

Synopsis

North American Freight Car Market, 2005

i Introduction

Discusses the overall need for a fleet management perspective for railcar investors and the analytical techniques **Rail Theory Forecasts™** used to review the North American Railcar Fleet and project industrial, agricultural, and mining production, rail car traffic, and new rail car deliveries in the future.

ii Current Developments in Railroad Traffic

A presentation of recent production and consumption statistics of the 13 products and commodities that are most commonly transported by rail, including recent intermodal developments; discussion of trends and forecasts of production and or consumption for 2005

iii Current Developments in Railcar Deliveries

Review of recent carloads, utilization rates, and other factors affecting new rail car deliveries; recent new car deliveries and a forecast for new car deliveries in 2005 for each car type.

Section 1

Freight Transportation

Chapter 1: Demand for Transportation

Demand for transportation grows as the GDP of an economy improves. This relationship can be statistically defined so that ton-mile growth can be predicted from GDP forecasts. GDP growth is related to the growth in population and the productivity of the population.

Chapter 2: Global Economy and NAFTA

The Global Economy is having major effects on rail transportation in the U.S., most notably in 2004 on the price of steel used in new railcar construction and the price of diesel fuel. Demand for steel products and U.S. grain are shifting traffic patters within the NAFTA community.

Chapter 3: Overview of Products and Commodities Transported by Rail

Introduction to the commodities handled by the railroad and the car types used in the transportation of each product.

Chapter 4: Farm Products, STCC 01

Review of the world grain market, the production and uses of the main grain and oil seed farm products in the U.S., and a forecast of future production for the three North American countries.

Chapter 5: Metallic Ores, STCC 10

Review of metallic ore production and consumption over the years, and the major factors affecting the future use of these commodities; forecasts of future consumption and production of these materials

Chapter 6: Coal, STCC 11

Review of the main producing areas and uses of coal, as well as EIA 20 year forecasts of coal production and consumption

Chapter 7: Non-metallic Ores, STCC 14

Review of several types of non-metallic ores, the production, and consumption of these commodities over the years, and the major factors affecting their use; forecast of future consumption and production of these materials

Chapter 8: Food and Food Products, STCC 20

Review of major commodity and products included in this STCC; forecasts of growth of each segment; review of market share and tonnage contribution of each segment of this traffic

Chapter 9: Lumber and Wood Products, STCC 24

Review of the major products in this traffic segment, the historical production and consumption quantities, the competitive materials that might impact the future growth of these products; forecasts of future production and consumption of major products such as dimensioned lumber and structural panels

Chapter 10: Paper and Paper Products, STCC 26

Discussion of each of the major types of paper, the factors affecting their production and use; forecasts of future consumption of this commodity

Chapter 11: Chemicals, STCC 28

Review of the major types of chemical products, including plastics and resins, the historical production and consumption quantities; forecasts of future production and consumption of major products

Chapter 12: Petroleum, STCC 29

Review of petroleum products and coke production and consumption over the years, and the major factors affecting the future use of these commodities; forecast of future consumption and production of these materials

Chapter 13 Stone, Clay, and Glass, STCC 32

Review of major commodities, including Cement, in the STCC Group; historical production and consumption over the years and the major factors affecting the future use of these commodities; forecast of future consumption and production of these materials

Chapter 14 Steel and Primary Metals, STCC 33&34

Review of major steel and non-ferrous metal products; historical production and consumption over the years, and the major factors affecting the future use of these products; forecast of future consumption and production of these materials

Chapter 15: Vehicles and Parts, STCC 37

Review of the historical developments in this industry and how they have affected rail traffic; historical production and sale of light vehicles over the years and the major factors affecting the future growth of transportation vehicles.

Chapter 16: Waste and Scrap Products, STCC 40&48

Review of all the materials in this STCC Group, including scrap metal, paper, municipal solid waste, and coal combustion residuals; historical collection and sales of some of these products; forecast of future production of these materials

Chapter 17: Intermodal

Review of intermodal traffic, including historical trends and major factor(s) affecting railroad loads; forecasts of future traffic levels

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Section 2 **Railroads and Railcars**

Chapter 1: Railroad Credit and Capital Needs

Discusses developments in railroad industry and how they have affected the railroad's need for capital and credit.

Chapter 2: North American Railroads

Discusses the financial condition of the major North American railroads as well as some regional carriers and shortline groups as well as some of their current operational problems

Chapter 3: Railcar Valuation

Discusses the methods used to value railcars of various ages, and presents in depth review of all of the factors used in evaluating the present value of future earnings from rents and leases. Historical and current values of many common car types are presented.

Chapter 4: Freight Car Technology Issues

Discusses developments which might significantly affect the market for all types of freight cars

Section 3 **Freight Car Demand and New Freight Car Deliveries**

Chapter 1: Introduction

Overview of the rail car analyses, including explanation of forecasting methodology and a brief review of rail car utilization, one of the main factors involved in new railcar deliveries.

Chapter 2: Boxcars

Review of the historical developments which have contributed to the decline in boxcar loads; comparison of production and consumption of major commodities transported in boxcars (paper, lumber, and autoparts) to the actual boxcar load count of these products since 1988; forecast of future boxcar loads; discussion of annual utilization rates; forecast of future new boxcar deliveries.

Chapter 3: Covered Hopper Cars

Review of the three main types of covered hopper cars and the main products that are shipped in each one; comparison of the production or consumption of each major commodity and the actual rail car loads of grain, chemicals, cement, plastic and resins, and non-metallic ores; Forecast of future covered hopper loads; Discussion of annual utilization rates; forecast of future new covered hopper deliveries for each type of covered hopper car.

Chapter 4: Flatcars

Review of the two main types of flatcars, excluding intermodal equipment and the main products transported on these cars; comparison of the production or consumption of lumber and wood products, steel and steel products, and automotive vehicles and the actual rail car loads of these products; forecast of future flatcar loads; discussion of annual utilization rates; forecast of future new flatcar deliveries for each type of flatcar.

Chapter 5: Gondola Cars

Review of the two main types of gondola equipment, and the main products transported on these cars; comparison of the production or consumption of coal, steel and steel products, scrap metal, and non-metallic ores and the actual rail car loads of these commodities; forecast of future gondola loads; discussion of annual utilization rates; forecast of future new car deliveries for each type of gondola car.

Chapter 6: Hopper Cars

Review of the two main types of Open Top Hopper cars, and the main products transported on these cars; comparison of the production or consumption of coal, non-metallic ores, metallic ores, and the actual rail car loads of these commodities; forecast of future OT hopper loads; discussion of annual utilization rates; forecast of future new deliveries for this car type.

Chapter 7: Tank Cars

Review of the main products transported on these cars; comparison of the production or consumption of food products, chemicals, and petroleum products, and the actual rail car loads of these commodities; forecast of future tank car loads; discussion of annual utilization rates; forecast of future new deliveries for this car type.

Chapter 8: Intermodal Cars

Discussion of the evolution of the car designs in this rail car fleet and the main factors involved in the growth of this traffic; forecasts of future intermodal loads; discussion of annual utilization rates; forecast of future new deliveries for this car type

Chapter 9: Insulated and Refrigerated Boxcars

Discussion of the decline of this rail car fleet, the main food and farm products that are still transported; review of the historical and current fleet and utilization levels and recent new car deliveries.

Chapter 10: Summary

Discussion of the need for a fleet management perspective; presentation of a measure of the volatility in the utilization levels of each rail car fleet and how this might reflect the investment risk associated with each car type.

Appendices

Appendix 1 Production and Consumption tonnage of Major Commodities

Appendix 2 Rail Car Deliveries, historical and projected by Car Type