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Center for Supply Chain Management

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Marquette-ISM Report on Manufacturing
January 2017 - Final Release

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Final Version (includes ISM National Results for January, 2017)

The Marquette-ISM Report on Manufacturing was prepared by **Phyo T Aung**, a graduate student in Applied Economics at Marquette University, and distributed by **Beth Krey**, Associate Director of the Center for Supply Chain Management.

Please direct data questions and requests for media commentary to Dr. Fisher.

This report should not be confused with the ISM National Report published by the Institute of Supply Management. While a reasonable attempt has been made to remain consistent with the national report, the contents of this report reflect only information pertinent to the southeast Wisconsin and northern Illinois region. This report is not used in the calculation of the national report.

Summary

Milwaukee-area PMI	January 2017	December 2016	November 2016
Seasonally adjusted	59.81	51.23	54.11

(Milwaukee, Wisconsin) – January's Index registered at 59.81, an increase from the 51.23 in December. January's Index indicates positive territory.

What respondents are saying in January 2017:

- Seeing positive outlook for manufacturing due to the hope of decreased government regulation, lower corporate taxes and increase spending on infrastructure.
- Extremely busy - in the short term, it is going to be difficult to keep up with demand over the next few months
- About 60% of 500 manufacturing customers are "optimistic" about business by second quarter.
- Sales still very flat and our cash flow is poor.
- Cash flow – customers are taking more time to pay invoiced – causes us to stretch out payments to our suppliers. We anticipate this to be a short term seasonal issue that happens as the economy gets back to normal after the end of the year (holiday office closings, vacations, plant shutdowns, physical inventory, …)
- During for the past two months, the raw material costs have been increased significantly and the market prediction saying that it will be going up more in 2017. The increase is partly because of RMB depreciation and partly because of China has suddenly strengthen the environmental protection policy. A lot of factories (high pollution industries such as paper, printing, steel, plastic resin, electroplating and jewelry) have been forced to shut down their operation by the local government. The factories still remain in the industry drive the cost up like crazy. For example: The corrugated carton has double the cost in just a few weeks. Could be a long-term issue?
- Pulled inventories down for year end (planned), restocking in Jan/Feb
- Some Q1 lift in demand from customers, but not sustained week to week and not showing up as increases in Q2. Confidence in rest of 2017 is weak from customers
- Tightness in supply for some key raw materials.
- Price increases on polyurethane materials have started this month, inventories are low thereby lead times have been expanding.
- General business outlook will be slow in short-term.
- Expect commodity inflation,
- Significant cost increases (20%) for corrugated products in China over the last few months, negative impact to our business. While we manufacture some products in the U.S., the majority are manufactured in China and imported in the U.S.
- Increased seasonal demand for products
- Increased growth
- Capital project work is cutting into production
- Quoting increases but no new sales yet
- Pulled inventories down for year-end (planned), restocking in Jan/Feb as well as Chinese New Year
- Customer inventories are low so every order that we get is RUSH!
- Suppliers are extending lead times and have materials shortages

Important: See explanatory notes on the survey and diffusion index at the end of this report.

MANUFACTURING AT A GLANCE: *January 2017**				
Index	Series Index Jan-2017	Series Index Dec-2016	Percentage Point Change	Direction
PMI	59.81	51.23	8.6	growing
New Orders	65.50	59.36	6.1	growing
Production	62.50	60.00	2.5	growing
Employment	58.60	43.45	15.2	growing
Supplier Deliveries	62.50	56.52	6.0	slower
Inventories	50.00	36.84	13.2	growing
Customers' Inventories *	37.50	33.33	4.2	declining
Prices *	73.33	66.67	6.7	growing
Backlog of Orders *	59.62	53.33	6.3	growing
Exports *	52.50	50.00	2.5	growing
Imports *	62.50	46.15	16.4	growing

(*) The indices are seasonally adjusted *except for* the Customers' Inventories, Prices, Backlog of Orders, Exports, and Imports Indexes, which do not meet the accepted criteria for seasonal adjustments.

Blue and White Collar Employment:

We have collected input on Blue and White Collar Employment. The indices are below for **November 2016, December 2016 and January 2017.**

	Diffusion Index Nov-16	Diffusion Index Dec-2016	Diffusion Index Jan-2017	Direction	Comments
Blue Collar	51.3	51.6	55.4	growing	-
White Collar	51.3	46.2	55.3	growing	-

Note: These have been calculated based on the seasonally adjusted (SA) Blue and White Collar indices.

What respondents are saying in January 2017:

- Greatest supply chain problem is labor availability.
- Very difficult to hire factory labor
- Right now our greatest supply chain problem is labor availability. Skills gaps abound in the supply chain and recruiting talent is becoming more difficult for both professionals especially technical positions. Second to that would be the unknown as a result of the Trump presidency and trade relations with foreign source countries.
- Skilled labor shortages
- Total employment will stay the same for first quarter
- Cannot hire until we see actual new orders increasing

Buying Policy

Average commitment lead time for Capital Expenditures decreased by 37 days to 77 days. Average lead time for Production Materials decreased by 16 days to 33 days. Average lead time for Maintenance, Repair and Operating (MRO) Supplies decreased by 7 days to 20 days.

Six- Month Outlook on Business Conditions

In this outlook, there is an upward shift in positive expectations compared with December in terms of market conditions. Approximately 58.07% of respondents expect positive conditions, 32.26% expect conditions to remain the same and 9.68% of the respondents expect conditions to worsen within the next six months.
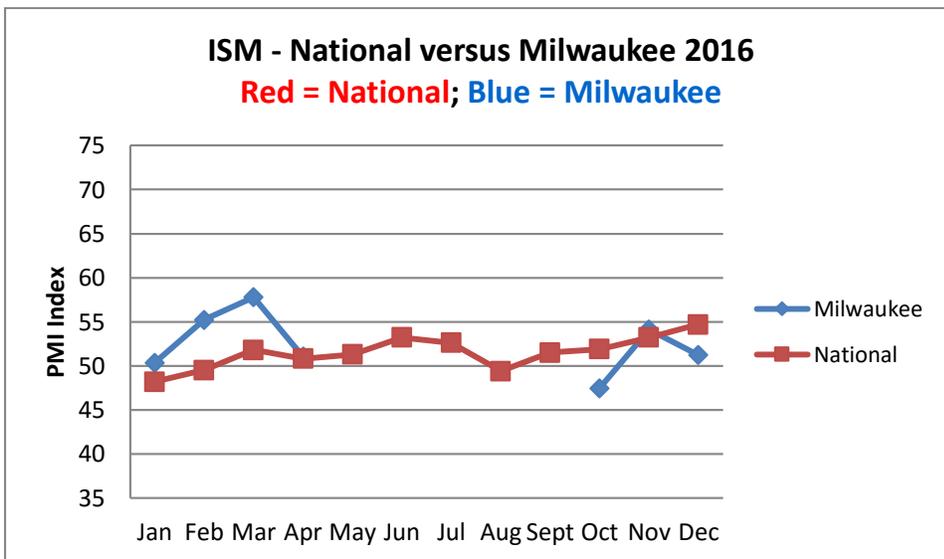
	Expect Positive Conditions	Expect Same Conditions	Expect Worse Conditions	Diffusion Index
Jan-17	58.07%	32.26%	9.68%	74.19%
Dec-16	52.6%	36.8%	10.5%	71.1%
Nov-16	48.3%	44.8%	6.9%	70.7%

Milwaukee versus the Nation – (for graphs of 2010, 2011, 2012, 2013, and 2014 see the January 2016 report)

2016-Jan/2017 Graph
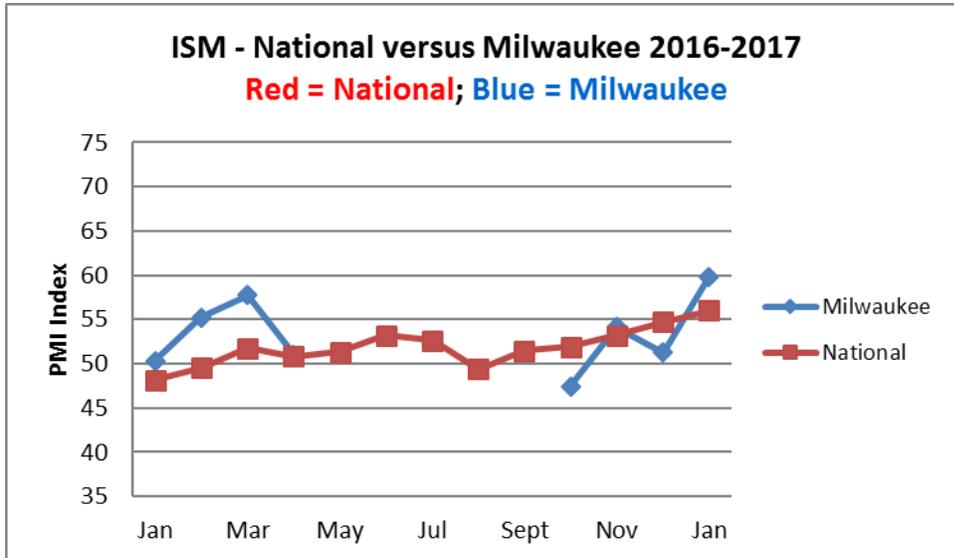
2016 Graph

Insights on the ISM PMI from the National Organization:

ISM *Manufacturing Report On Business*® Background

In February 1982, the PMI was developed by the U.S. Department of Commerce (DOC) and ISM. The index, based on analytical work by the DOC, adjusts five components of the Institute's monthly survey — new orders, production, employment, supplier deliveries and inventories — for normal seasonal variations, applies equal weights to each and then calculates them into a single monthly index number.

An update of research originally done by Theodore S. Torda, the late economist for the DOC, shows a close parallel between growth in real Gross Domestic Product (GDP) and the PMI. The index can explain about 60 percent of the annual variation in GDP, with a margin of error that averaged ± .48 percent during the last ten years. George McKittrick, an economist at the DOC, said "Not only does the PMI track well with the overall economy, but the indication provided by ISM data about how widespread changes are, complements analogous government series that show size and direction of change."

In January 1989, the Supplier Deliveries Index from the *Report* became a standard element of the DOC's Bureau of Economic Analysis Index of Leading Economic Indicators. The data was incorporated into the index from June 1976 forward. In January 1996, The Conference Board began compiling this index.

What Is a Diffusion Index?

Diffusion indexes have the properties of leading indicators and are convenient summary measures showing the prevailing direction of change. The percent response to the "Better," "Same" or "Worse" question is difficult to compare to prior periods. Therefore, the percentages are "diffused" for this purpose. A diffusion index takes those indicating "Better" and half of those indicating "Same" and adds the percentages. This effectively measures the bias toward a positive (above 50 percent) or negative index (below 50 percent). For example, if the response is 20 percent "Better," 70 percent "Same," and 10 percent "Worse," then the diffusion index would be 55 percent (20% + [0.50 x 70%]). The data for each question is converted to a diffusion index and then seasonally adjusted.

For each index, a reading above 50 percent indicates expansion of an index, while a reading below 50 percent indicates it is generally declining. And a reading of 50 percent indicates "no change" from the previous month. Supplier Deliveries is an exception. A Supplier Deliveries Index above 50 percent indicates slower deliveries, and below 50 percent indicates faster deliveries.

(https://www.instituteforsupplymanagement.org/files/ISMREPORT/ROBBroch08.pdf)