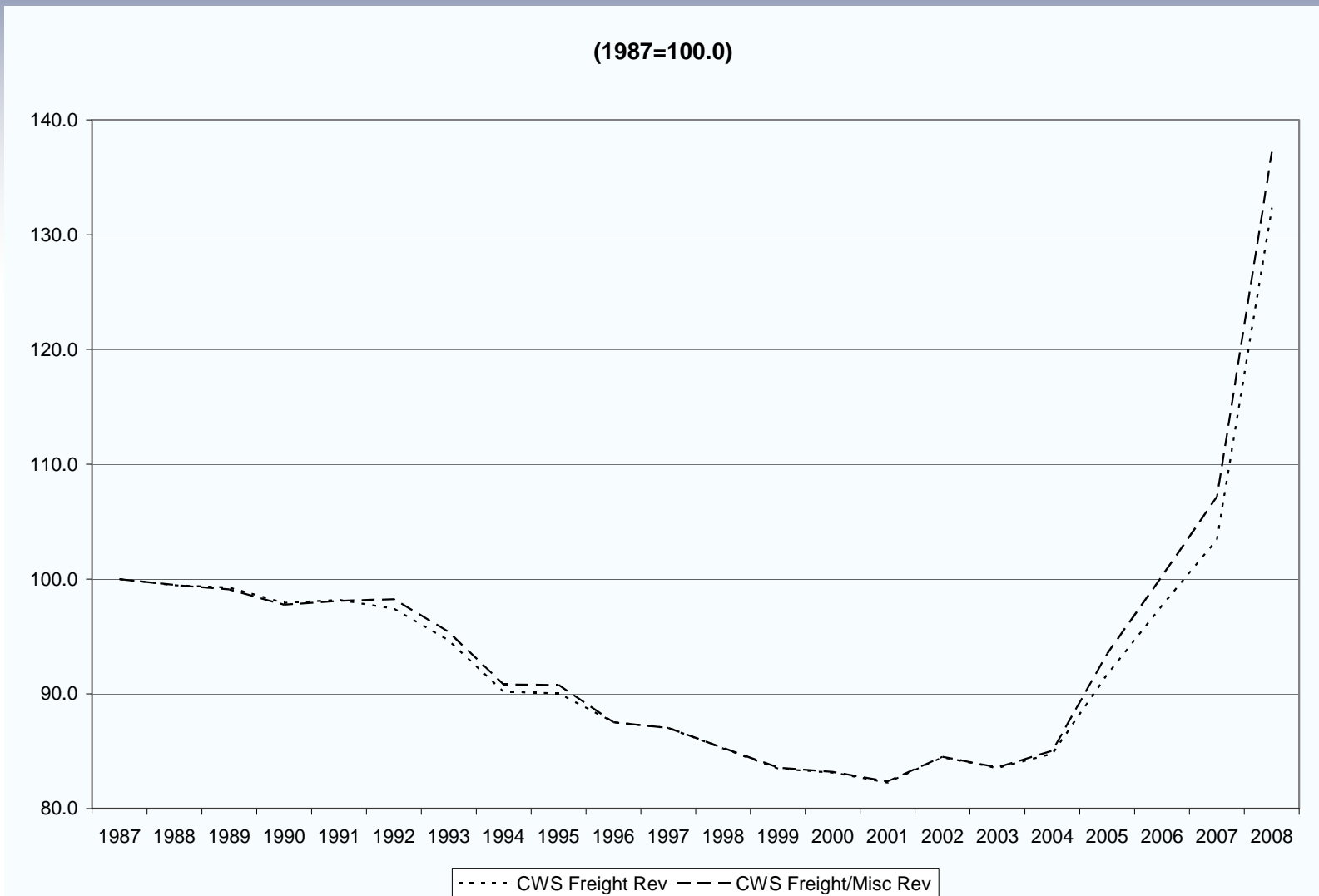
Coal

- ❑ Cumulative change in real revenue per ton-mile
 - 2007-2008 +24.8%
 - 2005-2006 +5.8%
 - 2002-2004 -9.1%

- ❑ Trends toward lower-cost shipment composition leveling off
 - Prior to 2006, longer unit trains, increasing average length of haul because of growth of PRB coal
 - Since 2006, stabilization of east-of Mississippi coal share; little room for further cost-reducing adjustments

- ❑ Railroad competition at destination has strongest downward impact on revenue per ton-mile

Coal Rate Indexes



Chemicals

- ❑ Cumulative change in real revenue per ton-mile
 - 2007-2008 +15.1%
 - 2005-2006 +8.4%
 - 2002-2004 -10.7%

- ❑ Limited possibilities for shifts toward more favorable cost characteristics
 - Modest increases in tons/carload and tons/shipment
 - Average length of haul largely unchanged 2001-2008

- ❑ Findings on Competition
 - Rail competition at origin lowers RPTM
 - Rail competition at destination lowers RPTM
 - Proximity of water transportation to destination lowers revenue per ton-mile

Corn

- ❑ Cumulative change in real revenue per ton-mile
 - 2007-2008 +12.1%
 - 2005-2006 +8.9%
 - 2002-2004 -6.4%

- ❑ Shipments have lower-cost characteristics
 - 70 % unit trains in 2001 and 84% in 2008
 - Average length of haul 23% greater in 2008 than in 2001
 - Likely reflects increase in exports

- ❑ No strong competition impacts found

Wheat

- ❑ Cumulative change in real revenue per ton-mile
 - 2007-2008 +9.5%
 - 2005-2006 -1.8%
 - 2002-2004 +1.8%

- ❑ Shipments have lower-cost characteristics
 - 41 % unit trains in 2001 and 45% in 2008
 - Average length of haul 10% greater in 2008 than in 2001
 - Likely reflects increase in exports

- ❑ Findings on Competition
 - Nearness of water transportation to origin lowers RPTM
 - Only one railroad at origin or destination raises RPTM

Intermodal Shipments

- ❑ Cumulative change in real revenue per ton-mile
 - 2007-2008 +1.3%
 - 2005-2006 +7.2%
 - 2002-2004 +1.5%

- ❑ Shipments cost characteristics
 - Average length of haul relatively flat 2001-2008
 - Tons per car historically declining, but increased 2006-2008

- ❑ Findings on Competition
 - Shorter distances to port facilities tend to reduce RPTM

Conclusions

- ❑ Study was updated through 2008
- ❑ Basic findings of original study remain unchanged
- ❑ Rates steadily increased 2004-2008
 - Particularly steep increase in 2008
 - Preliminary data for 2009 show a decrease
- ❑ Since 2004 input prices increased faster than rail productivity
- ❑ Fuel price increases have driven the input price increases
- ❑ Measure of railroad market power has been decreasing
- ❑ Railroad industry appears revenue sufficient