ITR Third-Quarter Outlook:

Inflection Points

BY ALAN BEAULIEU

EXECUTIVE SUMMARY

The table at right lists 12 leading indicators to the U.S. economy, specifically U.S. Total Industrial Production. U.S. Total Industrial Production and GDP move through the same business cycles at the same time; the former is simply more current at any given time. These 12 indicators comprise part of the system of leading indicators used at ITR Economics to see into the future for our keynote presentations and consulting programs with individual companies. We are beginning to see instances of potential rise in some of the indicators, while others are maintaining declining trends. This is normal as the economy goes through the downside of the business cycle and approaches within two to four quarters of the eventual low. There will be false lows, making it necessary to run calculations regarding the likelihood of a low "holding." By running the trend reversal analysis, potential lows will be replaced by probable lows when they meet a statistical threshold, and then the lows become full-fledged cyclical reversals after meeting a higher statistical standard. Expect to see further on-again and off-again upside signals in the next one to two quarters. The U.S. ISM Purchasing Managers Index and the JPMorgan Global PMI are recent examples of lows that did not "hold." Stay tuned, because we will very likely see more and more probable lows as we approach the end of 2019. Their occurrence should reinforce your conviction to employ Phase B or Phase A Management Objectives™ in 2020 while others are still wondering if the weakness in the economy is going to extend deep into 2020.

U.S. ECONOMIC LEADING INDICATORS

Indicator	Trend	Comments	Lead time (months)
ITR Retail Sales Leading Indicator™	Rise	1/12 and raw data rising	17
ITR Financial Leading Indicator™	Rise	Trend weakened in the last two months	14
Purchasing Managers Index (PMI)	Decline	Tentative reversal did not hold	12
JPMorgan Global PMI	Decline	Tentative reversal did not hold	12
OECD Leading Indicator	Decline	Potentially approaching a near-term low	10
G7 Leading Indicator	Decline	Perhaps curving into a low	10
ITR Leading Indicator™	Rise	Potential low; < 50% probability	8
Wilshire Total Market Cap	Rise	Too soon to call a "probable" low	8
U.S. Leading Indicator	Decline	No sign of a low	8
Single-Family Housing Starts	Decline	Further descent probable	8
Total Industry Capacity Utilization	Decline	No statistically significant upside signal	6
U.S. Exports – World	Decline	Further descent probable	4

NON-U.S. LEADING INDICATORS

The next table (top right of next page) provides some of the non-U.S. leading indicators used by ITR Economics. There are noticeably more "Rise" trend designations. The potential lows associated with China, Japan, and Australia PMI trends are "potential" at best. Data over the last two-to-four months shows weakness that belies the statistically correct "Rise" designation. We won't be surprised if in a couple of months those indicators revert

to "Decline." The Eurozone Composite PMI is in a more stable situation, and its low is probably going to hold. This makes sense, given that Europe began the business cycle weakness trend prior to the U.S. However, our concern is that it may not be possible for Europe to sustain any upside cyclical momentum given the weakness in the U.S., Brexit, and trade issues with the U.S.

LONG-TERM OUTLOOK

The chart below illustrates the long-term trend in Bond Prices (scaled on the right) and the S&P 500 (3MMA values in both cases to reduce some of the monthly noise). This is a great chart. It shows that what we know based on what we, as individuals, have experienced is not necessarily what the future holds for us. Before delving into the chart, a reminder that Bond Prices move inversely to interest rates. Bond Prices go down when interest rates go up. The reverse is true as well.

It was safe to assume the following for the period from the early 1980s until recently:

1. Stocks and bonds rose in price through the period.
2. Bonds became a safe-haven for times when the stock market declined (indeed, bonds experienced rapid acceleration during such times).

The reason the long-term synchronization of rise occurred (point 1) was that interest rates were generally declining through the period. This was in large part because of globalization and the forces of deflation unleashed by that landmark trend.

The reason bonds became a favored offset to stock prices was that times of economic stress (resulting in a decline in the S&P 500) created an environment where the marketplace drove interest rates down.

Note that this relationship does not apply to the earlier period shown on the chart. Post-WWII through the early 1980s, the long-term price trend for bonds was protracted decline because of the long-term rising trend in interest rates. That trend became so ingrained in the psychology of the times that by the time of the early 1980s, when ITR Economics was advising people to place more of a focus on bonds for some rapid capital appreciation, few heeded that advice. Our ability to foresee the coming period of interest rate decline is the reason we could make that forecast for our clients.

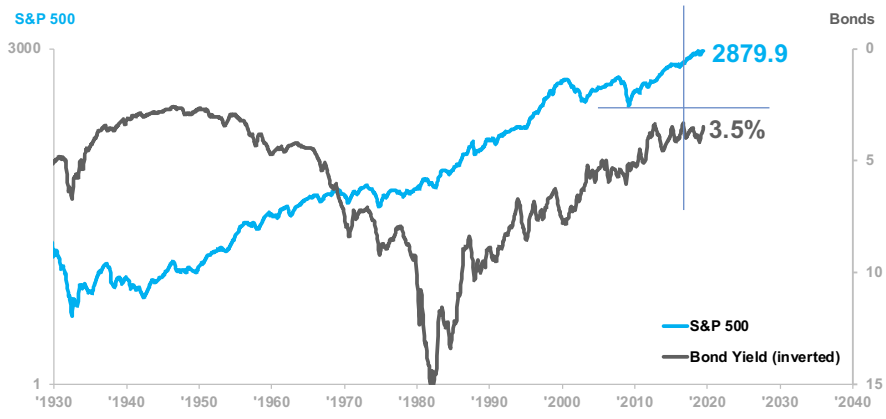
NON-U.S. LEADING INDICATORS

Indicator	Trend	Comments
Eurozone Composite PMI	**Rise**	1/12 and raw data rising
China PMI	**Rise**	Tenuous 1Q19 low; trend is weakening
Japan PMI	**Rise**	Tenuous 1Q19 low; trend is weakening
UK PMI	**Decline**	Tentative reversal did not hold
India PMI	**Rise**	Tenuous low; trend is weakening
Brazil PMI	**Rise**	1/12 up two months but not yet statistically significant
Australia PMI	**Rise**	Tenuous March '19 low; trend is weakening

Now, look at the early 1930s until about the beginning of World War II. You will see that while Bond Prices performed very well during the last Great Depression, Stock Prices did not. Declining interest rates fed the bond appreciation trend; struggling profits created the lackluster decade for the stock market.

This chart holds the key to what to expect in the 2020s and how that expectation must radically change for the 2030s. Look at the "crosshairs" drawn on the chart. They are placed there because we are at another major inflection point regarding the underlying trend for interest rates. It should change your approach to protecting your wealth or maximizing your capital appreciation.

Corporate AAA Bond Yields Inverted for Prices to U.S. Stock Prices Index 3MMA



Sources: FRB, Wall Street Journal

CORE ECONOMY AT A GLANCE

	12/12	12MMT/A	CURRENT	2019	2020	2021	HIGHLIGHTS
U.S. INDUSTRIAL PRODUCTION			3.3	0.5	0.7	2.0	Production will peak imminently before declining into early next year.
U.S. NONDEFENSE CAPITAL GOODS NEW ORDERS			4.2	-0.6	4.4	4.1	New Orders will decline in the second half of this year and in the early part of next year.
U.S. PRIVATE SECTOR EMPLOYMENT			1.9	1.6	1.3	2.0	Employment will rise at a slowing pace through the remainder of this year and much of 2020.
U.S. TOTAL RETAIL SALES			4.0	2.4	3.1	3.0	Retail Sales will rise through at least 2021, but the pace of growth will slow into mid-2020.
U.S. WHOLESALE TRADE OF DURABLE GOODS			5.5	2.1	3.1	6.4	The pace of growth for Wholesale Trade will slow through the remainder of this year and the first half of next year.
U.S. WHOLESALE TRADE OF NONDURABLE GOODS			5.4	-0.2	2.2	5.9	Wholesale Trade will plateau near the current level into mid-2020.

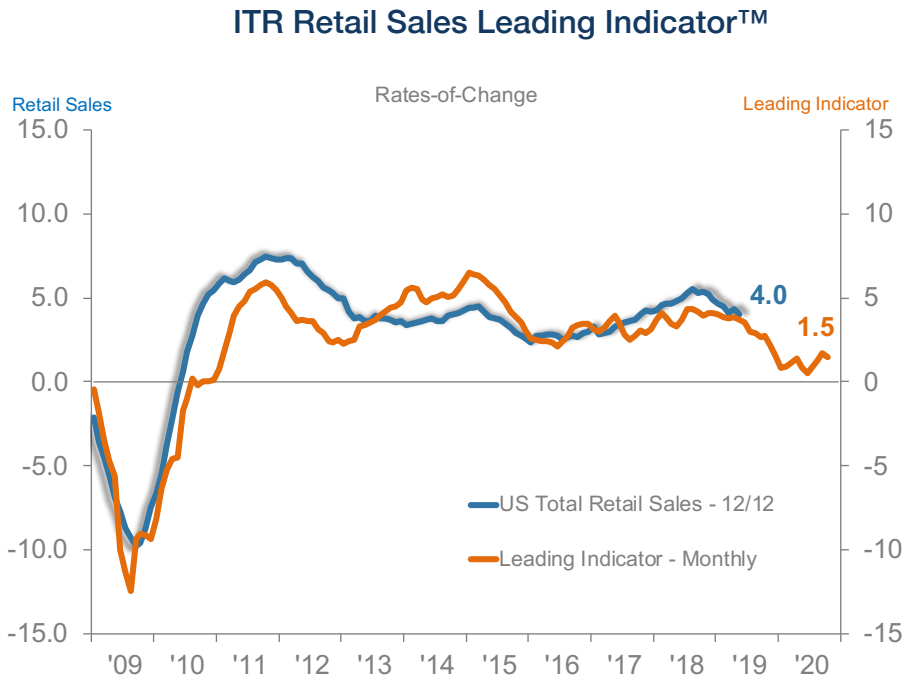
Note: Forecast color represents what Phase the market will be in at the end of the year.

LEADING INDICATORS

ITR RETAIL SALES LEADING INDICATOR™

PACE OF GROWTH FOR RETAIL SALES TO SLOW INTO MID-2020

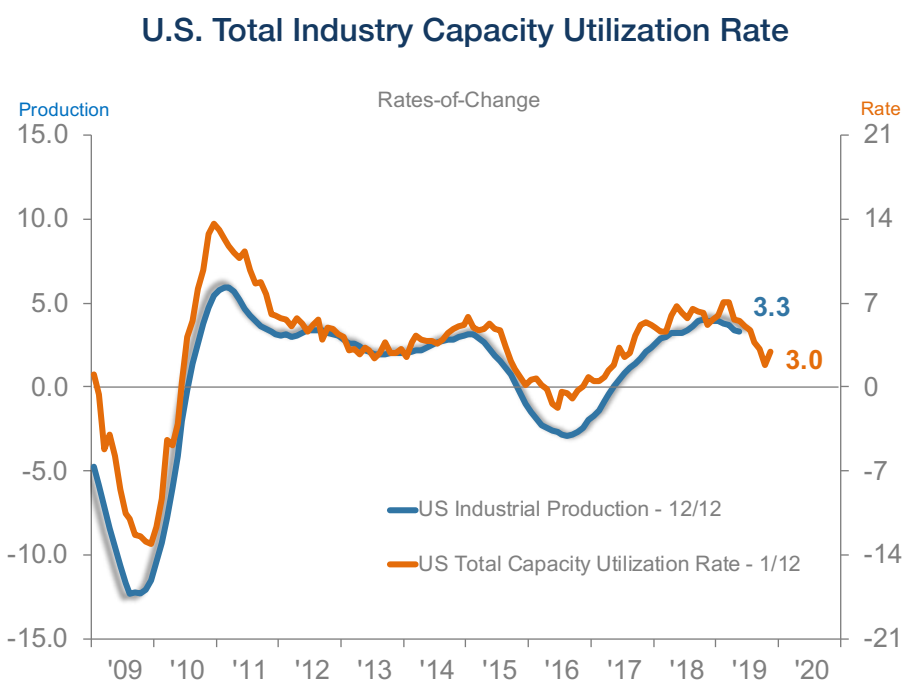
The ITR Retail Sales Leading Indicator™ is rising from an early-2019 low. This indicator typically leads U.S. Retail Sales by about a year and a half, which indicates that Retail Sales could transition to business cycle rise around the middle of 2020. In the meantime, plan for Retail Sales to grow at a slowing rate into 2020.



U.S. TOTAL INDUSTRY CAPACITY UTILIZATION RATE

CYCLICAL DECLINE LIKELY INTO AT LEAST LATE THIS YEAR

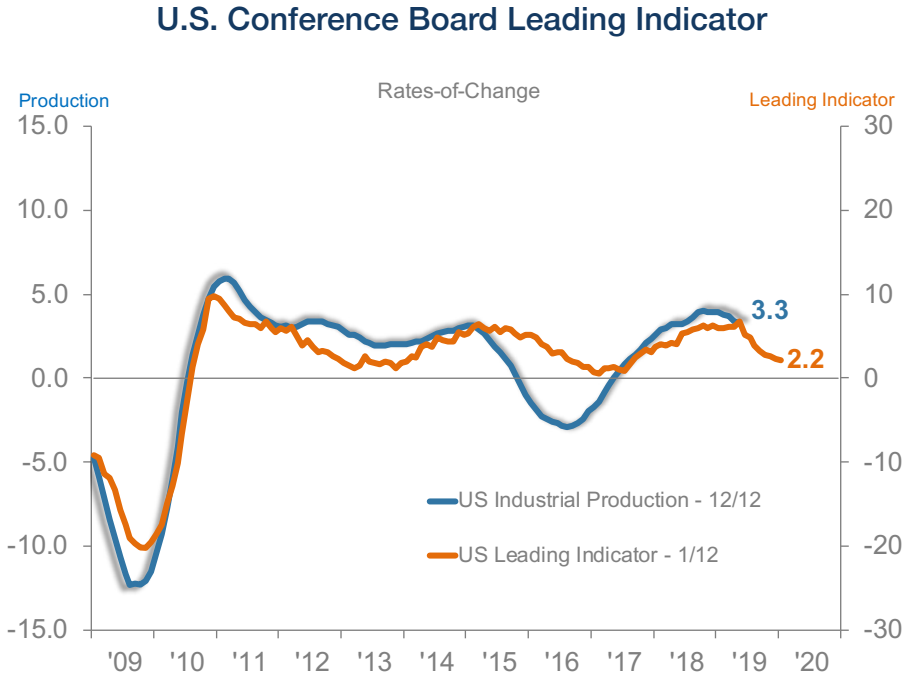
The U.S. Total Industry Capacity Utilization Rate 1/12 ticked up in May. This rise of one month does not yet have the statistical significance needed to identify the start of a prolonged rising trend for this indicator. The Utilization Rate is signaling that cyclical decline will occur in U.S. Industrial Production into at least late this year. If the rise in the Utilization Rate 1/12 persists, it would be a positive sign for Production in early 2020.



U.S. CONFERENCE BOARD LEADING INDICATOR

U.S. INDUSTRIAL PRODUCTION 12/12 TO DECLINE THROUGH 2019

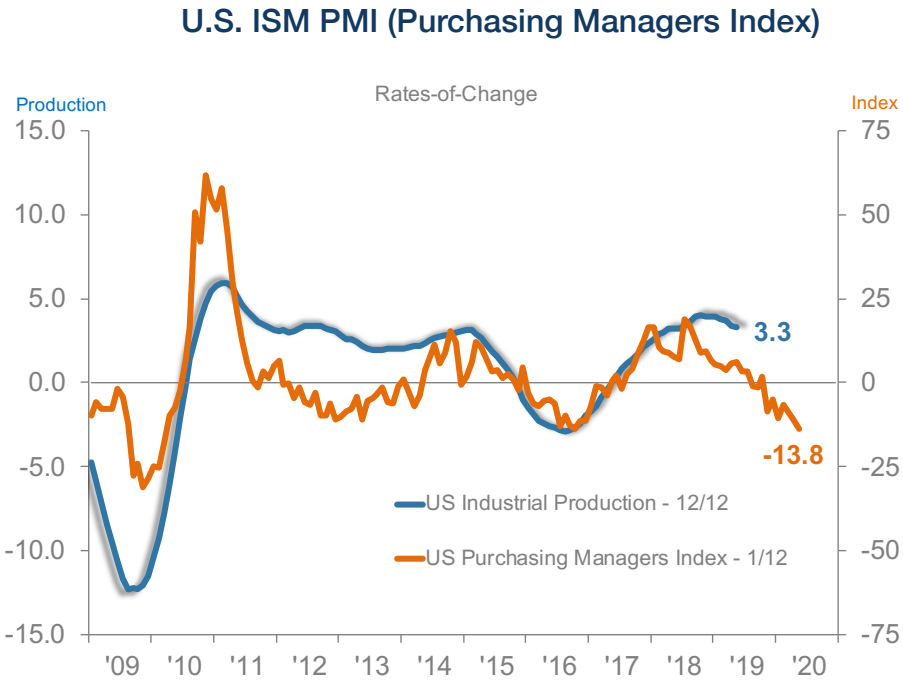
The U.S. Conference Board Leading Indicator 1/12 declined in April. Based on its typical lead time of about eight months, this indicator is signaling that the U.S. Industrial Production 12/12 will decline through at least the end of 2019.



U.S. ISM PMI (PURCHASING MANAGERS INDEX)

PMI INDICATES CYCLICAL DECLINE IN INDUSTRIAL PRODUCTION LIKELY INTO MID-2020

The U.S. ISM PMI (Purchasing Managers Index) 1/12 declined further in June. Given its typical lead time of about a year, this indicator signals that cyclical decline in U.S. Industrial Production will likely persist into at least the middle of next year.



GAWDA EXECUTIVE SUMMARY/DASHBOARD:

GAWDA-SPECIFIC INDICATORS			
INDICATORS	**HIGHLIGHTS**	**CURRENT GROWTH RATE (12/12)**	**PHASE**
U.S. INDUSTRIAL PRODUCTION INDEX	Annual Production will dip lower during the second half of the year and in early 2020. Ensure you have a contingency plan in place in case decline lasts longer than anticipated.	3.3%	C
U.S. PROCESSED GOODS FOR INTERMEDIATE DEMAND PRODUCER PRICE INDEX	Prices of commodities such as steel, copper, and oil will likely be relatively low during this business cycle downturn, but labor costs will be relatively high.	2.7%	C
U.S. CRUDE OIL FUTURES PRICES	We expect Prices to trend in the mid-$50s to low $60s during the next three quarters. Geopolitical instability in the Middle East presents an upside risk.	0.1%	C
U.S. NONDEFENSE CAPITAL GOODS NEW ORDERS WITHOUT AIRCRAFT	Decline in Capacity Utilization indicates further business cycle decline in New Orders is likely in at least the coming quarters.	4.2%	C
U.S. ELECTRICAL EQUIPMENT NEW ORDERS	Falling activity in the new housing construction market will likely limit demand for electrical equipment related to residential power.	4.2%	C
U.S. FABRICATED METAL PRODUCTS NEW ORDERS	Annual New Orders will likely decline by the end of the year as fading business optimism manifests in decreased capital expenditures.	4.8%	C
U.S. DURABLE GOODS NEW ORDERS WITHOUT AIRCRAFT	A strong U.S. dollar could weigh on durable good exports. Business cycle decline in New Orders will likely persist in at least the coming quarters.	5.7%	C
ITR LEADING INDICATOR (MONTHLY)	The Indicator has formed a potential low; however, further decline is probable. This signals that business cycle decline will persist during the second half of the year.	-0.1 (Monthly)	D

All the GAWDA industry indicators are in business cycle decline (Phase C, Slowing Growth, or Phase D, Recession). The current macroeconomic business cycle declining trend is expected to last into the first half of 2020; we are closely monitoring our system of leading indicators to confirm this timing. Cash flow may become constrained as business cycle decline progresses; increase criteria for expenditures and focus on protecting your profit margin. Companies more closely tied to the automotive sector may feel business cycle decline more acutely whereas companies tied to other sectors, such as defense, may feel less of a strain. Lead with confidence as decline will be temporary. Remember to look forward to the next period of rise starting around mid-2020 and utilize the downturn to answer the question: what can you do to propel your business forward during the next rising trend?

U.S. INDUSTRIAL PRODUCTION

C - SLOWER GROWTH

2019	0.5%	109.0*
2020	0.7%	109.8*
2021	2.0%	112.0*

*Index based to 2012 = 100

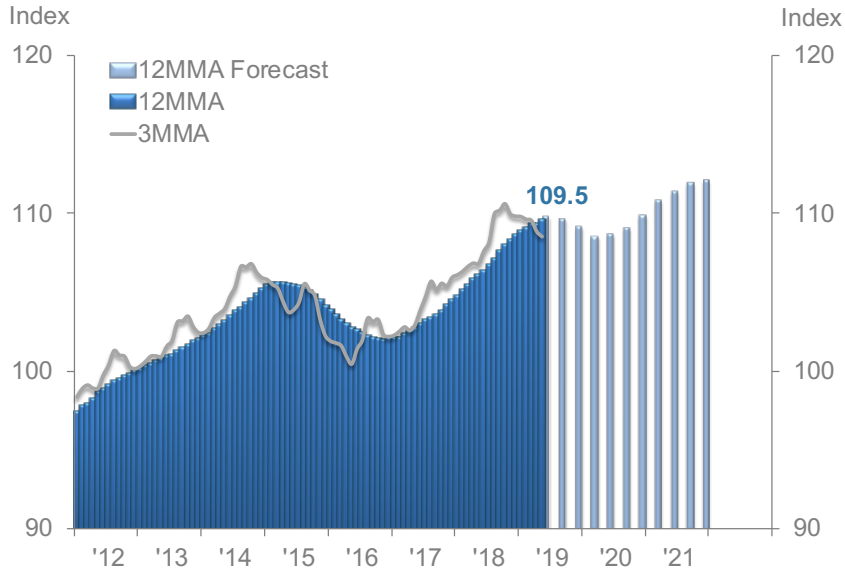
HIGHLIGHTS:

- Production was up 3.3% from the year-ago level
- Activity will peak in the near term
- Slowing growth in the consumer sector is hindering growth in the industrial sector

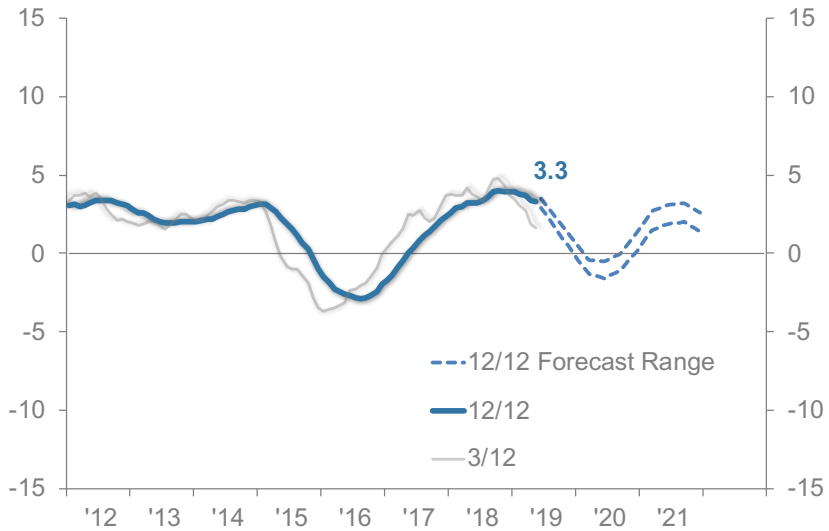
U.S. Total Industrial Production during the 12 months through May was up 3.3% from a year ago. Industrial activity will peak in the near term. Production will then decline mildly late this year and early next year before subsequently rising through much of 2020 and 2021.

Industrial activity is slowing in its pace of growth, in synch with slowing growth in the consumer sector. U.S. Total Retail Sales will rise at a diminishing rate through the remainder of this year and into next year. Retail Sales are unlikely to enter a recession during this business cycle, which will limit the severity of the recession expected in U.S. Industrial Production. However, firms should not plan for the consumer sector to present the same level of growth opportunities in the next few quarters that it did in the last few.

U.S. Industrial Production Index Data Trend



U.S. Industrial Production Index Rate-of-Change



Management Note: Use the forecasts in the GAWDA industry analysis report to determine if your markets are likely headed for a recession during this business cycle. If so, look for areas to cut costs.

NDF NOs: U.S. NONDEFENSE CAPITAL GOODS NEW ORDERS (EXCLUDING AIRCRAFT)

C - SLOWER GROWTH

2019	-0.6%	$826.0 billion
2020	4.4%	$862.3 billion
2021	4.1%	$897.7 billion

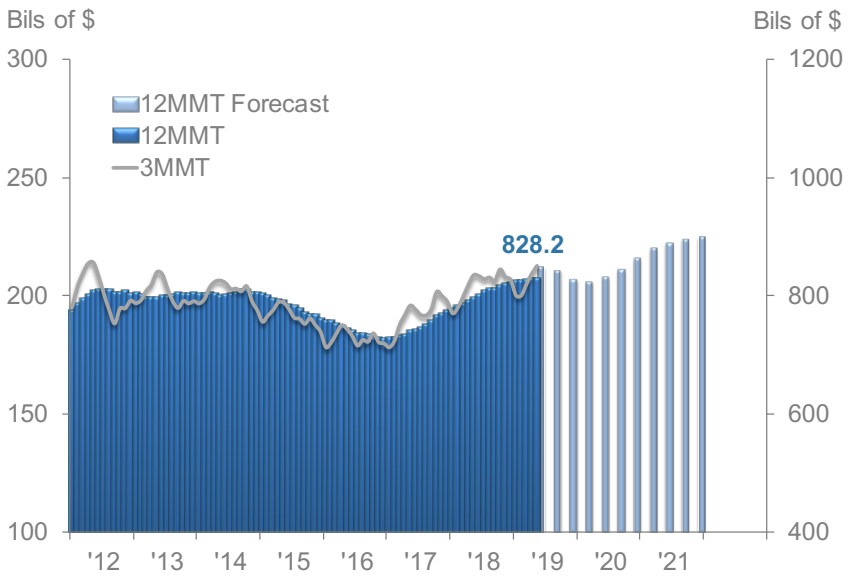
HIGHLIGHTS:

- New Orders were up 4.2% from one year ago
- New Orders spending will peak imminently before declining into early next year
- Exports are unlikely to present opportunities for growth in the near term

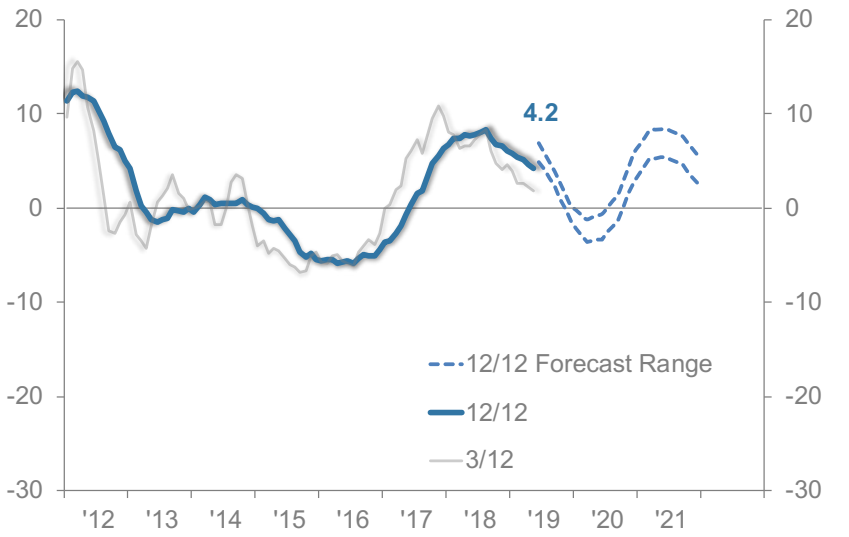
U.S. Nondefense Capital Goods New Orders during the 12 months through May totaled $828.2 billion, up 4.2% from the year-ago level. New Orders spending will peak imminently before declining through the remainder of 2019 and into early 2020. The New Orders 12MMT will subsequently rise through the remainder of 2020 and through at least 2021.

U.S. Exports during the three months through April (latest data available) were down 0.5% from the same period one year ago. As growth slows in the global economy, demand for U.S. goods in foreign markets will likely wane, pushing down U.S. Exports. This trend will likely be exacerbated by general rise in the strength of the U.S. dollar. Do not budget for Exports to present significant growth opportunities in the near term.

U.S. Nondefense Capital Goods New Orders (excluding aircraft) Data Trend



U.S. Nondefense Capital Goods New Orders (excluding aircraft) Rate-of-Change



Management Note:

Maintain vigilance regarding unnecessary expenses if you are dependent upon this sector as a market driver. The second half of 2020 will see improvement, but you must protect profits between now and the middle of next year.

OIL PRICES: U.S. OIL FUTURES COMMODITY PRICES

C - SLOWER GROWTH

Sep 2019	$55.32 per barrel
Dec 2019	$57.49 per barrel
Mar 2020	$60.08 per barrel
June 2020	$64.84 per barrel

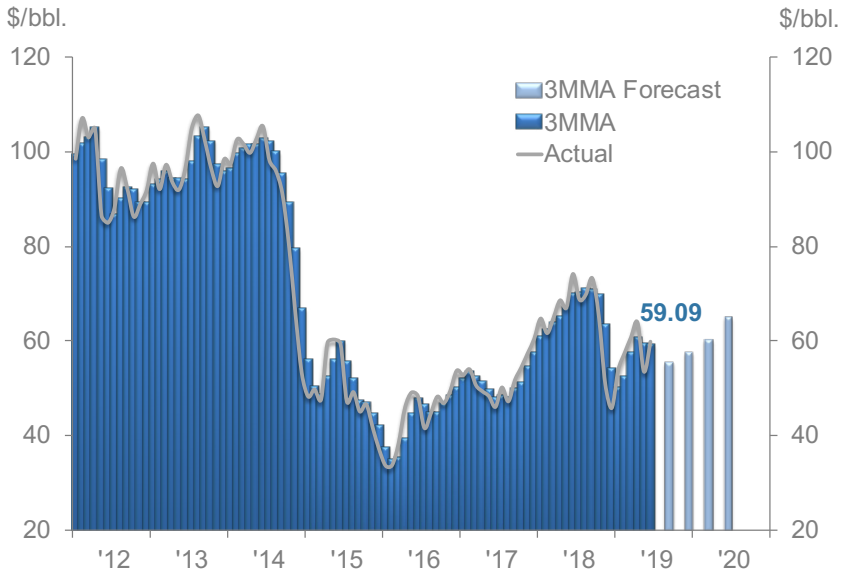
HIGHLIGHTS:

- The Prices 3MMA was down 15.5% from a year ago
- The percentage rise in Prices from May to June was the second highest on record
- OPEC plans to extend production cuts into 2020

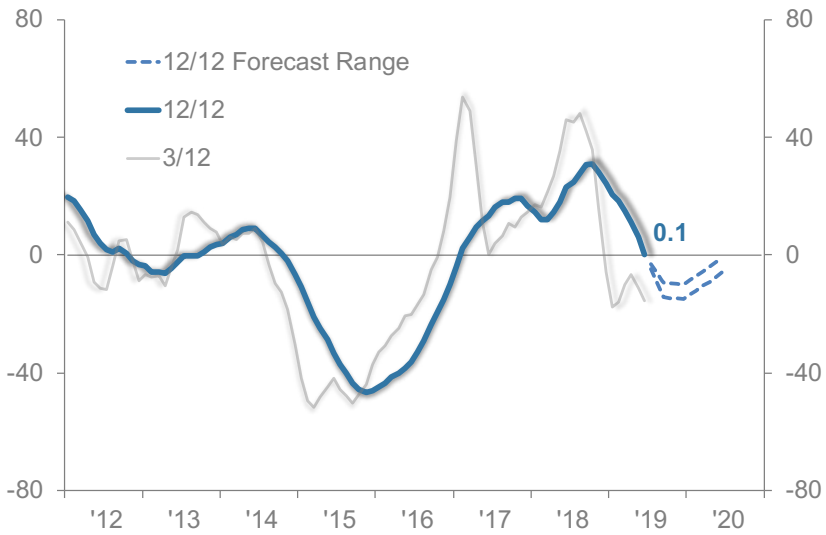
U.S. Crude Oil Futures Prices during the three months through June averaged $59.09 per barrel, down 15.5% from the same period one year ago. Prices rose 11.9% from the last day of May to the last day of June. This is the second-highest May-to-June increase on record. Prices will be near the current level through the remainder of this year.

OPEC and its allies, including Russia, will be extending production cuts by another nine months. This will likely result in Prices being higher than they would otherwise be during that time. However, slowing growth in the global economy will also be limiting the demand for oil. These pressures will somewhat counteract each other, and Prices are therefore unlikely to rise much above their current level.

U.S. Oil Futures Commodity Prices Data Trend



U.S. Oil Futures Commodity Prices Rate-of-Change



Management Note: Prices will not rise much above the current level during the remainder of this year. Evaluate your purchasing needs accordingly.

STEEL PRICES: U.S. STEEL SCRAP PRODUCER PRICE INDEX

C - SLOWER GROWTH

Jun 2019	467.21*
Sep 2019	429.94*
Dec 2019	422.04*
Mar 2019	442.20*

* Index based to 1982 = 100.

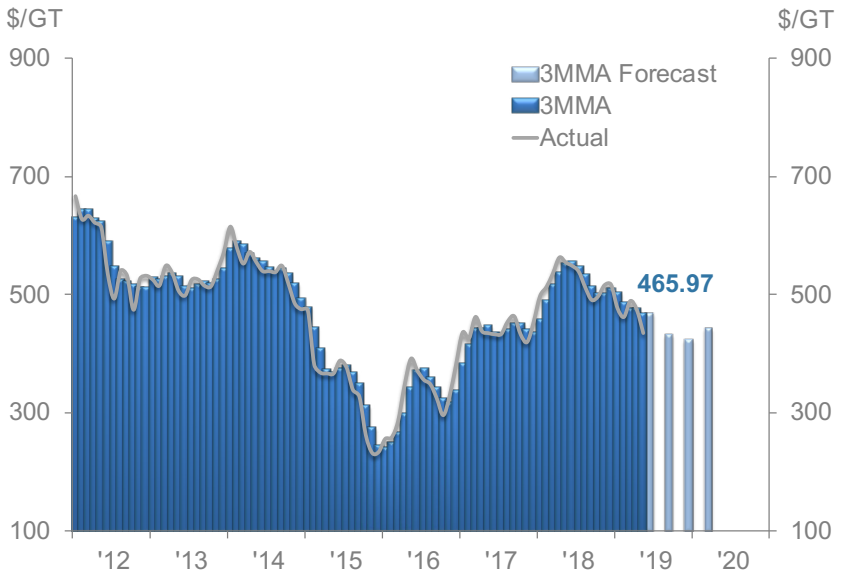
HIGHLIGHTS:

- The Prices 3MMA was down 15.4% from a year ago
- Slowing growth in the global industrial economy is driving down Prices
- Prices will fall through the remainder of 2019

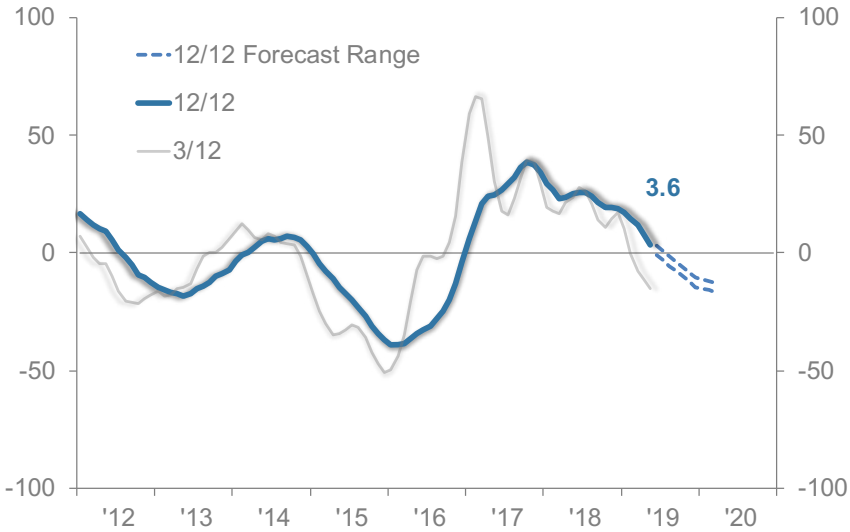
U.S. Iron and Steel Scrap Producer Prices during the three months through May were down 15.4% from the same period one year ago. Prices will fall through the remainder of this year before rising early next year.

Slowing growth in the global industrial economy is reducing demand for metals, which is contributing to driving down Steel Prices. We expect Prices to fall further throughout this year as World Industrial Production slows further in its pace of growth and U.S. Industrial Production declines. Consider delaying steel purchases until later this year, where possible, to take advantage of this declining trend.

U.S. Steel Scrap Futures Commodity Prices Data Trend



U.S. Steel Scrap Futures Commodity Prices Rate-of-Change



Management Note:

If you use steel as an input, take caution before raising your own prices. Ensure that your prices are competitive within your industry.

U.S. FABRICATED METAL PRODUCTS NEW ORDERS

C - SLOWER GROWTH

2019	-0.3%	$401.7 billion
2020	4.4%	$419.4 billion
2021	4.8%	$439.5 billion

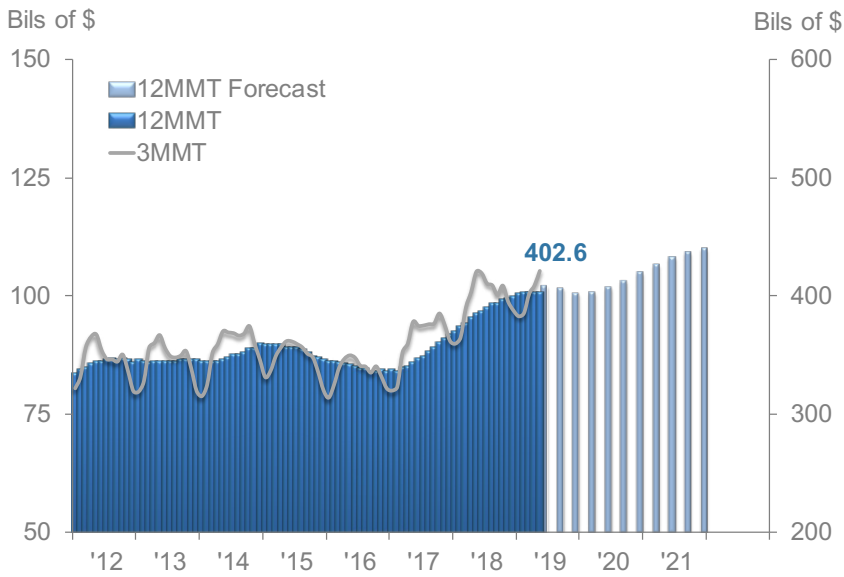
HIGHLIGHTS:

- Annual New Orders are flattening out and will likely decline late in the year
- Reduced capital expenditures will likely hinder New Orders
- The next business cycle rising trend is expected to start around mid-2020

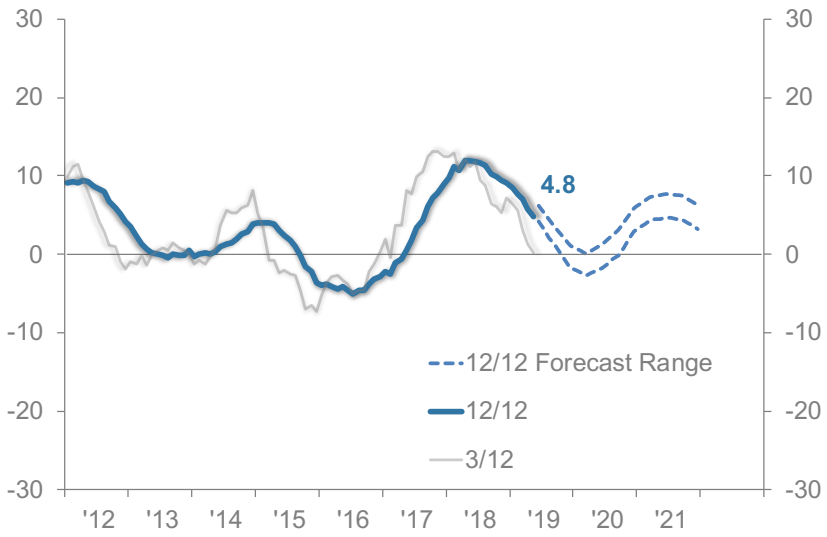
Annual U.S. Fabricated Metal Products New Orders in May totaled $402.6 billion, 4.8% higher than one year prior. New Orders flattened out in recent months and are expected to decline late in the year and in early 2020. New Orders will then rise through the remainder of 2020 and throughout 2021.

The U.S. Business Confidence Index in April edged down below 100 for the first time since the New Orders recession of 2015-16 and was 1.1% below the year-ago level. Waning momentum in Business Confidence may inhibit capital expenditures and New Orders in at least the coming quarters. This likelihood is also reflected in U.S. Small Business Capital Expenditure Plans, which were down 5.7% in the second quarter compared to the same quarter last year. Be prepared for tougher market conditions during approximately the next four quarters.

U.S. Fabricated Metal Products New Orders Data Trend



U.S. Fabricated Metal Products New Orders Rate-of-Change



Management Note:

Identify your competitive advantages and make sure they are communicated to your clients. Building your brand could give you more flexibility to protect your profit margins.

FOODX: U.S. FOOD PRODUCTION INDEX

C - SLOWER GROWTH

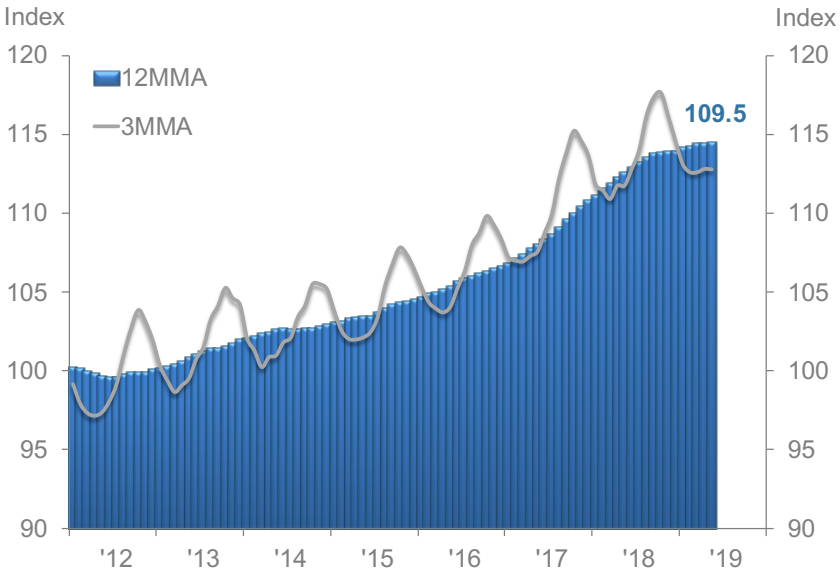
HIGHLIGHTS:

- Production was up 1.7% from one year ago
- Production activity will generally plateau in at least the coming quarters
- The Fruit and Vegetable Preserving and Specialty Food Manufacturing Production component is in a recession

U.S. Food Production during the 12 months through May was up 1.7% on a year-over-year basis. Our analysis suggests that the Production 12MMA will generally plateau in at least the near term.

U.S. Animal Slaughtering and Processing (Including Poultry) Production, which accounts for approximately 21.8% of Food Production, is growing at a slowing pace, up 1.8% from the year-ago level. Our analysis indicates that cyclical decline will likely persist for at least the next one to two quarters. Meanwhile, U.S. Fruit and Vegetable Preserving and Specialty Food Manufacturing Production, which accounts for approximately 11.4% of Food Production, is an area of weakness, down 4.3% from one year ago. Opportunities may be present in U.S. Snack Food Production, which is up 9.6% year over year and accelerating in its ascent.

U.S. Food Production Index Data Trend



U.S. Food Production Index Rate-of-Change

Management Note:

Exercise caution before expanding capacity; the industry utilization rate is below the five-year average, and Production activity is likely to plateau in at least the coming quarters.

ITR ECONOMICS – METHODOLOGY

MOVING TOTAL/MOVING AVERAGE:

Moving totals/averages are used to smooth out the volatility inherent to monthly data at the product/company level.

MONTHLY MOVING TOTAL (MMT) VS. MONTHLY MOVING AVERAGE (MMA):

There are times when it is desirable to calculate a monthly moving average instead of a total. Averages are used when the data cannot be compounded, such as an index, percent, price level or interest rates. Totals are used for things where it makes sense to add the data together (for example, units sold or total dollars spent).

3MMT/A:

A three-month moving total (3MMT) or average (3MMA) is the total (or average) of the monthly data for the most recent three months. Three-month moving totals (3MMT) or averages (3MMA) illustrate the seasonal changes inherent to the data series.

12MMT/A:

A 12-month moving total (12MMT) or average (12MMA) is the total (or average) of the monthly data for the past 12 months. The 12MMT(A) removes the seasonal variation in order to derive the underlying cyclical trend. It is also referred to as the annual total or average.

RATE-OF-CHANGE:

A rate-of-change figure is the ratio comparing a data series during a specified time period to the same period one year ago. Rates-of-change are expressed in terms of the annual percent change in an MMT or MMA.

Rates-of-change reveal whether activity levels are getting progressively better or worse compared to last year. Consecutive rate-of-change illustrates and measures cyclical change and trends.

ITR Economics' three commonly used rates-of-change are the 1/12, 3/12 and 12/12, which represent the year-over-year percent change of a single month, 3MMT(A) and 12MMT(A), respectively.

A rate-of-change above zero indicates a rise in the data relative to one year prior, while a rate-of-change below zero indicates decline.

BUSINESS CYCLE POSITIONS:

The data trends and rates-of-change identify positions in the business cycle. Those positions are:

RECOVERY

12/12 is rising below zero and the data trend is either heading toward a low or is in the early stages of recovery.

This is the first positive phase of the business cycle.

ACCELERATING GROWTH

12/12 is rising above zero, data trend is accelerating in its ascent, and growth is occurring above year-ago levels.

This is the second positive phase of the business cycle.

SLOWER GROWTH

12/12 is declining but remains above zero, data trend is decelerating in its ascent or has stopped its rise, but it is still above last year.

This is the first negative phase of the business cycle.

RECESSION

12/12 is below zero and the data trend is at levels below the year-earlier level.

This is the final phase and second negative phase of the business cycle.

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