



IN THE SPOTLIGHT

Manufacturing Outlook for 2019

2018 has been a strong year for manufacturing. In the 12 months through November, US total manufacturing production was up 2.6% year-over-year. Activity is rising near its fastest rate in more than five years. However, leading indicators signal that we are likely near the top of the business cycle.

The US Manufacturing Capacity Utilization Rate, which typically leads manufacturing production by about two quarters, indicates that production will likely grow at an accelerating pace into early 2019, before the pace of increase slows. Activity will generally decline through the majority of 2019.

The automotive sector has been weak in recent years. North America light vehicle production recovered mildly in 2018, but recession will return in 2019. Although the heavy-duty truck sector outperformed the light vehicle sector in 2018, it will also contract in 2019. Avoid over-investing in opportunities related to the automotive industry for 2019. Evaluate your capital expenditure plans with the expectation of recession.

New orders of US industrial machinery recently fell below the year-ago level. We expect activity will decline in 2019. Cut costs where possible to maintain profitability. However, be cautious of cutting capacity as this recession will likely be mild and relatively brief. There may be some opportunities for growth in 2019; look to counter-cyclical industries. Currently, US civilian aircraft equipment production is an area of weakness, down 5.5% year-over-year, but will likely grow in 2019. Similarly, US medical equipment and supplies production (down 3.2%) will expand next year. Where possible, reallocating resources from your weaker markets to your strong markets can help you outperform the business cycle.

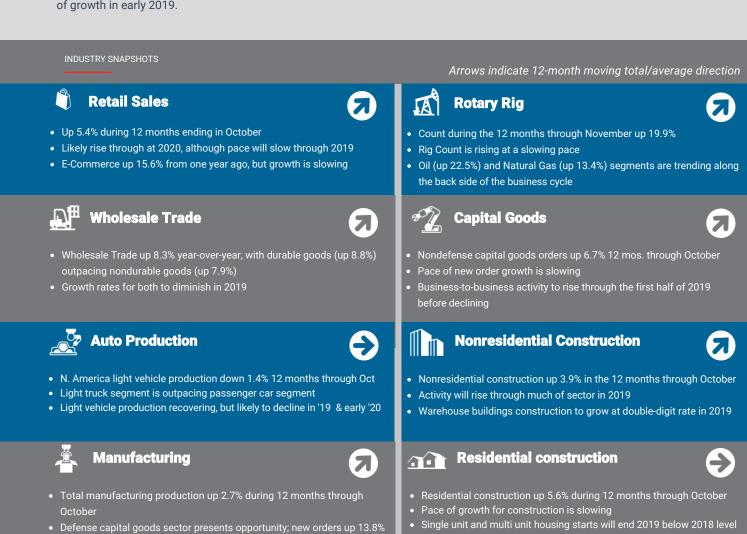
Use the remaining period of growth in the manufacturing sector in early 2019 to build up your reserves of cash. This will better position your company to weather the upcoming recession and invest for the next growth trend.

READERS' FORUM

I've been hearing a lot about the Yield Curve inverting and how this suggests that a recession is coming. What's your take on this?

There has been a lot of recent coverage on the inverting Yield Curve. It's important to note that the media is referring to the 90-day to 10-year Yield Curve, which has not necessarily been the most predictive Yield Curve historically. Other Yield Curves have yet to invert and are currently flattening rather than inverting, not yet signaling recession.

However, in general, we do not consider Yield Curve inversion to be the most helpful predictor of economic downturns. The lead time of Yield Curve inversion to business-cycle decline is inconsistent from cycle to cycle. While the inversion may suggest an economic downturn is coming, this relationship is not consistent enough to conclude when the downturn will arrive. Our primary collection of leading indicators, several of which have already been signaling upcoming business-cycle decline, have proven more predictive in the past. The inverting Yield Curve does not change our expectation that the industrial economy will slow in its pace of growth in early 2019.



What you need to know: The housing market will face increasing headwinds in 2019 and 2020, partially due to the state of the US

A Year-end Look at the Housing Market

Activity likely to slow pace of growth through much of the sector in 2019

consumer as rising home prices and higher mortgage rates strain affordability. We expect single-unit housing starts to outperform multi-unit housing starts next year.

2018 is shaping up to have been a positive year for the housing sector, but storm clouds are forming for 2019. US single-unit housing

starts are currently rising, up 6.0% from the year-ago level over the most recent 12 months, but will likely begin to decline by early 2019. The level of building has not recovered to pre-2008 levels, with almost 900,000 units started during the last 12 months compared to a high of more than 1.7 million units in 2006. We do not anticipate a Great Recession-style "cliff" forming due to overbuilding. However, single-unit housing starts will decline modestly during the first half of 2019. A rising trend will then take hold later next year and persist through at least 2020. The rate of growth in single-unit housing starts is declining across all US regions. The west currently boasts the highest rate of growth, at 16.1% in October. The midwest is the only region in which starts, down 2.4%, are currently contracting. The outlook for multi-unit housing starts is somewhat less favorable. Starts are modestly higher than the year-ago level, but activity

will decline throughout 2019 and into mid-2020. We recently revised our forecast for housing starts and now expect this contraction to be milder than previously anticipated. The strength of the US consumer ultimately underpins demand for housing. Warning signs suggest that a change in consumer activity

is likely in 2019 and into 2020. US personal savings as a percentage of disposable personal income is below the year-ago level, signaling that the US consumer is in a relatively worse position to weather any economic shock. Rising inflation will further pressure consumer purchasing power, as each paycheck no longer stretches as far as in recent years. Higher home prices and rising mortgage rates are contributing to lower housing affordability. The US Composite Case-Shiller Home

through October and will contract into mid-2019. Overall, headwinds are building for housing next year. Firms in the housing construction industry should review their 2019 planning and ensure that they are not engaging in linear budgeting. Consider diversifying into the remodeling space, where leading economic indicators are still exhibiting accelerating growth trends. And as always, analyze your own rates-of-change and leading indicators as

Price Index during the third quarter of 2018 was up 5.7% from the year-ago level. Mortgage rates rose to 4.87% in November as the Federal Reserve gradually raises interest rates. At the same time, US existing home sales were down 1.8% during the 12 months

US Copper futures prices during the three months through November averaged \$2.74 per pound, down 9.2% from one year ago. Prices ticked up in November, but this is unlikely to mark the start of a prolonged rising trend. Slowing

Copper & Aluminum Prices

we enter the 2019 spring selling season.

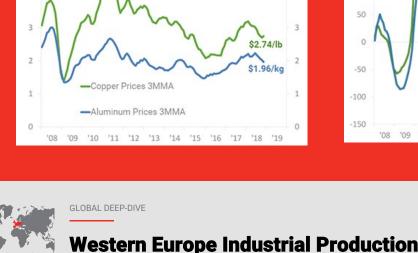
of the business cycle, keeping prices from rising. US aluminum futures prices averaged \$1.96 per kilogram, down 6.2% from a year ago. The US Purchasing Managers Index, a measure of activity in the manufacturing sector, signals that aluminum prices will face further downward

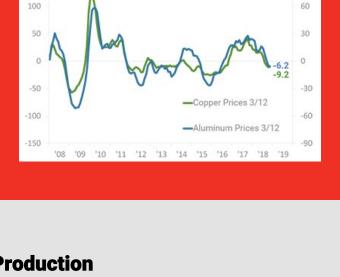
pressure through at least the third quarter of 2019. If possible, delay purchases of copper and aluminum to reduce

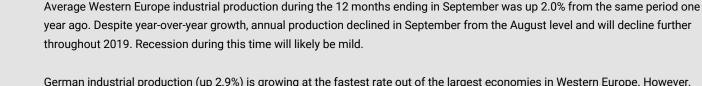
growth in the global economy is likely to limit demand for copper, particularly as the US transitions to the back side

your input costs. Cut consumption where possible while costs remain near their cyclical peak Data Trend Rate-of-Change Aluminum Coppe Coppe

100



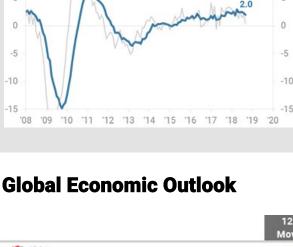




throughout 2019. Recession during this time will likely be mild.

German industrial production (up 2.9%) is growing at the fastest rate out of the largest economies in Western Europe. However, the pace of rise is slowing. Activity in much of the rest of the region, including Italy, Spain, France, and the United Kingdom, has been relatively flat in recent months. The Europe Manufacturing Purchasing Managers Index, which typically leads production by about a year, supports expectations for further downward pressure through the majority of 2019. Growth within this region will

need to come from internal initiatives. Keep costs low. Data Trend Rate-of-Change Index Index 15 120 120 15 12MMA 110 110



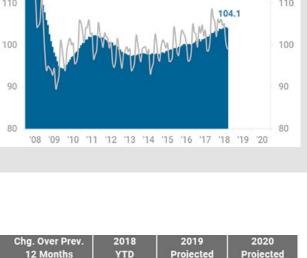
Western Europe Industrial Production

Eastern Europe Industrial Production

India Industrial Production Index

Index

Index



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lobal Economic Outlook						
	12-month Moving Avg	Chg. Over Prev. 12 Months	2018 YTD	2019 Projected	2020 Projecte	
Canada Industrial Production		3.0	2.6	0.5	0.2	
Mexico Industrial Production Index		0.2	1.7	-0.4	2.4	
Brazil Manufacturing and Mining Industrial Production Index		2.3	2.2	-1.0	2.8	

2.0

4.7

5.7

1.1

3.5

5.0

Note: Forecast color represents market projection at end of year Accelerating growth Recovery Slowing growth Recession

-1.3

-1.3

3.3

4.3

7.1

China Industrial Production Index 5.4 6.3 5.8