Is the Freight Railroad “*Renaissance*” a thing of the past?

North Carolina

abh consulting

April, 2016

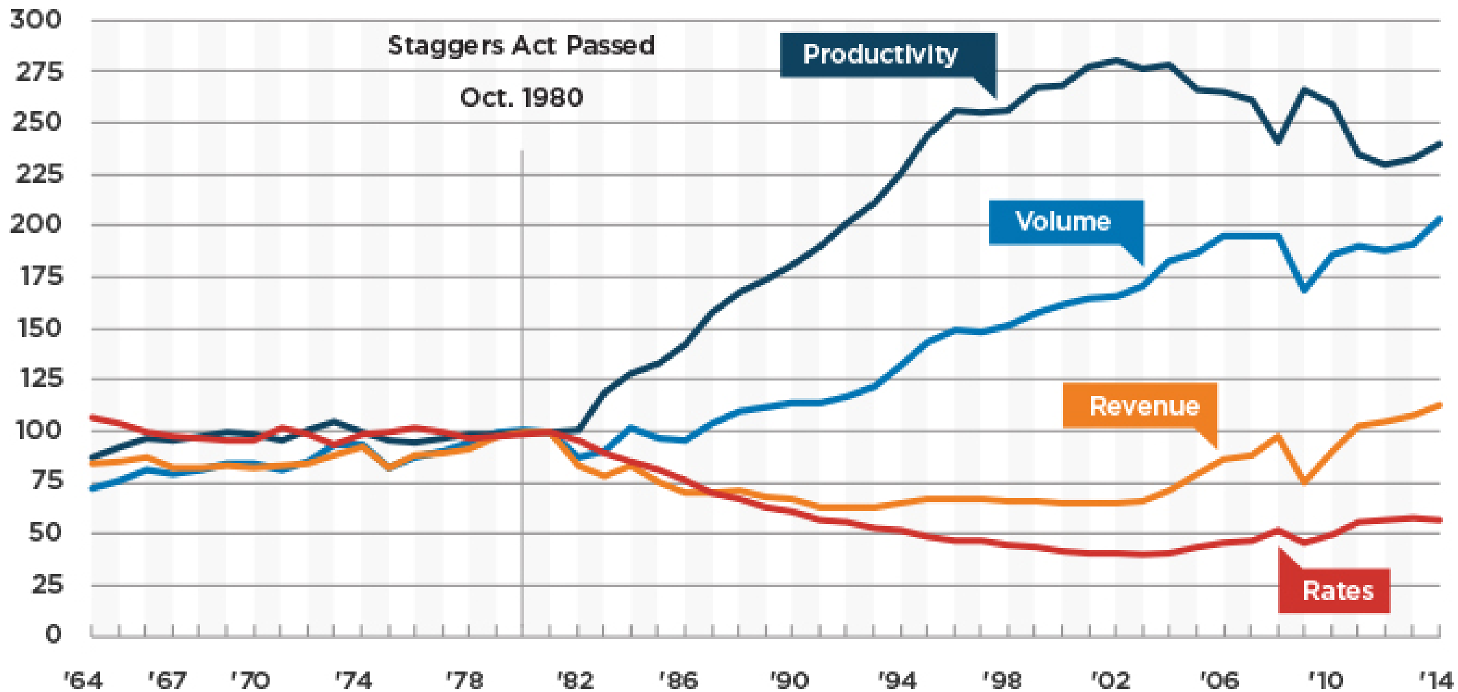
Rails May See Light Ahead

- After a decade of "*Renaissance*", energy changes roil the economy – and freight rail
- Coal- Regulation and competition (the war is over)
- CBR (etc.) – the over-hyped rise and rapid fall
- Where is the consumer?
- Bright spots seemingly challenged – autos, IM
- The coming Industrial rebound will be gas-fired

Deregulation & Vertical Integration Works!

U.S. FREIGHT RAILROAD PERFORMANCE SINCE THE STAGGERS ACT

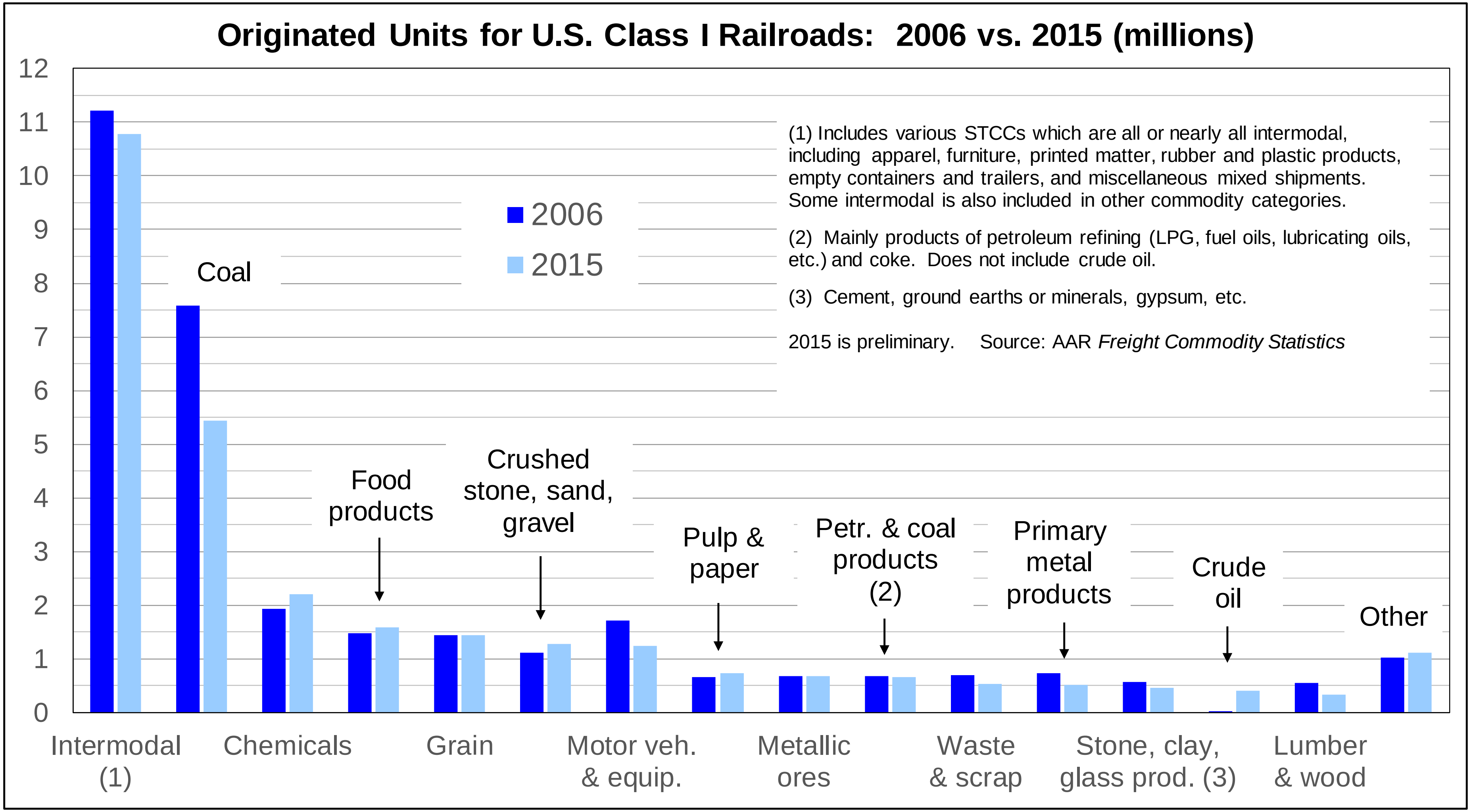
Today's Balanced Regulatory System Has Benefited Shippers and Allowed Railroads to Flourish

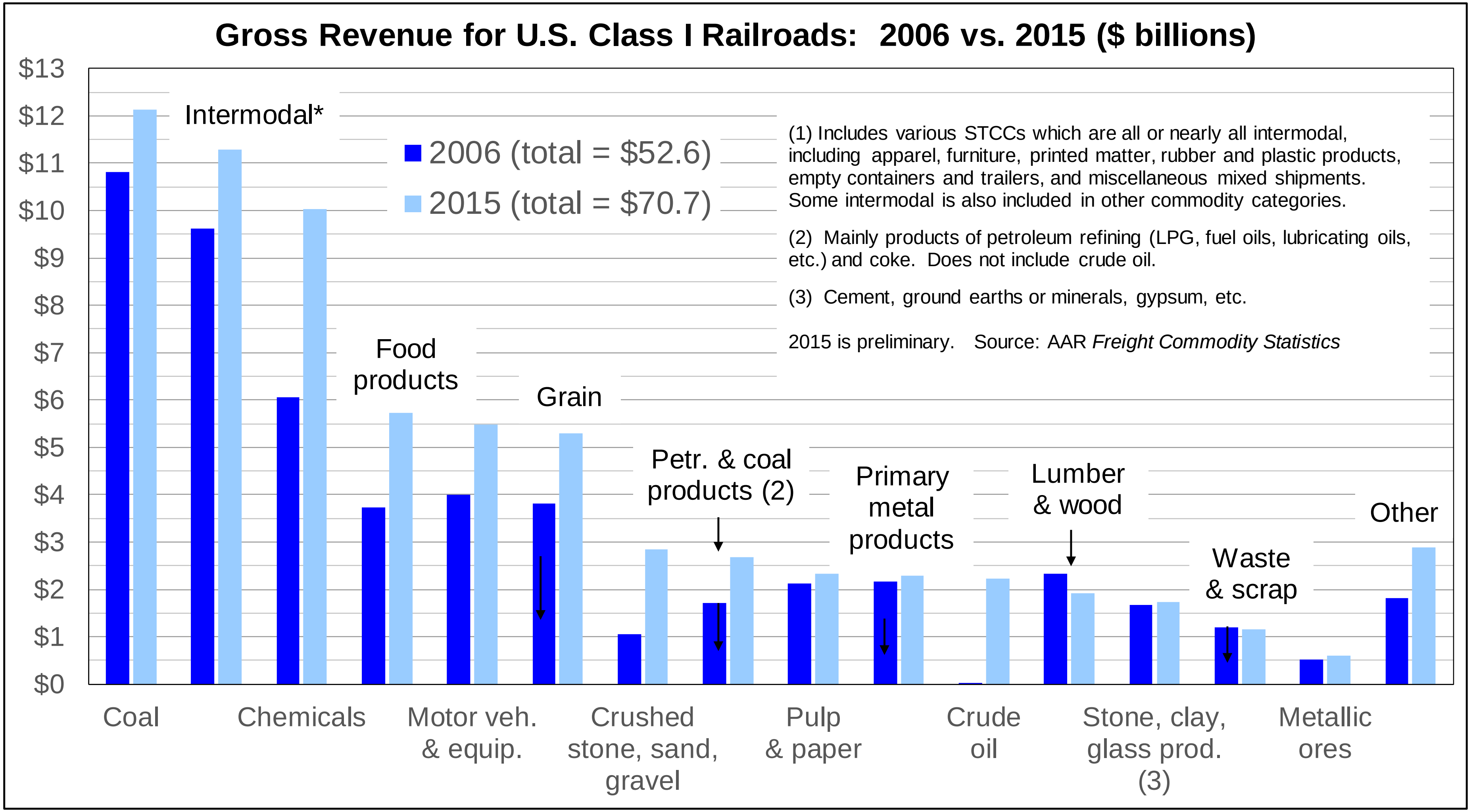


In 1980, as a result of the deterioration of the U.S. freight railroad industry, Congress passed a series of regulatory reforms known as the Staggers Rail Act. These reforms allowed railroads to act like most other businesses in terms of managing their assets and pricing their services. Today, America's freight railroads are flourishing under this balanced regulatory system while rail shippers are realizing lower rates, better service, and improved safety. And, thanks largely to this balanced regulatory structure, railroads have been able to invest $575 billion since 1980 into the nation's rail infrastructure and equipment, greatly improving rail productivity and reliability.

21st Century: the *Railroad Renaissance*

- *Rails have well beaten the market 2001-2014*
- *LTM – "Not So Much" (CP doing relatively well)*
- Earnings Power misunderstood: Rails beat Street estimates – in the Boom, in the great Recession, and the tepid recovery
- Record margins & results despite the coal hit (and drought and lukewarm economy, etc….)
- Rails are *still* re-gaining market share from the highway


Originated Units for U.S. Class I Railroads: 2006 vs. 2015 (millions)
12
11
10
9
8
7
6
5
4
3
2
1
0
2006
2015
Coal
Food products
Crushed stone, sand, gravel
Pulp & paper
Petr. & coal products (2)
Primary metal products
Crude oil
Other
Intermodal (1)
Chemicals
Grain
Motor veh. & equip.
Metallic ores
Waste & scrap
Stone, clay, glass prod. (3)
Lumber & wood
(1) Includes various STCCs which are all or nearly all intermodal, including apparel, furniture, printed matter, rubber and plastic products, empty containers and trailers, and miscellaneous mixed shipments. Some intermodal is also included in other commodity categories.
(2) Mainly products of petroleum refining (LPG, fuel oils, lubricating oils, etc.) and coke. Does not include crude oil.
(3) Cement, ground earths or minerals, gypsum, etc.
2015 is preliminary. Source: AAR *Freight Commodity Statistics*


Gross Revenue for U.S. Class I Railroads: 2006 vs. 2015 ($ billions)
$13
$12
$11
$10
$9
$8
$7
$6
$5
$4
$3
$2
$1
$0
2006 (total = $52.6)
2015 (total = $70.7)
Intermodal*
Food products
Grain
Petr. & coal products (2)
Primary metal products
Lumber & wood
Waste & scrap
Other
Coal
Chemicals
Motor veh. & equip.
Crushed stone, sand, gravel
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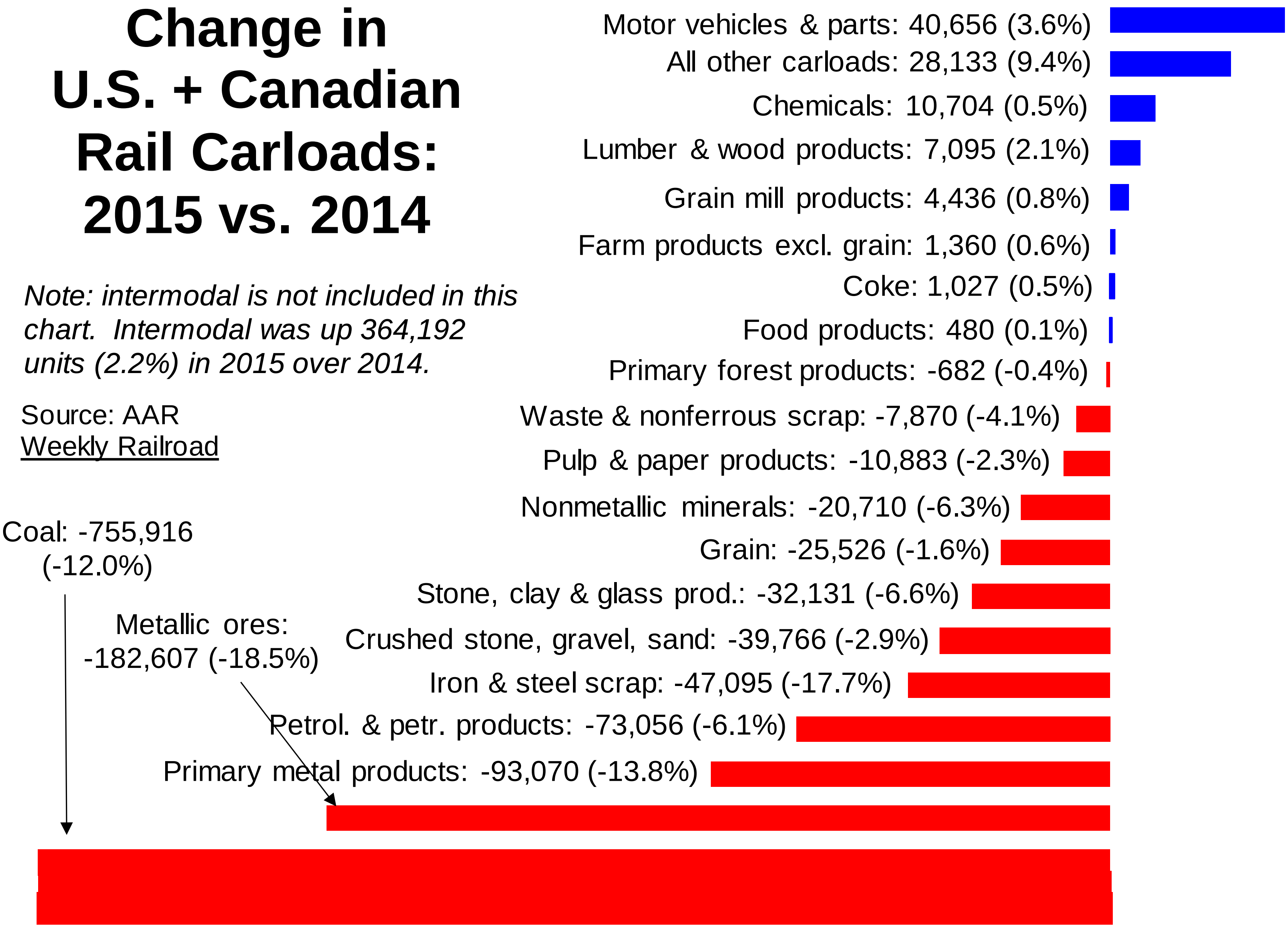
Emerging Challenges to the Railroad Renaissance

- *Earnings & Ratings Reductions/Sentiment*
- Coal’s Decline (#1US Utility #2 NA Export)
- CBR Volatility (XL; CRR, etc….)
- Rail Service, Safety & Capacity Issues
- Rereg Threats
- Cyclical Traffic Weakness (metals, etc)
- Management Changes
- Management Reactions: Guidance, Capex

Change in U.S. + Canadian Rail Carloads: 2015 vs. 2014

Note: intermodal is not included in this chart. Intermodal was up 364,192 units (2.2%) in 2015 over 2014.

Source: AAR Weekly Railroad



Silver Linings?

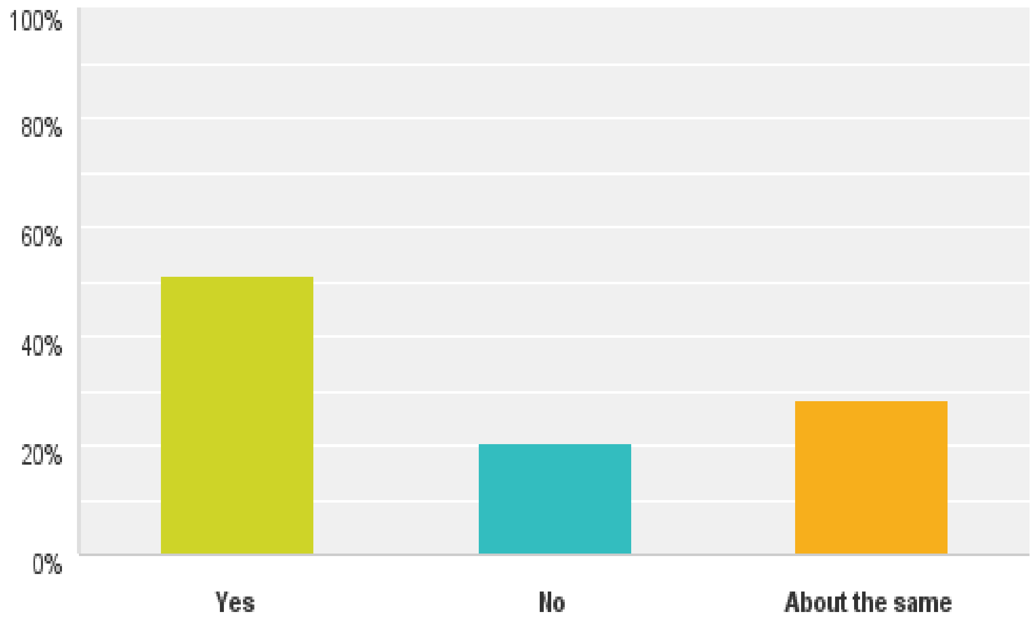
If this is the dark age, it's not that bad!

- Service Recovery Trend (Capex Pays Off)
- Restoration of the "Grand Bargain"
- Reduced (N/T) Political Pressure
- Productivity (& volume?)Inflection
- Coal "stabilization" (Part Two)?? Any day now….
- Pricing Power Remains
- IM (etc) shows latent demand….Bi-Modal results
- Industrial Buildout (SHIELD); Mexico,the South
- *Increased Free Cash Flow (lower capex, MoW)*

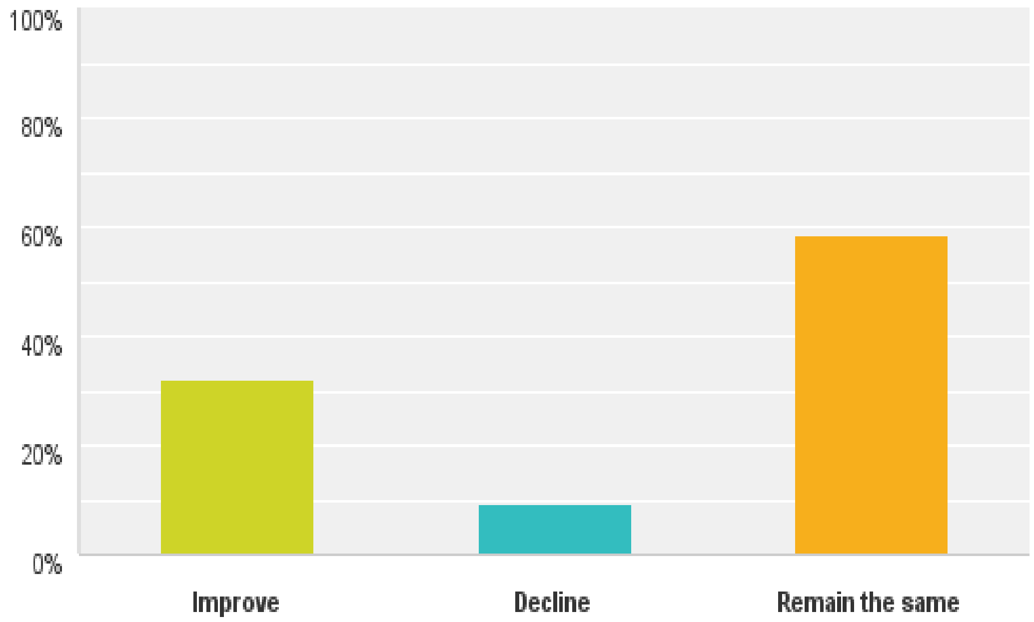
The “Grand Bargain”

- *In return for higher prices (& ROI), rails spend, increase capacity & improve service* (2005-2012) – The unstated **“Grand Bargain”**
- Rails gain pricing power (~2003) & F/S
- Rails (re) Gain Market Share
- Rails Spend Cash “Disproportionately” on Capex (~18-20% of revenues)
- Promotes “*Virtuous Circle*” – all stakeholders benefit
- Under challenge, perceived and real

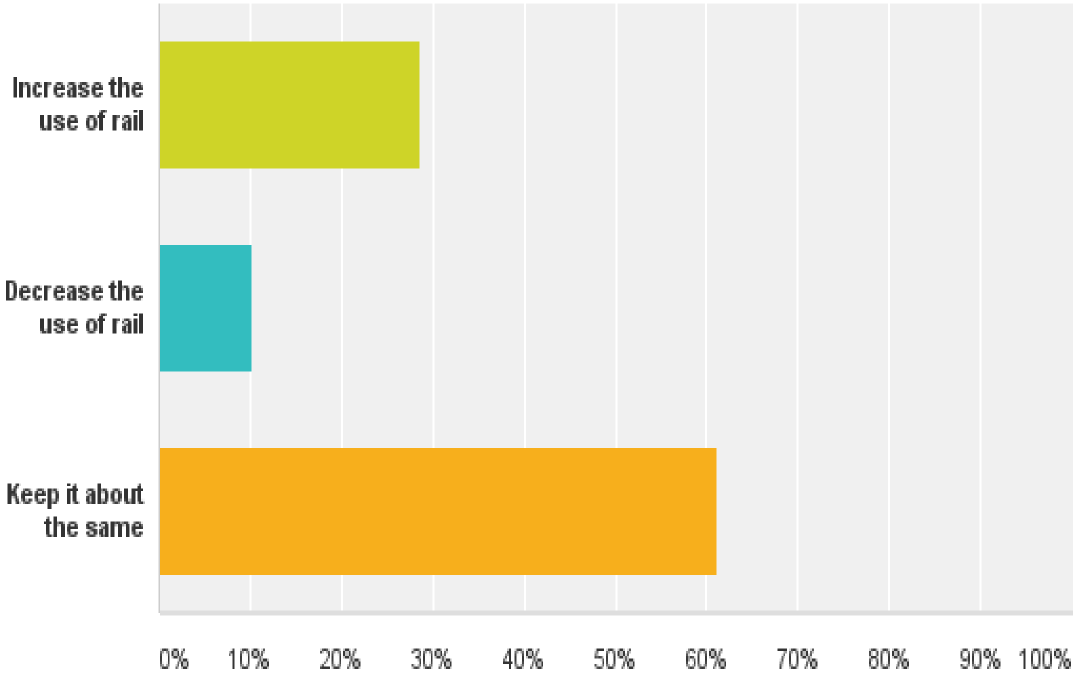
Q2: Has RR service noticeably improved over the past year?



Q3: Do you expect RR service in 2016 to?



Q4: Based on the "value proposition" for rail vs other modes, for 2016 do you expect to:



Winter/2015-16 – Inflection Point?

- ***<u>Low</u>*** expectations for rail (transport) *quarterly* earnings – CSX starts us off with a “win”
- Coal stabilizing? Sigh….
- Productivity/service turnaround?
- Management confidence/guidance?
- Waiting on “Big Decisions” on Capex, “stranded assets”
- The “***Renaissance***” thesis faces first real challenges this century

Renaissance Discussion Points!

- ***Can Rails Survive (or even thrive) the N/N?***
- Or, can rails replace coal (ROI if not OR) with (domestic) intermodal (etc)?
- What is the future of industrial/merchandise railroading? (A: “Plastics”….)
- Rails will exit transitional period (faith)
- CBR to continue longer term – as volatile as Ag?
- Service Recovery – Politics, Productivity & Price
- What is the new standard for Capex?
- *Is M&A the answer? (Was it ever?)*

CALGARY SOUTHERN

THE BEAVERHORSE OF TRANSPORTATION, EH?

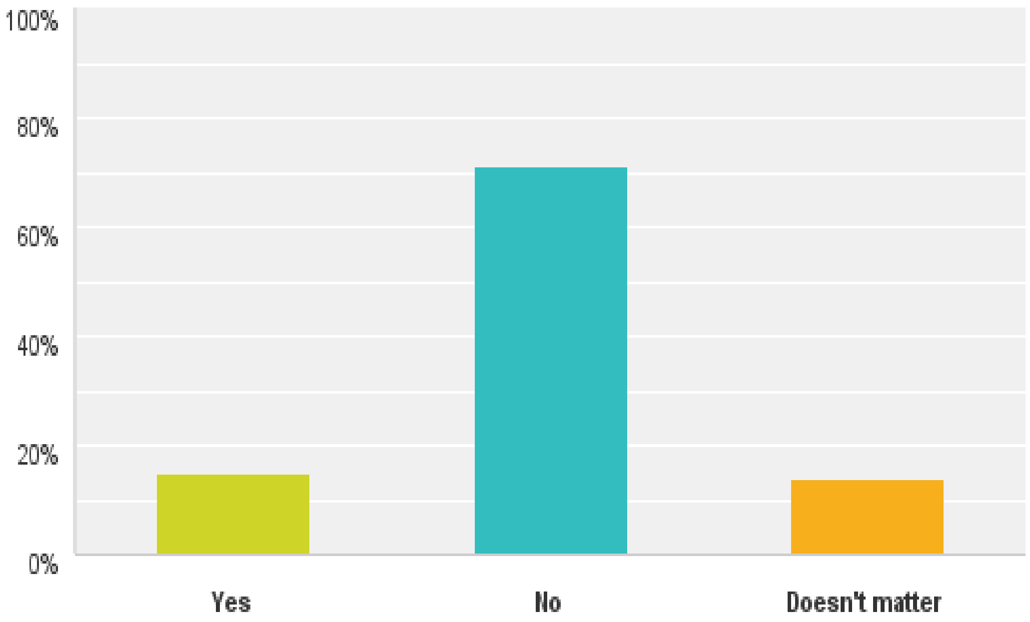
Top 10 Thoughts on Possible CP-NS merger

1. *Risk/Reward Ratio Unfavorable*
2. Diplomacy (“Politesse”) Required
3. Shipper Support Required (UPS)
4. NS Approval Important (and….); Valentine’s Day Filing?
5. STB/CTA (etc) Pro-cess Will Be Long & Drawn-Oot

Top Ten NS/CP Continued

6. NS’ “Problems” Mostly Not of its Own Making (COAL!) – yet value is in “fixing” NS!
7. NS is Advanced in Preparing for “Post-Coal” World
8. New RR World to be Very-High-Service Focus
9. CP-NS *Could* Stand alone -but *would* it? NO….
10. YET: *Never* Underestimate EHH

Q6: Are you in favor of RR consolidation (merger)?



What Looks Good for 2016?

- Not much….at least in H1 (H2 comps better)
- When will coal stabilize?
- What are the givens for crude oil futures, the USD, crop production?
- Chemical growth building (see SHIELD data)
- Autos coming off of a record
- Whither Intermodal? (so far….)
- <u>*Low Expectations*</u> heading into easier "comps"

Future Growth Potential (Revised)

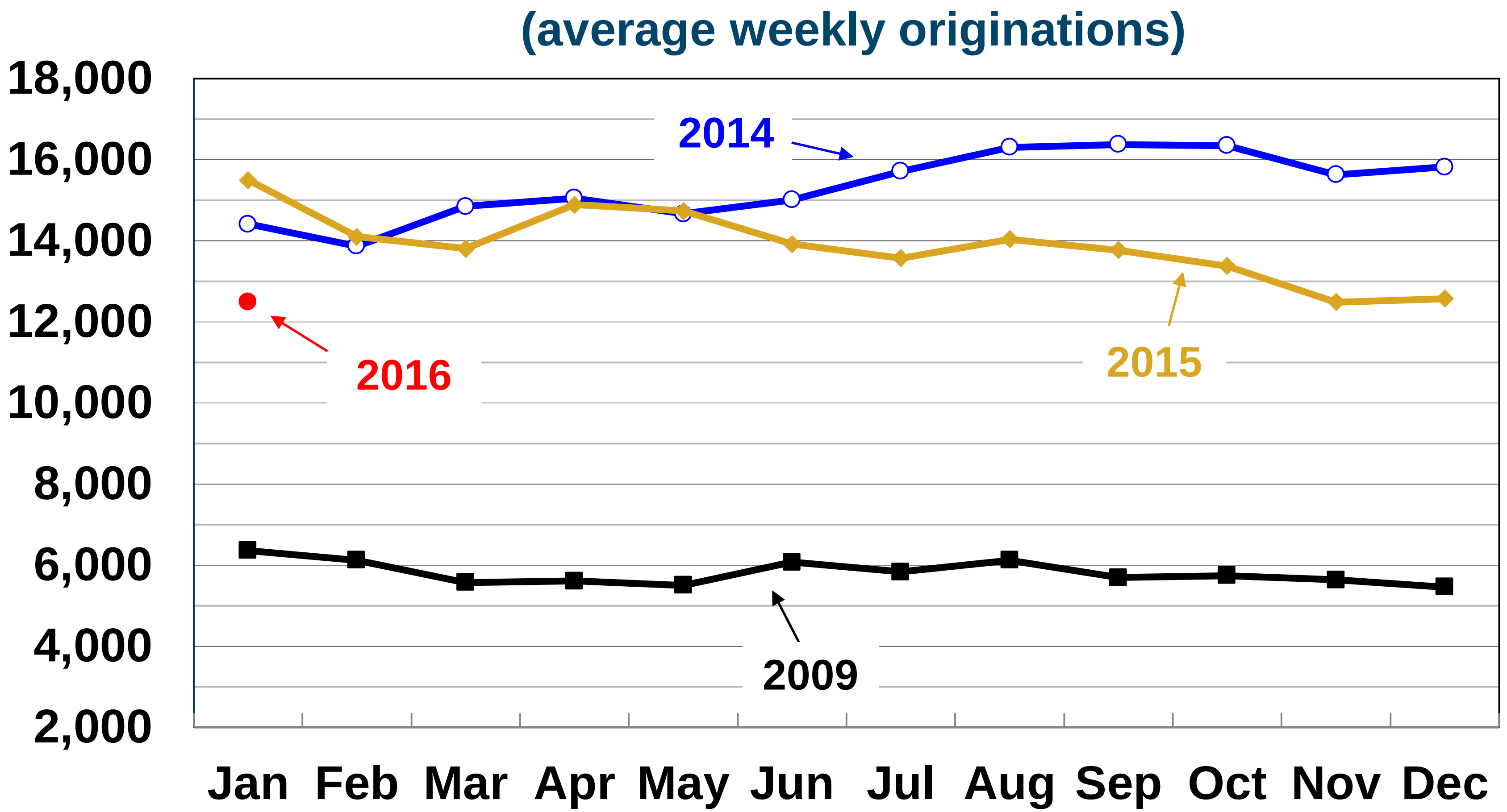
Secular stories and specific targeted sectors (in order)….

1. ***Intermodal*** – international *and now* domestic
2. ***Chemicals/re-industrialization?*** Near-sourcing/*Mexico*
3. ***Cyclical recovery*** – housing, autos
4. **Grain & Food** – the world's breadbasket, (un)*predictable?*
5. **Shale/oil/sand** – demonstrated "flexibility"
6. **Other rail opportunities** exist but in smaller scale: for ex: The manifest/carload "problem"
   - Unitization
   - Industrial Products/MSW
   - Perishables


R

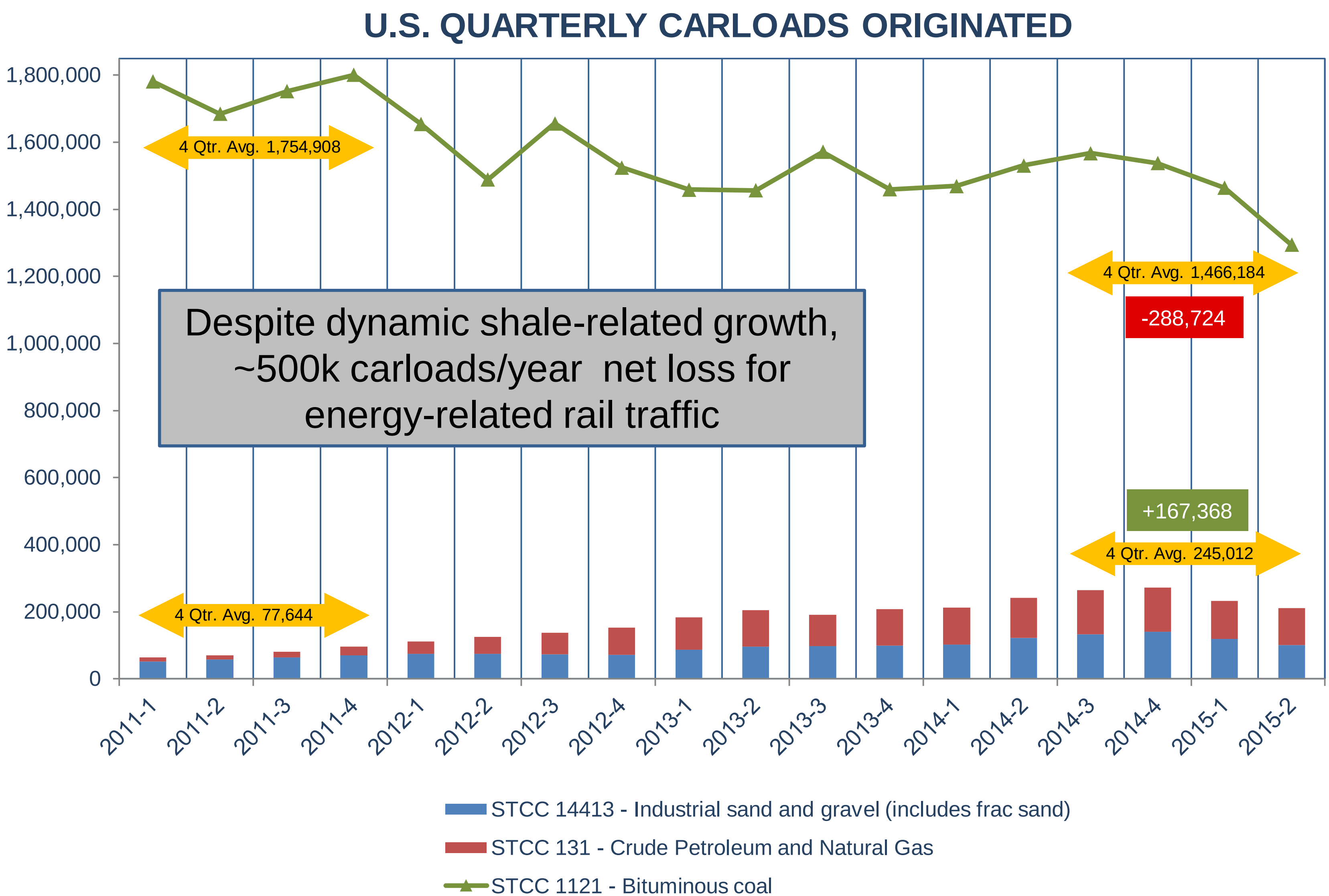

TULSA
Drillers

U.S. Rail Carloads of Petroleum and Products



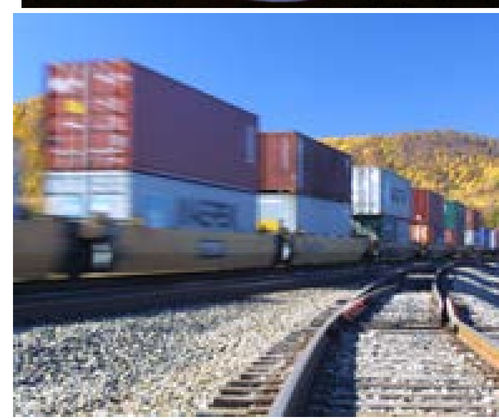
Data are average weekly originations for each month, are not seasonally adjusted, and do not include intermodal. Source: AAR

However Coal Volume Loss Still Not Offset by Shale Products



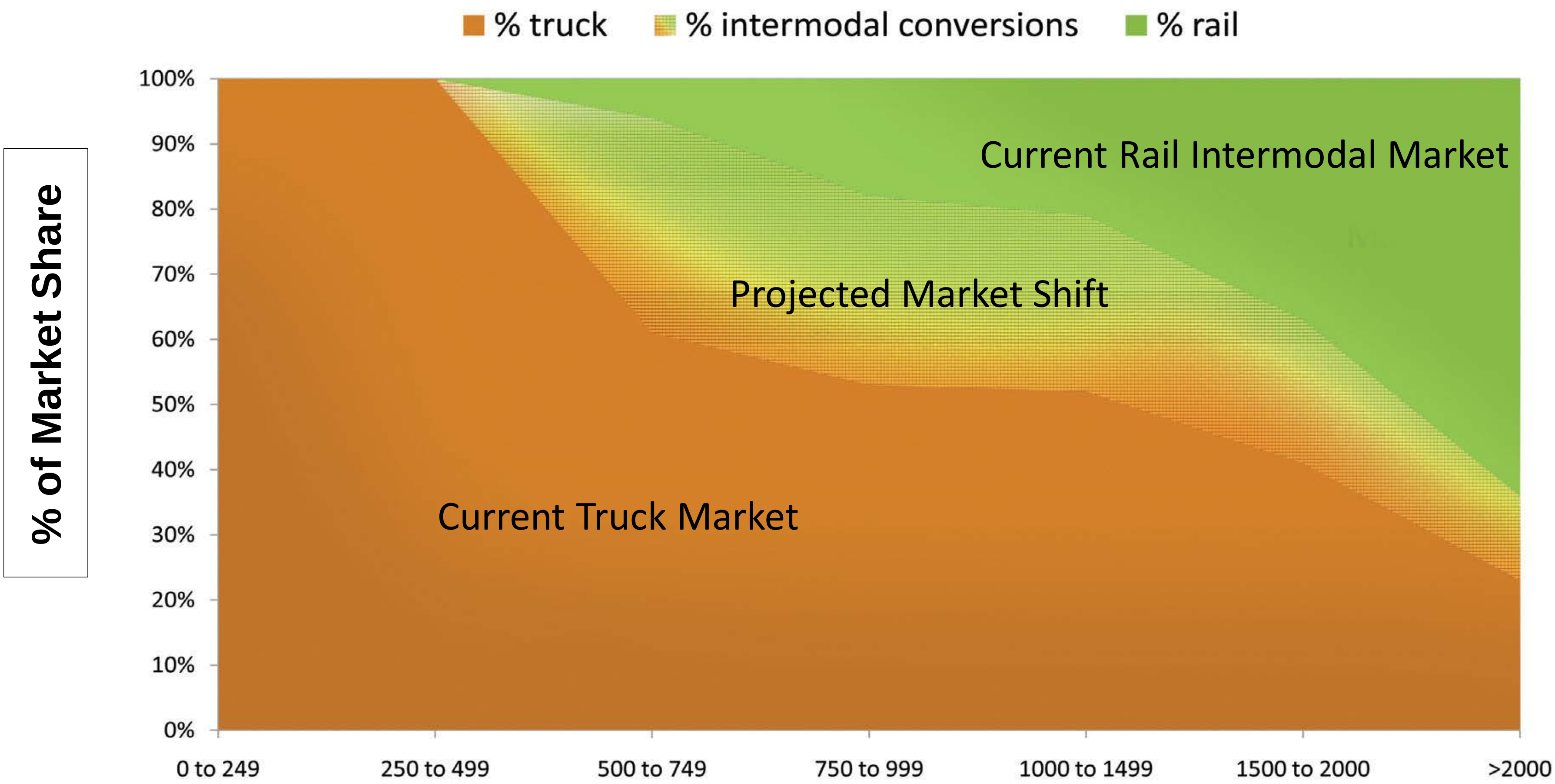
Intermodal Growth Drivers Domestic *and* International

- **Globalization**
- **Trade**
- **Railroad Cost Advantages**
- **Fuel prices**
- **Carbon footprint**
- **Share Recovery from Highway**
- **Infrastructure deficit & taxes (public vs privately financed network!)**
- **Truckload Issues; regulatory issues, <u>driver issues</u>**



National Rail Plan

Modal Shift Projection



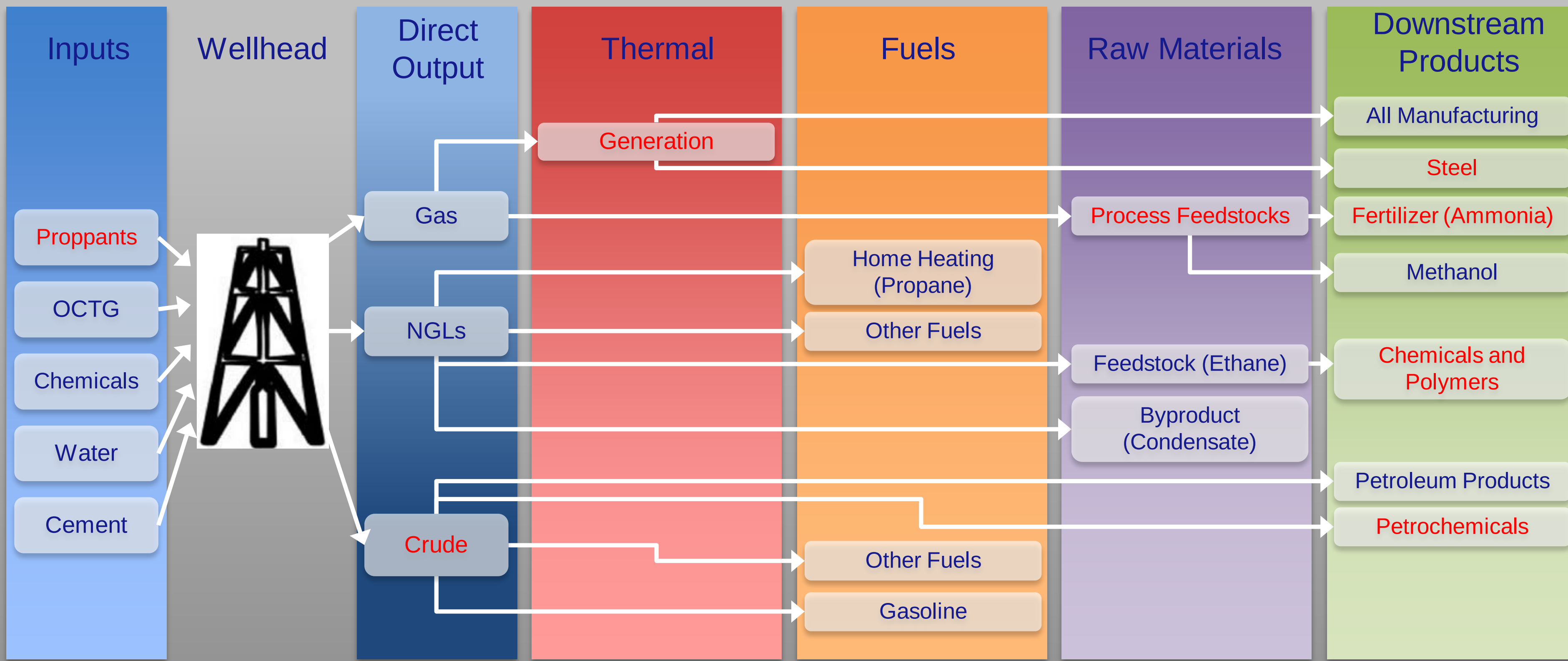
Intermodal 2016+

- Return to Growth?
- Rail Service Improvements
- Pricing?
- Factors: Oil Prices, Consumer Spend, Truck Capacity
- Infrastructure Advantage
- Panama Canal impacts?
- Driver Shortages Re-emerge?
- “Cult of the OR”

Re-industrialization?

- Near-Sourcing: ***<u>Mexico</u>***, C/A
- Natural Gas effect round two:
  - CHEMICAL INDUSTRY (see PLG)
  - Fertilizers
- Steel/Aluminum/Autos/White Goods etc.
- Northeast, etc. back “in play”?
- Subject of future research

Shale Supply Chain and Downstream Impacts



IMPACTS TO-DATE INCLUDE

Dramatic reduction in crude imports, lower electricity costs, lower gasoline prices, increased refined products exports

THE NEXT WAVE

Manufacturing renaissance in the US based on abundant, low cost energy and feedstocks

Significant rail impacts noted in red

Shale Gas Impact to Industrial Expansion, Rail and Other Logistics

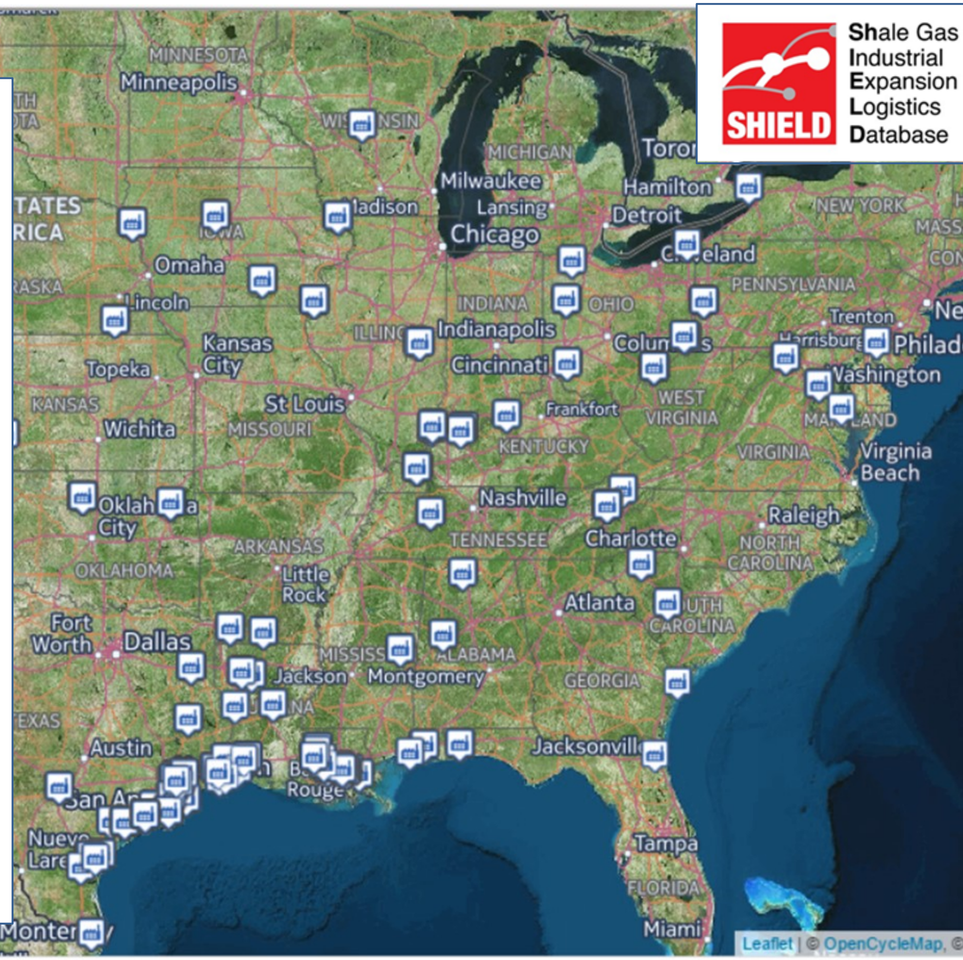
PLG CONSULTING

Shale Gas Industrial Expansion Logistics Database

SHIELD

Key data points from PLG's shale gas-related industrial project database includes:

- ❖ Over 230 projects totaling $280B of announced investment
- ❖ Over 50% of the announced investment is in the Gulf Coast
- ❖ PLG predicts that 73% of the increased petrochemical production volume will remain domestic
- ❖ PLG predicts that 200,000 rail car movements will be added by 2020 with 85,000 additional potential by 2023
- ❖ PLG predicts that over 30,000 rail cars will be needed by 2020 with 13,000 additional potential by 2023
- ❖ PLG predicts that there will be over 1 MM additional truck movements added by the expansion

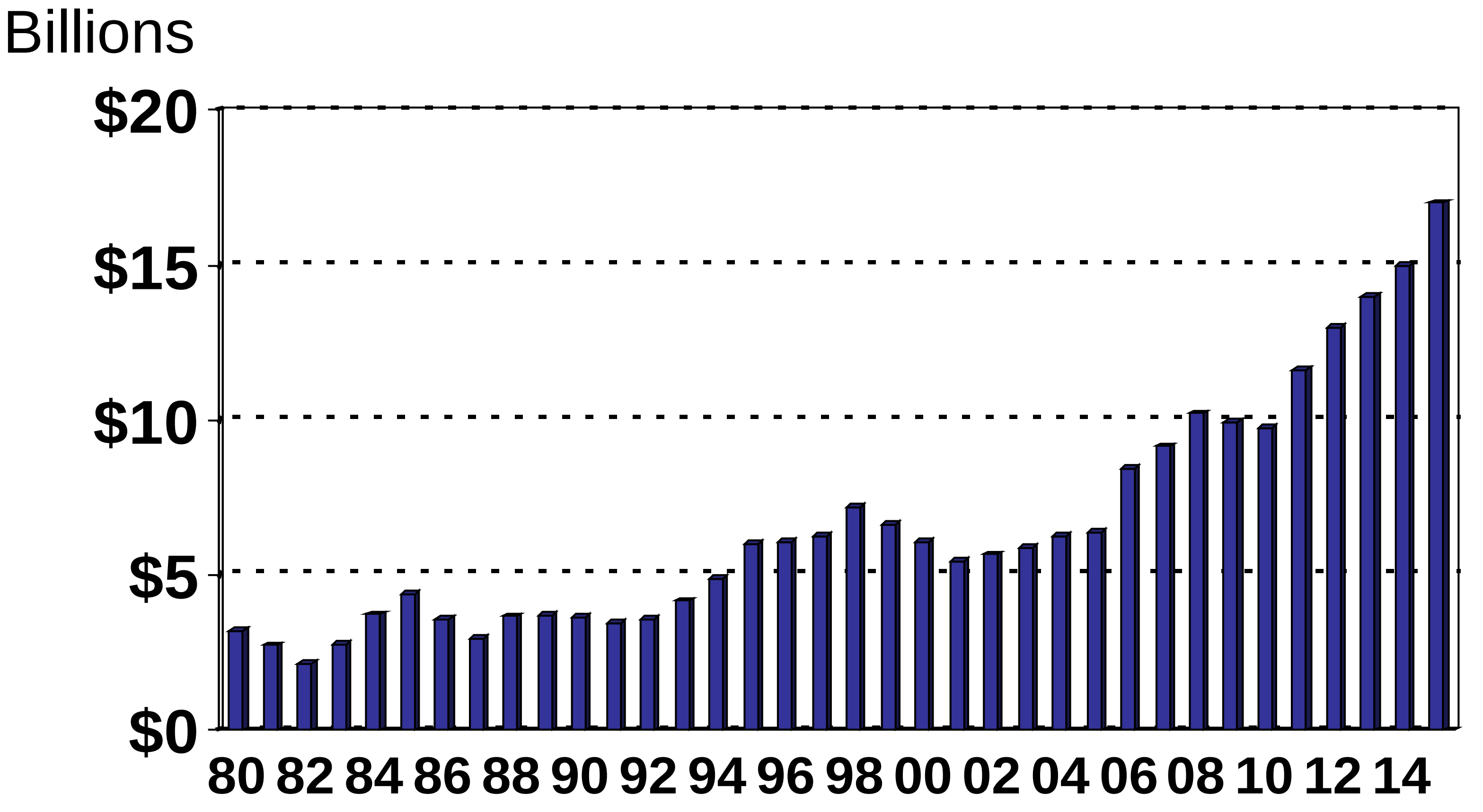


Product Category: All | State: All | Type: All | Status: All | Year: All | Export to CSV

Product Categories include: **Acrylics, Ammonia, Other Chemicals, Chlor-alkali, Ethylene, Gas Processing & Fractionation, LNG, Methanol, Polymers, Propylene**

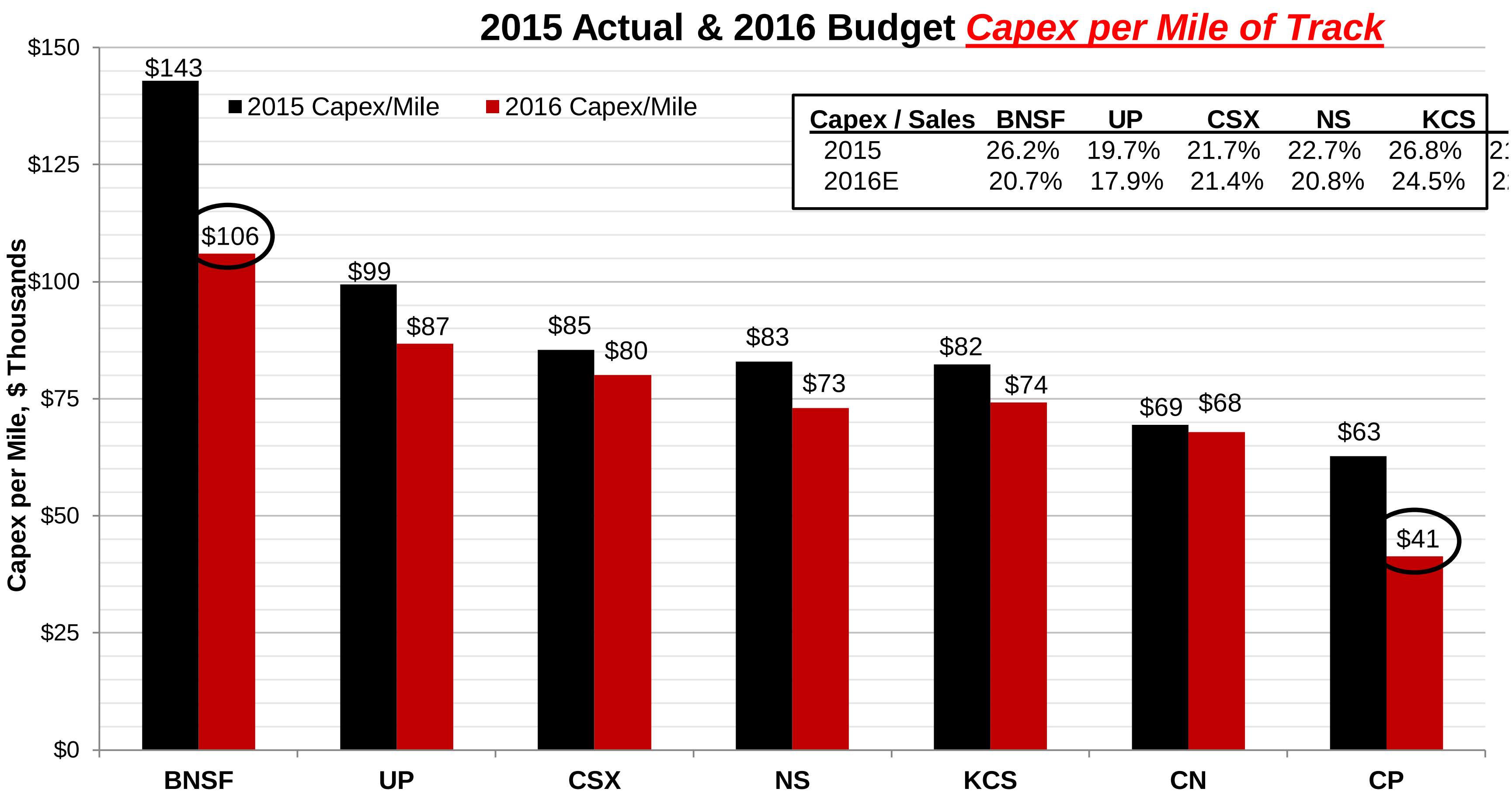
Railroad Capital Expenditures

Class I Railroads



Source: *RRFacts & Analysis of Class I RRs*, AAR; **abh estimates**

Capex/Revs is a Poor Indicator



Capex / Sales	BNSF	UP	CSX	NS	KCS
2015	26.2%	19.7%	21.7%	22.7%	26.8%
2016E	20.7%	17.9%	21.4%	20.8%	24.5%

*Source: 4Q15 Presentations & **Topeka.** CN & CP capex are converted into USD at 0.78 2015 and 0.71 2016. 2016E Sales is consensus, ex-BN. CN, CP, and KC*

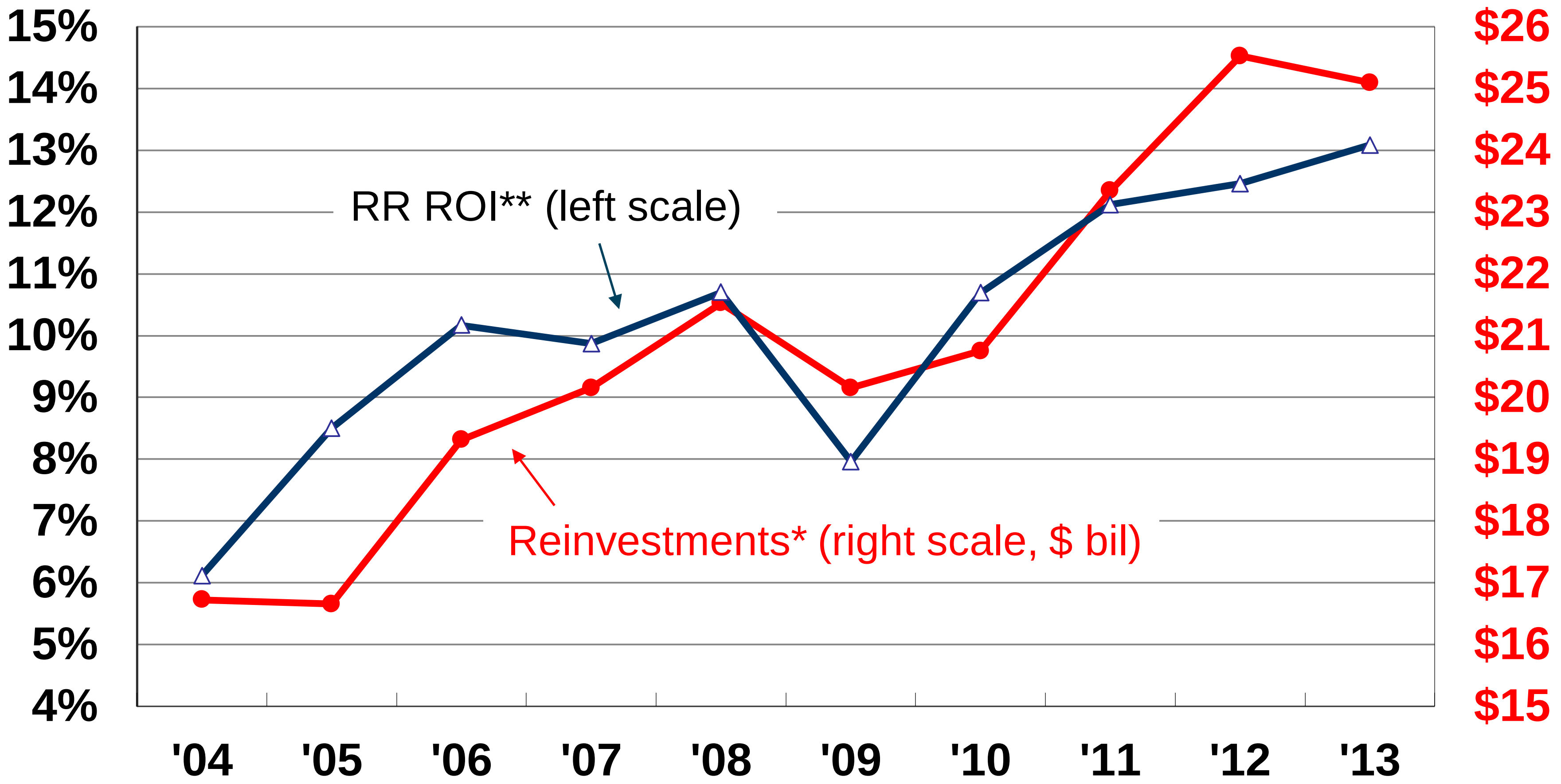
2016 Capex

- ***<u>Most Important Decision Period in Years</u>***
- ***<u>Capex down across the board (average -16%!) – except CN!</u>***
- Coal: “Stranded Assets”?
- Coal/Mix:Reduced Gross Ton Miles, Reduced Maintenance of Way?
- *Yet Service & Safety are even more critical to future RR success*
- Changing mix of capex?
- Changing %revenues (16%)?
- PTC Extension resolution?

2016 Capex (Continued)

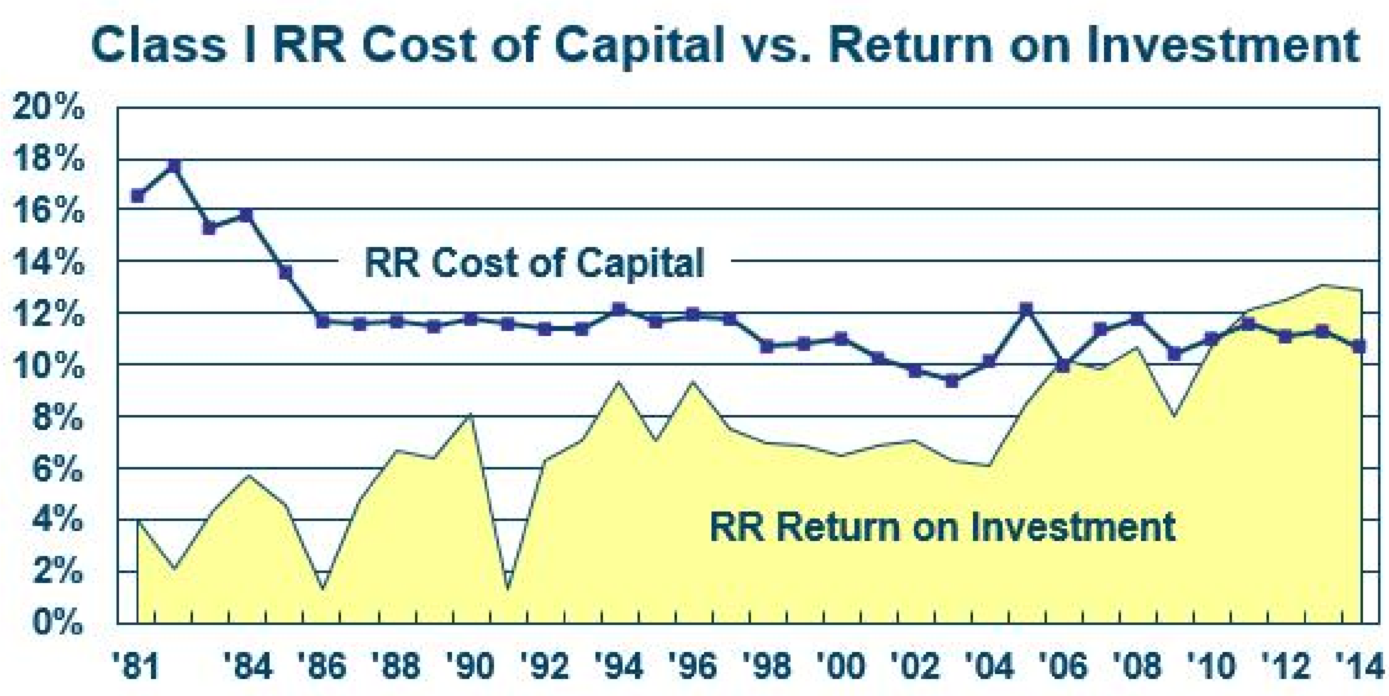
- Guidance Suggests -13% YOY; ranging from -25%+ (BNSF, CP) to *+ 7% (CN)*!
- Balance:
- Shareholders' demands – Buybacks & DPS vs. ROIC
- Regulatory Demands (and false claims)
- Safety Demands (CBR, etc)
- Shipper Demands (*service, service, service!*)

Close Correlation Between RR ROI and Reinvestments



*Capital spending + maintenance expense. **Net railway operating income / average net investment in transportation property. Data are for Class I railroads. Source: AAR

Returns Finally Justify the Massive Expenditures

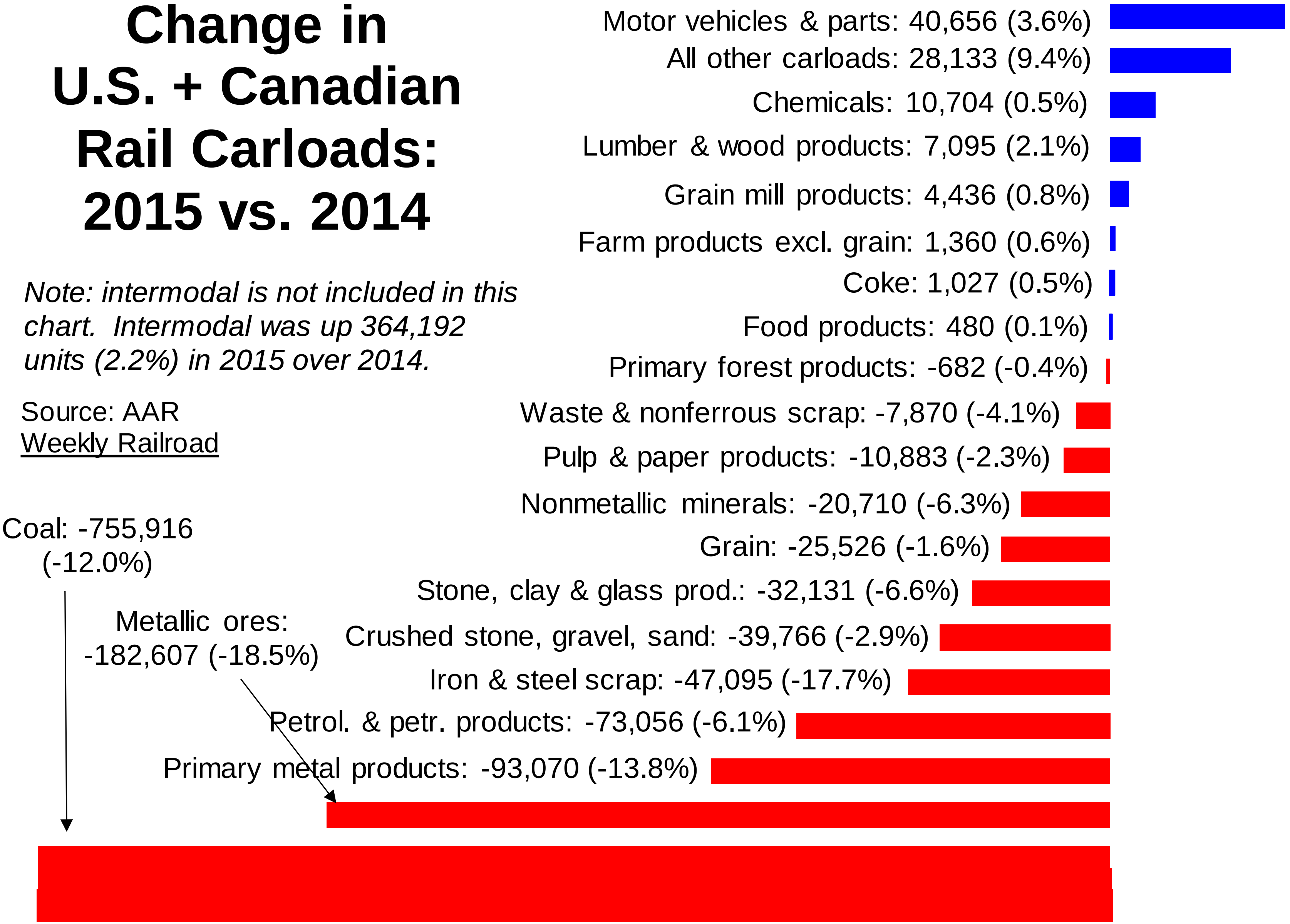


Note: In 2006, the Surface Transportation Board significantly changed the method by which it calculates the rail industry cost of capital. Source: STB

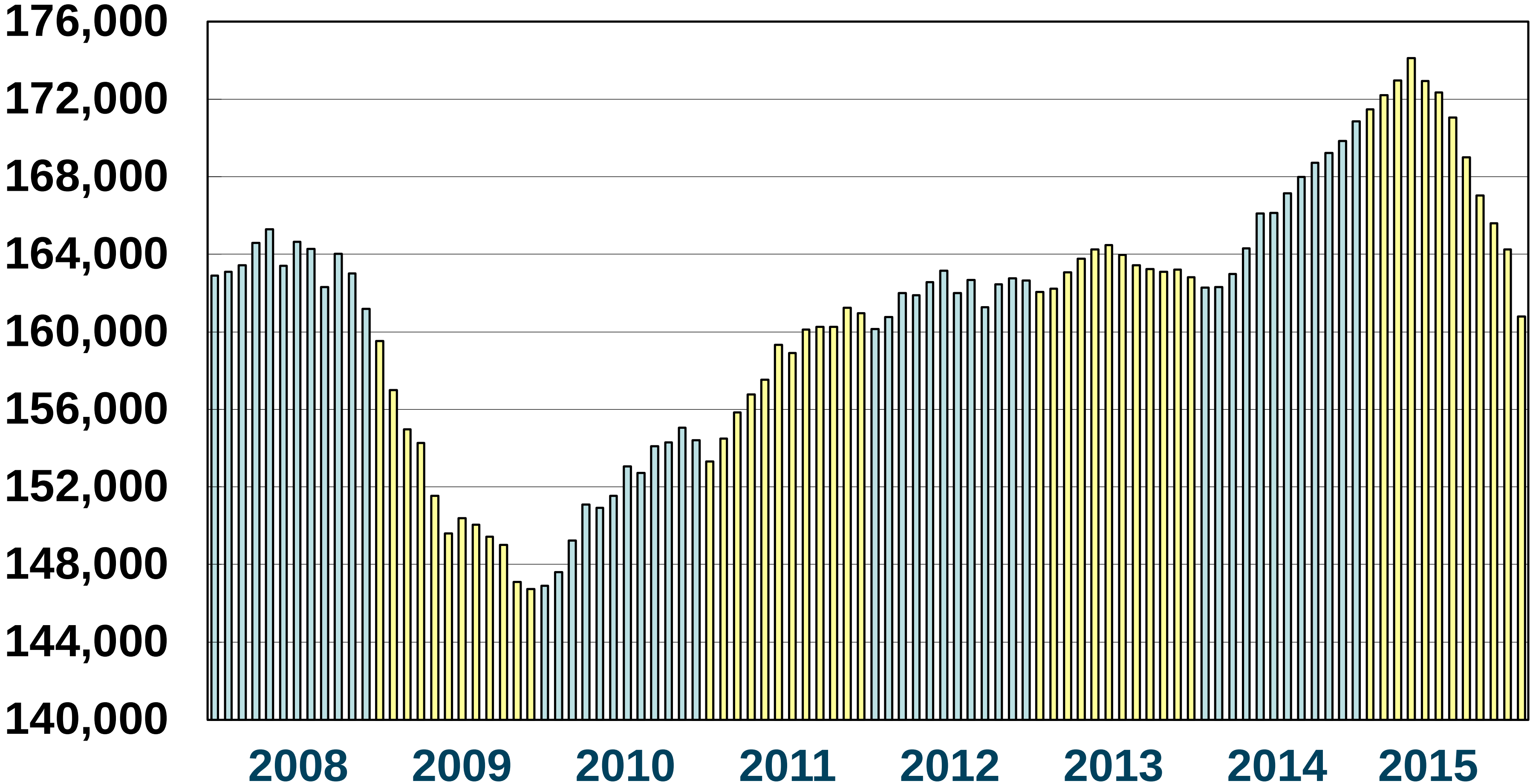
Change in U.S. + Canadian Rail Carloads: 2015 vs. 2014

Note: intermodal is not included in this chart. Intermodal was up 364,192 units (2.2%) in 2015 over 2014.

Source: AAR <u>Weekly Railroad</u>

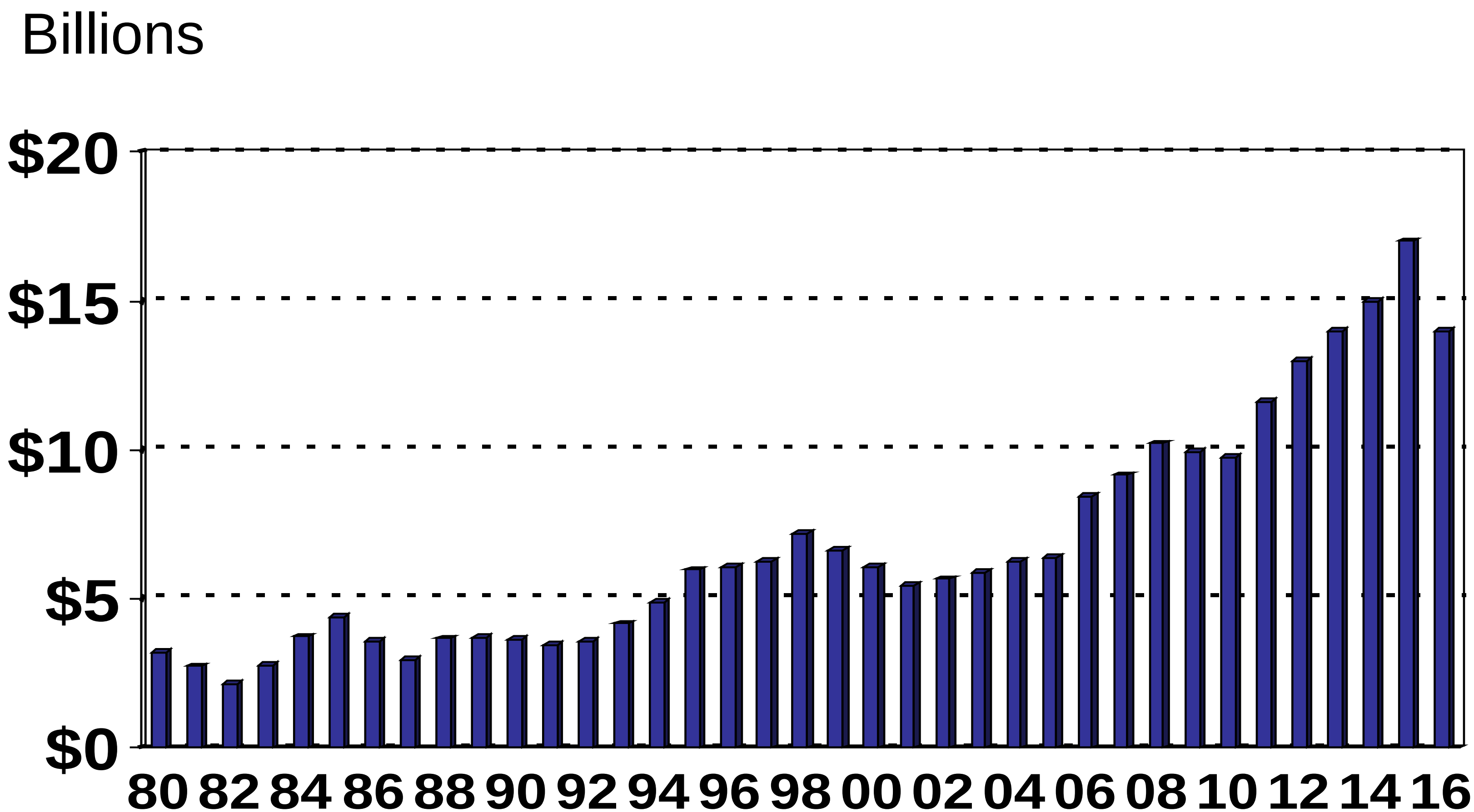


Class I Railroad Employment



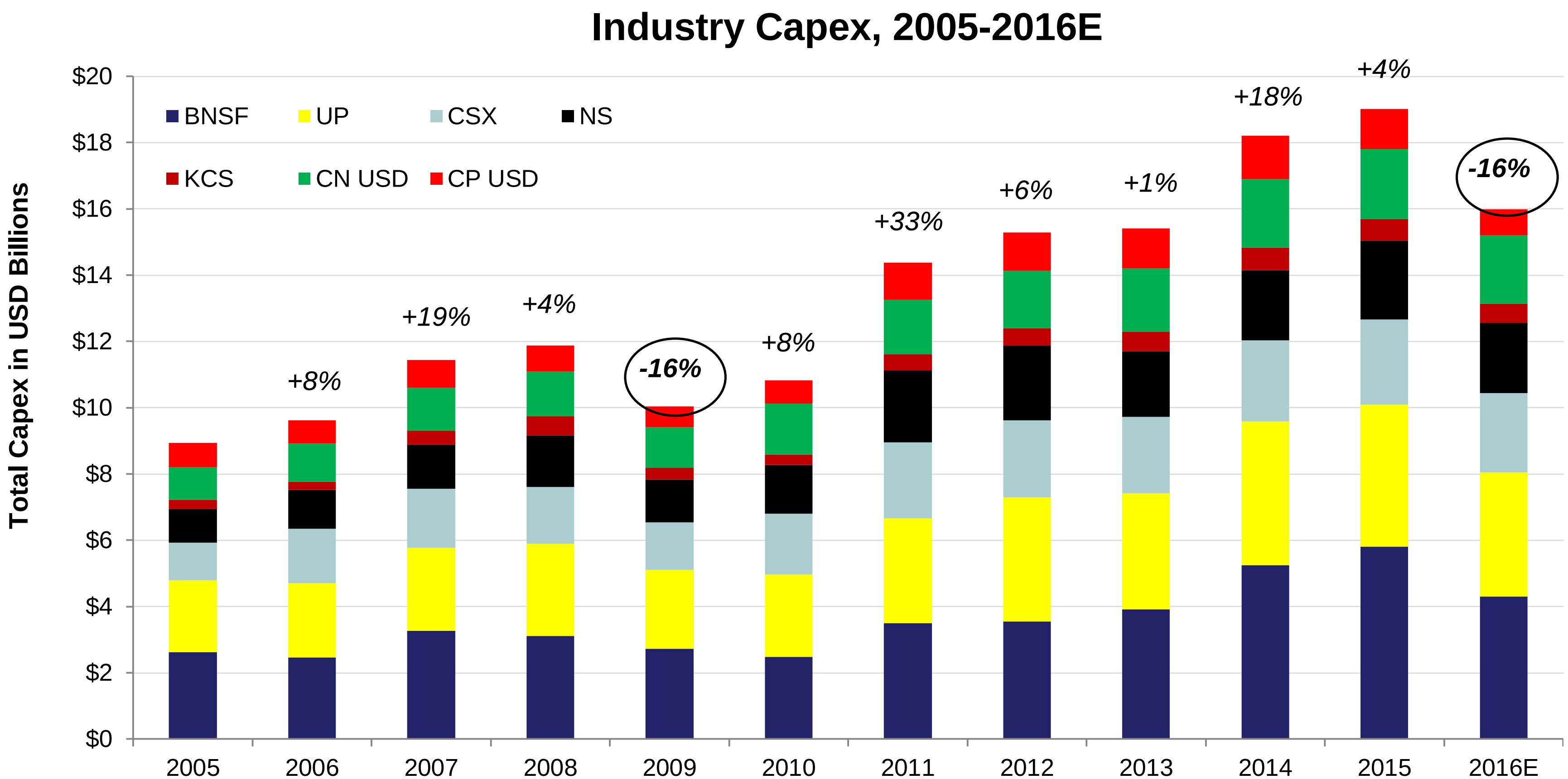
Source: STB

Railroad Capital Expenditures
Class I Railroads



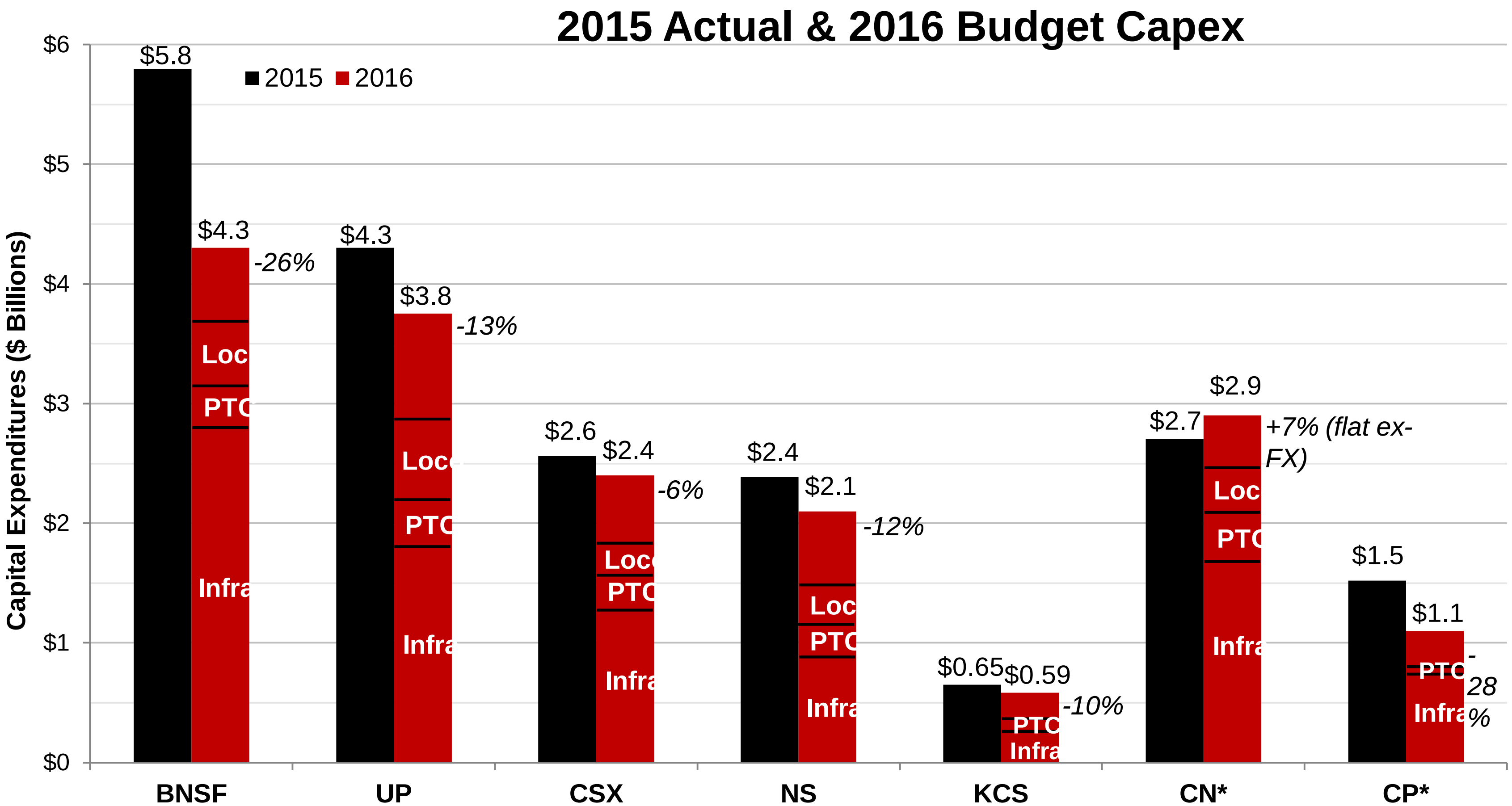
Source: *RRFacts & Analysis of Class I RRs*, AAR; **abh estimates**

Capex – In Technicolor



Source: FactSet and abh and ***TOPEKA***

Breakdown – will it takes us through the night?

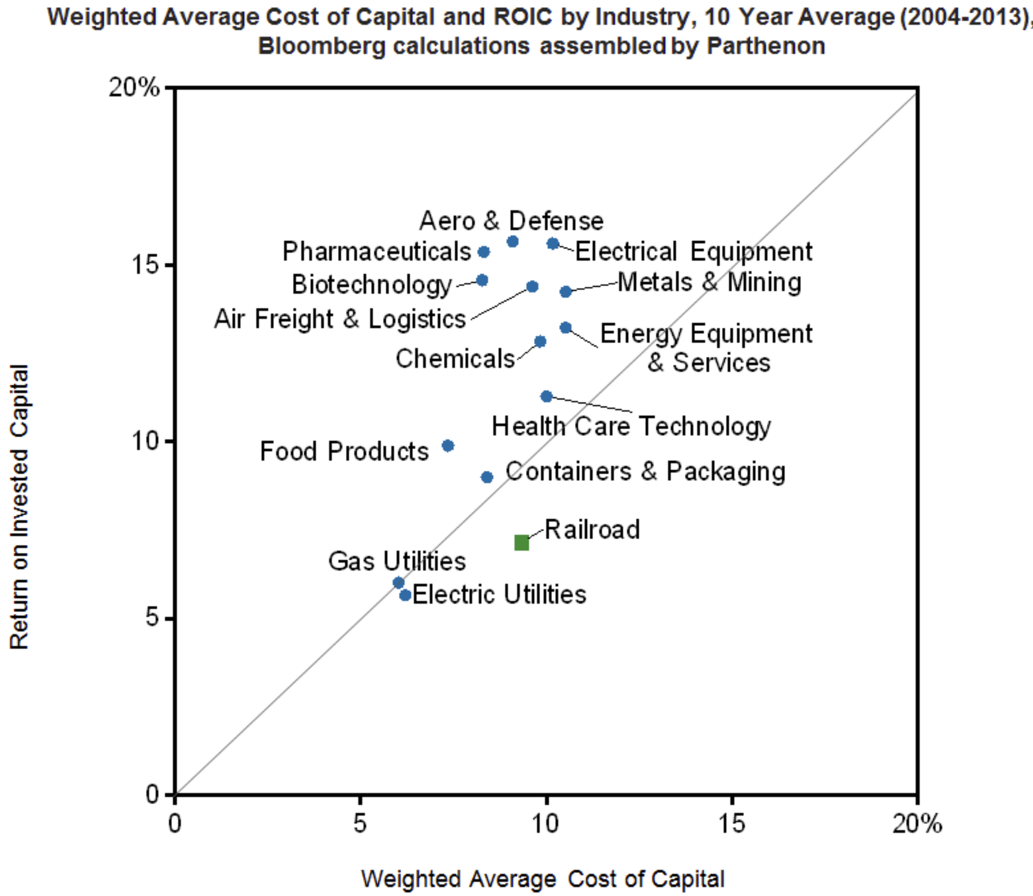


*Source: 4Q15 Presentations & **Topeka.** *CN & CP are in CAD. Locomotive costs are rebuilds for NS, new acquisitions at $3m ea. others.*

Railroad Philosophy

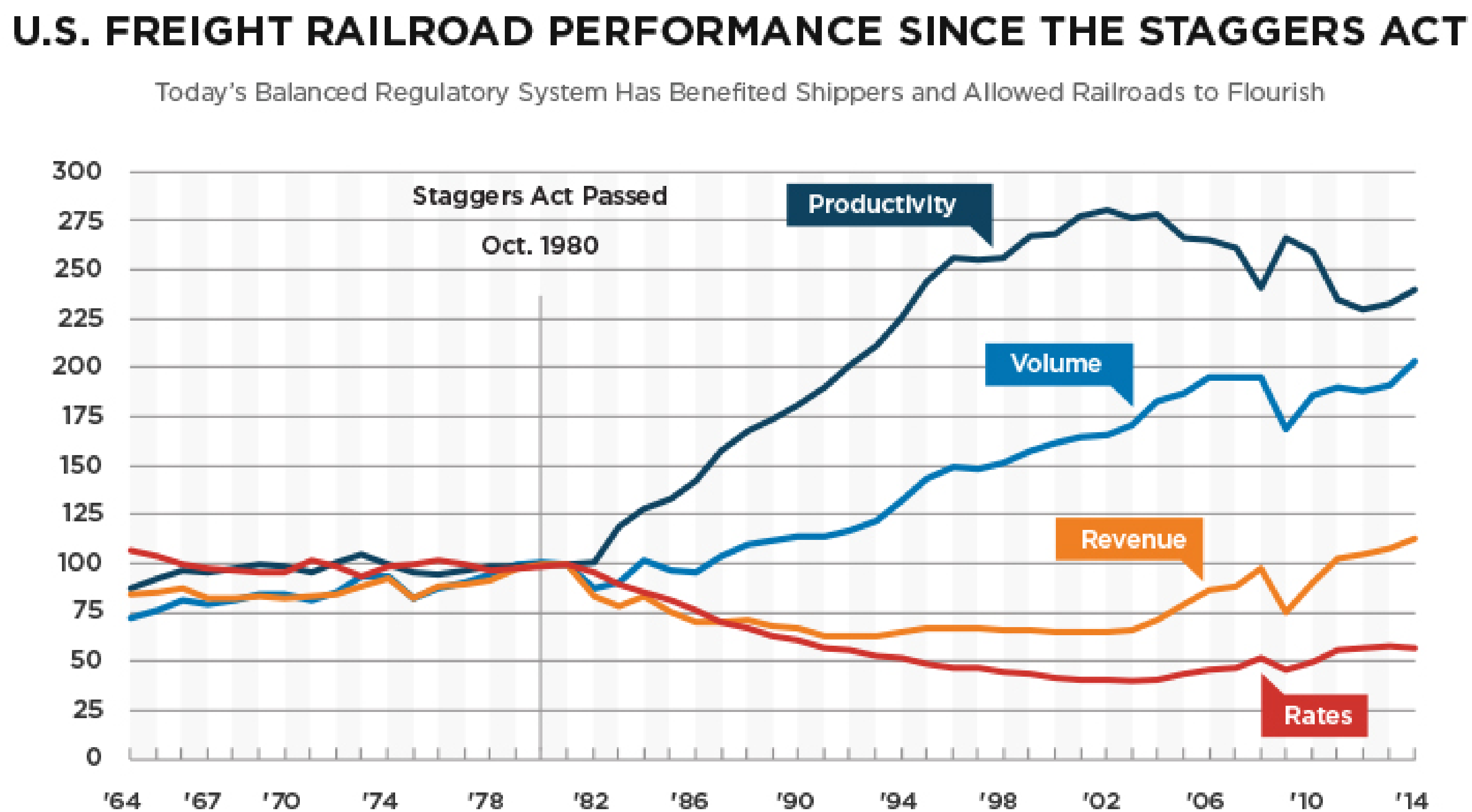
- Critical to the "*RR Renaissance*" has been Capex
- Private vs public capital (failing US infrastructure)
- Capex sparked by growth and ROI prospects – examples: IM, CBR
- "Open Access" antithetical to this….right?
- Is a RR its ***Network*** (Class One belief) OR is it its ***Operators*** (Hunter)??
- Cult of the OR vs ROIC; short-termism

Rails Have Room to Improve in ROI



Note: Bloomberg calculations are a total annual invested capital weighted average of S&P 500 companies within the industry during 2014
Source: Parthenon using Bloomberg data

Deregulation - & Vertical Integration – Works!



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