Rail Energy Transportation Advisory Committee

Rail Fleet Update
March 6, 2014
Agenda

Macroeconomic Indicators
Freight Car Orders & Deliveries
North American Railcar Fleet
Tank Car Regulatory Update
Energy Segments
Macroeconomic Indicators

- Key drivers of rail traffic showing positive gains & performance in 2014
  - GDP, industrial output, commodity carloads, Intermodal (+4.1%)
- In 2013, the US economy advanced 1.9%, down from 2.8% in 2012
- IHS expects NAFTA GDP to expand: 2.6% in 2014, 3.3% in 2015 and 3.2% in 2016-17
- Industrial production growth is forecasted at 2.5% in 2013, 3.1% in 2014 and 3.2% in 2015 before tapering off to 2.9% (2016) & 2.8% (2017)
- Consumer indicators and business spending show strength coming out of 2013
- Housing starts expected to grow ~20% to 1.152 million in 2014 and 1.481 in 2015
- Retail sales continue to improve, however consumer confidence remains low
- Net exports provided a strong 1.3% boost to growth in Q4’13
- Economy expected to gain momentum as household & business spending improve in 2014

Improvement in the economy expected to drive positive developments in rail traffic and demand.

Source: IHS Global Insight, FTR Associates, Oxford Economics
Railcar Demand Drivers

- NA Carloads est. ~ 3% y/y growth in 2014
- Ag contributes to positive performance in 2014, forecast depends on Coal stabilizing
- Growth continues in Chemical and Petroleum sectors, forecast is +3.3% y/y in 2014
- Chemical industry output remained flat in 2013, however new capacity will expand output 1.7% in 2014, 4.5% in 2015 and over 4% in 2016 and 2017

Source: IHS Global Insight, FTR Associates
Freight Car Builds

2013 Deliveries
- CH (> 5500 c/f): Plastics, DDG
- CH (3500-5500 c/f): Grain, Fertilizer
- CH (< 3500 c/f): Frac Sand, Cement
- Other category includes Box, Flat, GB Steel Gondolas, Intermodal, etc.

2013 Orders
- CH (> 5500 c/f)
- CH (3500-5500 c/f)
- CH (< 3500 c/f)
- Other category includes Box, Flat, GB Steel Gondolas, Intermodal, etc.

4Q’13 Backlog
- CH (> 5500 c/f)
- CH (3500-5500 c/f)
- CH (< 3500 c/f)
- Other category includes Box, Flat, GB Steel Gondolas, Intermodal, etc.

Source: Railway Supply Institute, ARCI 2013 4Q Report, 1/23/2014
Freight Car Builds

Total Freight car deliveries to grow 18% in 2014 and 9% in 2015

Source: IHS Global Insight, FTR Associates
Tank Car Builds

Tank Car Delivery Forecast

Tank builds to be equally driven by new and replacement demand in 2014

Source: IHS Global Insight, FTR Associates
Future growth in Covered Hopper Deliveries driven by Medium and Large cube builds

Source: IHS Global Insight, FTR Associates
Small cube builds to grow modestly in 2014 and level off 2015 and beyond from recent peaks

Source: IHS Global Insight, FTR Associates
Tank Car Fleet

- NA Tank car fleet reached 336k cars in 2014, ~5% y/y increase
- General Purpose fleet has grown 10% since 2011
- Tank fleet is on avg. 16 yrs. old, with >20% greater than 25 yrs. old
- Tank carloadings est. to grow ~3% per year through 2016
- Approx. 2/3 of tank cars ordered since 2011 are in crude & petroleum products service

Source: IHS Global Insight, FTR Associates, Railinc
*Note Annual data is represented as of first of the year for the previous year.
Small Cube Covered Hoppers

- Anticipated slow down of small cube builds after two banner years of production
- Over 30k cars built over the past 3 yrs. ~ 40% of National Fleet
- Forecast for small cube builds to be significantly less, driven by replacement needs
- Long term fracking growth in Mexico due to large shale gas reserves and energy reform

Source: IHS Global Insight, EAI, Railinc
*Note Annual data is represented as of first of the year
Tank Car Regulatory Update

- PHMSA Advanced Notice of Proposed Rulemaking (HM-251), Rail Petitions and recommendations to improve the safety of railroad tank car transportation of hazardous materials, 9/06/13
- Transport Canada Protective Direction No. 31, Crude oil classification, 10/17/13
- PHMSA/FRA Safety Advisory (2013-07), Crude oil classification, Shipper, carrier responsibilities, 11/20/13
- Transport Canada Protective Direction No. 32, Information requirements, 11/21/13
- PHMSA ANPRM Comment Filings, 130 filings, associations, companies municipalities and private individuals, 12/05/13
- PHMSA Safety Alert, Crude oil classification update, 1/02/14
- PHMSA letter to API, Testing, characterization and classification of crude oil, 1/03/14
- Canada Gazette, Regulations Amending the Transportation of Dangerous Goods Regulations (Safety Standard TP-14877: Containers for Transport of Dangerous Goods by Rail), Tank Car Standards and Classification and Shipping Documents, 1/11/14
- Secretary DOT Call to Action Meeting, AAR, API and ASLRAA, 1/16/14
- NTSB Safety Recommendation, to PHMSA re route planning, spill response, classification of product, 1/21/14
- NTSB Safety Recommendation, to FRA re route planning, spill response, classification of product, 1/23/14
- TSB Rail Safety Recommendations, DOT-111 tank car standards, route planning and emergency response, 1/23/14
- US DOT Emergency Restriction/Prohibition Order, Crude oil classification, elimination of PG III classification, 2/25/14
- US House of Representatives, Committee on Transportation and Infrastructure, Subcommittee on Railroads, Pipelines and Hazardous Materials Hearing, 2/26/14
Energy Segments

- Coal
- Petroleum
- Renewable Fuels
- Sand
Coal

- U.S. Coal demand will improve in 2014, however long-term trend is still negative
- Coal exports expected to improve thru 2017, but will not offset weak top-line demand
- U.S. Coal production declined ~ 2% in 2013 and est. to increase 3.9% in 2014
- Future coal plant retirements driven by natural gas competition and regulations
- Decline in train speeds and increased dwell time has impacted demand for cars
- Coal ~ 38% of US railroad loadings in 2014

Source: IHS Global Insight, FTR Associates, Railinc
Petroleum

- U.S. crude oil and lease condensate production grew 14% in 2013 and est. to increase 13% in 2014
- Canadian tar sands production increased 13% in 2013, significant growth through 2017
- U.S. Petroleum Carloads increased ~ 30% in 2013 and 14% in 2014, while Canada and Mexico remain relatively flat
- Bakken Shale moves drive recent gains with long-term growth in Alberta Oil Sands

Source: IHS Global Insight, EIA, CAAP
Renewable Fuels

- Production of renewable fuels has increased, overall U.S. gasoline consumption is down.
- Ethanol production increased 12% y/y in December 2013, est. to decline 1-2% in 2014.
- U.S. Ethanol consumption est. to remain flat in 2014 unless RFS mandate is increased or new export opportunities are identified.
- Biodiesel consumption est. to grow 1% and production to decline 3.5% in 2014.

Source: EIA, Short Term Energy Outlook 2014
Sand

- FTR projects ~ 3.9% y/y growth in nonmetallic mineral carloadings ~ 10% share of total U.S. rail carloadings
- Recovery in housing and construction will support hopper car freight flows in 2014
- U.S. cement production slated to expand 3% in 2014 and over 10% in 2015-16
- Production of clay, lime and gypsum is also expected to see double-digit growth in 2014 and 2015

Source: IHS Global Insight, EIA, FTR Associates

Nonmetallic Minerals Carloadings

Source: FTR Associates, Q4 2013
*Nonmetallic Minerals, Except Fuels
Appendix
Total Freight Car Demand

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Total Railcar Backlog = 84,454 cars
2013 Orders = 84,703 cars
2013 Deliveries = 64,508 cars
Source: ARCI 4Q-2013, Jan 24, 2014
# Tank Car Demand

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Tank Backlog = 55,386 cars  
2013 Orders = 36,276 cars  
2013 Deliveries = 28,996 cars  
Source: ARCI 4Q-2013, Jan 24, 2014
# Total Covered Hopper Car Demand

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Covered Hopper Backlog = 11,517 cars  
2013 Orders = 18,134 cars  
2013 Deliveries = 11,458 cars  
Source: ARCI 4Q-2013, Jan 24, 2014
## Covered Hopper Car Demand
(<3500 c/f) Sand, Cement

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Covered Hopper Backlog = 3,228 cars  
2013 Orders = 7,375 cars  
2013 Deliveries = 5,602 cars  
Source: ARCI 4Q-2013, Jan 24, 2014