Metals & Manufacturing Outlook™

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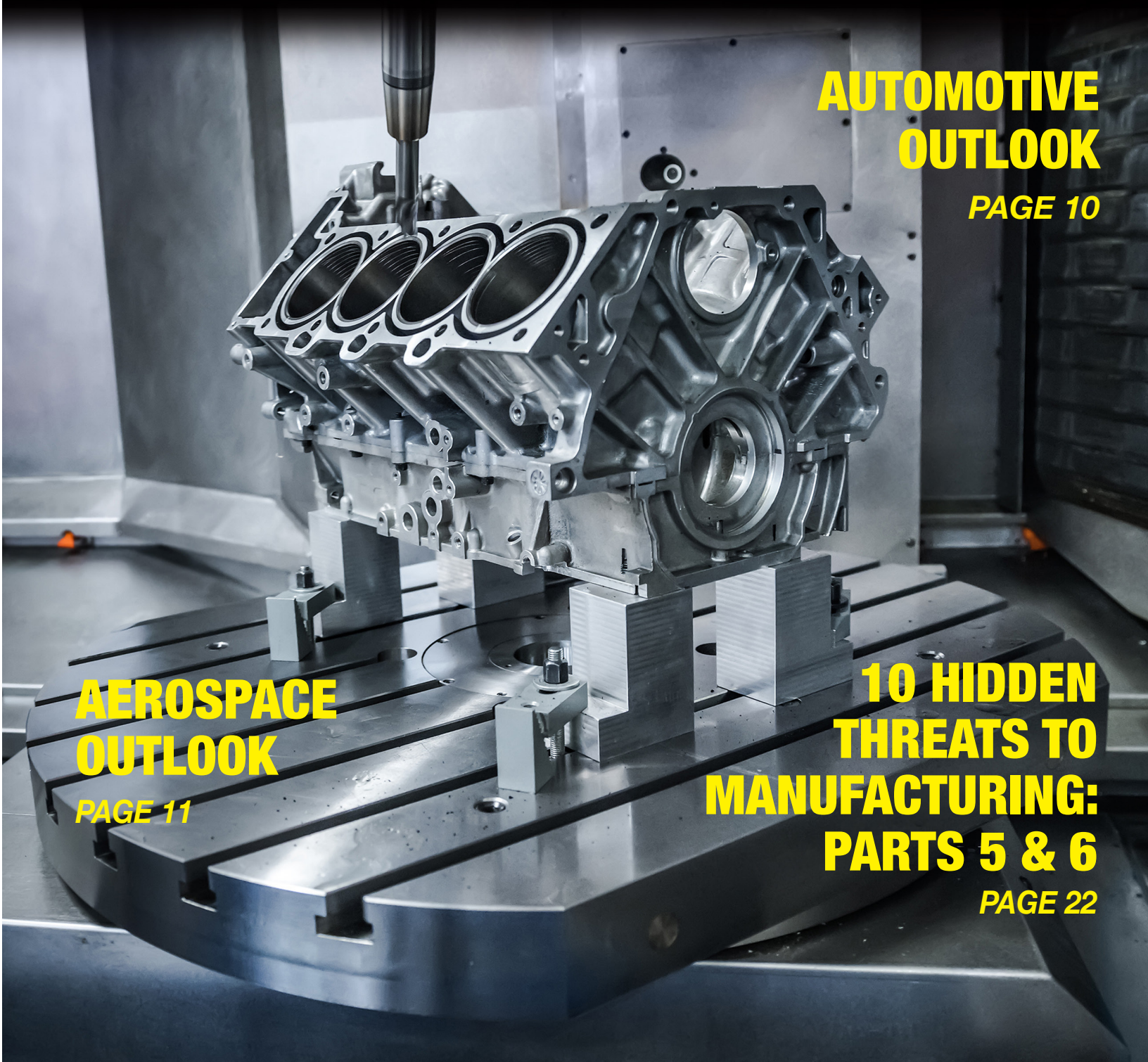

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Metals & Manufacturing Outlook™

Publisher – Lewis A. Weiss

Editor-In-Chief – Tim Grady

Design – Rovere Media

Contributing Writers:

Royce Lowe, UK and EU International Correspondent

Tim Grady, Co-Host, Manufacturing Talk Radio

Chris Kuehl, PH.D - Chief Economist, FMA

Norbert Ore, Senior Correspondent for Global PMI Survey Reports

Mike Womack, Social Media Manager, Manufacturing Talk Radio

Andrea Olson - MSC - CEO of Prag'madik

Advertising

Frank Cipolla - fcipolla@mfgtalkradio.com

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Editorial Office
Manufacturing Broadcasting Corp.
75 Lane Road
Fairfield, NJ 07004
(973) 808-8300

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PUBLISHERS STATEMENT

BY LEWIS A. WEISS

Is that a feeling of optimism I feel in manufacturing, and even non-manufacturing? It has been such a rare experience to feel somewhat confident about the economy after months or even years of 'cautious optimism' – which is just a way of saying "I'll believe it when I see it." I'm not so bold as to say I am outright confident or truly bullish – yet. But the GDP number for 2017 that was forecast in late 2016 at around 2.0% if things went well, and 2.2% if they went really well, is now playing out at 2.75% for the year as we observe things in October.

I can't say it's Trump or Congress – yes some adjustments have been made that helped the manufacturing sector by this administration, but the ships were already at sea and the headwinds were tailing off in late 2016. Barring a really asinine event like someone sending a nuclear missile either East or West, or another land war in Asia, this economic expansion could just become the third longest one in U.S. history – although writing that may have just jinxed it.

Oh, I almost forgot – in terms of headwinds or coral reefs just below the surface, there is the student loan bubble, the automobile bubble that Hurricane Harvey may have also wiped out, and the HY bond bubble. HY means High Yield debt – it actually means junk bonds. It seems that investors including institutional investors are willing to put their money into 'high yield debt' issued by corporations, states, counties, municipalities and other countries for a 'higher return' than other fixed income assets. We're hearing some rumblings that the nearly $2 trillion high yield bubble will be the next one to burst, so we're not sure who or what is actually high. The trick, of course, is debt service – if they can't service that high yield debt then issuers could default on it en masse, which would be a bubble bursting. It's more likely that they would default and then reissue where investors only get half a nosebleed.

So, unless we get a sudden mess from one (or more) of the above, it could be smooth sailing through the end of 2017 and into 2018. At present, the Institute for Supply Management reports that manufacturing completed its 99th month of expansion – the third longest economic expansion in the last 100 years. Should this roll through Q1 and into Q2 of 2018, it will become the 2nd longest economic expansion.

One area often repeated as concerning is manufacturing employment. While we have seen improvement in 2017, it is clear that employment in manufacturing has been falling since its all-time peak of 19,553,000 in June 1979. There is some 'cautious optimism' that manufacturing employment will move back toward such levels, but unless a lot of new factories open in the U.S., those hopes will be dashed upon the rocky shores of reality. While employment has fallen, manufacturing productivity and output has been steadily rising across that nearly 40-year span, and the reason why isn't going to abate.

The 'why' is quite simple – automation; whether it is a new program, a new app, a smart machine or robotics, manufacturers and many non-manufacturers will continue to implement automation as technology becomes less expensive and labor becomes more expensive. $15 an hour at McDonald's? More likely $50 an hour – for the person fixing or reprogramming the order kiosk or hamburger-flipping robot. Just look at history as an example.

In 1870, nearly 50% of the U.S. work pool worked in agriculture. By 2008, it had dropped to 2% that fed a much greater U.S. population (38,554,000 in 1870; 323.1 million in 2016). Did agriculture "collapse" as has been recently said about manufacturing? Of course not – but what caused the decline in agriculture employment? Yes – it just popped into your head – automation, and the pace will pick up to pick crops given the shortage of migrant workers, legal or illegal. Look at other industries: automotive, newspapers, textiles – even middle management positions across all industries began to evaporate as the PC and programs (remember VisiCalc and Lotus 1-2-3) were integrated into corporate America.

Keep an eye of this and other trends in *Metals & Manufacturing Outlook* each month, and tune into the podcast, Manufacturing Talk Radio, at mfgtalkradio.com each week to keep up on what is happening and happening faster.

Best Regards,
Lewis A. Weiss
Publisher

Metals & Manufacturing Outlook

MANUFACTURING OUTLOOK

BY ROYCE LOWE

Boring This World Is Not.

We have recently seen natural disasters in the U.S. that have been described as unprecedented, with Mother Nature reminding us once more, as she is wont to do, who's boss. Hurricane Harvey has wreaked havoc, destruction, loss of life, a cry for help on a national scale, and a warning that more is to come. America's petroleum and chemical industries will suffer, and Donald Trump has once again demonstrated that he does not know how to be president.

Monsoons have come to South Asia, as they always do, but with a fury not seen in decades. At least 1,200 people have perished thus far.

In Europe it's 27 to 1, and Brexit negotiations grind on to an unknown conclusion.

Through all this the manufacturing sun has risen and shone upon the world's more prolific nations, with Europe continuing to lead the way.

The nonfarm, private sector jobs report for August from the ADP Research Institute and Moody's Analytics states that 237,000 nonfarm private sector jobs were created in the month. Small business (1-49 employees) created 48,000 jobs; midsized (50-499) created 74,000 jobs; and large business (500+) created 115,000 jobs. Natural resources and mining lost 1,000 jobs; Construction added 18,000 jobs and Manufacturing added 16,000 jobs.

The report from the BLS shows nonfarm payroll employment was up by 156,000 jobs in August, with gains in manufacturing, construction, professional and technical services, health care and mining.

Employment growth has averaged 176,000 jobs per month so far in 2017.

Manufacturing is reported as adding 36,000 jobs, with gains in motor vehicles and parts (14,000), fabricated metal products (5,000) and computers and electrical products (4,000) Construction is said to have added 28,000 jobs and mining 7,000 jobs. The 36,000 payroll gain is manufacturing's highest in five years.

Trump on NAFTA, by tweet: both (Canada and Mexico) are being 'very difficult', adding 'May have to terminate?' Mexico, 'sniffily': 'Mexico will not negotiate NAFTA....through social media.' See ISSUES OUTLOOK.

Construction is suffering from a productivity problem. See ISSUES OUTLOOK.

Is there hope for U.S. coal miners? See ENERGY OUTLOOK.

The ISM PMI figure for U.S. manufacturing jumped in August from July's 56.3 percent to 58.8 percent. The overall economy grew for the 99th consecutive month. See NORTH AMERICAN OUTLOOK.

IHS Markit reports August's PMI for the U.S. manufacturing sector fell slightly from July's 53.3 percent to 52.8 percent.

IHS Markit reports manufacturing production expanding at its weakest pace since June 2016. Coincidentally, exports held back order book growth and employment increased at the strongest pace in six months. There was an increase in new orders.

There was a modest increase in order backlogs, price increases – particularly in steel and electrical components - and a positive sentiment regarding the future of U.S. manufacturing.

The five ISM components are equally weighted at 20 percent each. The IHS Markit components are weighted: 30 percent New Orders, 25 percent Production, 20 percent Employment, 15 percent Supplier Deliveries and 10 percent Raw Materials Inventories.

The Bureau of Economic Analysis recently released its 'second' estimate for the annual rate of Real GDP growth in the second quarter of 2017, putting it at 3.0 percent, up from the 'advance' estimate of 2.6 percent. The figure for the first quarter of 2017 was 1.2 percent.

GALLUP's U.S. Economic Confidence Index is around the +3 level in early September. The coincident Job Creation Index is still around a record high of +37.

World crude steel production for the 67 reporting countries for the month of July 2017 was 143.245 Mt, up 6.3 percent y-o-y. Capacity utilization for the month was 72.1 percent, up 3.2 percent on July 2016 and down 1.5 percent on June 2017.

U.S. crude steel production for July 2017 was 7.071 Mt, up 5.6 percent y-o-y.

The Association of Manufacturing Technology reports that U.S. manufacturers and machine shops new orders for machine tools were up to $373.19 million in June 2017, up 7.0 percent versus May and up 12.0 percent over June 2016. YTD. figures for January to June are up 7.1 percent over 2016, at $2.04 billion.

Primary Global Aluminum Production in July 2017 was reported at 5.009 million tonnes, of which 2.686 million tonnes, over 53 percent, were produced in China. The Gulf Corporation Council (GCC) produced 437,000 tonnes, North America 334,000 tonnes, Western Europe 320,000 tonnes, Eastern and Central Europe 339,000 tonnes and Asia, excluding China, 324,000 tonnes.

Here are the latest figures for US new car and light truck sales for 'the big eight' for August 2017.

The 'Big Eight'	August '17, 27 sales days	August '16, 26 sales days	YTD % change
General Motors	275326	256429	7.4
Ford	209029	213411	-2.1
FCA	172773	194032	-11
Toyota	227625	213125	6.8
Honda	146015	149571	-2.4
Nissan	108326	124638	-13.1
Hyundai/Kia	107633	126263	-14.8
VW	32015	29384	9
Total new cars and light trucks	**1483330**	**1512605**	**-1.9**
Total cars	**549,749**	**601,003**	**-8.5**
Domestic cars	**140,006**	**159,957**	**-12.5**
Import cars	**409,743**	**441,051**	**-7.1**
Total l/trucks	**933,581**	**911,602**	**2.4**
Domestic trucks	**520,372**	**507,420**	**2.6**
Import trucks	**413,209**	**404,182**	**2.2**
Total L/V sales	**1,483,330**	**1,512,605**	**-1.9**

THE ECONOMIST magazine, in its latest weekly report on world economies, highlights changes in Gross Domestic Product (GDP), Industrial Production, Consumer Prices and Unemployment Rates for what it considers the world's major economies. These data are not necessarily good to the present day, but are mostly applicable to at latest the past two months, and show definite trends in the world economy. The figures are qualified as being the latest available, and with reference to a given quarter or month. The figures for GDP represent the % change on the previous quarter, annual rate. The industrial production figures represent year-on-year changes, as do the consumer prices increases. The unemployment figures, %, are for the month as noted.

	GDP	International Production	Consumer prices	Unemploymen
United States	+3.0 (qtr)	+ 2.2 (July)	+1.7 (July)	4.3 (July)
Canada	+3.7 (qtr)	+12.6 (May)	+1.2 (July)	6.3 (July)
China	+7.0 (qtr)	+6.4 (July)	+1.4 (July)	4.0 (Qtr2)
Japan	+4.0 (qtr)	+ 4.7 (July)	+0.5 (July)	2.8 (July)
Britain	+1.2 (qtr)	+ 0.3 (June)	+2.6 (July)	4.4 (May)
Euro Area	+2.5 (qtr)	+2.6 (June)	+1.3 (July)	9.1 (June)
France	+1.9 (qtr)	+ 2.6 (June)	+0.7 (July)	9.6 (June)
Germany	+2.5 (qtr)	+ 2.5 (June)	+1.8 (Aug)	3.8 (June)
Italy	+1.6 (qtr)	+ 5.3 (June)	+1.1 (July)	11.1 (June)
Spain	+3.5 (qtr)	+ 3.4 (June)	+1.6 (Aug)	17.1 (June)
India	+7.2 (qtr)	- 0.1 (June)	+2.4 (July)	5.0 (2015)
Brazil	+4.3 (qtr)	+ 0.5 (June)	+2.7 (July)	13.0 (June)
Taiwan	+ 0.5 (qtr)	+ 2.4 (July)	+0.8 (July)	3.8 (July)
Mexico	+2.3 (qtr)	- 0.3 (June)	+6.4 (July)	3.2 (July)

Manufacturing Laughs

BOEING VS. BOMBARDIER: AEROSPACE INDUSTRY TENSIONS

BY MIKE WOMACK

Boeing secured an important victory today as the Commerce Department implemented duties of nearly 220% on Canada's Bombardier C Series aircraft. The U.S. plane maker had accused Bombardier of using illegal federal subsidies to help sell the C-Series at a discounted rate. This move was said to undercut Boeing prices, creating an unfair environment for the U.S. manufacturer.

The Commerce Department announced the new duties on Tuesday, ruling that the Montreal-based manufacturer used unfair government subsidies to lower the prices of their aircraft.

"The U.S. values its relationships with Canada, but even our closest allies must play by the rules," Commerce Secretary Wilbur Ross said.

Canada released a statement strongly opposing the U.S.'s decision. Chrystia Freeland, Canada's minister of foreign affairs stated, "This is clearly aimed at eliminating Bombardier's C Series aircraft from the U.S. market".

This all began when Bombardier solidified a deal with Delta Air Lines for up to 125 jets by, according to Boeing, offering the plans below fair market value. After the ruling, Boeing didn't wait long before making a statement about their win.

"Subsidies enabled Bombardier to dump its product into the U.S. market, harming aerospace workers in the United States and throughout Boeing's global supply chain," the company said in their statement.

It will still be at least six months before U.S. officials can determine if the deal between Bombardier and Delta actually hurt their business. Fines and penalties won't be officially due until the CS100's are delivered to Delta. Prime Minister Justin Trudeau has stated that he will continue to stand with Canada's aerospace industry, threatening to cut government ties with Boeing.

Tensions between Canada and the U.S. continue to rise. Between NAFTA negotiations and now the latest developments in Boeing vs Bombardier, future relations between these nations is in question. Be sure to check back on MFGTalkRadio.com for the latest manufacturing industry developments.

NORTH AMERICAN OUTLOOK

BY ROYCE LOWE

The Latest Manufacturing Reports from the United States, Canada and Mexico

The Institute of Supply Management PMI figure rose from 56.3 percent in July to 58.8 percent in August, representing the twelfth consecutive month of growth in manufacturing. There was growth in the overall economy for the 99th consecutive month.

Of the 18 manufacturing industries, 14 reported growth in August, in the following order: Textile Mills; Petroleum & Coal Products; Machinery; Transportation Equipment; Fabricated Metal Products; Computer & Electronic Products; Paper Products; Electrical Equipment, Appliances & Components; Miscellaneous Manufacturing; Chemical Products; Nonmetallic Mineral Products; Plastics & Rubber Products; Printing & Related Support Activities; and Food, Beverage & Tobacco Products. Three industries reported contraction in August compared to July: Apparel, Leather & Allied Products; Primary Metals; and Furniture & Related Products.

Comments from those surveyed by ISM speak of steady, strong business. No comment from those surveyed was anything but positive.

Following is a summary of the five major indexes, each weighted at 20 percent in calculation of the PMI number for August. July's readings are in parentheses:

New orders 60.3 (60.4)

Production 61.0 (60.6)

Employment 59.9 (55.2)

Supplier Deliveries.....slowing faster 57.1 (55.4)

Inventories 55.5 (50.0)

The following five components are not instrumental in the PMI calculation, but are an important part of the manufacturing industry:

Customer Inventories.....too low 41.0 (49.0)

Prices 62.0 (62.0)

Backlog of orders 57.5 (55.0)

New export orders 55.5 (57.5)

Imports 54.5 (56.0)

Commodities Up in Price

Aluminum (10); Caustic Soda (2); Copper; Corrugate (11); Corrugated Boxes (6); Electric Components (3); Food Ingredients; Lumber (2); Mechanical Components; Memory — Computer (2); Resins; Scrap — All Types; Solvents; Steel; Steel — Hot Rolled (9); and Titanium Dioxide (2).

Commodities Down in Price

Benzene Products.

Commodities in Short Supply

Capacitors (2); Electric Components (3); Electronic Components (6); Integrated Circuits (2); Memory — Computer (2); and Methacrylates.

Note: The number of consecutive months the commodity is listed is indicated after each item.

CANADA saw its rate of job growth hit a series-record peak in August – since October 2010 when data collection began. The rate of improvement in business conditions was slightly below July's but was still significant.

August's PMI was at 54.6, slightly down from July's 55.5 reading.

New order growth expanded for the 11th consecutive month, but new export order growth was merely modest. Increase in work meant more hiring and manufacturers' optimism did not wane.

Alberta and B.C. were the best performing regions for manufacturing growth.

New order growth softened in Ontario, Alberta and B.C. The rate of job growth increased in all region.

Canada produced 1100 Mt of crude steel in July, up 1.6 percent y-o-y.

Canada light vehicle sales were up 6.9 percent y-o-y in August at 183,945 units, for a fourth consecutive monthly record. Year-to-date sales are at 1.40 million, a 5.3 percent y-o-y ioncrease. GM sales were up 28.5 percent y-o-y, Ford down 5.8 percent y-o-y and Fiat Chrysler down 9 percent y-o-y.

MEXICO's operating conditions showed continuing improvement in August, with new orders expanding faster, hence steeper increases in production and purchasing. Employment was up at a quicker pace and growth was seen in new export sales.

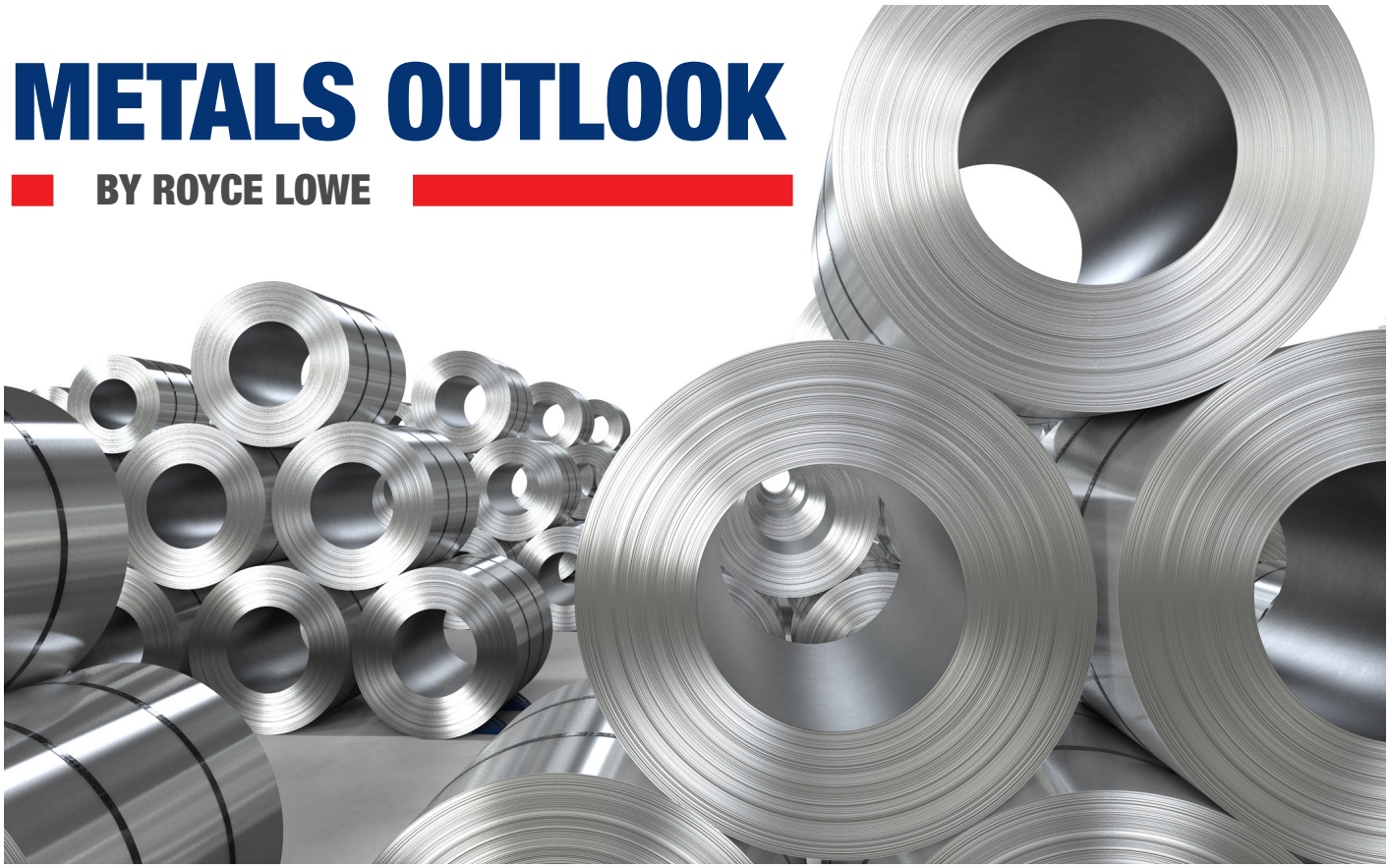
The PMI for August was at 52.2, up from July's 51.2.

Optimism strengthened, and in August some 53 percent of respondents expect production volumes to grow in the coming year.

Mexico produced 1725 Mt of crude steel in July, up 1.9 percent y-o-y.

METALS OUTLOOK

BY ROYCE LOWE



Sheffield Forgemasters completed an investment of approximately $2.57 million into its melting facility to make refined steel with reduced energy consumption. The project included stripping out almost 80% of the primary electric-arc furnace to replace the furnace gantry, electrode columns and current carrying arms, cabling, automation and control systems, hydraulics and water cooling with upgraded equipment to achieve a 15% efficiency improvement. The process took seven months from the original design stage, including a seven-week production outage for the decommissioning, installation and commissioning.

MEPS International, an independent supplier of steel market information, predicts an EU steel price rise in September following recent price increases in iron ore and coking coal.

This is particularly the case for flat-rolled products - cold-rolled and galvanized, where recent zinc price increases are in play. The price increases are predicted to stay for some little while.

Nucor Acquires Manufacturing Facilities in U.S., Mexico

Nucor Corp. agreed to acquire St. Louis Cold Drawn Inc., a manufacturer of cold-drawn rounds, hexagons, squares and special sections that mainly serves the U.S. and Mexican automotive and industrial markets. The company employs 125 people and has two manufacturing locations – St. Louis, Mo., and Monterrey, Mexico – that have a combined annual capacity of 200,000 tons. The addition of these facilities will increase the total capacity of Nucor's cold-finished bar and wire facilities to more than 1.1 million tons per year. According to Nucor, the acquisition creates synergies with its bar mills by providing an additional channel to market for the special-bar-quality (SBQ) products it produces.

AUTOMOTIVE OUTLOOK

BY ROYCE LOWE

Some of the world's top auto-parts suppliers are less than enthusiastic about Elon Musk's electric vehicles. American Axle-Manufacturing Holdings Inc. thinks major programs will not likely be electrified within the next decade, Magna International Inc., the top North American parts supplier and Delphi Automotive Plc, both of whom supply powertrains and electronic systems, are looking to hybrid engines, and the consensus is that just 5 percent of vehicles will be totally electric some ten years from now.

Meanwhile Researchers at both Carnegie Mellon University and the University of Oxford, whilst accepting the EV (car), have serious doubts about the future of electric trucks, whose battery weights and restricted ranges suggests the concept is most unlikely. To quote, 'The demonization of the internal combustion engine makes good politics, but poor engineering.'

And Aston Martin is threatening that all its vehicles would be able to run on batteries or would be 'mild' hybrids – which use an engine but can also travel on battery power, by the mid 2020s. Imagine what James Bond would think of that.

AEROSPACE OUTLOOK

BY ROYCE LOWE

Foreign defense manufacturers are invited to come to India to set up shop as minority partners. Fighter jets and helicopters are top of the shopping list, together with armored vehicles and submarines. This is a new policy by the world's largest defense importer, and may have something to do with the fact that Prime Minister Modi is up for re-election in a couple of years and needs to fulfill his promise re: jobs.

AIRBUS GROUP

Europe's Airbus Group wants to sell its Panther helicopters and says that the right deal would persuade it to move production from France to India.

Lockheed Martin says a $15 billion order would tempt it to 'support advancement of Indian manufacturing expertise.' There is no doubt that persuading foreign defense companies to build plants in India would be a significant and much-needed boost to the economy.

Canada's Bombardier's C series (CS 100) took its first commercial flight recently from Zurich to London City Airport with Swiss International Airlines. The aircraft, with short take-off and landing capabilities for 'difficult' airports is both silent and economical. The CS 100 will have its hub in Zurich, with frequent use for London City. Its range is 2,200 miles – just over 4,000 kms.

Manufacturing Laughs

"Not to be a wet blanket, but I'm not sure our sales strategy should include any plan that's 'just crazy enough to work.'"

GLOBAL PMI OUTLOOK

BY NORBERT ORE

Eurozone, U.K., and U.S. manufacturing is leading a global expansion that has moved from tepid to torrid over the past five years. In the first eight months of 2017, the U.S. PMI averaged 56.7 while the EA and U.K. PMIs averaged 56.5 and 55.5, respectively. We still think, however, the pace of expansion will moderate some throughout the remainder of the year.

The Non-Manufacturing sector continues to grow, but at a less robust pace relative to its past and the manufacturing sector. The non-manufacturing sector is approximately four times the size of the manufacturing sector so slower growth is difficult to offset.

The Eurozone PMI (57.4, +0.8) bounced, hitting June's 74-month high. The Eurozone's aggressive expansion was led by Austria (61.1, +1.1), Netherlands (59.7, +0.8), and Germany (59.3, +1.1). Also, for the third consecutive month, all eight EA countries (including Greece) reported a PMI above the 50 mark.

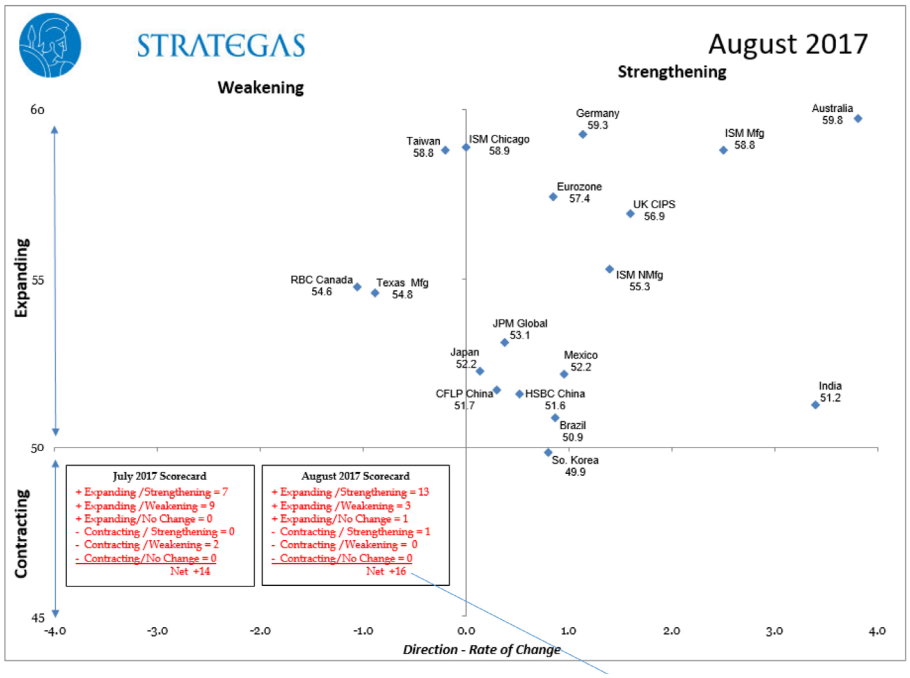
The U.K. PMI (56.9, +1.8) remained above the post-Brexit average (55.0). The U.K. release cited strong employment and favorable currency rates as major drivers.

China's Official Report, the CFLP PMI (51.7, +0.3) continued above the 51 mark for the 11th consecutive month. The Caixin China General Manufacturing PMI (51.6, +0.5) signaled a third month of expansion after a one-month decline. The China surveys reflect greater-than-expected expansion in the manufacturing sector.

Following a significant decline last month, the India PMI (51.2, +3.4) allayed concerns with the new Goods & Services Tax being implemented. The Taiwan PMI (58.8, -0.2) remains strong as current and anticipated product rollouts drive the semiconductor industry. The Taiwan Manufacturing PMI's YTD average is 59.

In North America, Canada (54.0, -0.9) reported growth for the 18th consecutive month and an YTD average of 54.9. Mexico (52.2, +1.0) recorded its 49th consecutive month of growth with new orders and production on an upward trend.

GLOBAL PMI SCATTERGRAM



ISSUES OUTLOOK

BY ROYCE LOWE

The world's construction industry is suffering from a productivity problem, with over 90 percent of the infrastructure projects in a global market worth some $10 trillion either late or over budget.

Construction holds the dubious honor of having the lowest productivity gains of any industry. The consultancy McKinsey says that for the past 20 years the global average for value-added per hour has increased by one percent per year in construction, a quarter of that in manufacturing. The situation is particularly bad in rich countries, even such industrially efficient ones as Germany and Japan, where there has been nearly no growth. France and Italy saw drops of one-sixth over the period.

The industry is less capital intensive than other manufacturing-type industries, where workers are replacing machinery, a phenomenon obviously more common in countries with access to inexpensive labor.

'Volatility in demand' for construction has trained builders to curb investment, and the industry has learned to prepare for the next downturn, hence there is less investment in capital equipment and more tendency to fire workers (as demand dictates.)

There has been a failure to consolidate, hence there are too many small companies. The U.S. has some 730,000 construction firms, with an average of 10 employees each; Europe has 3.3 million with an average of four workers. There is fierce competition – subcontractors are in there – the industry raises prices for clients while ignoring tools that might improve productivity.

Things really haven't changed that much, except that workers can be fired more quickly by smart phone. It can be seriously stated that the next round of infrastructure repair in the U.S. might be a good time and place to try some serious changes to what is a very inefficient industry.

NAFTA, one of many Trump campaign punching bags, is presently in the throes of re-negotiation. The 23-year-old treaty, signed by President Clinton, has been described by the president as something akin to the worst deal ever.

Last year the U.S. International Trade Commission reviewed the academic literature and concluded that NAFTA had substantially expanded trade volumes in all three countries, but had led to only a small boost in U.S. welfare, as measured by GDP and consumption. In fact there had been 'little or no change' in U.S. employment.

Now Trump is vowing to (negotiate to) reduce the U.S. trade deficit, particularly the $64 billion gap with Mexico. The U.S. Chamber of Commerce reminds us that 14 million U.S. jobs depend upon trade with Mexico and Canada. Negotiations continue, and Donald Trump and Justin Trudeau are hoping for an 'agreement' by the end of the year.

ENERGY OUTLOOK

BY ROYCE LOWE

The U.S. Energy Department has issued a report on the security of the country's electric grid that makes a case for rescuing the nation's coal industry from widespread plant shutdowns, but doesn't go all the way to condemning renewable power. Rick Perry, Energy Secretary, commissioned the report and he has warned that policies favoring wind and solar power may be forcing plants to shut and threatening the grid, and thus recommends the EPA ease the rules on coal plants.

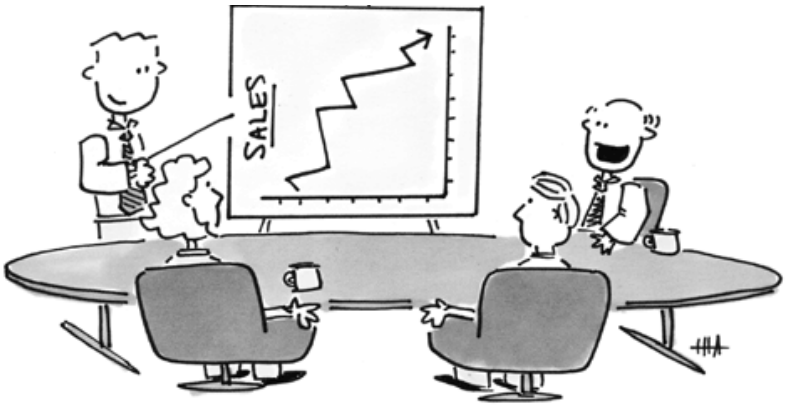
This report thus hands Trump a plan to fulfill his campaign promise to put miners back to work. An earlier draft of the report had concluded that the nation's power system is more reliable than ever in spite of coal plant shutdowns.

So, it's natural gas from fracking, versus nuclear, versus coal, vs wind and sun.

DENMARK meanwhile is selling off its last oil company. The oil and gas division of A.P. Moller-Maersk A/S is being bought by France's Total SA for $7.45 billion. There were no objections to this sale as it was welcomed by government and trade unions alike. Ironically, Denmark will need the income from oil and gas to finance its green transition and meet a pledge to stop using fossil fuels by 2050. This will mean continuing production from North Sea fields, which Total has promised to do.

Denmark is also home to Vestas Wind Systems A/S, a company that produces more turbines than any other manufacturer on the planet. The country gets more than 40 percent of its electricity from renewable sources and expects to reach over 50 percent by 2020. Denmark's green sector already employs some 67,000 people, double the number in its North Sea industry.

Manufacturing Laughs



"He's right, when you look at it that way, it's not so bad!"

EUROZONE

IHS Markit's Eurozone Manufacturing Composite Purchasing Managers' Index (PMI) rebounded from July's 56.6 to 57.4 in August, as growth in Eurozone manufacturing stayed among the strongest seen since 2011.

There was strong domestic demand and increases in export business in an expansion led by Austria, the Netherlands and Germany.

The area saw strong demand and rising employment, with improving rates of expansion in Italy, Ireland and France.

Export orders increased at their quickest pace in 6.1/2 years, backlogs increased and with them came increases in employment.

All nations reported positive forecasts.

Crude steel production in Germany in July was at 3,514 Mt, up 3.6 percent y-o-y; in Italy 2,120 Mt, up 1.7 percent y-o-y; in France 1,150 Mt, up 17 percent y-o-y and in Spain 1,000 Mt, up 8.1 percent y-o-y.

Russia's crude steel production for July was at 5,585 Mt, down 8.0 percent y-o-y; Ukraine's was 1.810 Mt, down 12.9 percent y-o-y.

	PMI	High/low
Austria	61.1 (60.0)	78-month high
Netherlands	59.7 (58.9)	78-month high
Germany	59.3 (58.1)	2-month high
Italy	56.3 (55.1)	78-month high
Ireland	56.1 (54.6)	25-month high
France	55.8 (54.9)	76-month high
Spain	52.4 (54.0)	11-month low
Greece	52.2 (50.5)	108-month high

Car sales in Germany hit an eight-year high in August, despite a big decline in diesel sales. Sales were up 3.5 percent y-o-y to 253,679 vehicles, with the eight-month total up 2.9 percent to 2.32 million. August diesel sales were down 13.8 percent to a share of 37.7 percent, and gasoline cars up 15 percent to a 58.4 percent share.

Sales in France for August were up 9.4 percent y-o-y to 107,455 cars on 22 sales days, with eight-month sales up 4.2 percent to 1.39 million.

Sales in Italy and Spain were up 16 percent and 13 percent respectively.

IHS Markit reports manufacturing growth up in the UK, with the PMI for August at a four-month high of 56.9, up from July's 55.3 reading. All product categories are up consumer, intermediate and investment goods showing good strength. Input price inflation gathers pace for the first time in seven months. Both domestic and export sales put in good performances.

Production, new orders, employment, delivery times and inventories are all consistent with a stronger performance for the UK manufacturing industry in August. More business was booked from Europe, the U.S., China and Australia. The effect of a weak Sterling must never be forgotten.

UK car registrations fell for the fifth straight month in August, by 6.4 percent y-o-y, according to the Society of Motor Manufacturers and Traders (SMMT), with 76,433 new car registrations. Diesel sales were down 21.3 percent. So far in 2017 1.64 million cars have been registered, down 2.4 percent y-o-y. A scrappage scheme has been launched for September as an attempted sales boost.

The UK produced 0.601 Mt of crude steel in July, down 13.3 percent y-o-y.

GLOBAL OUTLOOK

BY ROYCE LOWE

ASIA

There was expansion in China in August, with the best increase in new orders in over three years, and export sales increasing to the greatest extent in over seven years. Buying activity increased and business confidence rose to its highest in five months, along with an increase in production.

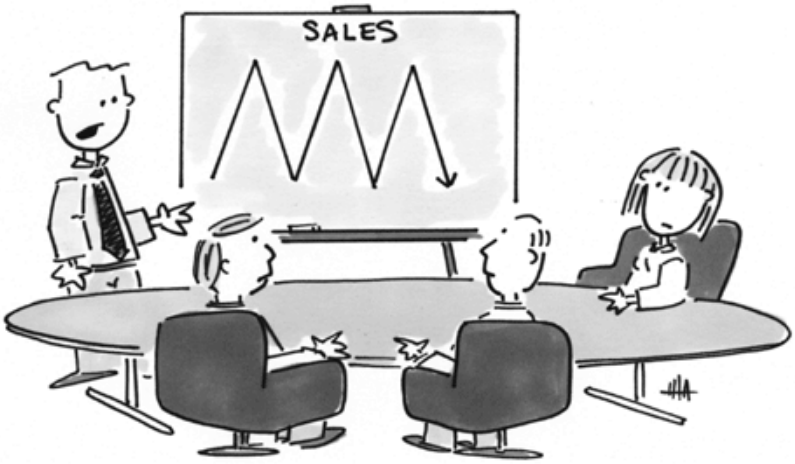
The PMI for August was at 51.6, up from July's 51.1 reading.

Staff numbers were down in August but the rate of job shedding softened.

CHINA produced 74,021Mt of crude steel in July, up 10.3 percent y-o-y; Japan 8588 Mt, down 4.3 percent y-o-,y; India 8,362 Mt, up 3.5 percent y-o-y and South Korea 6,159 Mt, up 2.3 percent y-o-y. Taiwan produced 1.960Mt in July, up 5.5 percent y-o-y.

Chinese passenger car sales were up 4.3 percent y-o-y in July to 1.68 million units, with total vehicle sales up 6.2 percent at 1.98 million – commercial vehicle sales were up 18 percent to 292,800 units. Total vehicle sales for the first seven months were up 4.1 percent.

Manufacturing Laughs



"..and then another drop this month. But, I have a really good feeling about next month."

Growth was sustained in JAPAN's manufacturing sector in August, with production and new orders still on the up. Both domestic and export demand were reported as on the increase, particularly exports to China. Job creation was still solid.

The PMI for August was up only very slightly at 52.2 from July's 52.1. Business confidence is positive, particularly in light of the 2020 Olympics.

INDIAN manufacturing bounced back in August from July's contraction (due to the implementation of a Goods and Services Tax) – with new orders and production back in growth territory. Companies hired additional workers and increased purchasing. There is a 'better understanding' of the GST system.

The PMI for August was at 51.2, up from July's 47.9 reading.

IHS Markit is predicting Indian GDP growth at 7.3 percent.

GLOBAL OUTLOOK

BY ROYCE LOWE

SOUTH AMERICA

Brazil saw new order growth at a three-month high in August, with the strongest increase in new exports since April 2016.

Manufacturers are looking at increased buying levels and production. Employment numbers are down but at a weaker rate.

The PMI for August was at 50.9, up from July's 50.0; input cost inflation was at a five-month high. There is still optimism among Brazil's manufacturers.

Brazil's crude steel production for the month of July was 2.832 Mt, an increase y-o-y of 1.0 percent.

The JP MORGAN GLOBAL MANUFACTURING PMI – a composite index produced by JPMorgan and IHS Markit in association with ISM and IFPSM (International Federation of Purchasing and Supply Management) – was at a 75-month high in August, at 53.1, up from 52.7 in July.

Growth was evenly distributed across the consumer, intermediate and investment goods sectors in August, with rates of improvement increasing in all three sectors.

Overall, developed nations performed better than developing nations, with the Euro area manufacturing PMI at June's six-year record. Further good growth was seen in the U.S., the UK, Japan and Canada. Good results were seen in China and Taiwan and there was a move back into expansion territory in Brazil and India. Production and new orders were up and employment rose at its quickest pace since June 2011.

	August	July
Global PMI	**53.1**	**52.7**
Production	**53.6**	**53.1**
New orders	**54.2**	**53.7**
New exports	**53.4**	**52.5**
Employment	**52.0**	**51.6**
Input prices	**56.5**	**55.0**
Output prices	**53.0**	**51.9**
"Future Output"	**63.5**	**63.5**

CREDIT MANAGER'S OUTLOOK

BY CHRIS KUEHL

The following information is condensed from the NACM.org Credit Manager's Index report. For the full report, please visit CMI Credit Managers' Index under News at NACM.org.

At least the ride seems to have come to an end, but nobody really knows for how long. The data this month looks a lot like last month and that counts as progress these days. "What is interesting is that there has been some discernible improvement in the overall economy, but not enough to push much activity for the credit managers," said NACM Economist Chris Kuehl, Ph.D. "A steady state is good news as long as it has steadied at a relatively high rate, and that seems to be the case this month." There have been sectors that have improved over the last few months, but more of them have shown declines.

The combined index for the CMI was better than it was last month with a reading of 55.1 as compared to 54.6. This is a respectable level as compared to the year as a whole. There have been three months that have seen readings above this and the rest have been below. The months that have exceeded 55.1 include February, April and June. There was an increase in the index of favorable factors from 61.7 to 62.2, while the index of unfavorable factors increased just slightly from 50 to 50.3. "This has been the pattern for months—strong performance in the favorable categories and weak performance in the unfavorable readings," added Kuehl.

There was more variability in the subsectors. The sales data stayed very nearly the same as last month (62.8 to 62.2), but there was some substantial growth in terms of new credit applications where there was significant growth as the reading went from 59.7 to 61.2. The dollar collections data has been very volatile over the last several months; it has been one of the factors that created the roller coaster impact seen in the CMI. There was a decline this month from 60.2 to 58.9, taking the numbers back to where they were in May. The amount of credit extended improved from 64.1 to 66.7. "This suggests that more money is being handed out to the bigger debtors," said Kuehl.

There has been even more volatility in the unfavorable factors. The rejections of credit applications numbers improved from 51.9 to 52.2, matching well with the expansion of credit to the largest debtors. The accounts placed for collection remained very close to what it was last month—just under the 50 mark at 48.7, as compared to 48.9 the month prior. "It is good that there has been some stability here," Kuehl noted, "but it would be better to see that stability with numbers over 50." The disputes category has seen some minor improvement, as it has shifted from 48.8 to 49.1. This is certainly trending in the right direction, but remains under the 50 line that separates decline from expansion. The dollar amount beyond terms has been one of the more volatile factors due to a major fluctuation as far as slow plays. It has worsened somewhat from 48.3 to 47.4. The dollar amount of customer deductions has changed a bit as well, going from 48.1 to 49.2, a somewhat healthy trend. The bad news is that these numbers are under 50, but the trend has been in the right direction. The readings for filings for bankruptcies have continued to be well in expansion territory at 55.3, up from the 54.1 notched the month before.

"The bottom line is that there is stability, but at a relatively low level and there are plenty of questions as far as the months to come," said Kuehl. "The sense is that there will be growth in the third quarter as there has been in previous years, but there is also an expectation that this growth will fade in the fourth quarter again."

Manufacturing Sector:

The patterns seen in the overall CMI are repeated in the manufacturing sector. The combined reading for the manufacturing sector was 55 this month, slightly down from 55.1 the month before. The numbers have been relatively stable all year, with the high point of 56.2 in April. The low point was 51.5 in August of last year. The variability has been in the subsectors. The index of favorable factors stayed in very healthy territory—going from 62.5 to 62. The index for the unfavorable factors saw a similar pattern—moving from 50.1 to 50.4. These numbers show a very stable environment, but this covers up a considerable variability in the sub-regions.

The sales reading fell a bit from 64 to 60.8, but the good news is that the trend is still strongly positive. The new credit applications data showed a slight gain as it went from 60.6 to 61.8, as high as it has been since January of this year. The dollar collections numbers fell, but not as drastically as in the past. It was 61.1 last month and has fallen to 59.3, but this is still higher than it was in May. The amount of credit extended trended up from 64.5 to 66.1. "This suggests the majority of the creditors are larger accounts seeking bigger amounts and bigger projects," said Kuehl.

There was more volatility in the unfavorable factors with the combined numbers shifting from 50.1 to 50.4—a minor change, but trending in the right direction. The

rejections of credit applications went from 52.9 to 52.8, a virtually negligible shift. The accounts placed for collection was also essentially the same as it was last month (49.8 to 49.7), and that pattern continues with disputes, which shifted from 47.8 to 47.3. "All of these have been very slight as far as changes are concerned," explained Kuehl, "and even though they are all sinking a little, that trend is really what matters." The dollar amount beyond terms has been a volatile issue over the last few months. This month, it fell again but not by much, as it went from 49.4 to 49.2. The number remains higher than it was earlier in the year. The dollar amount of customer deductions improved slightly by shifting from 47.6 to 48. Finally, there has been some shift in the filings for bankruptcies, as they have moved from 53 to 55.5.

"Generally speaking, the manufacturing sector has been somewhat more stable than it was earlier in the year, but has stabilized at a relatively weak level," explained Kuehl. "The fear is that an interruption in overall growth will manifest pretty quickly."

Manufacturing Laughs

"Now, if you'd all please put on your rose-colored glasses..."

THE 10 HIDDEN THREATS TO MANUFACTURERS

Parts #5 and #6 of a 10-Part Series

BY ANDREA OLSON

#5 - The Purchasing Threat

Purchasing, or procurement, is a fundamental part of any business operation. It often seems like a simple function that centers on finding high quality, reliable suppliers at the best price. But there's a lot more moving parts to manage and coordinate than purchase transactions, and it has now moved from phone calls, emails, and spreadsheets into the automation age and is on the threshold of disrupting the mid-market.

In the not-so-distant past, mid-market companies built their businesses through personal relationships with customers and OEMs. Business agreements were sealed with a handshake, and organizations partnered with vendors for decades without question. Vendors/suppliers tied anywhere from 40% to 90% of their business to one main customer (some still do). As the manufacturing world globalized and the recession hit, OEMs scrambled to find ways to cut costs and reduce expenses. In came a new look at purchasing. OEMs started examining alternative suppliers, whether domestic or overseas. They started to leverage their buying power to drive down price per piece. They implemented a series of checks-and-balances to ensure their supply chains were not at risk of failure of a vendor to deliver. And since the recession, many of these practices still remain in place, as companies start to embrace the value and impact the supply chain has on the organization.

This is where it starts to impact the "old school", mid-market manufactures that used to do business through personal connections alone. Today's new operational standards and requirements will continue to limit the opportunities these smaller shops have to secure contracts, remain a Tier 1 or Tier 2 supplier, and stay viable. De-centralization of decision making, and automation of purchasing

processes will continue to move smaller organizations out of the OEM supply chain and severely limit their power to secure contracts that were more easily acquired in the past.

This is the essence of the Purchasing Threat - changes in the purchasing processes and policies of globalized OEMs which are impacting business opportunities for mid-market manufacturers due to technology infrastructure, automation, and certification requirements.

There are 4 primary impacts of The Purchasing Threat:
1) Corporate Purchasing Portals are moving more into the mid-market space, with the integration of ERP systems (such as SAP) and EDI (electronic data interchange) systems. These portal systems require a vendor or supplier to register in a central system, with over 5,000 other companies to compete with. Larger purchasing departments continue to have more and more suppliers to manage, and the process of sourcing is continuing to consolidate. Instead of going to the shop next door, supplier portals provide these departments with a master list of hundreds of possible vendor candidates in a few clicks. Mid-market manufacturers not on these lists will find themselves out of the consideration set.

2) Increased Standards on Operations, including ISO Certification, will no longer be a luxury, but a necessity to remain a viable supplier. OEMs are gaining more and more scrutiny from customers on where they source their materials, who they do business with, and how those suppliers operate. Great examples in the recent past include Nike and Apple, where employee working conditions at their overseas suppliers caused protests and boycotts. As a mid-market supplier to an OEM, your internal operations, employee policies, social and environmental stewardship, and communication processes are now significantly impacting your viability as a vendor.

3) Taking it In-House increasingly becomes a feasible business option, as OEM organizational capabilities expand. These organizations are continually examining whether it is economically viable to retain and manage third-party vendors or produce their components directly. This process isn't simply impacted by economic cycles anymore, but is an ongoing evaluation as OEMs acquire smaller shops and expand their control of the supply chain from beginning to end. With advances in CNC machining, laser cutting, and robotics, many OEMs are identifying and eliminating long-standing supply sources, producing parts in-house at a lower cost and even becoming direct competitors of mid-market manufacturers. Finding new ways to create value and differentiation will be critical for smaller manufacturers to sustain growth in the long-term.

4) Data Transparency is also changing the supply chain game. OEMs are starting to ask more of their vendors - it's not just about supplying the part to spec with on-time, consistent delivery. Providing new insights utilizing data, is now where companies that were previously vendors, can become strategic business partners. Whether it's providing new ideas to reduce production time, reduce costs, improve quality, developing new innovations, or simply making the purchasing process simpler and easier, OEMs are increasingly seeking suppliers that add value to their operations and help make them more competitive. As a mid-market manufacturer, it will be critical to have a deeper understanding of your customers' operations, processes, and challenges to remain in the supplier pool.

Advancements in purchasing automation and the continual move towards computer-to-computer purchasing will continue to impact mid-market manufacturing. Finding new ways to influence the purchasing game will separate the manufacturers that thrive from those that find their businesses continually shrinking. It all comes back to customer engagement, and an understanding of your customers' operations. Once you leverage technology to streamline

communications and information transparency between you and your customer, the opportunity to create new value and differentiate from your competition will blossom, ensuring you remain a business partner for the long-haul.

#6 - The Marketing Threat

Marketing might be considered frivolous to some mid-market manufacturers. What can often be perceived as a waste of money, these manufactures choose to focus more on sales and relationship building, with the marketing role simply serving tactical needs, whether it be collateral creation or trade show management.

But the lack of strategically leveraging marketing for differentiation and customer retention is where these companies are missing out. While it's easy to understand the activities that marketing typically controls, it's harder to digest the strategic aspects where marketing can serve the organization. Things like identifying new markets, new sales channels, innovative ways to serve customers, and more - marketing should be used to build the business, rather than simply maintain it.

The Marketing Threat is the most commonly overlooked and misunderstood. There are quite a few manufacturers that do get it - and a big part of that is having the right marketing mindset.
Marketers themselves often focus on the "traditional" aspects of marketing, such as brand building and promotions. Yet marketing leaders in this new era need to be a business person first and a marketer second. Most marketing leaders find their performance expectations are much broader than just advertising and branding. If someone makes a complaint via social media for example, it's not just the PR team that has to think about responding, it's a broader communications issue.

Marketers also need to understand how to identify disruptions and create new ones within the business proactively. This requires a specific strategy to on how they are going to disrupt themselves, specifically starting from the question of who is going to disrupt us? If it's going to be somebody, it might as well be us, and gain some control over that disruption, because it's going to happen.
The Marketing Threat encompasses 5 critical areas for mid-market manufacturers to address:

1) Short Term vs. Long Term Thinking Within Marketing. This requires a shift from the "firefighting" role most marketers have, chasing internal departmental requests, needs, and demands, to a long view of how the organization is going to grow, profit and engage customers. Instead of focusing on quarterly numbers, manufacturing marketers need to examine and bring to the leadership team new insights about market growth, new trends, and left-field competitors. Without taking on and embracing this role, marketing will slowly become a department eliminated from the P&L, or rolled under the Sales moniker.

2) Understanding Technology, Rather Than Simply Using It. Marketers understand that technology can help streamline and automate the marketing process, but communication technologies as part of the organizational infrastructure have a bigger and broader impact of a company's operations, and marketers need to drive this process. This includes the interconnection of systems to gain new customer insights, using data (rather than collecting it) to build business, and the rollout and adoption process of new platforms to streamline customer-facing operations. This focus goes across multiple departments and silos, and marketing has a great opportunity to help lead these efforts. Otherwise, marketing will remain in their operating silo and continue to see their budgets erode.

3) Shaping and Leading the Total Customer Experience. When marketing sits only at the top of the sales funnel, focusing on generating demand and creating leads, the customer engagement process loses continuity and becomes fragmented. This has lasting consequences, from increased customer attrition to a tarnished brand image. Marketing needs to bridge organizational silos to help each department serve the customer better, and in

turn, increase customer loyalty. If marketing solely focuses on the function of "generating leads", the opportunities to address leaks in the sales funnel, increase cross-selling/up-selling, or identifying new and innovative solutions to undiscovered customer challenges will be lost.

4) Expanding Markets and Opportunities Outside of the Usual Suspects. Today's markets are continually changing. Operations, sales, and production are focused on fulfilling today's needs, and meeting short-term targets. Smaller organizations have little bandwidth to take the long view, identifying new markets and out-of-the-box opportunities to grow the business. These new opportunities are critical to identify and capitalize on early, including helping the organization adapt to it. Sales might identify immediate opportunities in the market, such as new products via customer requests, but are incentivized by short-term returns. Staying competitive requires a broader view, and it is marketing's role to see further down the road before the competition does.

5) Lack of Cross-Connected Team Strategy. Marketing, just like other functions within a typical manufacturing organization, operate in silos. Each area has their own responsibilities and metrics, and often times compete for resources and importance to the bottom line. This antiquated model often shoves marketing into a secondary and tactically-driven role, where their functions could be more easily outsourced. Marketing has the opportunity to help build interaction, communication, and engagement between departments around the customer. This will not only elevate the impact of marketing, but will help shift and focus the organizational culture on customer needs. As manufactures continue to retain the mindset and approach of being a "production" organization rather than a "service" one, competitors that make the shift will continue to gain the market share. Marketing needs to step up in manufacturing, and for good reason. While many departments are struggling to keep up with the day-to-day and see their influence and involvement continuing to shrink, it's critical to utilize this time as an opportunity and not a defeat. Marketers need to start approaching their role in the business as a growth and profit driver, and have the confidence to bring new ideas, innovations, and concepts to the table - along with helping drive their fulfillment. It is essential for marketing and it's survival in manufacturing, and for manufacturers to effectively grow in a new, ever-changing, competitive environment.

It's the difference between companies that prosper, and those that die a slow, quiet death.

Andrea Olson is CEO and Founder of Prag'madik and the author of No Disruptions: The New Future For Mid-Market Manufacturing. A 4-time ADDY® award-winner, she began her career at a tech start-up and led the strategic marketing efforts at two global industrial manufacturers. In addition to writing, consulting and coaching, Andrea speaks to leaders and industry organizations around the world on how to craft an effective marketing and communications programs to discover new sources of revenues and savings. She can be reached via www.pragmadik.com.

Manufacturing Laughs

"Normally I'd show some sort of graph, but I thought this was more succinct."

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