ISM Manufacturing Purchasing Managers’ Index
(January 2015 – February 2016)

Source: Institute for Supply Management
Percentage Changes in Manufacturing Output
(January 2015 – January 2016)

Source: Federal Reserve Board
Year-Over-Year Industrial Production Growth

(January 2015 – January 2016)

Source: Federal Reserve Board
### Year-Over-Year Growth in Manufacturing Production by Sector

*December 2014 to December 2015*

<table>
<thead>
<tr>
<th>Sector</th>
<th>Year-over-Year Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary metals</td>
<td>-6.95%</td>
</tr>
<tr>
<td>Apparel and leather</td>
<td>-3.65%</td>
</tr>
<tr>
<td>Paper</td>
<td>-3.01%</td>
</tr>
<tr>
<td>Machinery</td>
<td>-1.30%</td>
</tr>
</tbody>
</table>

#### Manufacturing: 0.74%
- Durable Goods: 0.49%
- Nondurable Goods: 1.02%

**Source:** Federal Reserve Board
NAM Manufacturers’ Outlook Survey by Quarter

(Fourth Quarter 2014 –First Quarter 2016)

Source: NAM Manufacturers’ Outlook Survey
Note: Percentage of respondents who characterized the current business outlook as somewhat or very positive.
Expected Growth of Manufacturing Activity
(Fourth Quarter 2014 – First Quarter 2016)

Source: NAM Manufacturers’ Outlook Survey
Note: Expected growth rates are annual averages.

Avg. 12-Month Growth Rates
Sales: ↑ 0.4%
Exports: ↓ 0.6%
Investment: ↓ 0.3%
Employment: ↓ 0.4%
Primary Current Business Challenges
(First Quarter 2016)

- Rising health care/insurance costs: 73.9%
- Unfavorable business climate (e.g., taxes, regulations): 73.0%
- Weaker domestic economy and sales for our products: 61.2%
- Strengthened U.S. dollar relative to other currencies: 56.0%
- Attracting and retaining a quality workforce: 49.7%
- Weaker global growth and slower export sales: 49.1%
- Rising raw material costs for our products: 8.6%
- Challenges with access to capital: 6.9%

Source: NAM Manufacturers' Outlook Survey
Note: Respondents were able to check all that apply. Therefore, responses exceed 100 percent.
Despite recent challenges, the Federal Reserve should continue the process of normalization with interest rates at its March meeting, taking its "foot off of the accelerator" a little over the course of this year.

The U.S. economy still has sufficient weaknesses, and the Federal Reserve should not raise rates too quickly. It should hold off on additional rate hikes until economic data reflect more progress, particularly for manufacturers.

I have no opinion.

Source: NAM Manufacturers' Outlook Survey
Monthly Changes in Employment
(January 2015–February 2016, in Thousands of Employees)

Source: Bureau of Labor Statistics

Source: Bureau of Labor Statistics
<table>
<thead>
<tr>
<th>Sector</th>
<th>Net Employment Gains (in thousands of employees)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation equipment</td>
<td>26.3</td>
</tr>
<tr>
<td>Food manufacturing</td>
<td>24.2</td>
</tr>
<tr>
<td>Miscellaneous nondurable goods manufacturing</td>
<td>21.0</td>
</tr>
<tr>
<td>Miscellaneous durable goods manufacturing</td>
<td>17.8</td>
</tr>
<tr>
<td>Furniture and related products</td>
<td>17.0</td>
</tr>
<tr>
<td>Nonmetallic mineral products</td>
<td>10.9</td>
</tr>
<tr>
<td>Plastics and rubber products</td>
<td>8.1</td>
</tr>
<tr>
<td>Wood products</td>
<td>7.1</td>
</tr>
<tr>
<td>Chemicals</td>
<td>7.0</td>
</tr>
<tr>
<td>Electrical equipment and appliances</td>
<td>5.6</td>
</tr>
<tr>
<td>Petroleum and coal products</td>
<td>1.5</td>
</tr>
<tr>
<td>Textile product mills</td>
<td>1.1</td>
</tr>
</tbody>
</table>

Source: Bureau of Labor Statistics
Real Gross Domestic Product
(Chained 2009 Dollars)

Source: Bureau of Economic Analysis, NAM calculations using Moody's Analytics simulation model
Predicted Manufacturing Production Based on the NAM Manufacturers’ Outlook Survey

**Prediction for Manufacturing Production Q3:2016**
0.9% Growth at the Annual Rate Over Next Two Quarters

Source: NAM Manufacturers’ Outlook Survey
HALLGENES
NAM Manufacturers’ Outlook Survey Special Question:
“How Has the Recent Slowdown in Global Growth Affected Your Company’s International Sales or Exports?”

- 20.3%: It has had a significant negative impact on our company's export sales.
- 21.2%: It has had a somewhat negative impact on our company's export sales.
- 15.7%: It has had no impact on our company's export sales.
- 1.7%: Our company's export sales have improved over the past 12 months despite strength in the U.S. dollar.
- 41.2%: We do not export products overseas.

Source: NAM Manufacturers’ Outlook Survey
Markit Purchasing Managers’ Indices for the Top 15 Export Markets for U.S. Manufactured Goods

(February 2016)

Emerging Markets Manufacturing PMI: 48.8
Eurozone Manufacturing PMI: 51.2
Global Manufacturing PMI: 50.0
U.S. Manufacturing PMI (Markit): 51.3

Source: Markit
Trade-Weighted U.S. Dollar Index
Against Major Currencies, 2014–2016
(Currency Units per U.S. Dollar, 1973=100)

Source: Federal Reserve Board
Business and Consumer Sentiment Surveys

Source: University of Michigan/Thomson Reuters, Conference Board, National Federation of Independent Business
Total Vehicle Sales, 2005–2015

(in Millions of Units)

Source: Bureau of Economic Analysis
Housing Market Situation, 2012–2016

Source: U.S. Census Bureau, National Association of Home Builders
Manufacturing Construction Spending, 2005–2015
(Value of Private Construction Put in Place, in Billions of Dollars)

Source: U.S. Census Bureau
Year-Over-Year Percentage Changes in Producer Prices
(January 2015 – January 2016)

Source: Bureau of Labor Statistics
QUESTIONS?

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