

Railroad Industry



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Today's Agenda

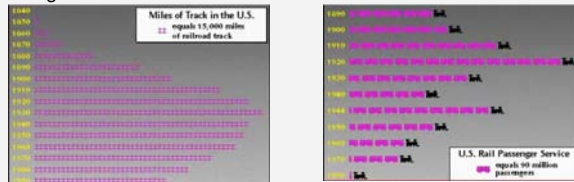
Snapshot of North American Rail Industry

- Major Players
- Industry Trends
 - Historical
 - Current
- Types of Cargo
- Trailer Cars
- Pros & Cons



Development

- First steam locomotive 1830
- Major player in deciding Civil War
 - Superior Northern network
 - Post Civil War - standardized tracks
- Spurred East-West migration
 - May 10th, 1869
- Pinnacle - 1930's
 - Steady decrease since then
 - Competition from other industries
- Deregulation 1980



Art of War

"If the enemy leaves a door open, you must rush in."

Amtrak

- Provides passenger train service
- Government owned
- Links major cities



Amtrak Route Map



Major Players - East

- CSX - 23,000 miles
 - Direct access to 23 states:
 - All Atlantic and Gulf Ports
 - Mississippi River, Great Lakes, St. Lawrence Seaway
 - \$10,636 million revenue 2010
- Norfolk Southern - 21,300 miles
 - Combination of Norfolk Western and Southern Railways
 - Norfolk western:
 - Founded 1838 - 9 mile line
 - 200+ mergers
 - Southern
 - Founded 1830
 - Over 150 different combined lines



Source: CSX - About CSX, CSX - Reports and Findings, NS - About Our Company

Major Players - West

- Burlington Northern Santa Fe - 30,000 miles
 - 400 different railroad lines merged/acquired over 160 years
 - 40,000+ employees operating:
 - 40+ ports
 - 28 states with tracks
 - 6,000+ locomotives
- Union Pacific - 32,615 miles
 - 43,500+ employees operating:
 - 8,200 locomotives
 - 23 states with tracks
 - Links West Coast and Gulf Coast ports
 - Connects to east through four major gateways
 - Chicago, St. Louis, Memphis and New Orleans
 - Only railroad to serve all six major gateways to Mexico



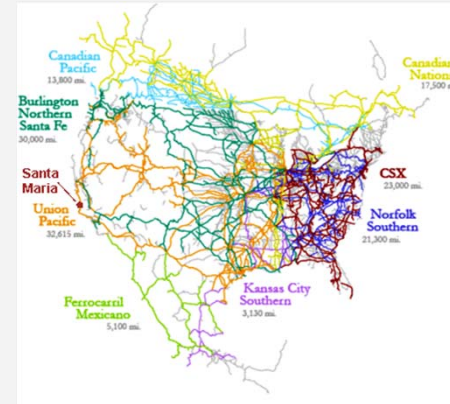
Source: BNSF - About BNSF - Fact Sheet, Union Pacific - Company Overview

Other Major Players

- **Kansas City Southern - 3,130 miles**
 - US Operations - The KCS Railway Company
 - Central and south central US
 - International Operations - KCS de Mexico
 - Northeastern & central Mexico
 - Port cities in Mexico - Lázaro Cárdenas, Tampico, Veracruz
 - Holds 50% interest in Panama Canal Railway Company
 - Ocean-to-ocean freight & passenger service along Panama Canal
- **Canadian Pacific- 13,800 miles**
 - Incorporated 1881
 - Operates in 6 provinces & 13 states
- **Canadian National - 17,500 miles**
 - Only railroad which crosses continent 2 ways
 - East-west and north-south
 - Ports on the Atlantic, Pacific and Gulf coasts
 - Link to all three NAFTA nations



US/North American Rail Illustrated



Current Trends

- 2009 Recession hurt industry
 - Steady growth since
- Causes of recent strong performance:
 - Worldwide demand for coal
 - US industrial production
 - US gov't scaling back
 - "Positive Train Control"



Source: Analyst Interviews; U.S. Railroad Industry Outlook

What Rail Moves

- Primarily bulk commodity products
 - Coal
 - Grain, foods, papers
 - Ores, metals, chemicals
- Other products
 - Waste/scrap metal
 - Automobiles

Carloads By Commodity Cumulative, 48 weeks
Source: AAR Policy and Economics Department

Commodity	U.S. RAILROADS		CANADIAN RAILROADS		MEXICAN RAILROADS	
	2011 Numbers	% change from 2010	2011 Numbers	% change from 2010	2011 Numbers	% change from 2010
Grain	1,038,372	-2.3	433,227	-3.4	55,612	-22.9
Orns	965,066	20.4	615,967	3.2	75,240	14.2
Coal	6,235,221	-0.1	396,217	2.6	9,073	36.6
Aggregates	841,500	3.7	112,097	3.3	7,407	-6.8
Minerals (nonmet)	238,590	-0.1	80,475	0.9	2,146	-37.1
Grain Mill	457,128	-4.3	76,676	-0.2	8,265	0.8
Food	305,780	-0.5	102,171	2.9	42,768	5.3
Lumber	132,652	8.4	120,516	12.7	684	12.5
Paper	287,063	4.5	169,023	0.5	2,059	6.1
Chemicals	1,433,708	3.5	533,531	8.8	56,338	7.0
Petroleum	338,323	10.1	214,631	3.5	23,295	3.1
Stone, Clay, Glass	350,272	4.6	64,571	3.6	91,184	9.9
Metals	489,458	11.6	109,772	1.1	86,331	7.2
Autos	640,197	8.9	245,295	4.5	146,034	9.5
Iron & Steel Scrap	224,543	7.4	44,216	11.1	14,686	-7.5
Waste/Scrap	155,912	-11.9	20,132	4.4	8,211	-3.2

Source: Rail Industry Data and Trends from Progressive Railroading

Types of Rail Cars

- Passenger Car
- Tank Car
- Box Car
- Well Car
- Flat Car
- Gondola
- Spine Car

Passenger Car



Source: <http://www.ricotrains.ca/cars/images/45747.jpeg>

Tank Car

- Liquids and gases



Source: <http://www.globaltrans.com/uploads/pics/rail-tank-car.jpg>

Box Car

- Break bulk cargo
- Most versatile



Source: http://www.gbrx.com/files/images/Site_Photos/North_American_Rail-Headers/box_car.jpg

Well Car

- Double stack shipping containers



Source: <http://www.itx.com/Equipment.aspx>

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Flat Car

- Large bulky items
 - Trucks, construction equipment
 - Containers (COFC) Trailers (TOFC)



Source: http://www.ejarchive.com/photos_webmaster/td12.jpg

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Gondola and Hopper Cars

- Bulk commodities
 - Coal, grain, etc.



Source: http://www.translationdirectory.com/images_articles/wikipedia/railroads/A_Gondola_type_of_railroad_car.jpg

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Spine Cars

- Used for intermodal containers



Source: <http://www.itx.com/services/railcars-for-sale/spine-car-TOFC.aspx>

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The Good & The Bad

Pros:

- Low cost over long distances
- Extremely adaptable
- Land bridge

Cons:

- Slow
- Limited track
- Typically multi-modal

Questions?

Works Cited

- "Analyst Interviews: U.S. Railroad Industry Outlook." *Daily Markets*. Zacks Investment Research, 20 May 2011. Web. <<http://www.dailymarkets.com/stock/2011/05/20/analyst-interviews-u-s-railroad-industry-outlook-2/>>.
- "BNSF - About BNSF - Fact Sheet." *BNSF - Our Railroad*. Web. <http://www.bnsf.com/about-bnsf/pdf/fact_sheet.pdf>.
- "Canadian Pacific - About CP." *Canadian Pacific - Driving the Digital Railway*. Web. <<http://www.cpr.ca/en/about-cp/Pages/default.aspx>>.
- "CN - About CN - Company Information." *CN - North America's Railway*. Web. <<http://www.cn.ca/en/company-information.htm>>.
- "CSX - Company Overview." *CSX - How Tomorrow Moves*. 2010. Web. <<http://www.csx.com/index.cfm/about-csx/company-overview/>>.
- "CSX - Financial Reports and Findings." *CSX - How Tomorrow Moves*. Web. 2010. <<http://investors.csx.com/phoenix.zhtml?c=92332&p=irol-reportsannual>>.
- The Growth of Railroads in the US*. Grollier. Grollier Multimedia Maps.
- "KCS - About KCS." *Kansas City Southern Lines*. 2011. Web. <<http://www.kcsouthern.com/en-us/AboutKCS/Pages/AboutKCSMain.aspx>>.
- "Norfolk Southern - Our History." *Norfolk Southern - The Thoroughbred of Transportation*. Web. <<http://www.nscorp.com/nscportal/nscorp/Community/NS%20History/>>.
- Sneider, Julie. "Rail Industry Data and Trends from Progressive Railroading January 2012." *Progressive Railroading*. Jan. 2012. Web. <http://www.progressiverailroading.com/rail_industry_trends/article/Rail-industry-data-and-trends-from-emp/Progressive-Railroadingem-January-2012-29416>.
- "Union Pacific - Company Overview." *Union Pacific - Building America*. Web.