Rails Beyond Coal – The Impacts of “New Energy” & the Dawning of the Domestic Intermodal Age

AB HATCH abh18@mindspring.com
155 W68th St Suite 1117 NYC 10023
www.abhatchconsulting.co / MillerTabak
Ten Years After - The RR & the Industrial Renaissance
Sandhouse Gang Xmas!
December 4, 2013
Underlying Themes or “Givens’

- Green is here to stay
- Oil Prices will remain high (price points at $65, $45, $25/bl)
- Governments spending will be problematic
- Infrastructure will be challenged
- Trade will be dynamic but remain strong
- Near-sourcing and in-sourcing remain themes
- Trucking Productivity has peaked
- Driver shortages are a secular/demographic issue exacerbated by govt regs (CSA/HoS)
Future Growth Potential

5 Secular stories (in order)….

• 1-Intermodal – International and now Domestic
• 2 –Shale/Oil – Problem and solution?
• 3-Chemicals/Re-Industrialization?Near-Sourcing
• 4 - Grain – the world’s breadbasket
• 5 – Cyclical recovery - Housing
• Other Rail Opportunities exist but in smaller scale: The Manifest/Carload “Problem” (hub&spoke) vs. point-to-point “Unitization”/Industrial products/MSW (garbage)/perishables/others/Coal? Exports – “legs”? 
Rail Intermediate term volume prospects

ABOVE GDP

- Intermodal/Domestic (++)
- Intermodal/International
- Shale/oil
- Agricultural products
- Export Coal
- Chemicals!
- Industrial-Products/Metals
- Domestic Coal (?)

@GDP-GROWTH

- Autos (+?)/Parts
- Lumber (+?)
- Aggregates

UNCERTAIN

- Paper
- Ethanol
- Export Coal!
Bridge Year

• End of the coal slide?
• End of the drought?
• Continued slow economic growth
• Improved cyclical recovery in housing & autos
• Shipper capex in chemicals, autos, Mexico
• Rail investment in Domestic Intermodal
• CBR and other shale impacts
• Re-Industrialization
Coal in Trouble

• Domestic in secular decline due to regs/legislation, accelerated by weather, economy and, especially NG price
• Exports tied to global economy (ie; China); competition – and infrastructure access
• What was once “stable” and base business is the most uncertain
• Solution: invest elsewhere…. 
Gas displaces Coal (PLG)

- Natural gas now supplying approx. 30% of thermal fuel demand (~13% share capture from coal)
- Despite recent increases in prices, natural gas share capture expected to maintain or grow
- Environmental regulations of coal burning
- Scheduled coal unit retirements
- Adversely affecting coal industry, railroad coal loadings
- 17
Exports to the rescue?

**Expected Increase in Seaborne Thermal Demand 2010 – 2015**

- India
- China
- Other Pacific
- Atlantic

**Expected Increase in Seaborne Thermal Supply 2010 – 2015**

- 50-75 Million Tonne Shortfall
- Other Colombia
- S. Africa
- Russia
- Indonesia
- Australia
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 (followed by Phillips 66, Valero, others)
- Pipeline companies developing rail terminals in ND
- Rails spending capital (BNSF $4.1B!) vs ethanol example
- Tar Sands and pipelines
- Chemical Industry – secondary impact
- Industrial Development – tertiary impact
Why move crude by rail?

- **SPREADS** – **ONE** of the reasons: Moving a barrel by rail can cost $7 to $14, compared with $2 to $5 by pipe, depending on destination. But that price difference pales in comparison to a $15 to $30 premium for reaching the right markets.

- Producers are working shale everywhere and rail transload terminals are a cost-effective, very quick way to start moving crude to market.

- **Flexibility to serve all markets using existing N.A. rail infrastructure.** Existing rail routes have capacity to reach **East and West Coast markets** in the U.S. that may not have sufficient pipeline capacity – **note New Brunswick would not be a pipeline destination!**

- Flexibility from both the **origin and destination** – **NOTE California pipeline rejection!**

- Isolation of commodity to provide a “pure barrel” to the destination.

- **Speed to market (A)** – 12 months to build a unit train rail terminal
- **Speed to market (B)** – product arrives in DAYS versus a month….

- Competition is as much **water** – and **foreign oil** – as it is pipe….

- Comparatively low entry level capital requirements

- **Source: abh & Watco (see Bakken II Trip September 11-12, 2013)**
## Estimated Delta In RR Revenues/Prologistics Group

<table>
<thead>
<tr>
<th></th>
<th>Approx Annual Carloads</th>
<th>Approx Rev/Car</th>
<th>Change In Rev</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2008</strong></td>
<td><strong>2011</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coal</td>
<td>8,320,000</td>
<td>7,120,000</td>
<td>$1,700</td>
</tr>
<tr>
<td>Oil</td>
<td>6,000</td>
<td>92,000</td>
<td>$3,700</td>
</tr>
<tr>
<td>Sand</td>
<td>160,000</td>
<td>360,000</td>
<td>$3,500</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>8,486,000</strong></td>
<td><strong>7,572,000</strong></td>
<td>($1,021,800,000)</td>
</tr>
</tbody>
</table>
**Estimated Delta In RR Revenues - PLG Consulting**

<table>
<thead>
<tr>
<th>Approx. Annual Carloads</th>
<th>2008</th>
<th>2012 (est.)</th>
<th>Approx. Revenue per Car</th>
<th>Change in Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coal</td>
<td>8,856,000</td>
<td>6,944,000</td>
<td>$1,792</td>
<td>$(3,426,858,000)</td>
</tr>
<tr>
<td>Oil</td>
<td>11,000</td>
<td>372,000</td>
<td>$2,601</td>
<td>$938,786,000</td>
</tr>
<tr>
<td>Sand</td>
<td>189,000</td>
<td>418,000</td>
<td>$3,109</td>
<td>$711,916,000</td>
</tr>
<tr>
<td>TOTAL</td>
<td>9,056,000</td>
<td>7,734,000</td>
<td></td>
<td>$(1,776,156,000)</td>
</tr>
</tbody>
</table>

*2012 data is estimated for Q4*
Shale Related Rail Traffic Still Small Relative to Coal Volumes

Rail Shipments Coal, Sand & Crude

Quarterly Data (Source USRail Desktop)

PLG Consulting Analysis
What, me worry?

• Coal – what % “secular” vs. weather, economy, NG price?
• Quick then suddenly – 10% hit?
• Activists – what's next?
• Compensation: shale (+++)?
• Compensation: chemicals? (Secondary Shale Effect)
• Compensation: export coal?
• Compensation: domestic intermodal?
• Re-Industrialization (Tertiary Shale Effect)
Revenue Share
Percent of Total Revenue for Major US Railroads

* 2012 estimated based on first half of year

Source: AAR analysis of 10-K reports for BNSF, CSX, KCS, NS & UP
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
Intermodal Ten Years After

• *Rail Renaissance I* (2000s) driven by globalization & international intermodal

• The “Curse of OR”; or lack of understanding

• Capex, IT, Service, Fuel Price, Highway Issues

• Rail Renaissance II will be driven by domestic intermodal ROIC – subject of White Paper
US Railroad Intermodal Traffic
TOFC-COFC Units

* 2012 estimated based on first 35 weeks of year

Source: AAR analysis of 10-K reports for BNSF, CSX, KCS, NS & UP
Intermodal is leading the traffic comeback
Modal Shift Projection

Current Truck Market

Current Rail Intermodal Market

Projected Market Shift
Another Look at Domestic Intermodal Market Opportunities

Figure 10: Freight Transportation Mode Share by Distance
Source: Commodity Flow Survey
A TOP10 LIST (UNP)

• **Innovative Intermodal**
  – Refrigerated Intermodal Containers
  – Drayage Cost Reduction
  – Containerized Exports of Bulk Products
  – Committed Capacity
  – Railroad Door-to-Door Programs
  – Premium Freight
  – GPS Tracking of Containers
  – Chassis Pools
  – Flatbed Intermodal
  – Tank Containers
TRANSLOADING REACHING NEW HIGHS

Pacific Southwest Transload

Source: TTX, IANA, Piers

Source TTX, IANS, Piers
International Intermodal

• Still game in the old vet
• Even with near-sourcing/re-shoring, etc…
• Even with changing flows (which *may* disadvantage rail)
• Retail still tied to Asia
• MLB still tied to rail service
• Growth of 1-3X GDP?
Intermodal Issues 2013+

- International: trade flows, retail sales, exports & balance
- Do we still have peaks? UNP’s vision vs NRF, TTX
- Panama Canal? On time? How much? Etc....
- Emerging Developments – Rupert, Lazaro, Suez, Miami, Nicaragua?!?
- Domestic – development of “Corridors” & “Gateways”, etc
- Domestic – bimodal partners, shipper developments
- Domestic – service & pricing?
- Domestic Container – service, new lanes – coming of age
- “There’s somethin’ happening here....” - 3-5X GDP
Service, Capacity & Capital

• Service requirements only increasing with declining LOH
• Capacity challenges from new intermodal
• Capacity challenges from increasing passenger opportunities – HSR, HrSR
• Capacity challenges from local passenger service: Metra “rush hour windows” = 1/4 weekday freight slots in Chicago
• Can service/capacity/capital (&ROI) issues be resolved?
• Consolidation?
Re-industrialization?

- Near-Sourcing: *Mexico*, CA
- Gas effect round two:
- CHEMICAL INDUSTRY
- Fertilizers
- Steel/Aluminum/Autos/White Goods etc
- Northeast, etc back “in play”
Growth is Expensive: Record Rail Capex in 2011-13 – 2014?

- Record $12B in 2011; record $13B in 2012
- Record $14B++ this year – many rails pegging at 16-18% of revenues (rising by double digits)
- KSU at 26%!!
- Some Rails have announced reductions in “%/revs” (UNP) or otherwise given guidance changes - CP
- Corridor developments, NG, terminals, locos, cars, shale build-outs, etc
- PPPs – in decline?
- Rails are still emerging as DPS plays, buying in shares
- Total spend will be ~$25B in 2013!
- EX-PTC!

- 2014 Capex Plans/spend will be very, very interesting
Railroad Capital Expenditures
Class I Railroads

Billions

Source: Railroad Facts & Analysis of Class I Railroads, AAR
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.
ROI is everything

• Rails must retain price (@"rail-inflation plus" levels, or +3-5% YOY)
• Productivity – through capex, IT, scheduling, service
• Must remain de-regulated (even if not directly an intermodal issue)
Simple Math

• Rates
• Returns
• Capital Expenditures
• Capacity
• Service

ARE ALL CONNECTED!

Virtuous Circle (’03-07) or Disinvestment?
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