

Marquette-ISM Report on Manufacturing November 2015- Final Release

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*The Marquette-ISM Report on Manufacturing was prepared by **Chris 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	November 2015	October 2015	September 2015
Seasonally adjusted	45.34	46.66	39.44

(Milwaukee, Wisconsin) – November's Index registered at 45.34, which is below the 50-level indicating negative territory for the eighth straight month. This places the index at or above 50 for only eighteen of the past twenty seven months.

What respondents are saying in November 2015:

- There is very pessimistic market demand. Customers are running inventory lean to year end, but early 2016 orders are significantly lagging
- There are beginning to be problems keeping longer lead-time item in stock due to increased demand.
- Most of the customers and suppliers indicate that business is relatively flat and not much improvement expected for the future in some aspects.

- Continued erosion in the energy market has caused a significant reduction in incoming orders in 2015 and as a result, the outlook for 2016 is not optimistic.
- Steel scrap is at a very low price.
- There are expectations that there will be higher demand in the future.

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

MANUFACTURING AT A GLANCE: November 2015*				
Index	Series Index Nov-2015	Series Index Oct-2015	Percentage Point Change	Direction
PMI	45.34	46.66	-1.3	declining
New Orders	39.60	46.67	-7.1	declining
Production	47.14	48.87	-1.7	declining
Employment	48.16	51.44	-3.3	declining
Supplier Deliveries	48.92	46.66	2.3	faster
Inventories	42.86	41.37	1.5	declining
Customers' Inventories *	50.00	53.57	-3.6	growing
Prices *	21.43	23.33	-1.9	declining
Backlog of Orders *	39.29	40.00	-0.7	declining
Exports *	50.00	33.33	16.7	growing
Imports *	50.00	50.00	0.0	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 November 2015:

- Production levels are up 18% compared with where they were in 2014.
- There are delays due to items with longer lead times.
- There have been considerable near term order cancellations and delays.

Blue and White Collar Employment:

We have collected input on Blue and White Collar Employment. The indices are below for **September 2015, October 2015, and November 2015.**

	Diffusion Index Sep-2015	Diffusion Index Oct-2015	Diffusion Index Nov-2015	Direction	Comments
Blue Collar	45.1	41.4	44.5	declining	-
White Collar	58.0	55.1	51.9	growing	-

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

What respondents are saying in November 2015:

- N/A

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 **September 2015, and October 2015, and November 2015.**

Category	September 2015 Diffusion index	October 2015 Diffusion index	November 2015 Diffusion index	change in percentage point
Aluminum	5.56%	28.57%	25.00%	-3.6
Brass	25.00%	33.33%	12.50%	-20.8
Caustic Soda	25.00%	25.00%	50.00%	25.0
Chemicals	50.00%	30.00%	43.75%	13.8
Copper	16.67%	33.33%	20.00%	-13.3
Copper Based Products	33.33%	33.33%	8.33%	-25.0
Cocoa Powder	-	-	-	-
Corn	-	0.00%	0.00%	0.0
Corrugated Containers	42.86%	50.00%	50.00%	0.0
Diesel	10.00%	50.00%	20.00%	-30.0
Electronic Components	50.00%	50.00%	50.00%	0.0
Gasoline	0.00%	25.00%	14.29%	-10.7
High Density Polyethylene	50.00%	25.00%	50.00%	25.0
Natural Gas	33.33%	25.00%	35.71%	10.7

Nickel	0.00%	0.00%	50.00%	50.0
PET	50.00%	50.00%	50.00%	0.0
Plastic Resins	37.50%	40.00%	50.00%	10.0
Polyester	50.00%	25.00%	50.00%	25.0
Polyethylene	16.67%	33.33%	33.33%	0.0
Resins	25.00%	33.33%	50.00%	16.7
Soybean Oil	-	-	-	-
Stainless Steel	25.00%	30.00%	33.33%	3.3
Starch	-	-	-	-
Steel	25.00%	22.22%	18.75%	-3.5
Steel Products	21.43%	35.71%	33.33%	-2.4
Sulfur	-	-	-	-
Tin Plate	50.00%	50.00%	50.00%	0.0
Titanium Dioxide	50.00%	33.33%	25.00%	-8.3
Wheat	0.00%	0.00%	0.00%	0.0
Beef/Pork	50.00%	50.00%	75.00%	25.0

Buying Policy

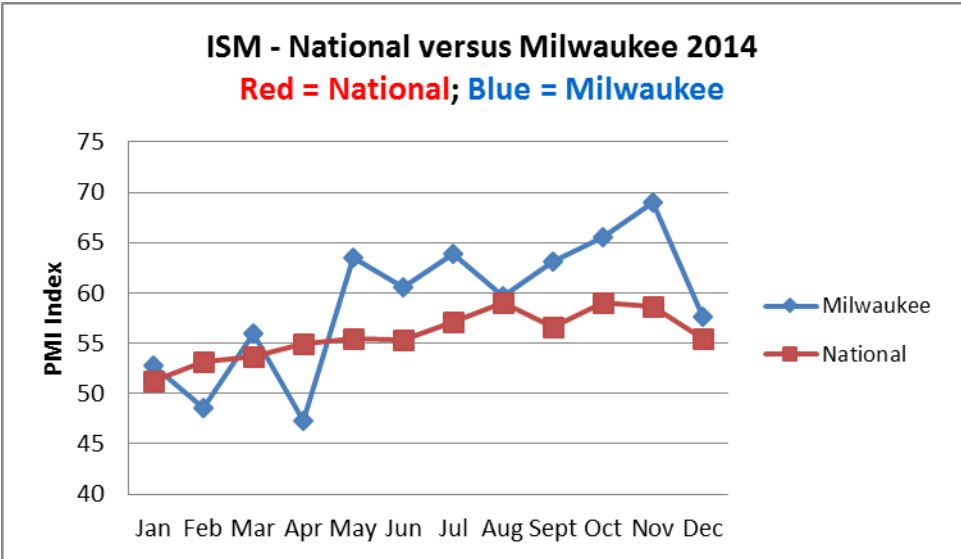
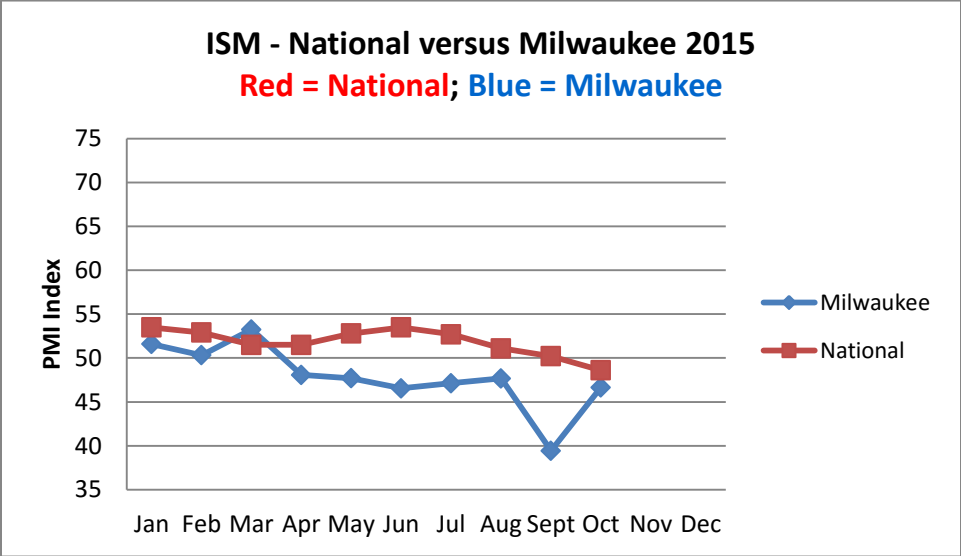
Average commitment lead time for Capital Expenditures stayed the same at 102 days. Average lead time for Production Materials decreased by 1 day to 30 days. Average lead time for Maintenance, Repair and Operating (MRO) Supplies increased by 7 days to 21 days.

Six- Month Outlook on Business Conditions

In this outlook, there is an upward shift in positive expectations compared with October in terms of market conditions. Approximately 25.0% of respondents expect positive conditions, 58.3% expect conditions to remain the same and 16.7% of the respondents expect conditions to worsen within the next six months.

	Expect Positive Conditions	Expect Same Conditions	Expect Worse Conditions	Diffusion Index
Nov-15	25.0%	58.3%	16.7%	54.2%
Oct-15	21.4%	57.1%	21.4%	50.0%
Sep-15	38.5%	38.5%	23.1%	57.7%

Milwaukee versus the Nation – (for graphs of 2010, 2011, 2012, and 2013 see the December 2013 and December 2012 reports)



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>