

Marquette-ISM Report on Manufacturing March 2016- Final Release

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Released: March 31st, 2016

Final Version (includes ISM National Results for March, 2016)

*The Marquette-ISM Report on Manufacturing was prepared by **Christopher Bango**, 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	March 2016	February 2016	January 2016
Seasonally adjusted	57.78	55.22	50.36

(Milwaukee, Wisconsin) – February’s Index registered at 57.78, which is above the 50-level indicating positive territory for the third straight month. This places the index at or above 50 for twenty of the past thirty one months.

What respondents are saying in March 2016:

- Companies are expecting there to be a near term drop-in orders in some segments and push-outs in others. However, there is no clear market direction.
- Some companies are getting so many orders right now and their backlog is as large as it has been since 2007. There are no major supply chain issues at this time other than

having some suppliers that are repeatedly late on shipments. Efforts to address this issue have been undertaken.

- The strong U.S. dollar has affected our export business significantly, but companies are starting to see that turn around again.
- More capital expenditures are being approved internally.
- Prices have remained fairly steady over the past month with the exception of copper whose price has increased.

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

MANUFACTURING AT A GLANCE: March 2016*				
Index	Series Index Mar-2016	Series Index Feb-2016	Percentage Point Change	Direction
PMI	57.78	55.22	2.6	growing
New Orders	66.20	53.47	12.7	growing
Production	68.81	52.59	16.2	growing
Employment	68.32	62.56	5.8	growing
Supplier Deliveries	49.21	49.16	0.0	faster
Inventories	36.36	58.33	-22.0	declining
Customers' Inventories *	35.00	50.00	-15.0	declining
Prices *	63.64	33.33	30.3	growing
Backlog of Orders *	65.00	45.45	19.5	growing
Exports *	50.00	50.00	0.0	growing
Imports *	57.14	56.25	0.9	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.

What respondents are saying in March 2016:

- There have been increased efforts to minimize inventory.
- After experiencing several tough months of new orders from customers, this month has shown a large improvement.

Blue and White Collar Employment:

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

	Diffusion Index Jan-2016	Diffusion Index Feb-2016	Diffusion Index Mar-2016	Direction	Comments
Blue Collar	47.9	66.7	63.8	growing	-
White Collar	47.9	58.4	63.8	growing	-

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

What respondents are saying in March 2016:

- There has been higher turnover in Blue Collar Employment coupled with a decreased need for overtime from these workers.

COMMODITIES REPORTED UP/DOWN IN PRICE and IN SHORT SUPPLY

As an addition to the report, we have calculated commodity price indexes. We look forward to continuing to do so going forward. Below we have shown **January 2016, February 2016, and March 2016.**

Category	January 2016 Diffusion index	February 2016 Diffusion index	March 2016 Diffusion index	change in percentage point
Aluminum	15.00%	50.00%	50.00%	0.0
Brass	25.00%	50.00%	66.67%	16.7
Caustic Soda	25.00%	0.00%	75.00%	75.0
Chemicals	12.50%	0.00%	37.50%	37.5
Copper	25.00%	20.00%	75.00%	55.0
Copper Based Products	20.00%	12.50%	62.50%	50.0
Cocoa Powder	-	-	-	-
Corn	50.00%	-	-	-
Corrugated Containers	50.00%	50.00%	30.00%	-20.0
Diesel	0.00%	12.50%	50.00%	37.5
Electronic Components	50.00%	25.00%	50.00%	25.0
Gasoline	0.00%	10.00%	83.33%	73.3

High Density Polyethylene	50.00%	0.00%	50.00%	50.0
Natural Gas	12.50%	0.00%	16.67%	16.7
Nickel	25.00%	25.00%	75.00%	50.0
PET	50.00%	50.00%	50.00%	0.0
Plastic Resins	37.50%	33.33%	50.00%	16.7
Polyester	50.00%	50.00%	50.00%	0.0
Polyethylene	50.00%	50.00%	50.00%	0.0
Resins	50.00%	50.00%	50.00%	0.0
Soybean Oil	-	-	-	-
Stainless Steel	28.57%	50.00%	50.00%	0.0
Starch	-	-	-	-
Steel	22.22%	40.00%	64.29%	24.3
Steel Products	33.33%	50.00%	33.33%	-16.7
Sulfur	-	-	-	-
Tin Plate	50.00%	-	50.00%	-
Titanium Dioxide	50.00%	50.00%	50.00%	0.0
Wheat	-	-	-	-
Beef/Pork	0.00%	100.00%	50.00%	-50.0

Buying Policy

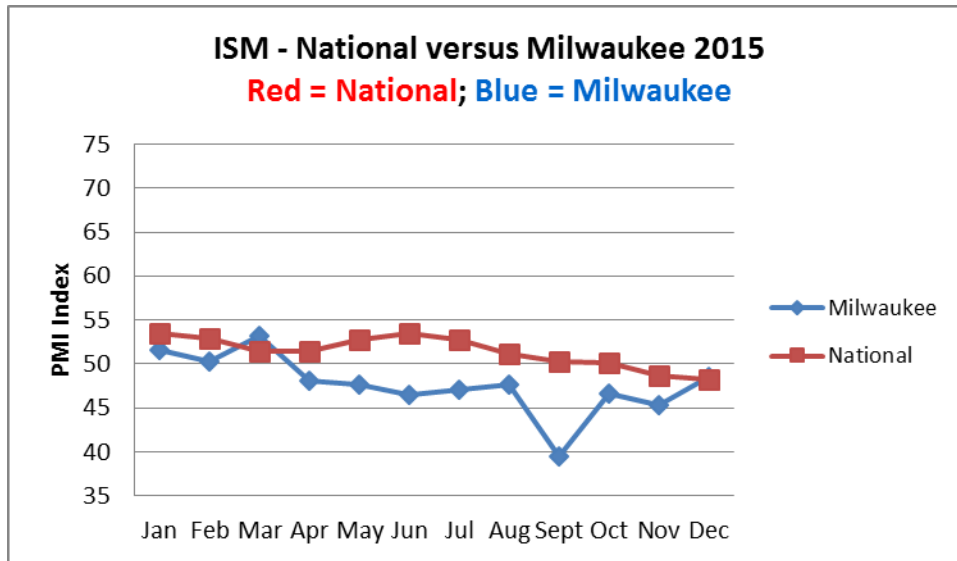
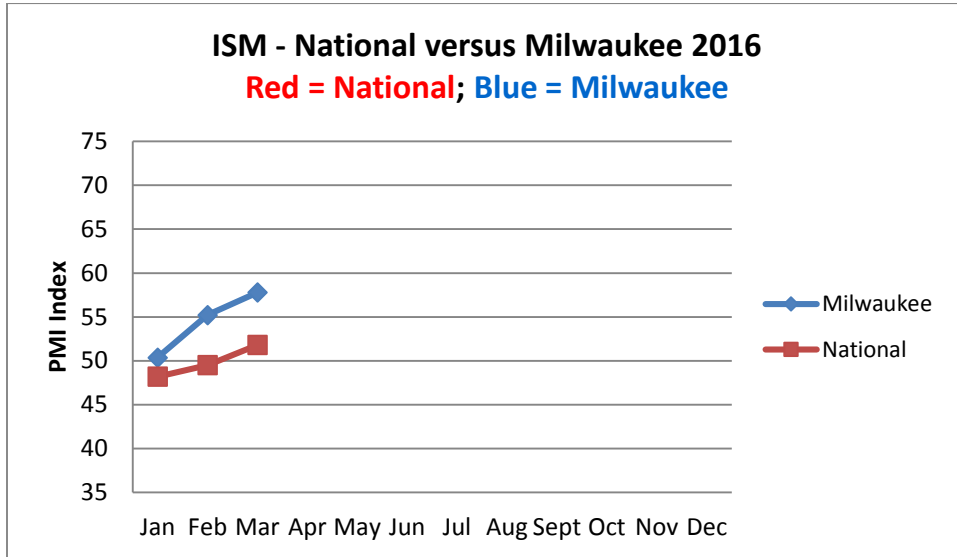
Average commitment lead time for Capital Expenditures increased by 35 days to 94 days. Average lead time for Production Materials increased by 5 days to 37 days. Average lead time for Maintenance, Repair and Operating (MRO) Supplies decreased by 1 day to 14 days.

Six- Month Outlook on Business Conditions

In this outlook, there is a slight upward shift in positive expectations compared with February in terms of market conditions. Approximately 44.4% of respondents expect positive conditions, 44.4% expect conditions to remain the same and 11.1% of the respondents expect conditions to worsen within the next six months.

	Expect Positive Conditions	Expect Same Conditions	Expect Worse Conditions	Diffusion Index
Mar-16	44.4%	44.4%	11.1%	66.7%
Feb-16	41.7%	58.3%	0.0%	70.8%
Jan-16	46.2%	46.2%	7.7%	69.2%

Milwaukee versus the Nation – 2015 and 2016



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 $\pm .48$ 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>)