

# Supply Economics: Trends from a Non-Manufacturing Perspective

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## Manufacturing ISM Report On Business®

- Manufacturing survey started in 1931
- Widely known and watched in the U.S.
- Concept applied in the U.K. and elsewhere around the world
- Long-running, non-government information
- Explanation and data available on-line and on CD-ROM from ISM ([www.ism.ws](http://www.ism.ws))

## Non-Manufacturing ISM Report On Business®

- Creation began in mid-1996 with an ad-hoc committee of ISM members and economists
- Pilot data collection began in October 1996 with about 70 ISM members
- June 3, 1998 first release of data included May 1998 data and 10 months of history

## Both Surveys:

- Each survey is produced from a separate committee of over 350 ISM members
- Committee membership is anonymous and confidential
- Committees are diversified by industry and geographically
- Membership is for an indefinite period

## Manufacturing ISM Report On Business®

Includes all 19 NAICS manufacturing groups:

- Food, Beverage & Tobacco Products
- Textile Mills
- Apparel, Leather & Allied Products
- Wood Products
- Paper Products
- Printing & Related Support Activities
- Petroleum & Coal Products
- Chemical Products
- Plastics & Rubber Products
- Nonmetallic Mineral Products
- Primary Metals
- Fabricated Metal Products
- Machinery
- Computer & Electronic Products
- Electrical Equipment, Appliances & Components
- Transportation Equipment
- Furniture & Related Products
- Miscellaneous Manufacturing

## Non-Manufacturing ISM Report On Business®

Includes all sectors of the U.S. economy not included in the manufacturing sector:

- Agriculture, Forestry, Fishing & Hunting
- Mining
- Utilities
- Construction
- Wholesale trade
- Retail trade
- Transportation and Warehousing
- Information
- Finance & Insurance
- Real Estate, Rental & Leasing
- Public Administration
- Professional, Scientific & Technical Services
- Management of Companies & Support Services
- Educational Services
- Health Care & Social Assistance
- Arts, Entertainment & Recreation
- Accommodation & Food Services
- Other Services

## Why Does Anybody Care??

- Because of the “Business Cycle”
  - The alternation of improvement and decline of business activity over time
- Usually measured in terms of Gross Domestic Product (GDP)
  - The value added domestically by all forms of economic activity

## Business Cycles

Knowledge of business cycles and the relationship of particular businesses to it can improve business planning, which in turn can improve purchase and supply planning

## Business Cycles

- From 1854 to 1991: 31 complete cycles
- Average expansion: 3 years
- Average decline: 18 months
- Last expansion: Mar. 1991-Mar. 2001
- Last decline: Mar. 2001 to Oct. 2001
- Current expansion began Oct. 2001

## Manufacturing ISM *Report On Business*®

"Mr. Greenspan's favorite indicator. . ."

*Comment by Edward Yardeni, Chief Economist at a leading New York investment firm referring to ISM's manufacturing supplier deliveries index.*

*Wall Street Journal  
April 6, 1995*

**"I find the surveys conducted by the purchasing managers (ISM) to be an excellent supplement to the data supplied by various departments and agencies of government."**

*Alan Greenspan, Ph.D.  
Chairman of the Federal Reserve Board (1987 – 2006)*

## Monthly Report Format

- Summary analysis
- Index graphs
- Commodities in short supply
- Commodities up or down in price
- Manufacturing report also has lead time data

## ISM *Report On Business*<sup>®</sup> Indexes

### Manufacturing

- **Production**
- **New Orders**
- **Inventories**
- **Employment**
- **Prices**
- **Supplier Deliveries**
- **New Export Orders**
- **Imports**
- **Backlog of Orders**
- **Customer Inventories**
- **PMI**

### Non-Manufacturing

- **Business Activity**
- **New Orders**
- **Inventories**
- **Employment**
- **Prices**
- **Supplier Deliveries**
- **New Export Orders**
- **Imports**
- **Backlog of Orders**
- **Inventory Sentiment**

## ISM Indexes

All ISM indexes are reported as *Diffusion Indexes*

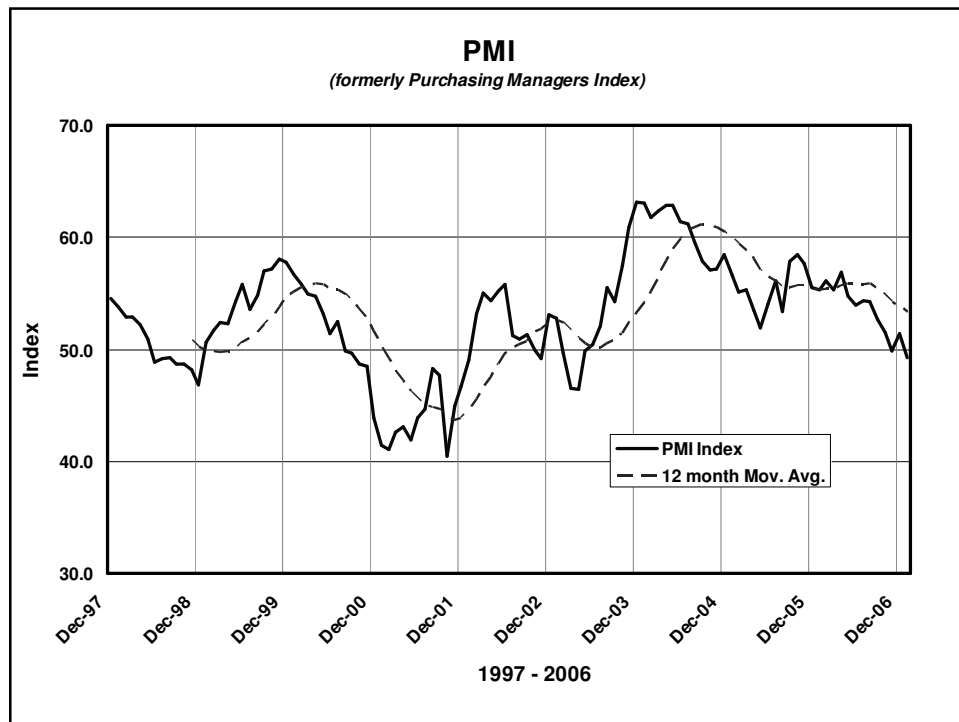
- The % response to the “Better,” “Same” or “Worse” question is difficult to compare to prior periods. Therefore, the percentages are “diffused.”
- Takes those indicating “Better” and half of those indicating “Same” and adds the percentages.
- Effectively measures the bias toward a positive (above 50%) or negative index (below 50%).
  - >50% = activity increased from last month
  - =50% = activity unchanged from last month
  - <50% = activity decreased from last month
- Shows the prevailing direction of change.
- Distance from 50% ~ rate of change of activity from last month

## The PMI

(formerly the Purchasing Managers’ Index)

- Weighted average of 5 individual manufacturing indexes:

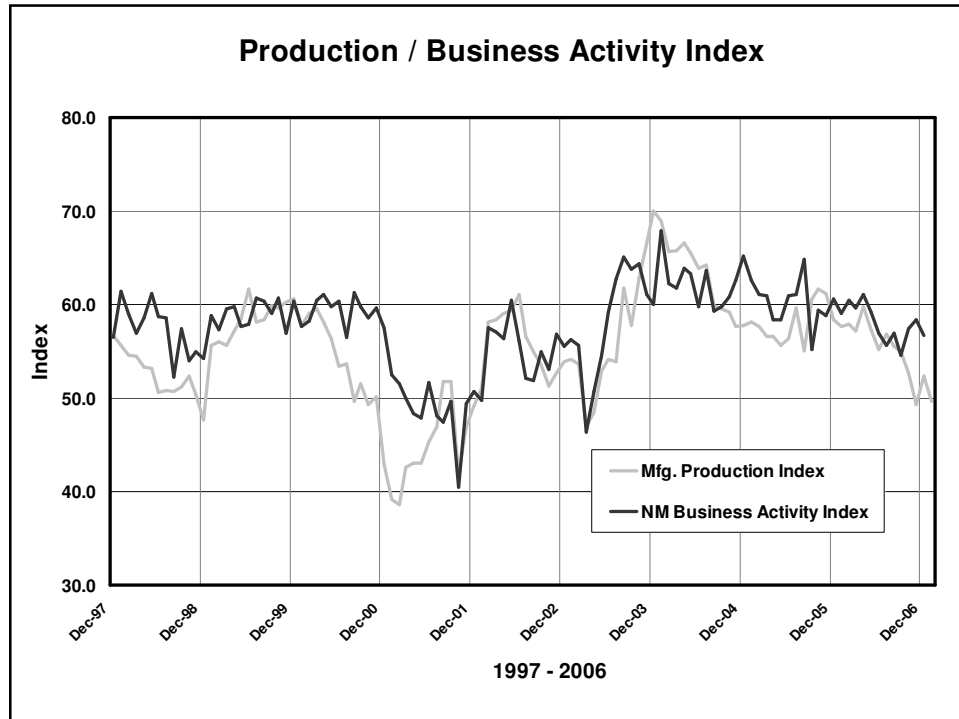
▪ Production	25%
▪ New Orders	30%
▪ Employment	20%
▪ Inventories	10%
▪ Supplier Deliveries	15%



## Production/Business Activity Indexes

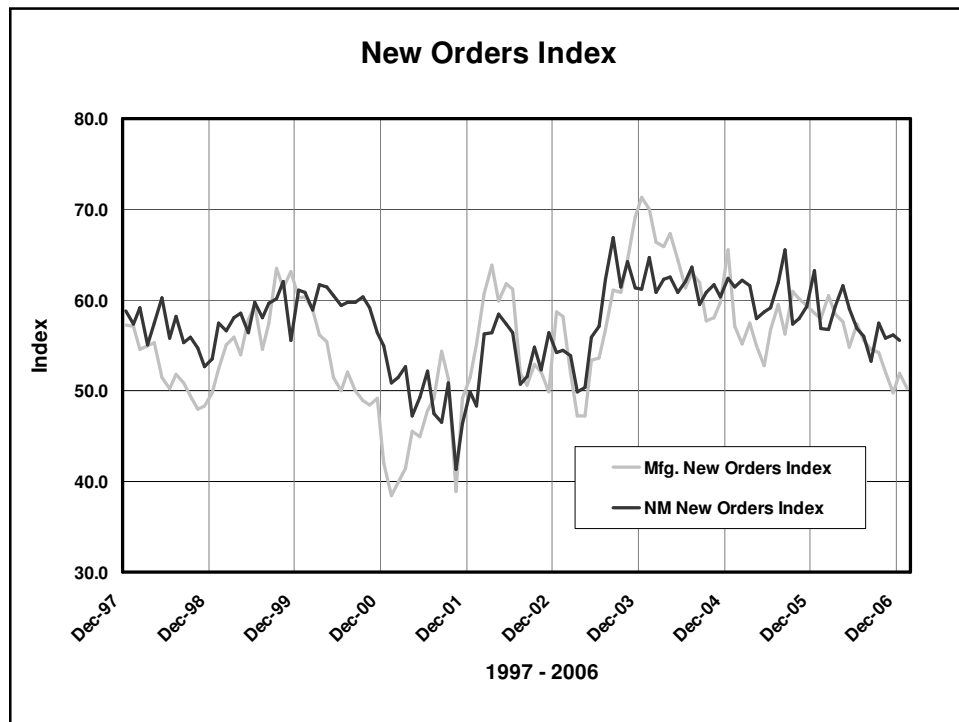
- The level of overall production (manufacturing) or business activity (non-manufacturing) compared to the previous month's level of activity
- Affected by general business conditions





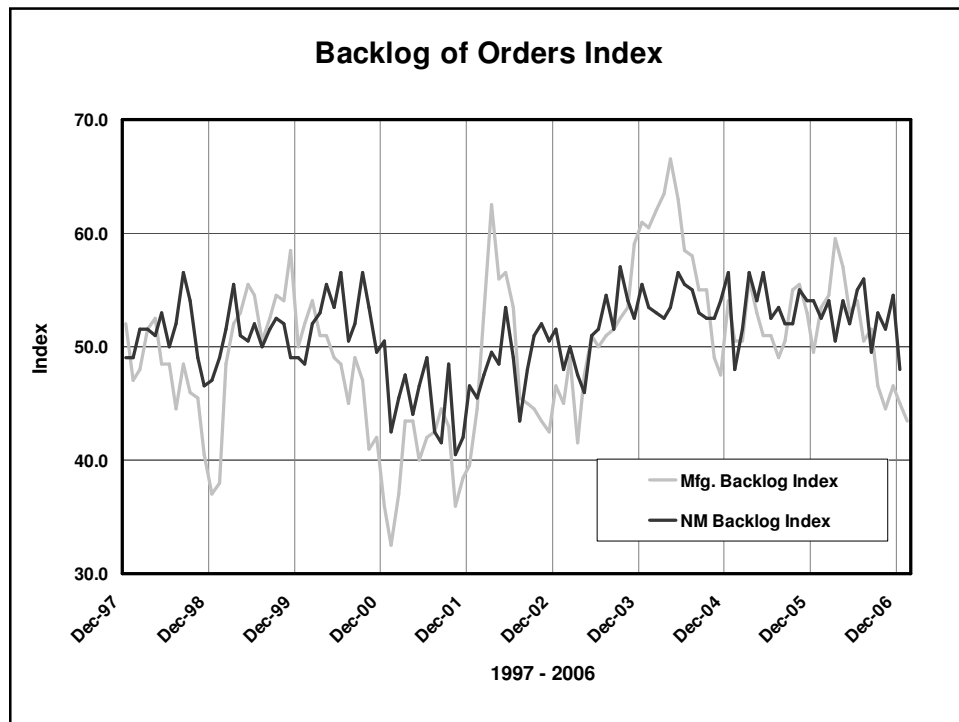
## New Orders Indexes

- The current month's level of new business or activity compared to the previous month's level of new business or activity
- Affected by general business conditions



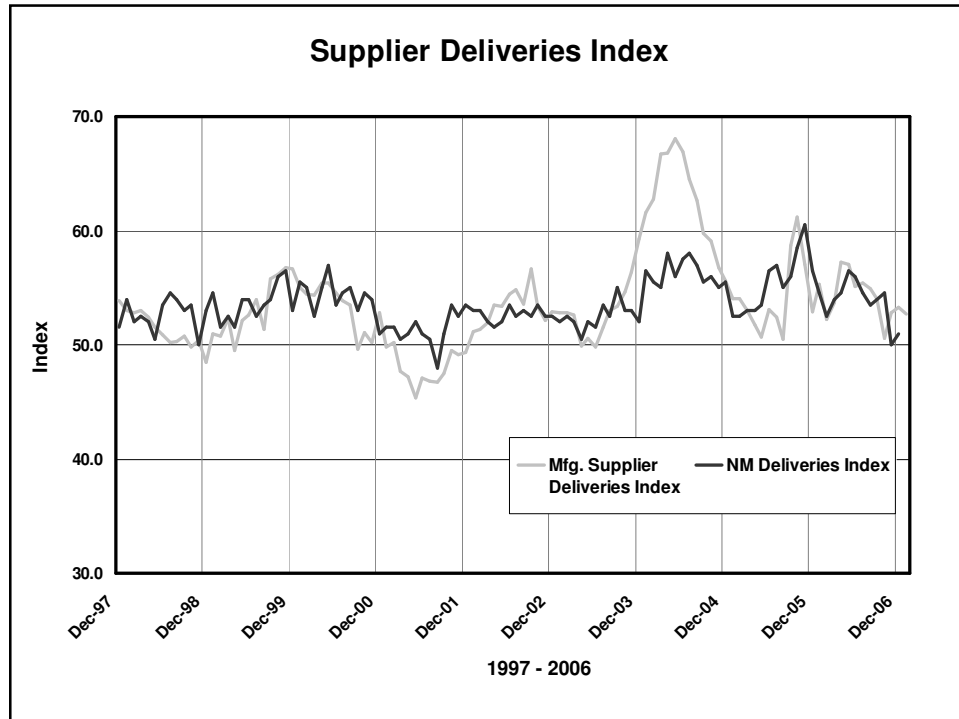
## Backlog of Orders Indexes

- The current month's level of unfilled orders or activity requests compared to the previous month's level of unfilled orders or activity requests
- Affected by capacity utilization and general business conditions



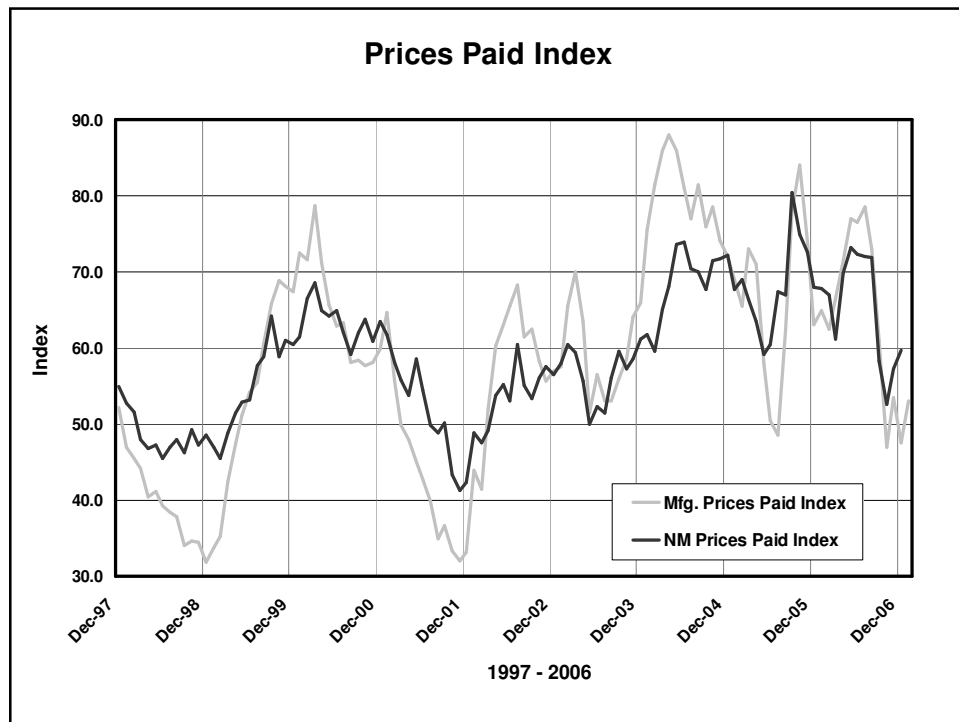
## Supplier Deliveries Indexes

- The current month's level of difficulty of obtaining purchased materials and/or services compared to the previous month's level of difficulty of obtaining materials and/or services
- Affected by demand on suppliers and supplier capacity



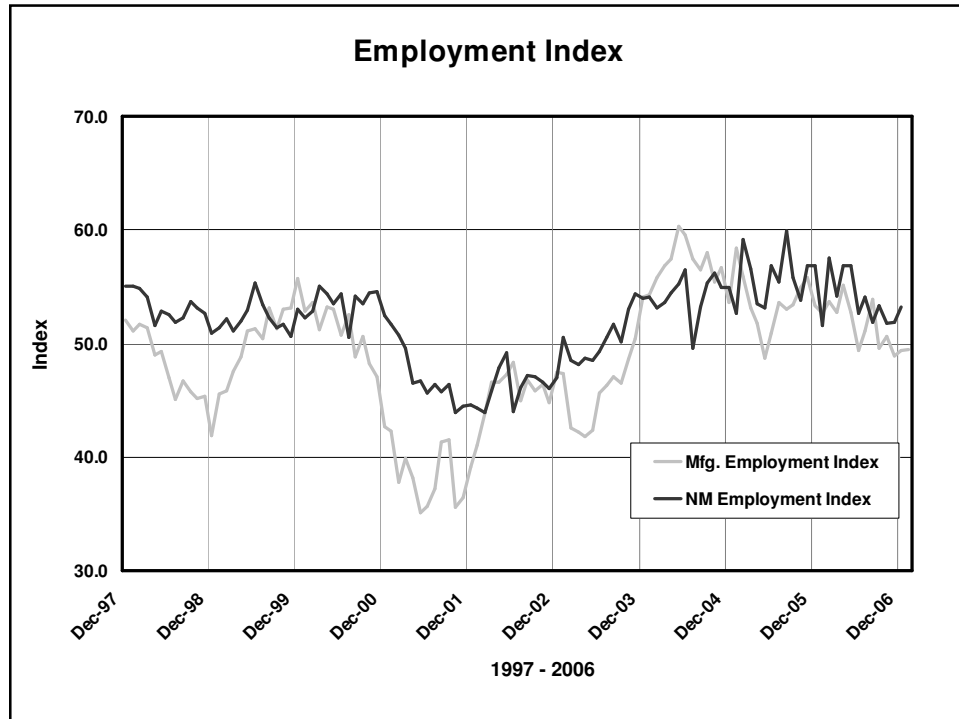
## Prices Paid Indexes

- The current month's level of prices paid for purchased materials and/or services compared to the previous month's level of prices paid
- Affected by supply and demand



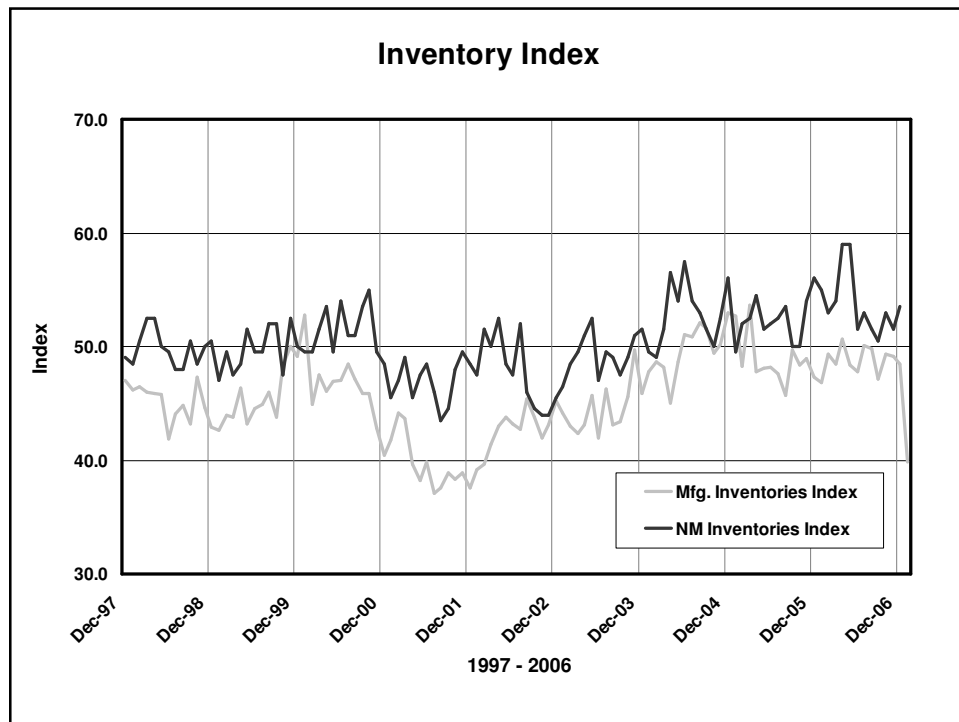
## Employment Indexes

- The current month's level of employment (including temporary or contract personnel) compared to the previous month's level of employment
- Affected by level of business activity, productivity trends, outsourcing



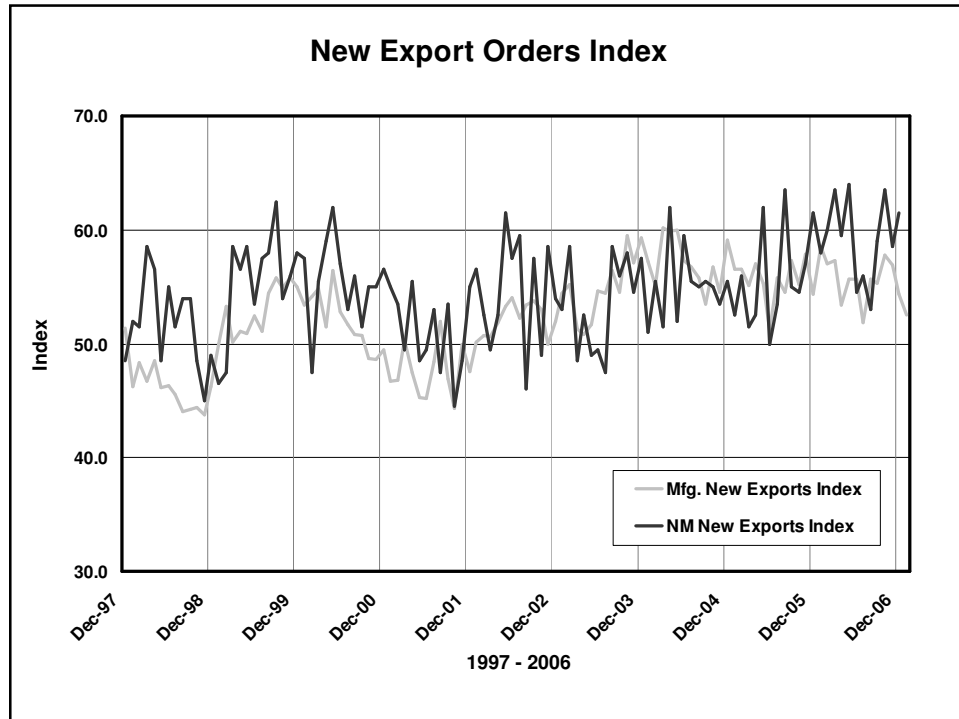
## Inventory Indexes

- The current month's level of inventories of materials used in business or activity compared to the previous month's level of inventories
- Affected by current and expected business conditions and JIT trends



## New Export Orders Indexes

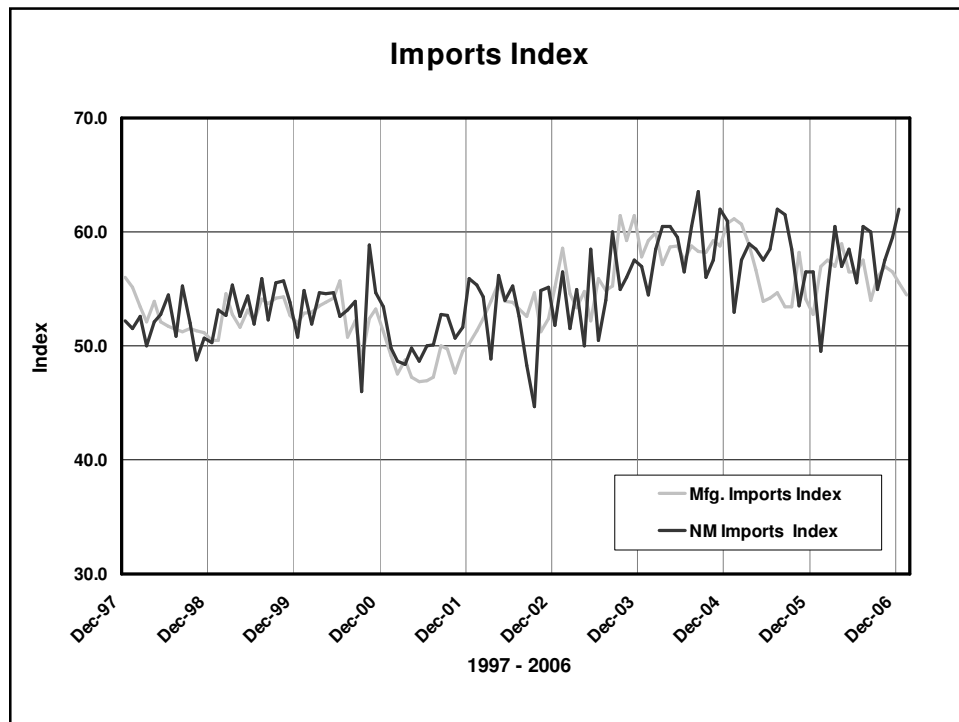
- The change in the current month's level of new orders for exports or for business or activity outside of the United States, conducted by U.S.-based personnel
- Affected by U. S. competitiveness, exchange rates



## Imports Indexes

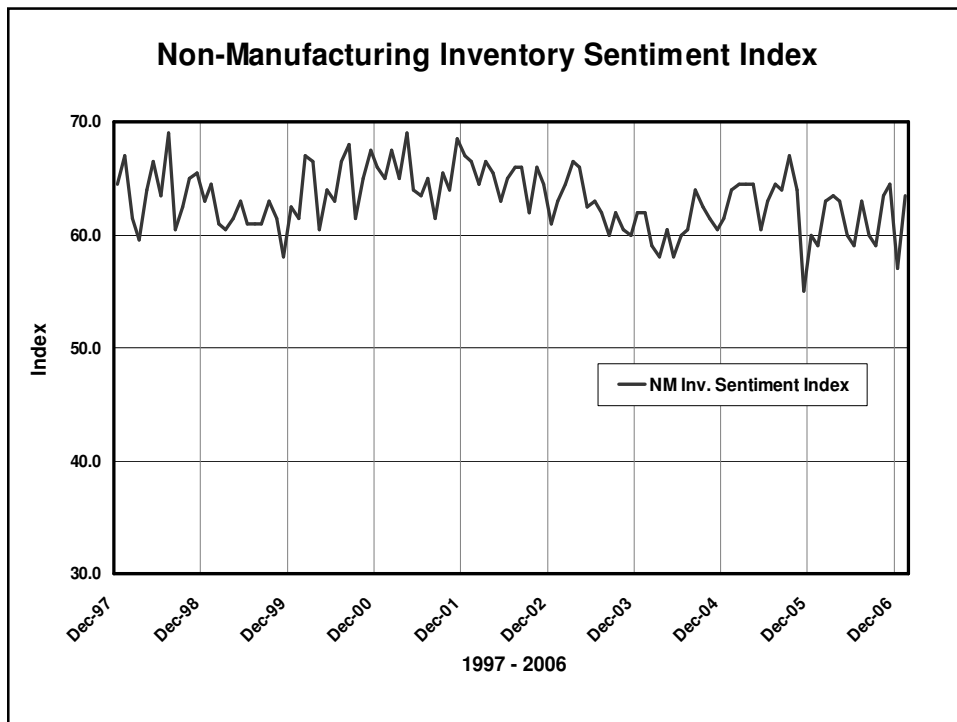
- The current month's level of use of imported materials in business or activity compared to the previous month's use of imported materials
- Affected by U. S. competitiveness, exchange rates, domestic availability





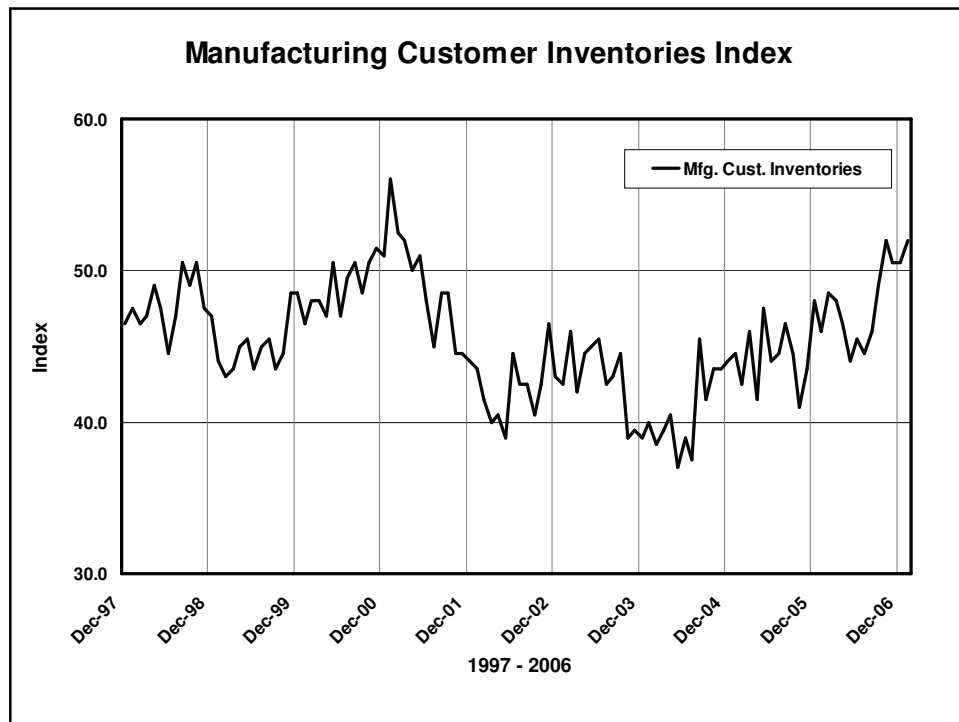
## Inventory Sentiment Index (Non-Manufacturing)

- Indicates the feeling of supply management executives as to whether current levels of inventories are too high, too low, or about right
- Affected by current and expected business conditions and current inventory levels



## Customer Inventories Index (Manufacturing)

- The current month's level of inventories of members' customers compared to the previous month's level of inventories
- Affected by current and expected business conditions and JIT trends



## ISM Reports on Business - How You Can Use Them

- Know your key supplier industries
- Find out how they relate to the general economy, i.e. lead, lag, coincide
- Know what is happening in the economy and to your supplier industries
- Revise supply strategies as economic conditions change

# Outlook

- ISM Forecast for 2007

## The Semiannual Economic Forecast

December 12, 2006  
ISM Business Survey Committees



## Recent and Current Supply Chain Improvement Practices

### In Manufacturing . . .

- ❶ **New or improved enterprise technology**
- ❷ **Improved supplier management practices**
- ❸ **Improved inventory management**
- ❹ **Increased low cost country sourcing**
- ❺ **Application of lean manufacturing concepts to supply chain**



## Recent and Current Supply Chain Improvement Practices

### In Non-Manufacturing . . .

- ❶ **Increased use of technology and e-business applications**
- ❷ **Supplier consolidation**
- ❸ **Strategic sourcing**
- ❹ **Professional development and education**
- ❺ **Improvements in supply management processes**



## Summary: Manufacturing

- **Operating Rate is at 84.5% of normal capacity.**

	<u>2006 Act.</u>	<u>2007 Fcst</u>
• Production Capacity	+ 2.7%	+ 5.4%
• Capital Expenditures	+ 7.3%	+ 8.5%
• Prices Paid	+ 5.5%	+ 1.1%
• Manufacturing Revenues	+ 6.2%	+ 6.4%

- **Other 2007 Forecasts:**

- **Labor and Benefit Costs + 2.5%.**
- **Manufacturing Employment + 0.1%.**
- **U.S. Imports and Exports to be strong!**



## Summary: Manufacturing *... Cont'd.*

- 2007 Concerns:
  - **Inflation**
  - **Energy Costs and Supply**
  - **Healthcare Costs**
  - **China – Currency and Imports**
  - **Labor and Benefit Costs**



## Summary: Non-Manufacturing

- **Operating rate is at 86.3%.**

	<u>2006 Act.</u>	<u>2007 Fcst</u>
• Capital Expenditures	+ 9.9%	+ 8.2%
• Prices Paid	+ 2.4%	+ 4.0%
• Non-Manufacturing		
Revenues	+ 7.7%	+ 6.4%

- **Other 2007 Forecasts:**

- **Production and provision capacity + 6.2%.**
- **U.S. Imports and Exports to be strong!**



## Summary: Non-Manufacturing

... Cont'd.

- 2007 Concerns:
  - **Energy**
  - **Fuel and Transportation Costs**
  - **Overall Economy and Inflation**
  - **Labor and Benefit Costs**
  - **Interest Rates**
  - **Price Increases**



**THANK YOU!**