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Center for Supply Chain Management

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INSTITUTE FOR SUPPLY MANAGEMENT
ISM—Milwaukee

Marquette ISM® Report on Manufacturing
February 2020- Early Release

Contact: Marko Bastl
Associate Professor, Supply Chain Management
Marquette University
(414) 288-6866
marko.bastl@marquette.edu

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*The Marquette-ISM Report on Manufacturing was prepared by **Katie Ozanich**, a graduate student in Applied Economics at Marquette University, and distributed by **Kelly Wesolowski**, Associate Director of the Center for Supply Chain Management.*

Please direct data questions and requests for media commentary to Marko Bastl.

This report should not be confused with the Report On Business®, PMI®, NMI®, published by the Institute of Supply Management® (ISM®). 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	February 2020	January 2020	December 2019
Seasonally adjusted	49.41	52.33	45.10

(Milwaukee, Wisconsin) – February's Index registered at 49.41, a decrease from 52.33 in January. February's index indicates negative territory.

What respondents are saying in February 2020:

- In the short term, Chinese New Year extensions are creating delivery issues from suppliers based in Asia.
- In the long term, economic issues in the United States are negatively affecting new orders.
- Currently in the deepest part of the economic decline in manufacturing, with oil and gas sectors declining the most.
- The corona virus has led to major supply chain issues and delayed shipments of materials. This has led to customers reducing orders in anticipation of shortages.

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

MANUFACTURING AT A GLANCE: February 2020*				
Index	Series Index Feb-20	Series Index Jan-20	Percentage Point Change	Direction
PMI	49.41	52.33	-2.9	declining
New Orders	39.58	45.29	-5.7	declining
Production	45.34	57.81	-12.5	declining
Employment	34.84	46.27	-11.4	declining
Supplier Deliveries	68.48	62.25	6.2	slower
Inventories	58.82	50.00	8.8	growing
Customers' Inventories *	40.00	34.62	5.4	declining
Prices *	58.82	62.50	-3.7	growing
Backlog of Orders *	36.67	39.29	-2.6	declining
Exports *	36.36	33.33	3.0	declining
Imports *	45.00	50.00	-5.0	declining

(*) 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 February 2020:

- Prices are increasing on materials and finished goods
- R&D projects are causing large backlogs
- Imports are being affected by the Corona Virus
- Corona Virus has caused shortages that will continue to reduce customer demand
- Hope to see improvement in the second quarter

Blue and White-Collar Employment:

We have collected input on Blue and White Collar Employment. The indices are below for **February 2020, January 2020, and December 2019.**

	Diffusion Index Feb-20	Diffusion Index Jan-20	Diffusion Index Dec-19	Direction	Comments
Blue Collar	43.2	49.4	43.6	declining	-
White Collar	43.6	49.4	40.6	declining	-

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

What respondents are saying in February 2020:

- Two new White Collar employees were hired and are starting in March
- Continued difficulty finding employee replacements
- Blue Collar employment is low due to difficulty in hiring new employees

Buying Policy

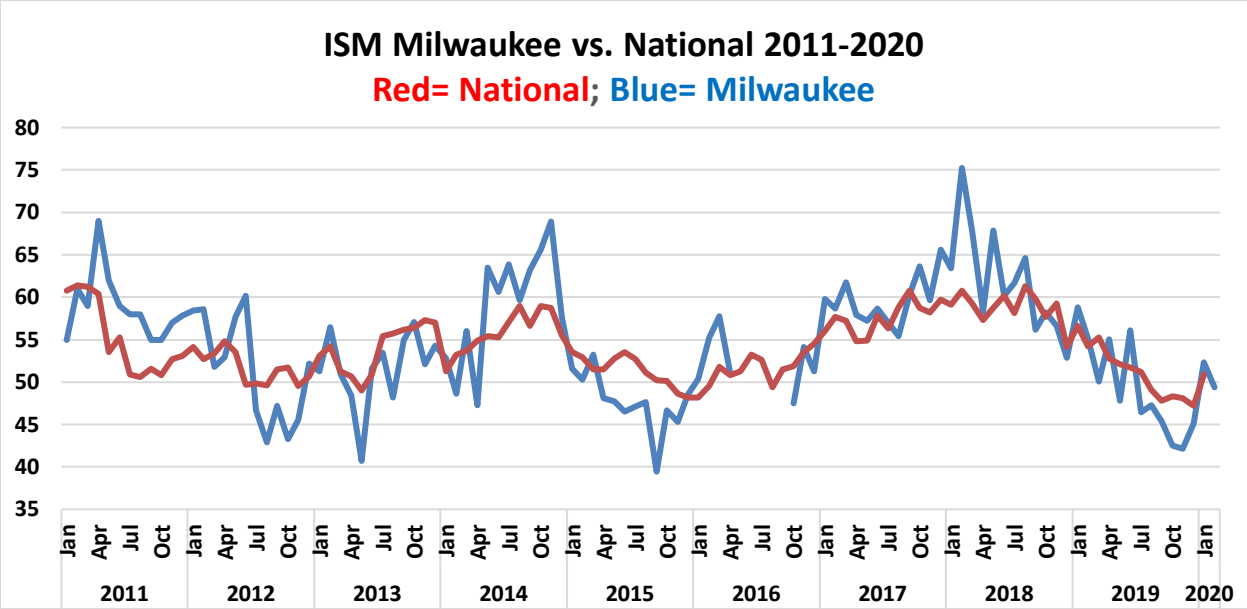
Average commitment lead-time for Capital Expenditures stayed the same at 106 days. Average lead-time for Production Materials decreased from 59 to 54 days. Average lead-time for Maintenance, Repair and Operating (MRO) Supplies decreased from 22 to 17 days.

Six- Month Outlook on Business Conditions

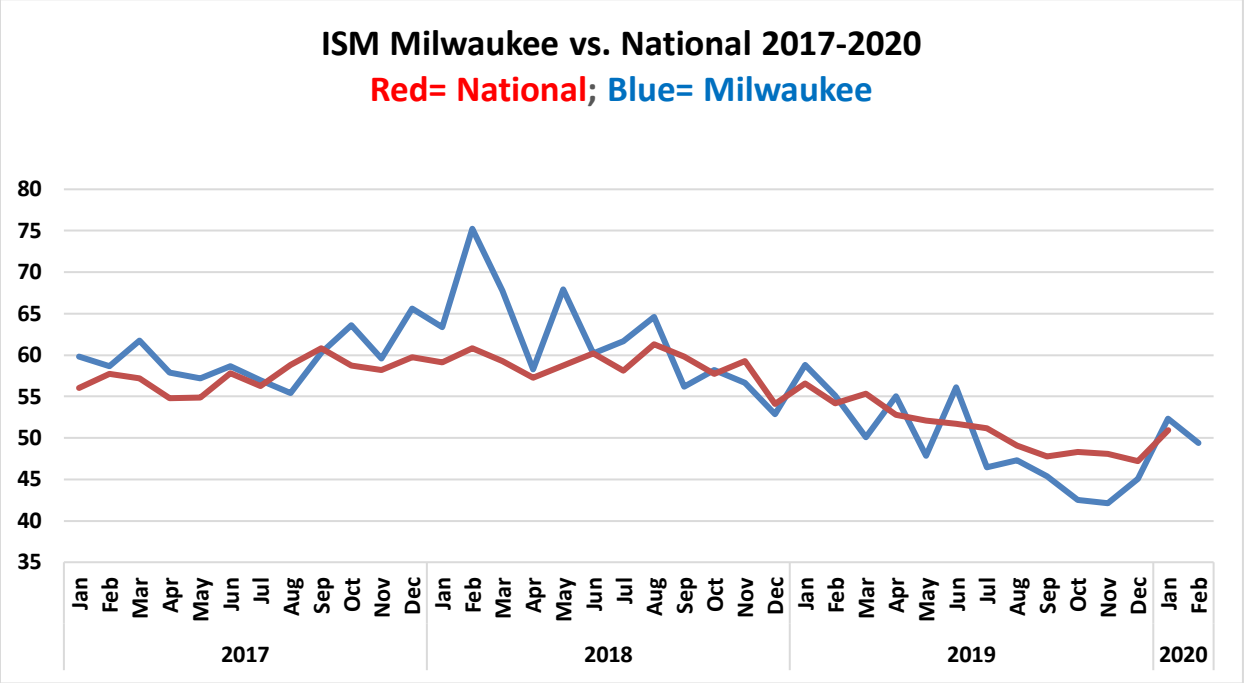
In this outlook, there is an upward shift in positive expectations compared with November in terms of market conditions. Approximately 41% of respondents expect positive conditions, 41% expect conditions to remain the same and 18% of the respondents expect conditions to worsen within the next six months.

	Expect Positive Conditions	Expect Same Conditions	Expect Worse Conditions	Diffusion Index
Feb-20	**41.18%**	**41.18%**	**17.65%**	**61.76%**
Jan-20	**37.50%**	**50.00%**	**12.50%**	**62.50%**
Dec-19	**35.29%**	**52.94%**	**11.76%**	**61.76%**

Milwaukee versus the Nation –
January 2011 – February 2020 Graph



January 2017 – February 2020 Graph



Insights on the ISM® PMI® from Institute for Supply Management®:

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)