

Rails, Coal, Shale & Beyond

AB HATCH abh18@mindspring.com

155 W68th St Suite 1117 NYC 10023

www.abhatchconsulting.co / **MillerTabak**

**Rails & Coal – The King is Dead, Long Live the
New King**

PA/AK

May, 2012

Rail Assessment

Strengths

- Strong secular growth
- Favorable market structure
- Supply constraints
- Solid barriers to entry
- Limited alternatives

Opportunities

- Pricing
- Volume Growth
- Service levels / productivity
- Modal shift
- Consolidation?

Challenges

- Capital intensity
- Capacity bottlenecks
- Port congestion
- Reliability vs. trucks

Threats

- Economic malaise
- Rising capital requirements
- Regulation
- Maritime trade flows

Future Growth Potential

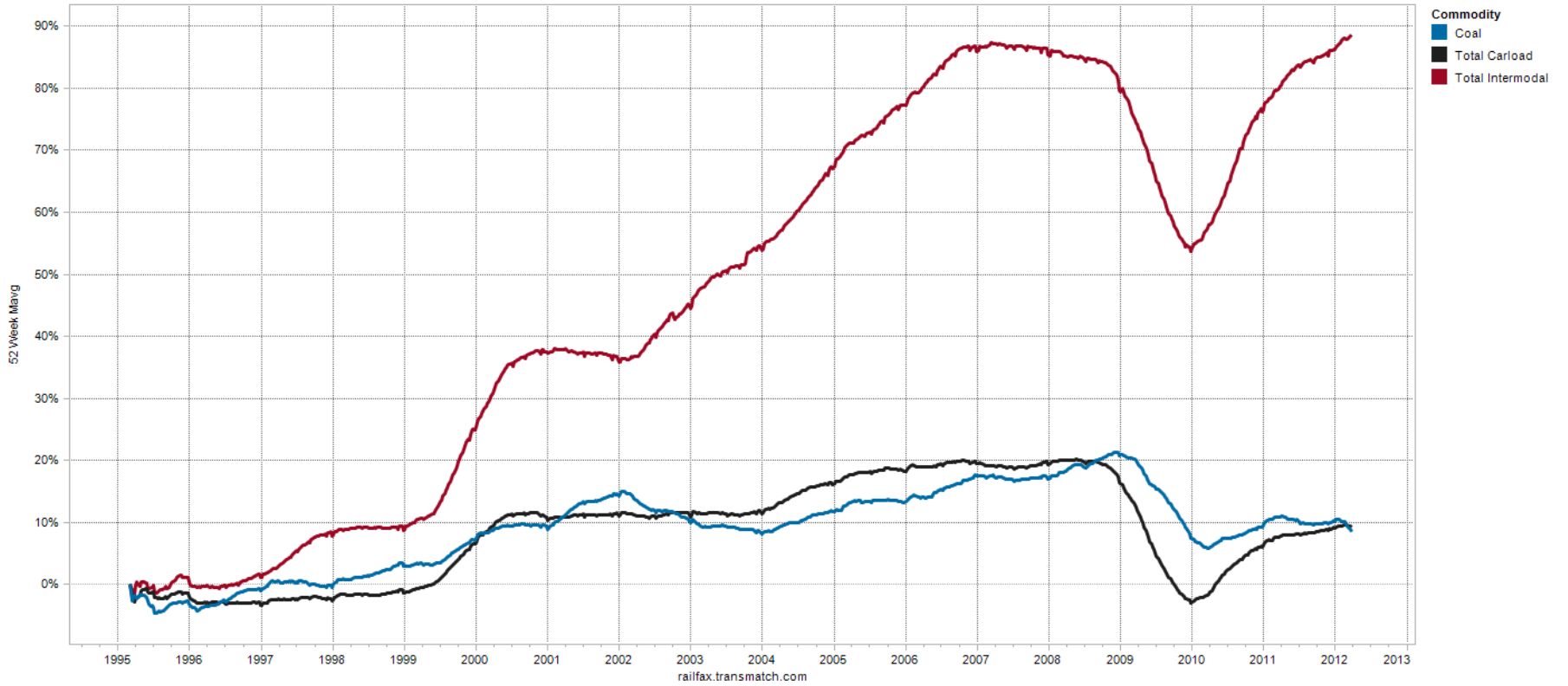
5 Secular stories plus....

- 1-Intermodal – International *and* Domestic
- 2-Grain – the world’s breadbasket
- 3-Coal? Exports – “legs”?
- 4-Shale to the rescue?
- 5-Chemicals
- The Manifest/Carload “Problem”/MSW (garbage), perishables, others
- Point-to-point vs. Hub & Spoke (or Southwest vs. United)

What, me worry?

- Coal – its price not community
- Quick then suddenly – 10% hit?
- Activists – what's next?
- Compensation: shale (+++)?
- Compensation: chemicals?
- Compensation: export coal?
- Compensation: domestic intermodal?

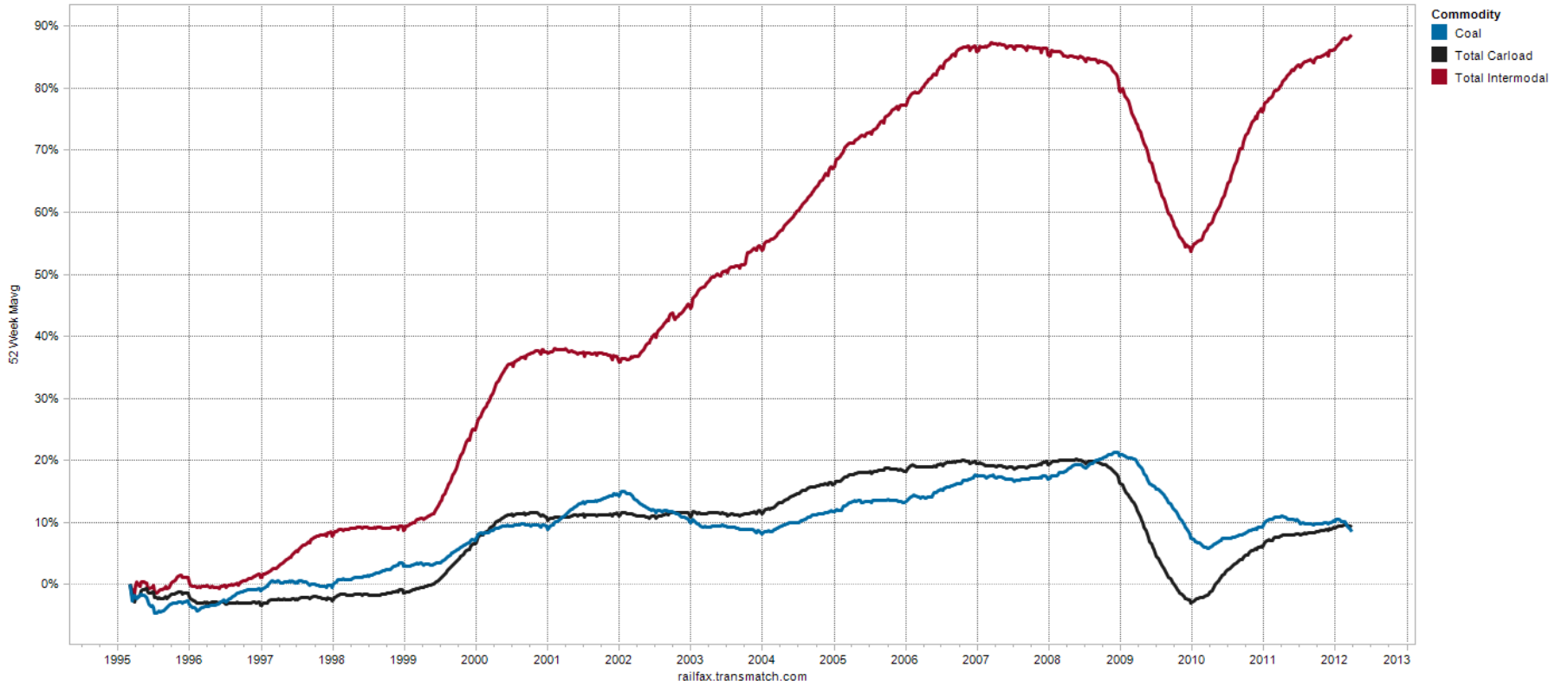
Cumulative Growth for Intermodal, Coal and Carload Traffic
Source: iRailfax/AAR



Q1/12 Traffic a tale of two worlds

- US carloads decline 2.5% (coal -9.8% and grain-9.7%); intermodal +2.5%
- Ex coal +2.4%; ex coal and grain +6% (12 of 20 tracked commodities up)
- Canada cl+5.4% intermodal +6.5%
- Total -1% Intermodal +3.3%

Cumulative Growth for Intermodal, Coal and Carload Traffic
Source: iRailfax/AAR



Q1/12 Railway Scorecard

RAIL	Q1 EPS	Q1VOL%	Q1 REVS	Q1PRICE	CAPEX+/-	Q1 OR	OR YOY
<i>BNSF</i>							
<i>UNP</i>	39%	1.0%	14%	5.0%	13%	70.5%	-490bps
<i>KSU</i>	29%	7.0%	12%	~5+%	12%	71.2%	-260bps
<i>CSX</i>	23%	1.0%	6%	5.5%	13%	71.1%	-140bps
<i>NSC</i>	37%	1.0%	6%	~4-5%	12%	73.3%	-160bps
<i>CNI</i>	31%	5.0%	13%	~4.0%	~8%	66.2%	-280bps
<i>CP</i>	+37%	8.0%	17%	~3.0%	0-9%	80.1%	-1050bps
AVG	32.6%	3.8%	11.3%	4.50%	11.20%	72.1%	-397 (-266)BPS

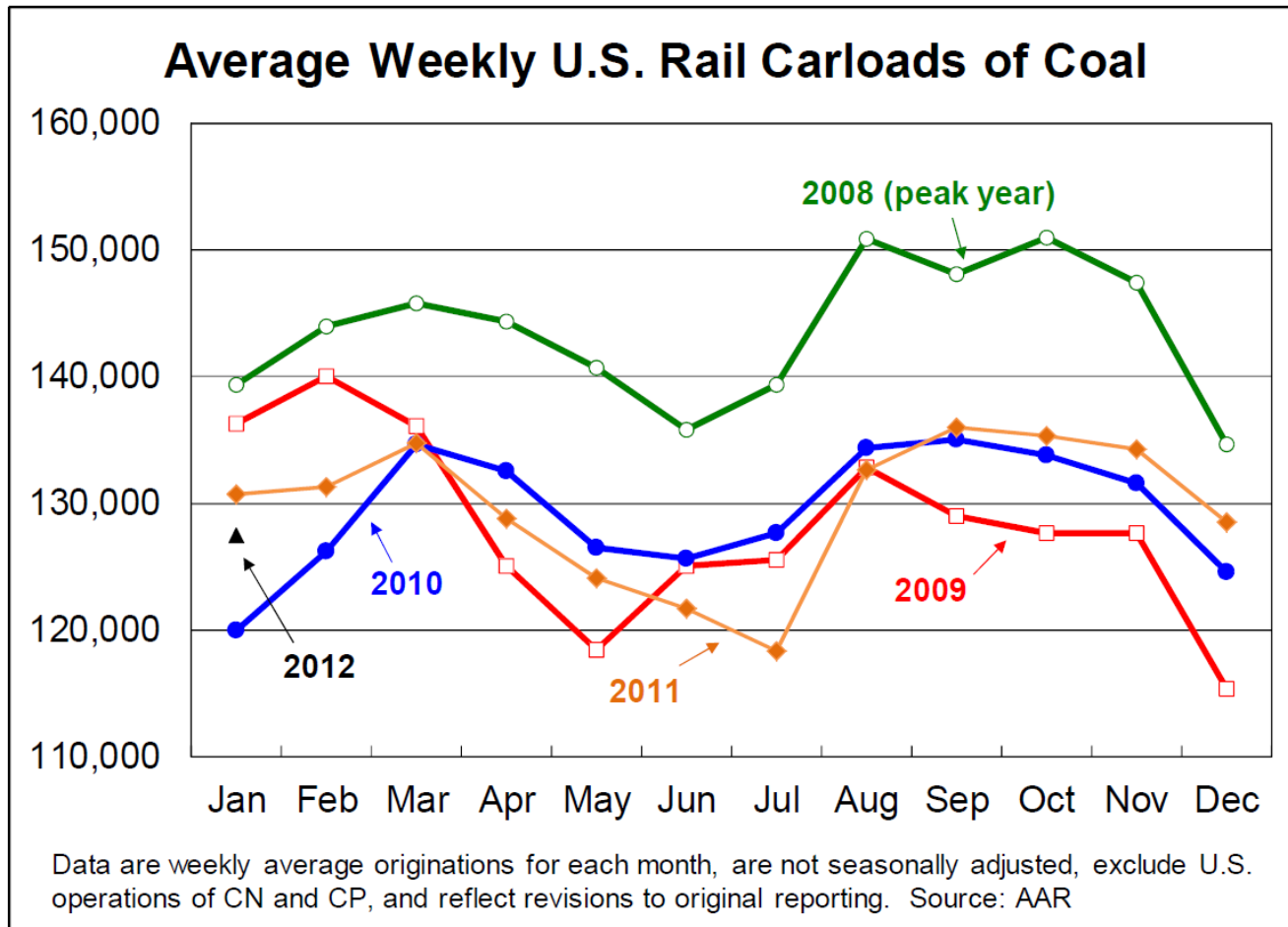
Recent Coal Industry Trends

- Extremely mild winter across the U.S., low natural gas prices and accelerating railroad cycle times have caused an sudden glut of existing coal cars
- Coal cars in storage are estimated to be at 23,000 cars or 8% of the fleet, compared to 8,000 in December 2011 or 3% of the fleet. Total industry railcars in storage total 283,000, or 18.6% of the fleet.
- Winter season heating degree days (a measure of cold temperatures and power demand for heating) are down 18.3% vs. last year and are 13.4% below the 10 year average
- Year to date power generation is down 6.2% versus 2011 levels
- YTD U.S. coal loadings through first six weeks of 2012 were down 3% versus same period in 2011
- Railroad velocity has increased by 2 mph in January compared to November
- Coal exports were strong in 2011, reaching 107 million short tons, up 31% vs. 2010 and reflecting the highest annual total since 1991

Intermodal Issues 2012+

- International: trade flows, retail sales, exports & balance
– UNP's vision vs NRF, TTX
- Panama Canal?
- Emerging Developments – Rupert, Lazaro, Miami
- Domestic – development of “Corridors” & “Gateways”, etc
- Domestic – bimodal partners, shipper developments
- Domestic – service & pricing?
- *Q1/12 – up 5.9% (domestic +9%, int'l +3%, IMC+11%)!*
- *“There's somethin' happening here....”*

Every picture distorts a story?



Estimated Delta In RR Revenues/Prologistics Group

	Approx Annual Carloads		Approx Rev/Car	Change In Rev
	2008	2011		
Coal	8,320,000	7,120,000	\$1,700	(\$2,040,000,000)
Oil	6,000	92,000	\$3,700	\$318,200,000
Sand	160,000	360,000	\$3,500	\$700,000,000
Total	8,486,000	7,572,000		(\$1,021,800,000)

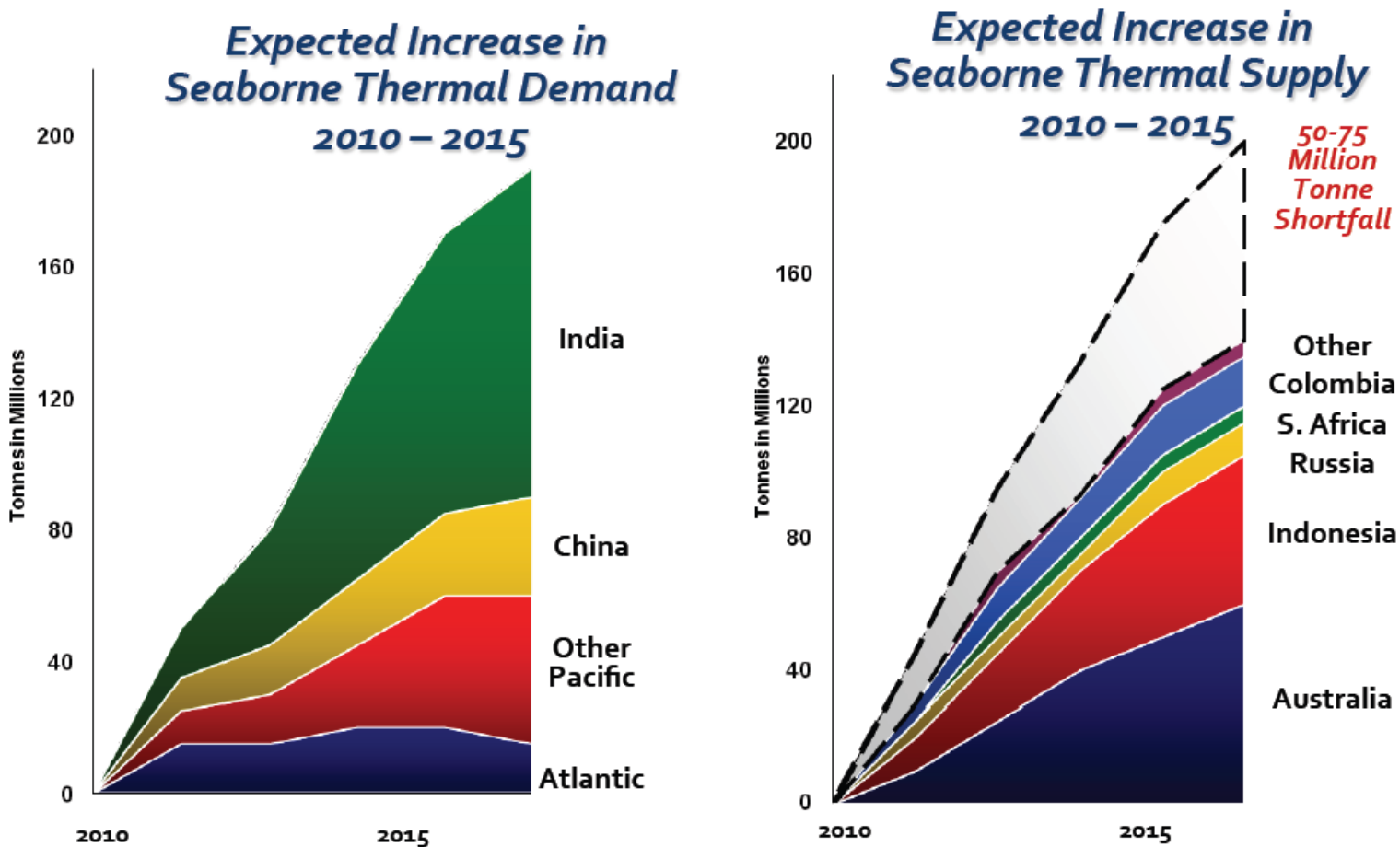
Coal

- Export looks flattish at high levels – sustainable?
- CSX vs NSC vision on domestic utility
- 52% share in 2000; 45% in 2010; ?? In 2020?
- Chesapeake, Patriot try to control supply side

Shale

- Frac Sand, brine & water, pipe and aggregates inbound
- In cases of Oil, “Rolling Pipelines” out....
- Hess – 286 cars, 9 trainsets now, 27 in a few years
- Tar Sands and pipelines
- Chemical Industry
- Industrial Development

Exports to the rescue?



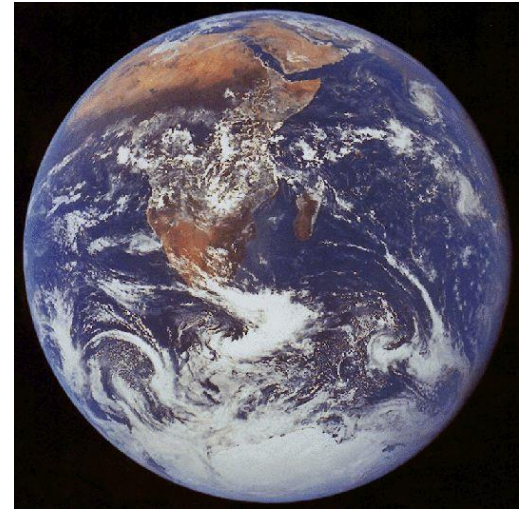
Carbon Footprint— from cocktail chatter to decision point

- 2003 – 221/F500 report on carbon; 409/F500 in '09
- Green supply chains enforcement by Wal-Mart (from \$2B transport spend to \$4B+ by '11); GE, P&G, etc.....
- Anticipating future EPA regs (12/23/11) and emissions law

Intermodal Growth Drivers

Domestic *and* International

- **Globalization**
- **Trade**
- **Railroad Cost Advantages**
- **Fuel prices**
- **Carbon footprint**
- **Share Recovery From Highway**
- **Infrastructure deficit & taxes**
- **Truckload Issues; regulatory issues, driver issues**



Domestic Intermodal

- The real growth opportunity is the age-old goal of taking trucks off of the highway
- Driving down the LOH (requires very tight service standards)
- Corridor development (see NS' "Crescent"); truck partnerships (see JBHunt)
- Fuel price, carbon footprint, infrastructure shortages and congestion, driver shortages (CSA 2010/11/12; HoS)
- Trailer (TOFC/"Piggyback") the gateway drug" for containerization
- Opportunities in unitized carload as well ("intermodal-like"), ex Tropicana, RailEx, etc....

Truck/Rail Intermodal Market Share

Truck and Rail Intermodal in Markets 500 Miles and Greater

Mileage Blocks	Truck	Rail Intermodal	Total Market	Truck Share	Rail Share
500 to 749	17.8	1.2	19.0	94%	6%
750 to 999	10.1	2.3	12.4	82%	18%
1000 to 1499	7.7	2.0	9.7	79%	21%
1500 to 2000	3.7	2.1	5.8	63%	37%
>2000	2.8	4.9	7.7	36%	64%
Total	42.1	12.5	54.6	77%	23%

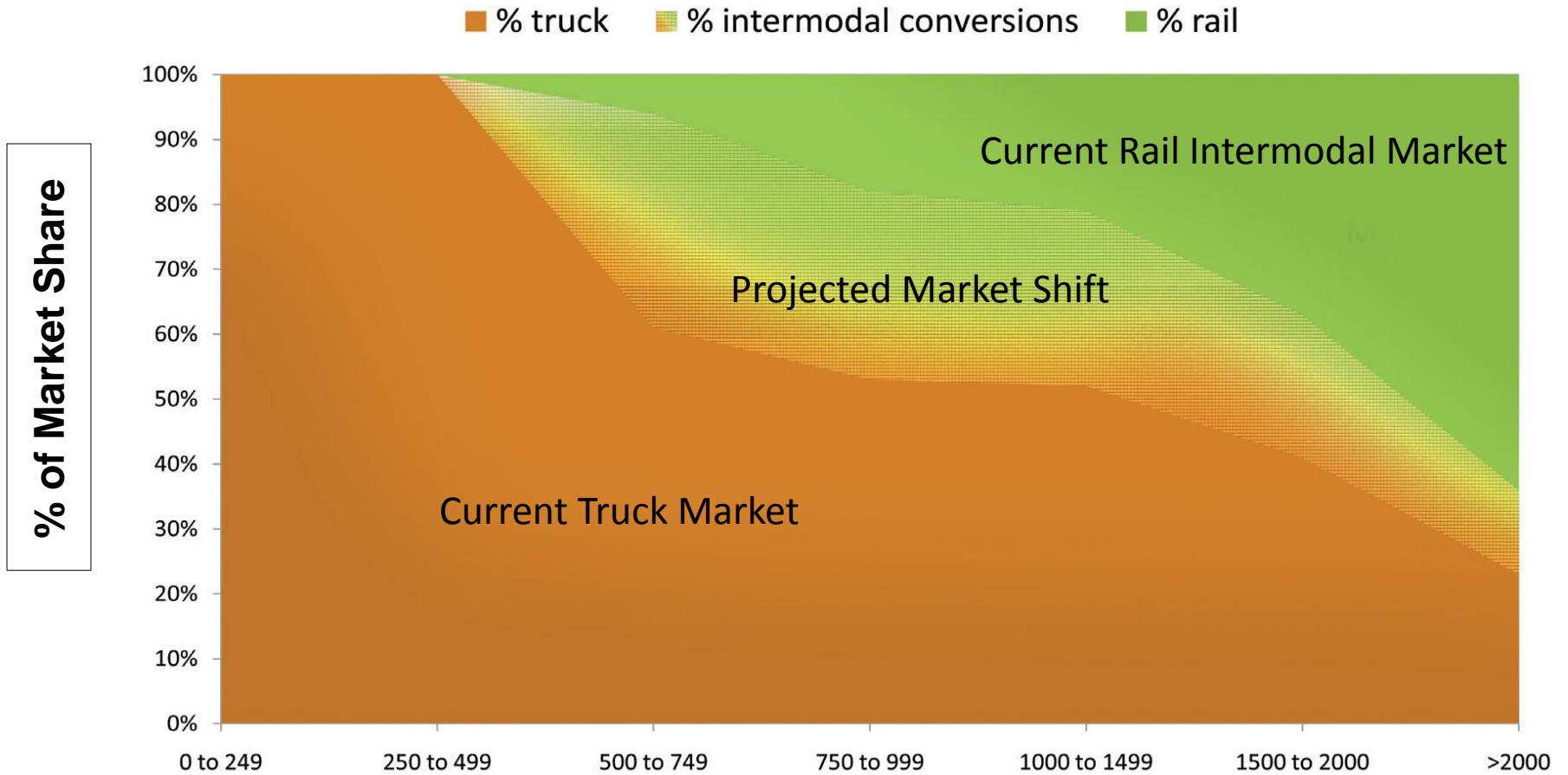
Millions of units

Source: Assessment of 2007 Commodity Flow Survey and 2007 Rail Carload Waybill Sample

**National
Rail Plan**

National Rail Plan

Modal Shift Projection



Rail Intermediate term volume prospects

ABOVE GDP

ABOVE GDP

- Intermodal – Domestic (++)
- Intermodal - International
- Agricultural products
- Export Coal
- Ethanol
- Chemicals!

BELOW GDP

- Paper
- Auto Parts (?)

GDP-GROWTH

- Autos (+?)
- Lumber
- Aggregates
- Metals (+?)

UNCERTAIN

- Domestic Coal (-?)

Truck/Rail Intermodal Market Share 2035 Status Quo

Truck and Rail Intermodal in Markets 500 Miles and Greater

Mileage Blocks	Truck	Rail Intermodal	Total Market	Truck Share	Rail Share
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1000 to 1499	9.4	2.5	11.9	79%	21%
1500 to 2000	4.6	2.7	7.3	63%	37%
>2000	3.4	6.0	9.4	36%	64%
Total	51.8	15.5	67.3	77%	23%

Millions of units

**National
Rail Plan**

Source: Assessment of 2007 Commodity Flow Survey and 2007 Rail Carload Waybill Sample

Truck/Rail Intermodal Market Share 2035 50% Market Share

Truck and Rail Intermodal in Markets 500 Miles and Greater

Mileage Blocks	Truck	Rail Intermodal	Total Market	Truck Share	Rail Share
500 to 749	14.3	9.2	23.5	61%	39%
750 to 999	8.1	7.1	15.2	53%	47%
1000 to 1499	6.1	5.8	11.9	52%	48%
1500 to 2000	3.0	4.3	7.3	41%	59%
>2000	2.2	7.2	9.4	23%	77%
Total	33.6	33.6	67.3	50%	50%

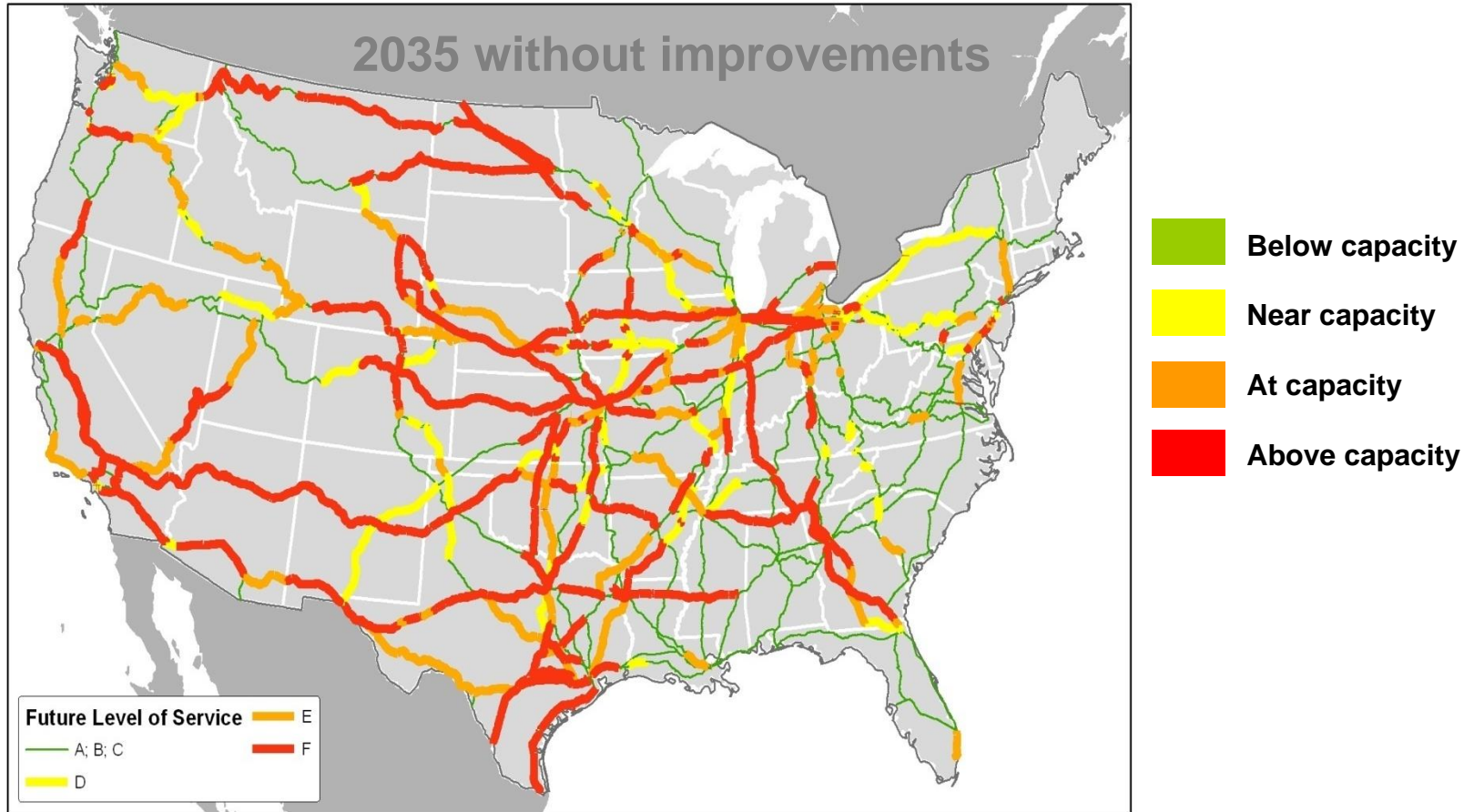
Millions of units

Source: Assessment of 2007 Commodity Flow Survey and 2007 Rail Carload Waybill Sample

One example of the dramatic benefits of shifting to rail intermodal is illustrated by the fact that just one long-distance, double-stack train between Chicago and Los Angeles can save 75,000 gallons of fuel by replacing 300 trucks, each traveling 1,983 miles.

Source: *Comparative Evaluation of Rail and Truck Fuel Efficiency on Competitive Corridors*, ICF International, published by the Federal Railroad Administration (2009)

CS: Future Corridor Volumes Compared to Current Corridor Capacity (Cambridge/AAR) - 2007



Railway Innovation

- CP – larger trains
- CN – alliances, routing protocols – the scheduled railroad!
- BNSF – grain “Shuttles”; JBHT&Domestic Intermodal, *Logistics Parks*
- NS – *PPPs, JVs and “Corridors”*
- KCS – little engine that can – Mexico, Lazaro, Houston...
- CSX – MSW, RailEx, Trop Train, etc....
- UP- *Doublestacks*, exploiting the carload franchise; the PRB
- All: Short line cooperation, Operating Plans, communications/IT/PTC, Disintermediation, operating excellence....

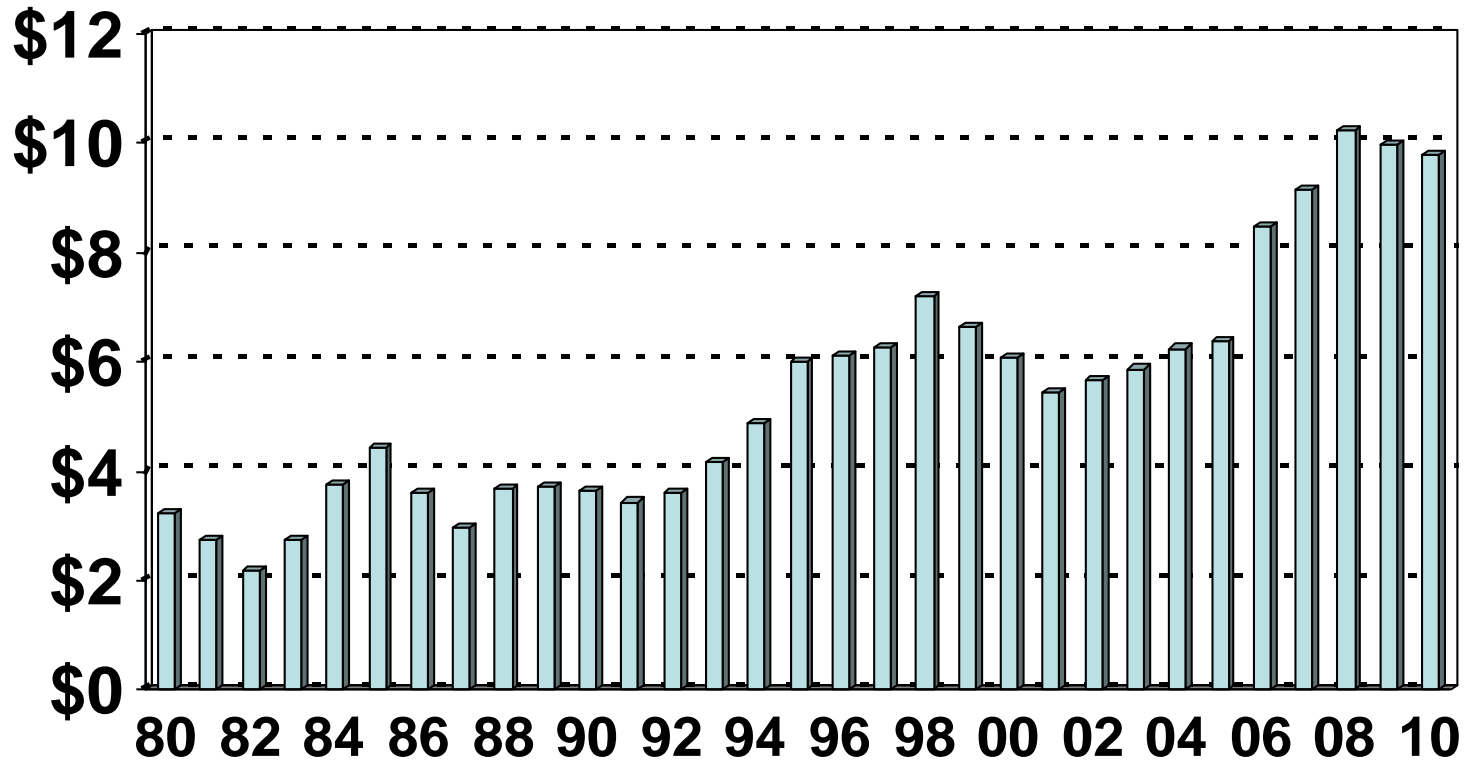
Growth is Expensive

- Huge Capex - \$50B in the last 5 years in the US
 - *through the Great Recession!*
- AND: Comeback of the share repo/DPS?
- EPS beat the Street consistently, yet:
 - Uneven returns in the Modern Age
 - Recent improving trend line
 - *Misunderstanding Intermodal profitability 2004-8*
 - Threats to ROIC threaten capacity
 - *Street begins to call for capex reduction?*
 - Suppliers 2012 looks solid – can they hold on till true recovery?

Railroad Capital Expenditures

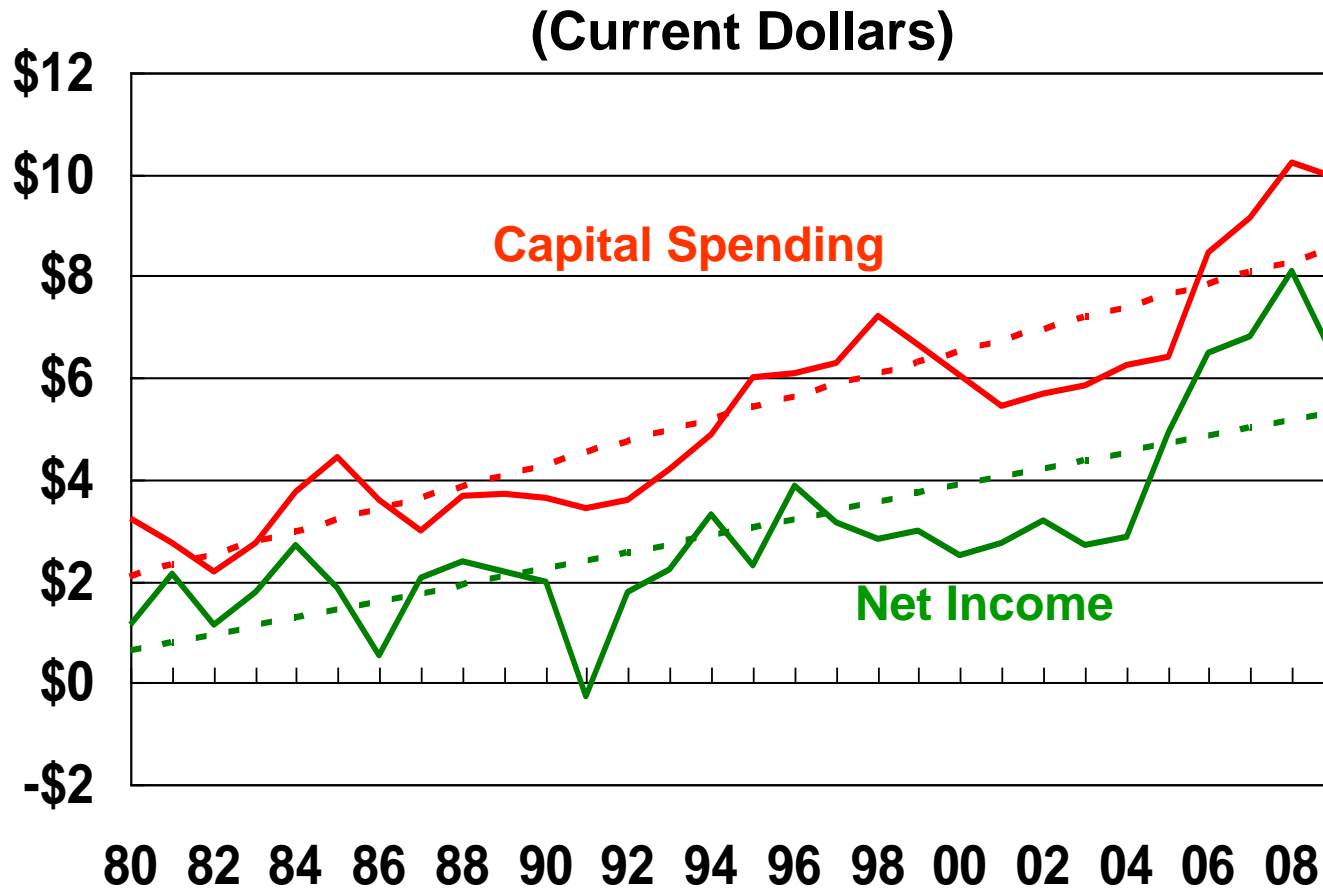
Class I Railroads

Billions



Source: *Railroad Facts & Analysis of Class I Railroads*, AAR

Class I Railroad Capital Spending vs. Net Income

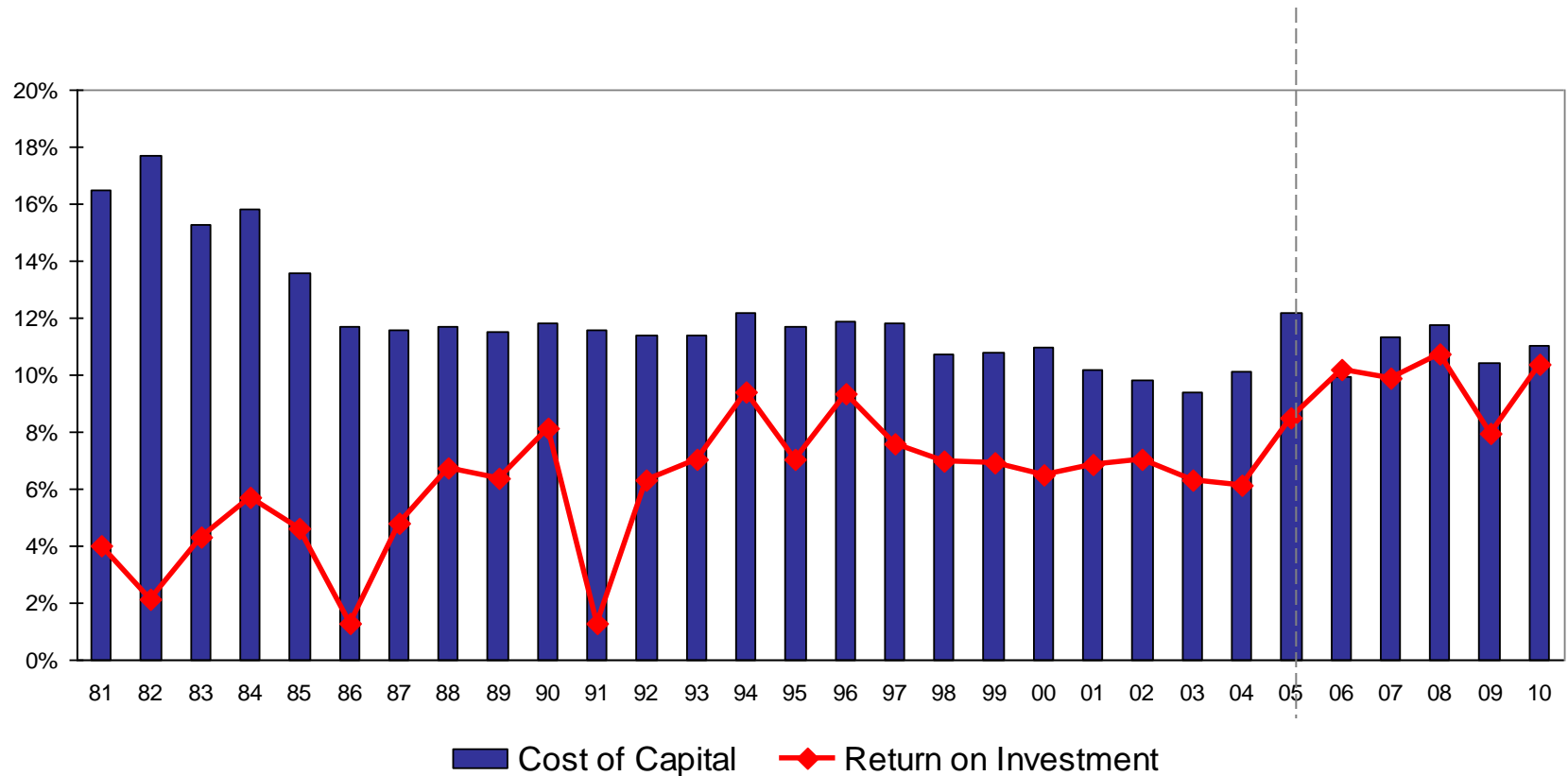


Source: Association of American Railroads

Rail Capex in 2011/12

- Record \$12B last year
- Record \$13B this year – many rails pegging at 17-18% of revenues (rising by double digits)
- Corridor developments, NG, terminals, locos, cars, shale buildouts, etc
- PPPs – in decline?
- Still emerging as DPS plays, buying in shares

RR CoC vs. ROIC – RR Stocks have done well but... they still trade at a discount to all stocks



Source: Surface Transportation Board

Note: Cost of equity estimation method changed by Board effective 2006 and 2008.

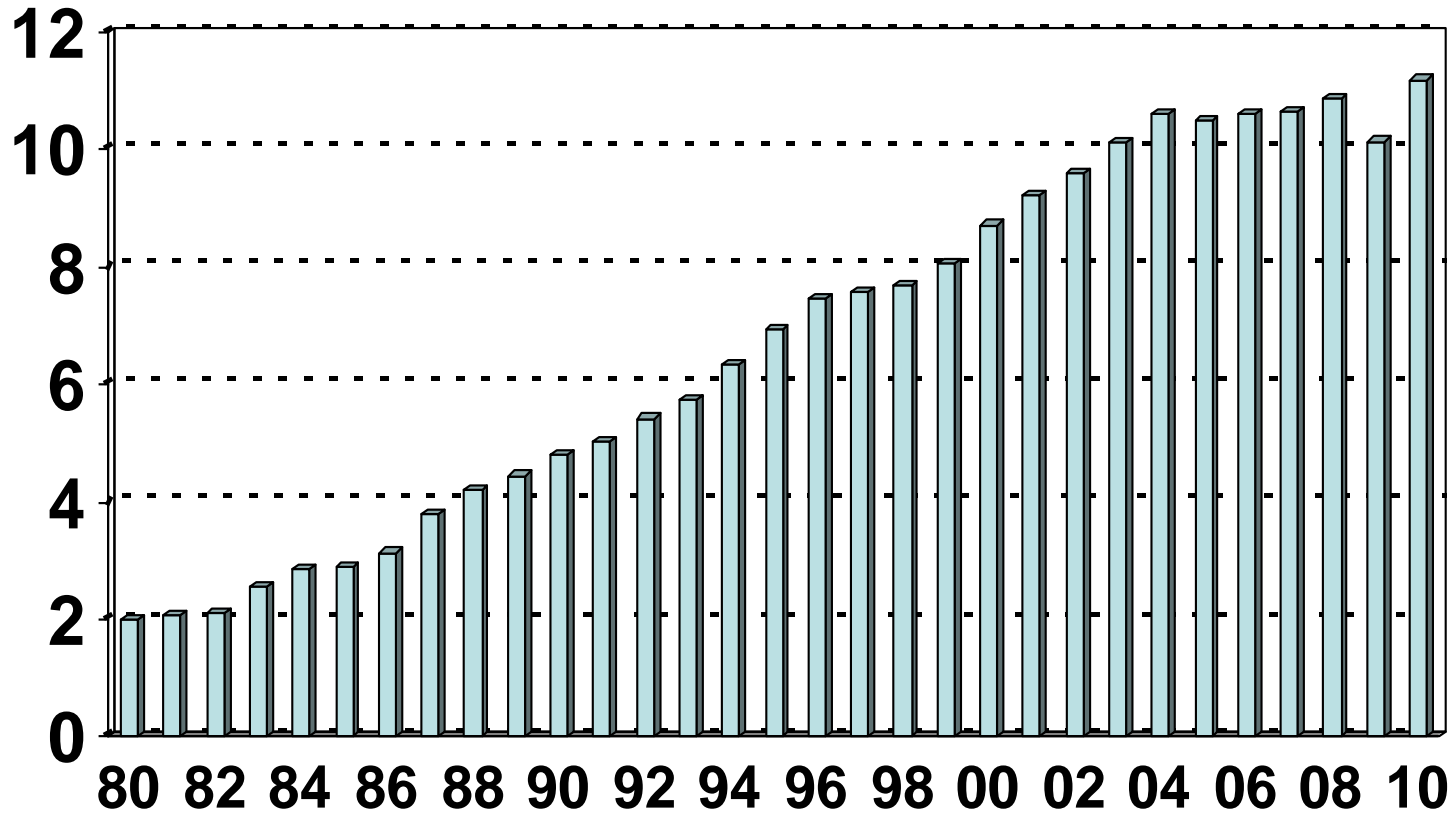
Railcar production

- I am here to *learn!*
- Have railways (and fleet owners in general) learned to buy *strategically* rather than tactically?
- Boom/Bust; Ethanol; shale?
- Rail service: traditional patterns or....
- How about that Jeremy Lin?!?

Railroad Employee Productivity

Class I Railroads, Ton-Miles Per Freight Service Employee

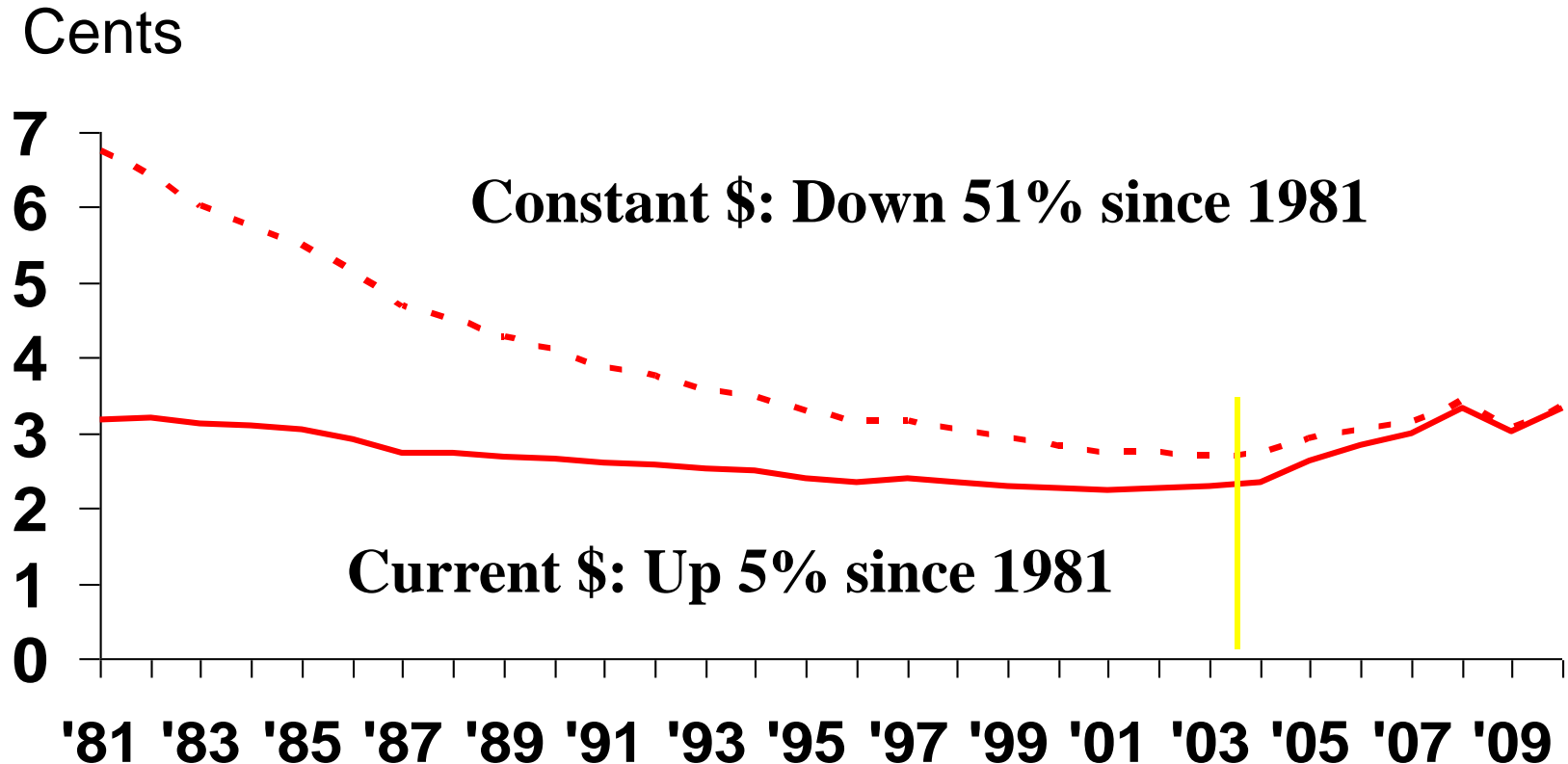
Millions



Source: *Railroad Facts*, AAR

Railroad Rates- the old story

Class I Railroads, Revenue Per Ton-Mile – *another (related) New Paradigm*

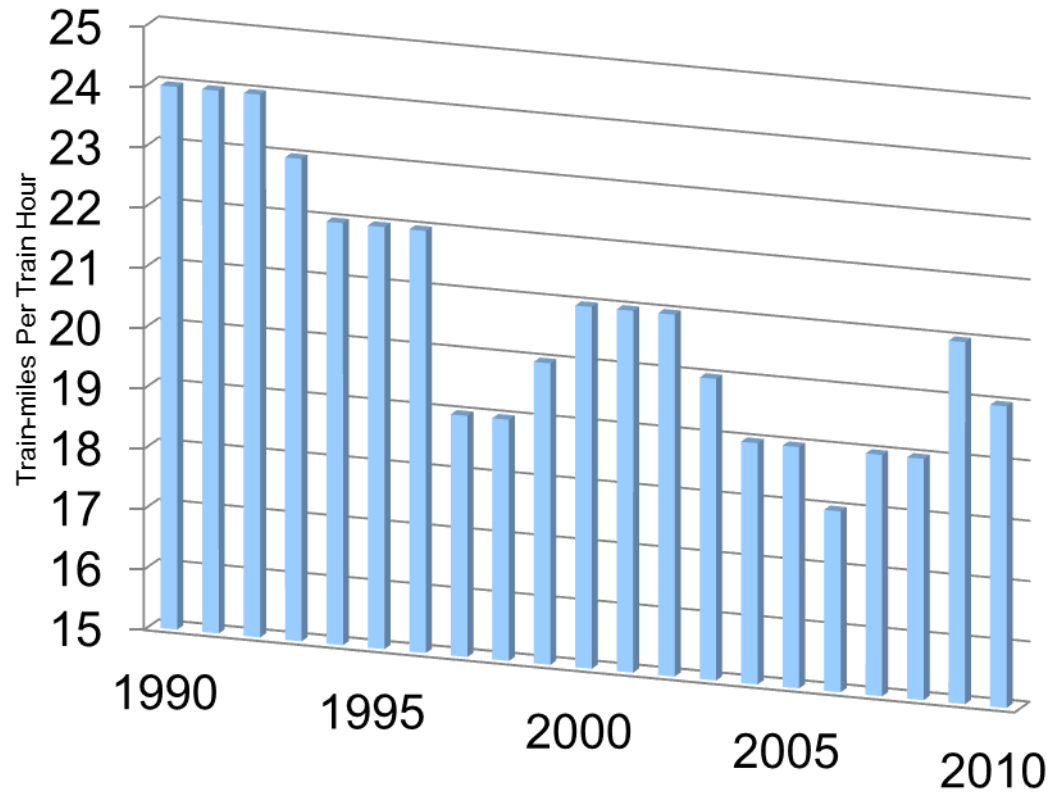


Source: *Railroad Facts*, AAR

Service will be the Key to the Next Cycle

- Service at all time highs
- \$40B spend in last 5 years (service ought to be better!)
- Putting increased traffic back on at current velocity means: Higher asset utilization, more market share gains, greater operating leverage (perfect circle affects all stakeholders)
- Implications for equipment fleets

Freight Train Speed (Class I Railroads)



Source: Analysis of Class I Railroads, Association of American Railroads (Freight train miles per freight train hour)

Simple Math

- Rates
- Returns
- Capital Expenditures
- Capacity
- Service

ARE ALL CONNECTED!

Virtuous Circle ('03-07) or Disinvestment?

Current Issues

- Rails in the Recovery – or in another slowdown? Is 2012 “just another” 2011?
- What’s true? *RR (cyclical) traffic or business headlines?*
- *End of the Coal Age?*
- *Capex – Strategic or Tactical plans prevail? \$13B!*
- *PTC*
- After the Rereg Fight what? STB? TSW?
- Govt role –partner? Or preoccupied & broke?
- The Green mantle – two-edged sword....
- PE & Infrastructure – and activist? – funds: back for good? CP....
- New “Golden Age”? Service

CP

- OY. 2nd (3rd) Proxy Fight since 1954
- Not a takeover
- HH track record vs recent CP (OR, weather, M&A, growth)
- HH goal 65% OR by 2015
- CP goal 70-72% in three years (YE'11 83.1%; C1 avg 71%)
- (as example) CSX goal 65% OR 2015
- CP's new Presentation just released....

Positive Train Control (PTC)

- “Unfunded Mandate” – part of 2008 safety bill
- Overseer is FRA – who puts cost/benefit ratio at 22:1
- Rails have put cost of installation and maintenance at \$10B – and rising (UP, CSX have increased 2011 capex based in PTC)
- Possible benefits in capacity, velocity, fuel consumption as well as safety; many of those captured by other technological advances
- Covers all rail interaction with passengers and TIH as of 2008; short lines exempted
- Technology proven only in limited scope (BN/Wabtec: “ETMS”)
- Initiated after Chatsworth accident – obvious public benefits
- Contrarian viewpoints exist – the new “Digital Railway”
- Efforts to reduce footprint, extend deadline....

New House Bill?

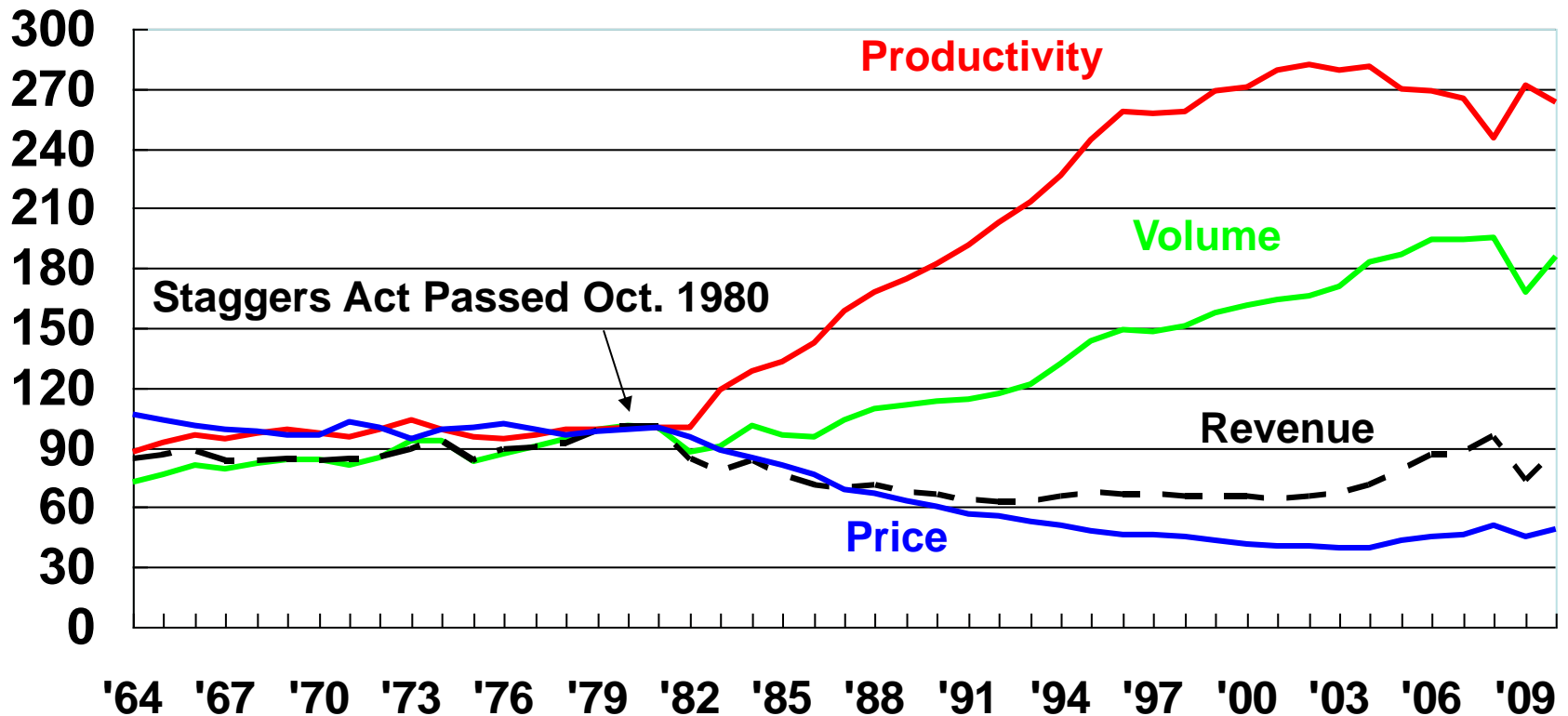
- Rumor! (March 2012 view: never gonna happen.....)
- To pass House?
- PTC deadline extended from 2015 to 2020; eases interoperability threat, allows saner spend (\$200-300MM/per/year); helps transit most; hurts some suppliers?
- In exchange for givebacks on TSW that hurt Shortlines, some carload traffic

Warren's \$44B “all-in” bet

- Advantages of going private? (capex cycle) – *will we see now?*
- Influence in DC - “Robber Baron” vs. “Sage”
- Bets not (just) on economy – rereg, coal, western intermodal
- Bought on the cheap! – How does the investment look today, folks?

The Staggers Act: An American Success Story

(Index 1981 = 100)



Source: AAR

ABH Consulting/www.abhatchconsulting.com

Anthony B. Hatch

155 W. 68th Street

New York, NY 10023

(212) 595-0457

ABH18@mindspring.com

www.railtrends.com