America’s Transportation Challenge

Northwestern University Transportation Center
William A. Patterson Transportation Lecture
April 9, 2008

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Chairman, President and CEO

BNSF
RAILWAY
Discussion topics

- Railroad Industry Overview
- BNSF Railway Company Overview
- Reflections from National Surface Transportation Policy and Revenue Study Commission Final Report
# U.S. Class I railroad growth

<table>
<thead>
<tr>
<th>Category</th>
<th>1980</th>
<th>2006</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net freight revenue</td>
<td>$26.3 billion</td>
<td>$50.3 billion</td>
<td>+91.6%</td>
</tr>
<tr>
<td>Net investment</td>
<td>$33.4 billion</td>
<td>$112.6 billion</td>
<td>+237.1%</td>
</tr>
<tr>
<td>Return on net investment</td>
<td>6.8%</td>
<td>10.2%</td>
<td>+50%</td>
</tr>
<tr>
<td>Employees</td>
<td>458,332</td>
<td>167,581</td>
<td>-63.4%</td>
</tr>
<tr>
<td>Locomotives in service</td>
<td>28,355</td>
<td>23,732</td>
<td>-16.3%</td>
</tr>
<tr>
<td>Carloads originated</td>
<td>22.2 million</td>
<td>32.1 million</td>
<td>+44.6%</td>
</tr>
</tbody>
</table>

Source: AAR
U.S. Class I volume growth

2.9% CAGR

Source: AAR
Railroad industry capital expenditures

Rate of Return on Net Investment

<table>
<thead>
<tr>
<th>Year</th>
<th>Rate of Return</th>
<th>Capital Expenditures ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>9.4%</td>
<td>$6.1</td>
</tr>
<tr>
<td>1997</td>
<td>7.6%</td>
<td>$6.3</td>
</tr>
<tr>
<td>1998</td>
<td>7%</td>
<td>$7.2</td>
</tr>
<tr>
<td>1999</td>
<td>6.9%</td>
<td>$6.6</td>
</tr>
<tr>
<td>2000</td>
<td>6.5%</td>
<td>$6.1</td>
</tr>
<tr>
<td>2001</td>
<td>6.8%</td>
<td>$5.4</td>
</tr>
<tr>
<td>2002</td>
<td>7%</td>
<td>$5.7</td>
</tr>
<tr>
<td>2003</td>
<td>6.3%</td>
<td>$5.9</td>
</tr>
<tr>
<td>2004</td>
<td>6.1%</td>
<td>$6.2</td>
</tr>
<tr>
<td>2005</td>
<td>8.5%</td>
<td>$6.4</td>
</tr>
<tr>
<td>2006</td>
<td>10.2%</td>
<td>$8.4</td>
</tr>
</tbody>
</table>

Source: AAR
What is driving rail demand

- Driver Shortage
- Agricultural Trade Growth
- TransPacific Trade
- Fuel
- Highway Congestion
- Capacity Investments
- Coal Production
BNSF volume growth

BNSF Volume (000s)

- 1996: 6,910
- 2007: 10,318

Δ 1996 - 2007 (000s)

- Consumer Products: 2,481, 93.0%
- Agricultural Products: 639, 26.8%
- Coal: 218, 34.8%
- Industrial Products: 70, 4.4%

+ 3.4 million units; +49.3%
BNSF Coal Tons

3.4% CAGR

Tons (mm)


201.6 202.8 230.4 236.8 228.7 243.4 239.5 235.6 255.5 259.2 287.2 291.1
BNSF Industrial Products Volume

0.4% CAGR

Units (thousands)

<table>
<thead>
<tr>
<th>Year</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>1,594</td>
</tr>
<tr>
<td>1997</td>
<td>1,557</td>
</tr>
<tr>
<td>1998</td>
<td>1,606</td>
</tr>
<tr>
<td>1999</td>
<td>1,606</td>
</tr>
<tr>
<td>2000</td>
<td>1,604</td>
</tr>
<tr>
<td>2001</td>
<td>1,547</td>
</tr>
<tr>
<td>2002</td>
<td>1,515</td>
</tr>
<tr>
<td>2003</td>
<td>1,524</td>
</tr>
<tr>
<td>2004</td>
<td>1,650</td>
</tr>
<tr>
<td>2005</td>
<td>1,655</td>
</tr>
<tr>
<td>2006</td>
<td>1,686</td>
</tr>
<tr>
<td>2007</td>
<td>1,664</td>
</tr>
</tbody>
</table>
BNSF Ag Volume

2.1% CAGR

Units (thousands)


825 815 824 836 793 828 794 833 900 916 973 1,033
BNSF Ethanol Volume

20.4% CAGR

Units


6,176 8,485 8,617 8,963 9,526 11,916 13,031 21,728 29,278 31,665 34,552 47,394
BNSF Intermodal Volume

12.1% CAGR International
2.4% CAGR Domestic

Units (millions)

<table>
<thead>
<tr>
<th>Year</th>
<th>International</th>
<th>Domestic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>0.8</td>
<td>1.6</td>
</tr>
<tr>
<td>1997</td>
<td>1.1</td>
<td>1.7</td>
</tr>
<tr>
<td>1998</td>
<td>1.3</td>
<td>1.6</td>
</tr>
<tr>
<td>1999</td>
<td>1.8</td>
<td>1.6</td>
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<tr>
<td>2002</td>
<td>1.9</td>
<td>1.6</td>
</tr>
<tr>
<td>2003</td>
<td>2.0</td>
<td>1.7</td>
</tr>
<tr>
<td>2004</td>
<td>2.1</td>
<td>1.8</td>
</tr>
<tr>
<td>2005</td>
<td>2.2</td>
<td>1.7</td>
</tr>
<tr>
<td>2006</td>
<td>2.3</td>
<td>1.7</td>
</tr>
<tr>
<td>2007</td>
<td>2.3</td>
<td>1.7</td>
</tr>
</tbody>
</table>
BNSF capital commitments with ROIC

- **Program Maintenance**
- **Expansion**
- **Mechanical**
- **Other**
- **Locomotive**


**ROIC:**
- 1996: 9.9%
- 1997: 9.5%
- 1998: 9.7%
- 1999: 9.4%
- 2000: 8.8%
- 2001: 7.2%
- 2002: 6.6%
- 2003: 6.6%
- 2004: 7.9%
- 2005: 10.1%
- 2006: 11.4%
- 2007: 10.5%
- 2008P: 11.4%

**Capital Commitments ($ Millions):**
- 1996: $2,334
- 1997: $2,258
- 1998: $2,520
- 1999: $2,265
- 2000: $1,763
- 2001: $1,608
- 2002: $1,505
- 2003: $1,726
- 2004: $1,988
- 2005: $2,179
- 2006: $2,670
- 2007: $2,593
- 2008P: $2,450
**Transportation at the crossroads...**

### 2020 Growth Projections

<table>
<thead>
<tr>
<th>Category</th>
<th>Projection</th>
<th>CAGR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>338 million, 0.87% CAGR</td>
<td></td>
</tr>
<tr>
<td>Vehicle miles traveled</td>
<td>4.09 trillion, 8.13% CAGR</td>
<td></td>
</tr>
<tr>
<td>Rail gross ton miles</td>
<td>1.82 trillion, 1.94% CAGR</td>
<td></td>
</tr>
<tr>
<td>Truck ton miles</td>
<td>4.17 trillion, 1.96% CAGR</td>
<td></td>
</tr>
<tr>
<td>Port volume</td>
<td>58 million TEUs, 5.4% CAGR</td>
<td></td>
</tr>
</tbody>
</table>

Source: Global Insights, AASHTO, FHWA
## Transportation growth and capacity: The past 25 years

1980-2005

<table>
<thead>
<tr>
<th>Route Miles</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rail</td>
<td>(39%)</td>
</tr>
<tr>
<td>Highway</td>
<td>+7%</td>
</tr>
<tr>
<td>Ports</td>
<td>N/A</td>
</tr>
</tbody>
</table>
What is this costing the economy?

Cost of highway congestion

Source: Texas Transportation Institute and U.S. DOT
What is the cost to the supply chain?

U.S. Logistics Costs as a Percent of GDP

Source: Annual State of Logistics Report, Council of Supply Chain Management Professionals
Majority of current routes are operating below practical capacity levels

Current Corridor Volumes Compared to Current Corridor Capacity

Source: National Rail Freight Infrastructure Capacity and Investment Study September 2007
Without capacity improvements, congestion would affect nearly every region of the country.

Future Corridor Volumes Compared to Current Corridor Capacity
2035 Without Improvements

Source: National Rail Freight Infrastructure Capacity and Investment Study September 2007
But with the right investments, rail can accommodate future demand

Future Corridor Volumes Compared to Future Corridor Capacity 2035 with Improvements

Source: National Rail Freight Infrastructure Capacity and Investment Study September 2007
Railroad capacity: AAR/Cambridge study

- Assessed long-term capacity needs of primary rail freight corridors
- Assumed no shift in modal tonnage shares among rail, truck and water beyond those projected by U.S. DOT
- $39 billion shortfall will occur without a stimulus to bring investments up sooner in their cycle

Class 1 capital investments needed to meet 2035 volume demand

$135 B

Total Needed

$39 B

Sources of Capital

Growth

Productivity

Shortfall

Source: National Rail Freight Infrastructure Capacity and Investment Study September 2007
National funding gap

Gap to Maintain = $50 Billion per year (through 2015)

Gap to Improve = $107 Billion per year (through 2015)

Source: U.S. Chamber of Commerce
Overview of Commission findings

REFORM
- Outcome-driven (not political) funding
- Streamline 108 federal programs to 10
- Speed project delivery

REBUILD
- State of “good repair”
- Mode Neutral

REVENUES
- Increased funding from all sources to meet $225 - $349 billion a year in needs
Reform Federal Programs

More than 100 Federal Programs Consolidated into 10

1. Rebuilding America
2. Freight Transportation
3. Congestion Relief
4. Saving Lives
5. Connecting America
6. Intercity Passenger Rail
7. Environmental Stewardship
8. Energy Security
9. Federal Lands
10. Research, Development and Technology
What does this mean to the rail industry?

- “Rational regulation” is necessary
- National Freight Program
- Freight rail is an important part of meeting environmental stewardship and energy security goals
- Passenger rail in key corridors, not at the expense of freight capacity
- Funding options
- Investment Tax Credit
This principle applies to economic regulation, but also safety, security and pre-emption

“Ensuring the necessary free flow of capital into the rail industry and other private sector providers of transportation requires that regulatory policies promote efficient operations and encourage investment. National networks require uniform and national regulatory structures to further ...commerce.”
Developing a national freight program

- Should facilitate public investment in crucial, high cost transportation infrastructure public-private projects with national and regional benefits. E.g.,
  - Rail corridor development
  - Intermodal connectors
  - Key interstate highways, near port facilities
  - Strategic national rail bridges
  - Train control technology
  - Green intermodal facilities and operations
Environment and Energy

- If there is GHG regulation, freight and passenger rail should be a beneficiary.

- There should be additional programmatic opportunities to transition to “greener” rail operations.
The old Amtrak deal will not work for the future- the public must pay for capacity to facilitate passenger rail

The Commission affirmed that freight capacity/operations must not be injured by passenger rail

Focus on corridors of 500 miles or less; “comparable to world-class systems;” Cost benefit analysis

Track access and cost of present and future capacity requirements negotiated by freight and passenger rail interests

Performance measures: developed in consultation with freight railroad, investment scoped to meet service criteria

Rights of way to be developed to allow for separate passenger and freight operations
How to fund the infrastructure:
Role of public private partnerships

- Standardize public benefit ROI methodology for evaluating and negotiating PPPs between railroads, state, local and federal interests to ensure that the public and private sectors pay for their own benefits.

- Ensure no misallocation of public funding to projects which would require non-economic private investment.

- Ensure that grants/loans/public financing for rail-related projects does not supplant or diminish private investment.
Funding, continued

- If a freight fee is considered...
  - Link and dedicate as directly as possible to use
  - Predictable, dedicated and sustained, and pay-as-you-go
  - Non-discriminatory
  - Ultimate consumer bears the cost
  - Nationally coordinated
Revenue: Freight Rail Infrastructure Capacity Expansion Act of 2006 (ITC)

- Freight Rail Infrastructure Expansion
  - 25% investment tax credit and expensing of residual cost
  - Expansion defined as investment in infrastructure where it does not currently exist (e.g. double tracking; signaling of dark territory)
Warnings ahead...

- Public will not accept higher fuel taxes or other fees if the system is not overhauled.
- Shippers will not accept user fees unless principles around investment are fair and transparent, i.e. – intermodal shippers should not pay for coal capacity and vice versa.
- Railroads will not accept public funds with obligations not central to the investment if strings are attached.
- The lack of action will result in a further degradation of our transportation efficiency and ultimately our global competitiveness.