Boom without Bust: Breaking the Cycle to Encourage Long-term Prosperity and Opportunity
Top Producing Oil and Gas Formations

- Bakken
- Niobrara
- Permian
- Haynesville
- Marcellus
- Eagle Ford
Shale Gas Largest Supply Source

Shale gas provides the largest source of growth in U.S. natural gas supply

Figure 91. Natural gas production by source, 1990-2040 (trillion cubic feet)
Bakken Shale Hits Million Bpd

U.S. Energy Information Administration | Drilling Productivity Report
Domestic Energy Growth Provides Economic Options with Planning

Tight oil-driven production growth reduces need for U.S. oil imports

Net import share of U.S. liquids consumption in three cases (1990-2040)

Source: U.S. Energy Information Administration, Annual Energy Outlook 2014
Shale Oil Production Projected to Decline Over Time

Tight oil formations account for a significant portion of total U.S. production.

Figure 97. Total U.S. tight oil production by geologic formation, 2008-2040 (million barrels per day)
Growth Of Natural Gas Fuels Dramatic Economic Opportunities

Figure 39. U.S. production of natural gas liquids by type, 2005-2012 (million barrels per day)

Figure 40. U.S. imports and exports of propane/propylene, 2005-2012 (million barrels per day)
Oil Boom Places Unique Stress on Communities and Infrastructure
Transportation Infrastructure Cannot Keep Up with Demand

### U.S. Rail Traffic


<table>
<thead>
<tr>
<th></th>
<th>This Week</th>
<th>Year-To-Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cars</td>
<td>vs 2014</td>
</tr>
<tr>
<td>Total Carloads</td>
<td>298,568</td>
<td>10.2%</td>
</tr>
<tr>
<td>Chemicals</td>
<td>31,070</td>
<td>2.7%</td>
</tr>
<tr>
<td>Coal</td>
<td>116,794</td>
<td>10.5%</td>
</tr>
<tr>
<td>Farm Products excl. Grain, and Food</td>
<td>18,084</td>
<td>7.9%</td>
</tr>
<tr>
<td>Forest Products</td>
<td>12,134</td>
<td>8.5%</td>
</tr>
<tr>
<td>Grain</td>
<td>24,225</td>
<td>15.7%</td>
</tr>
<tr>
<td>Metallic Ores and Metals</td>
<td>24,634</td>
<td>8.7%</td>
</tr>
<tr>
<td>Motor Vehicles and Parts</td>
<td>17,529</td>
<td>11.0%</td>
</tr>
<tr>
<td>Nonmetallic Minerals</td>
<td>31,725</td>
<td>18.4%</td>
</tr>
<tr>
<td>Petroleum and Petroleum Products</td>
<td>15,503</td>
<td>17.0%</td>
</tr>
<tr>
<td>Other</td>
<td>6,870</td>
<td>-10.7%</td>
</tr>
<tr>
<td><strong>Total Intermodal Units</strong></td>
<td><strong>249,910</strong></td>
<td><strong>1.1%</strong></td>
</tr>
<tr>
<td><strong>Total Traffic</strong></td>
<td><strong>548,478</strong></td>
<td><strong>5.9%</strong></td>
</tr>
</tbody>
</table>

\(^1\) Excludes U.S. operations of CN and Canadian Pacific.

\(^2\) Average per week figures may not sum to totals as a result of independent rounding.

Association of American Railroads
Growth of Oil by Rail

Average weekly U.S. rail carloads of crude oil and petroleum products

Number of rail carloads per week

Million barrels per day

Source: U.S. Energy Information Administration, based on Association of American Railroads

Note: Values in graph represent monthly averages of weekly rail carloadings.
Stress on Water Supplies from Shale Production
Growth in Employment

Percent change in employment, oil and natural gas industry and all private sector employment percent change from 2007

Source: U.S. Bureau of Labor Statistics
The World With $40 Oil

Effect on GDP growth in 2015-16 of oil at $40 a barrel vs. $84

Source: Oxford Economics Ltd.

Bloomberg
What the Future Holds--Oil Price Forecast


Note: Confidence interval derived from options market information for the five trading days ending Jan. 8, 2015. Intervals not calculated for months with sparse trading in near-the-money options contracts.
Energy Imports At Lowest Level in 30 Years

Source: U.S. Energy Information Administration, Monthly Energy Review