

**Marquette-ISM Report on Manufacturing
March 2014- Final Release**

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*The Marquette-ISM Report on Manufacturing was prepared by **David Mielke and Terrin Clark**, graduates student in applied economics at Marquette University, and distributed by **Beth Krey**, Assistant 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 2014	February 2014	January 2014
Seasonally adjusted	56.03	48.59	52.82

(Milwaukee, Wisconsin) – March's Index registered 56.0, well above the 50-level indicating positive territory. This places the index above 50 for six of the past seven months.

What respondents are saying in March 2014:

- Short term issue with higher than expected natural gas prices.
- Delays in rail car deliveries have been a huge problem this winter and they are still not back to where they should be.

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

MANUFACTURING AT A GLANCE: March 2014*				
Index	Series Index Mar-14	Series Index Feb-14	Percentage Point Change	Direction
PMI	56.03	48.59	7.4	growing
New Orders	60.88	41.63	19.3	growing
Production	59.72	40.55	19.2	growing
Employment	54.51	51.15	3.4	growing
Supplier Deliveries	55.04	61.92	-6.9	slower
Inventories	50.00	47.73	2.3	-
Customers' Inventories *	37.50	34.21	3.3	declining
Prices *	58.70	63.64	-4.9	growing
Backlog of Orders *	54.55	42.86	11.7	growing
Exports *	47.06	60.00	-12.9	declining
Imports *	55.88	50.00	5.9	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, 2014:

- Increase prices to cover price increase
- Generally stable pricing, so far
- End of Year increases continue

- **Blue and White Collar Employment:**

We have collected input on Blue and White Collar Employment. The indices are below for **January 2014, February 2014, and March 2014.**

	Diffusion Index Jan-14	Diffusion Index Feb-14	Diffusion Index Mar-14	Direction	Comments
Blue Collar	55.7	48.9	54.5	growing	--
White Collar	49.0	53.4	56.6	growing	--

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

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 2014, February 2014, and March 2014.**

Category	January 2014 Diffusion index	February 2014 Diffusion index	March 2014 Diffusion index	change in percentage point
Aluminum	53.6	62.5	40.0	-22.5
Brass	78.6	70.0	40.0	-30.0
Caustic Soda	50.0	25.0	25.0	0.0
Chemicals	70.0	75.0	75.0	0.0
Copper	70.0	61.1	33.3	-27.8
Copper Based Products	92.9	66.7	35.7	-31.0
Cocoa Powder	-	-	-	-
Corn	0.0	0.0	25.0	25.0
Corrugated Containers	54.5	50.0	50.0	0.0
Diesel	58.3	50.0	90.0	40.0
Electronic Components	66.7	60.0	60.0	0.0
Gasoline	56.3	41.7	100.0	58.3
High Density Polyethylene	50.0	37.5	33.3	-4.2
Natural Gas	58.3	88.9	92.9	4.0
Nickel	71.4	50.0	100.0	50.0
PET	50.0	50.0	50.0	0.0
Plastic Resins	64.3	70.0	66.7	-3.3
Polyester	50.0	62.5	66.7	4.2

Polyethylene	75.0	50.0	50.0	0.0
Resins	62.5	37.5	66.7	29.2
Soybean Oil	0.0	-	0.0	-
Stainless Steel	46.2	44.4	55.0	10.6
Starch	-	50.0	-	-
Steel	57.1	70.8	42.9	-28.0
Steel Products	64.3	75.0	50.0	-25.0
Sulfur	-	50.0	-	-
Tin Plate	75.0	66.7	50.0	-16.7
Titanium Dioxide	25.0	0.0	50.0	50.0
Wheat	-	-	-	-
Beef/Pork	100.0	50.0	100.0	50.0

What respondents are saying in March 2014:

- Polycarbonate, commonly referred to as Lexan has announced a price increase by all the major producers effective next month.
- Generally stable pricing
- End of year increases continue

Buying Policy

Average commitment lead time for Capital Expenditures decreased by 8 days to 91 days. Average lead time for Production Materials decreased by 2 days to 35 days. Average lead time for Maintenance, Repair and Operating (MRO) Supplies decreased by 1 day to 19 days.

Six- Month Outlook on Business Conditions

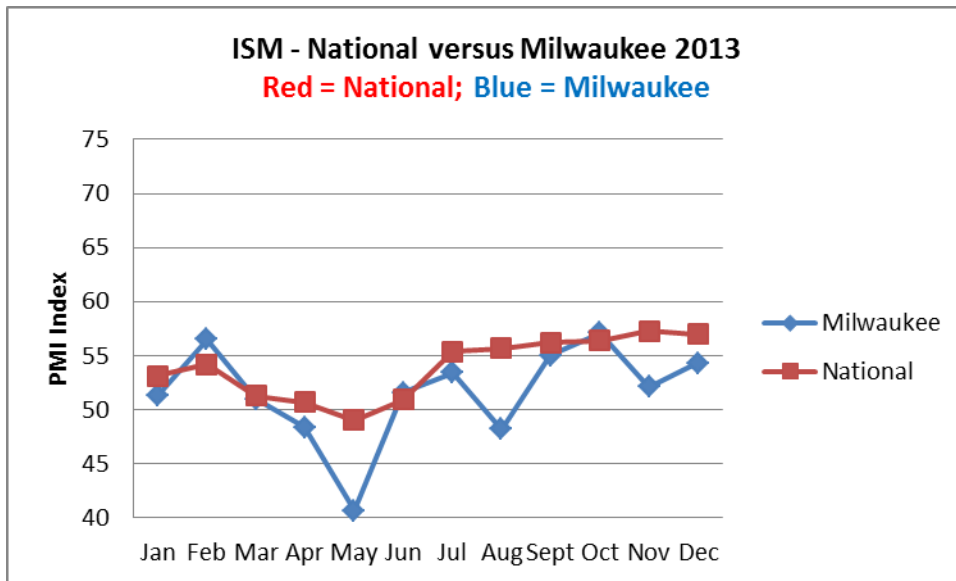
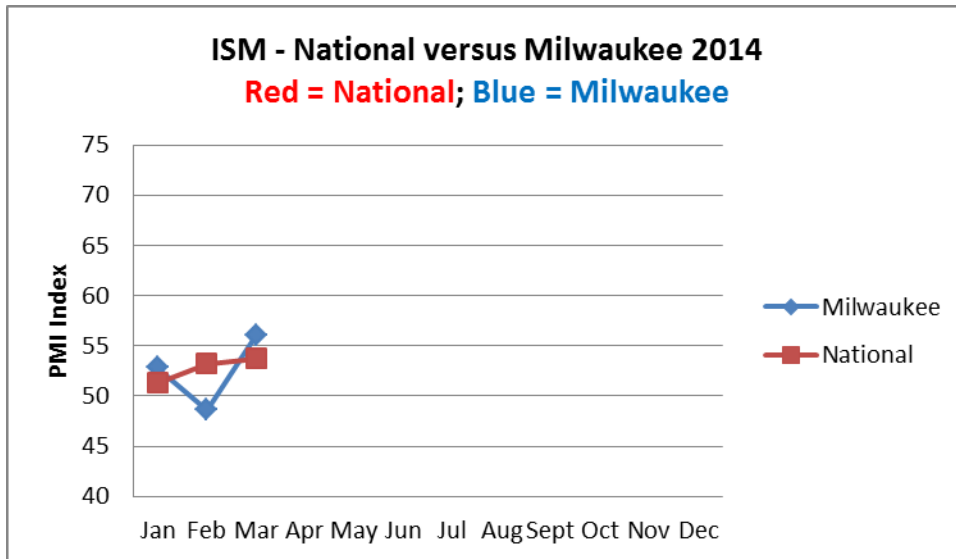
In this outlook, there is a upward shift in positive expectations compared with February in terms of market conditions. Approximately 42.9% of respondents expect positive conditions, 42.9% expect conditions to remain the same and 14.3% expect conditions to worsen within the next six months.

	Expect Positive Conditions	Expect Same Conditions	Expect Worse Conditions	Diffusion Index
Mar-14	42.9%	42.9%	14.3%	64.3%
Feb-14	31.8%	50.0%	18.2%	56.8%
Jan-14	40.9%	40.9%	18.2%	61.4%

Regarding the six-month outlook, respondents are saying:

- We acquired some new business and continue to hold guarded optimism that the economy will continue to improve.

Milwaukee versus the Nation – (for graphs of 2010, 2011, and 2012, see Dec 2013's report)



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 ($20\% + [0.50 \times 70\%]$). 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.

<http://www.ism.ws/files/ISMReport/ROBBroch08.pdf>