

INSIGHTS

Railways: The Growing Backbone of Shipping

\$26 Billion

Bob Dole once said, "A billion here and a billion there, pretty soon you're talking real money." Well, the rail industry is certainly leading the pack. \$26 billion is what was spent just *last year* by the domestic rail companies to: transition to very high-tech systems, upgrade cars and locomotives for improved efficiency, raise bridges to accommodate double-modal containers, and add rail lines. \$26 billion of their own capital—not our government's—their own. Why not the government's funds? Why not do it the way all other international rail systems operate? Because they're *unregulated*, publicly held companies beholden to their shareholders, of course; and in our competitive country, they are growing their slice of the pie for more than the 40% stake they currently share in all freight movement. So, let's look at some background to see what has happened historically with this industry:

• History of Rail Freight

- o Staggers Rail Act 1980: What it accomplished:
 - Prior to the Act, regulation prevented rail from competing effectively, they were on the brink of ruin.
 - The Act:
 - Allowed the railway companies (not government) to decide the rail routes, services, rates etc. With the Act in place, rates have dropped 55%, accidents are down 78%, rail traffic doubled, productivity rose by 172%.
 - Allowed \$600 billion investment—and growing—of private (NOT taxpayer) funds for network development.
 - Ensured rail freight is affordable for shippers/consumers today.
- o U.S. Freight Rail
 - America's freight railways are one of the unsung transport successes of the past 30 years. They are universally recognized in the industry as the best in the world.
 - Success is credited to their deregulation from US government control.
- o Berkshire Hathaway purchased BNSF for \$34 billion – opened investors' eyes to the significance of rail as integral to industry efficiency.

• Population Growth

- o U.S. Population Growth Rate is 0.78% per year.
- o U.S. is 4th largest country in terms of population size (322 million).
- o Each person in the U.S. requires about 40 tons of freight to be moved every year.
- o All of this leads to continual increase in shipped items.

• Efficiency

- o Physics
 - Once rolling, the steel-on-steel action of trains is super-efficient. It takes little effort to keep it moving.
 - The steel wheels on steel tracks principle lowers the coefficient of friction. This means rail can pull more with less power.
- o Fuel
 - CSX ad: Freight trains move 1 ton of cargo 436 miles on 1 gallon of gas.
 - AAR Report 2016 confirms: Average of 473 miles per gallon.
 - Rail is 4x more efficient than trucks.
- o Economy
 - *America has the most cost-effective freight railroads in the world, saving American consumers billions of dollars each year. Cost Savings for Rail = 60% over trucks.*
 - For EVERY dollar railroads spend, TEN DOLLARS is generated in economic activity.

INSIGHTS

- **Environmental Benefits—Trains Vs Trucks**

- o Moving by rail lowers greenhouse gasses by 75%.
- o One single freight train can carry 280 trucks = reduced: congestion, wasted fuel, cargo delays, highway wear, greenhouse gas emissions, pollution.
- o CO² emissions reduced by 66% compared to trucks.
- o Rail accounts for 40% of freight, by ton-miles (vs. trucks at 28%).
- o Railroads are 4x more fuel-efficient than trucks.
- o Cost to build roads
 - Federal Gas Tax = 18.4¢/gallon invested in highway and mass transit improvements.
 - 4.12 million miles of roads.
 - Approximate cost/mile of road to build 4 lane highway: \$4-11 million/mile.
 - **\$16.48 trillion - \$45.32 trillion.**
- o Vs. cost to build track
 - 140,000 miles of track.
 - \$1-2 million per mile of track.
 - **\$140 billion - \$280 billion.**

- **Additional Benefits**

- o Provides 221,000 jobs; reduces congestions, highway fatalities, public infrastructure costs.

So where do we go as investors? The future of rail:

Global consumption of resources will nearly triple to 140 billion tons per year by 2050...

- o DOT estimates: by 2035, capacity must rise by 90% to meet the demands. More investing is needed.
- o The rail companies, CSX, Norfolk Southern, Kansas City Southern, Union Pacific, Canadian Pacific, Canadian National. . . all are keenly aware of what's coming. 2016: \$26 billion spent. 2015: \$24 billion. And it's not abating.
- o Current highway congestion is affecting delivery schedules.
- o Rail runs on its own growing 'highway' and transfers freight to several existing and new transfer hubs located throughout the country to expedite shipping times.

They're not stopping any time soon, but the feds are kicking around *regulating* them again. Rail is fighting it every step. Rail is the *key* element in helping corporations reduce the cost of goods sold. Rail's share of this transportation market will continue to grow rapidly and the rail industry is spending enormously in anticipation of it.

Keep on rolling...



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Next Issue: *Diabetes, the players, the trends and technological advances*