

**Marquette-ISM Report on Manufacturing
September 2017- Final Release**

Contact: Dr. Douglas Fisher
Director, Center for Supply Chain Management
Marquette University
(414) 288-3995
douglas.fisher@marquette.edu

Released: October 01, 2017

Final Version (includes ISM National Results for September 2017)

*The Marquette-ISM Report on Manufacturing was prepared by **Gwendolyn Davis**, 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	September 2017	August 2017	July 2017
Seasonally adjusted	60.24	55.41	56.98

(Milwaukee, Wisconsin) – September’s Index registered at 60.24, an increase from the 55.41 in August. September’s Index indicates positive territory.

What respondents are saying in September 2017:

- Resin shortages and price increases due to hurricane Harvey
- Continued short term growth, but seeing declines in long term demand
- Business is growing by 20%
- Suppliers constrained to meet high unplanned demand
- Longer lead times for electronics

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

MANUFACTURING AT A GLANCE: September 2017*				
Index	Series	Series	Percentage Point Change	Direction
	Index	Index		
	Sep-17	Aug-17		
PMI	60.24	55.41	4.8	growing
New Orders	54.30	54.08	0.2	growing
Production	60.52	59.84	0.7	growing
Employment	63.67	56.22	7.5	growing
Supplier Deliveries	78.60	65.76	12.8	slower
Inventories	44.12	41.18	2.9	declining
Customers' Inventories *	28.57	31.25	-2.7	declining
Prices *	82.35	70.59	11.8	growing
Backlog of Orders *	40.00	46.88	-6.9	declining
Exports *	58.33	59.09	-0.8	growing
Imports *	66.67	55.00	11.7	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 September 2017:

- Aluminum and copper commodity prices continue to increase.
- High unplanned demand increasing lead times and costs.
- Rising metal prices are affecting brass and zinc component costs.
- Short term resin supply is tight due to hurricane Harvey.
- Resin prices are up (same reason) but we expect it to be temporary.
- Aluminum and copper commodity prices have been increasing all year negatively affecting our costs.
- Suppliers constrained to meet unplanned demand
- Seeing longer lead times, especially electronics
- Seeing weakening USD;
- Seller's market demands

Blue and White-Collar Employment:

We have collected input on Blue and White Collar Employment. The indices are below for **July 2017, August 2017, and September 2017.**

	Diffusion Index Jul-17	Diffusion Index Aug-17	Diffusion Index Sep-17	Direction	Comments
Blue Collar	61.6	50.3	61.2	growing	-
White Collar	52.8	53.3	60.6	growing	-

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

What respondents are saying in September 2017:

- Business is growing.
- Weakening USD hurting demand.
- Large projects require increased labor.

Buying Policy

Average commitment lead-time for Capital Expenditures increased from 111 days to 130 days. Average lead-time for Production Materials increased from 43 days to 56 days. Average lead-time for Maintenance, Repair and Operating (MRO) Supplies increased from 22 days to 28 days.

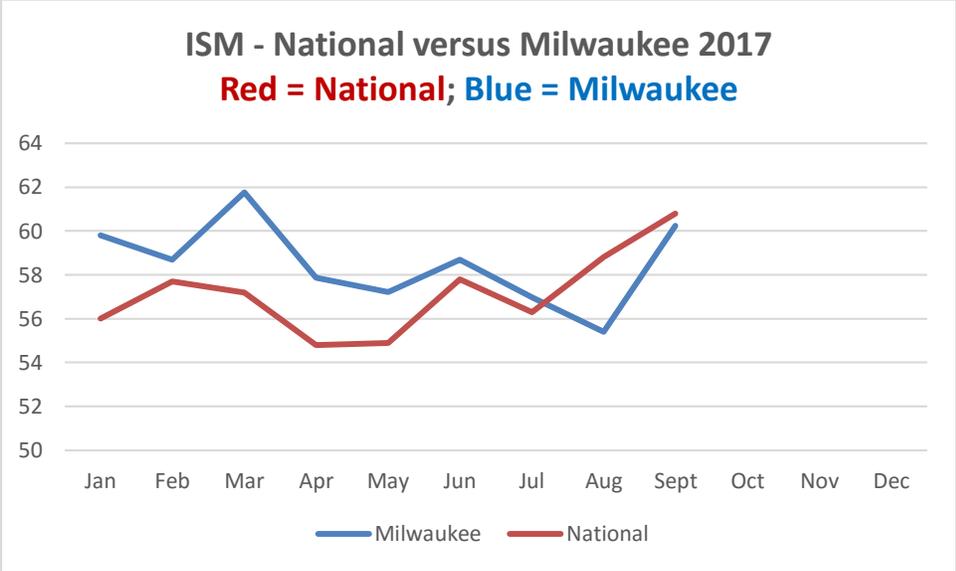
Six- Month Outlook on Business Conditions

In this outlook, there is a downward shift in positive expectations compared with August in terms of market conditions. Approximately 35.29% of respondents expect positive conditions, 47.06% expect conditions to remain the same and 17.65% of the respondents expect conditions to worsen within the next six months.

	Expect Positive Conditions	Expect Same Conditions	Expect Worse Conditions	Diffusion Index
Sep-17	35.29%	47.06%	17.65%	58.82%
Aug-17	41.18%	47.06%	11.76%	64.71%
Jul-17	31.82%	54.55%	13.64%	59.09%

Milwaukee versus the Nation –

2017 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 $\pm .48$ 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.

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