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Executive Summary

BY: BRIAN BEAULIEU

Some Good News, the "U"s, and 2030 Views

SUMMARY

The deluge of data can at times seem like a torrent of ill tidings. For example, we have lost two more of the leading indicators that had been pointing to recovery. While this was expected, it can still be disheartening. Please remember that we expect the leading indicator "lights to come on" in late June and in July, rendering a very short lead time to when GDP and other measures of the economy begin to climb out of the hole we find ourselves in. Downbeat news is not hard to find. What follows are some good news items for your consideration:

1. The S&P 500 Index low of March 23 is still holding, with a 12.7% increase in the market from March to April (monthly data).

2. A recent Vistage survey revealed that 24% of companies in Vistage have seen business improve because of the COVID-19 black swan. There are almost always opportunities and winners, but the percentage being that high was a pleasant surprise.

3. The number of daily COVID-19 deaths in the US and most of the world appears to have peaked and is now potentially on the backside of the curve.

4. Not only are some US states phasing in a removal of restrictions on their populations, but other economies around the world are doing the same, albeit at varying paces and to varying degrees.

5. Amazon has bathroom tissue again, so at least that crisis is over.

6. All the stimulus the federal government and Federal Reserve have contrived to get the economy moving has not yet hit the economy.

7. We see signs of capitalism, creativity, and determination in the business leaders we interact with every day, making a real difference.

WHY A "U" AND NOT A "V"

You can see from the forecasts throughout the ITR Trends Report[™] that we are projecting the rates-of-change will generally have a "V" shape as part of the recovery, but not the data trends. The data trends vary from a "U" (best case) to an "L with attitude" (think hockey stick). We wish the data trend outlook was a "V," as do many other people. However, we don't think that outcome is probable for multiple reasons:

1. Not all states are allowing their populations to return to the marketplace at the same time. Some states are going to remain sheltering at home longer than others.

2. The amount of freedom to engage in commerce is being phased in, as opposed to most of us simply returning to our pre-COVID lives.

3. The other black swan, devastatingly low oil prices, is roaming through the economy and wreaking its own damage, similar to what occurred in 2015-2016. This particular black swan won't directly benefit from an eventual vaccine until the excess supply of oil is absorbed by the global economy.

4. It is unlikely that we can ramp production back up that quickly in many circumstances because of labor and/or material constraints.

5. It is unlikely that our trading partners will experience a data trend "V." Remember that approximately 8% of our GDP comes from the export of goods.

- 6. There are people that are afraid and will act accordingly until there is a vaccine or proven, effective treatment.
- 7. While there are precedents for steep declines, there is no precedent for an equally steep climb out.

This is one instance where ITR Economics would enjoy being wrong. Unfortunately, we continue to think it will take time to heal the economic wounds we have suffered.





COMMODITY PRICES

We are projecting that prices of oil, aluminum, and other commodities have a long climb out from their current depths. The world is going to need to recover and inventories are going to have to come down in order to see prices rise. Unlike the economy in general, prices have a propensity for rebounding sharply, but that tends to occur when the economic fundamentals are correct and there was "only" a short-term distortion in the marketplace. The economic fundamentals are not yet correct; expect commodity prices to stay low.

Interest rates reflect the price for renting a commodity called money. We expect interest rates will stay low through 2021, as reflected by our thee-month moving average (3MMA) forecast for the US Government 10-Year Bond Yield. Although the US appetite for borrowing money is voracious right now, money is cheap thanks in part to global monetary policy stimulation and Fed intervention into the credit markets. Below is our Bond Yield outlook for the next seven quarters.

2Q20	0.68%
3Q20	0.61%
4Q20	0.73%
1Q21	0.78%
2Q21	0.96%
3Q21	0.97%
4Q21	1.08%

We maintain that these low interest rates mean that the federal government is not doing any *immediate* damage to the fiscal wellbeing of the country since we can afford the debt at these prices. It becomes an entirely different discussion when interest rates head back toward "normal." The same math can apply to your firm. This is a good time to borrow at a fixed rate if you have a plan for an acquisition, market penetration, or investing in future efficiencies.

THE MAGNIFICENT 7

We looked at state and local data to broaden the debt discussion with an eye toward seeking relative safe havens for when times get really bad (circa 2030-2040). We looked at state and local debt as a percentage of the state's GDP and we also examined the extent to which the pension liabilities within that state were funded. The "best states" from a debt exposure perspective are those with little debt and where the pension funds are covered (or at least better covered than in other states). The Magnificent 7 states are:

1. Wisconsin:	13.9% debt load and 103% pension coverage
2. South Dakota:	12.9% debt load and 100% pension coverage
3. Tennessee:	11.8% debt load and 97% pension coverage
4. Idaho:	8.0% debt load and 91% pension coverage
5. North Carolina:	8.5% debt load and 91% coverage
6. Utah:	12.7% debt load and 90% coverage
7. Nebraska:	13.2% debt load and 90% coverage

Come the 2030s, if you are inclined to seek financial shelter within the US, you may want to consider one of the Magnificent 7 as a relative financial safe haven.





	12/12	12MMT/A	Current 12/12	2020	2021	2022	Highlights
US Industrial Production	\sim		-0.4	-7.1	3.8	4.3	Developments surrounding the double black swan events and updated leading indicator data led us revise our outlook downward.
US Nondefense Capital Goods New Orders	\sim		0.3	-15.8	3.9	4.2	We revised our expectations for New Orders downward; spending will be below the current level through at least 2022.
US Private Sector Employment	\langle		1.4	-11.3	7.3	5.4	We lowered our expectations for Employment given the economic impact of the double black swan events.
US Total Retail Sales	~~~		3.5	-1.3	4.5	3.0	The February-to-March rise was the mildest in the nearly 75-year data history. Expect the 12MMT to decline into early 2021.
US Wholesale Trade of Durable Goods	\leq		-0.6	-8.8	6.0	3.9	We adjusted our outlook downward due to the repercussions of the black swans. Decline will persist into early 2021.
US Wholesale Trade of Nondurable Goods	\sim		1.8	-8.2	4.0	4.5	Updated research surrounding the double black swans led us to downward revise our forecast. Trade will decline imminently.
US Real Gross Domestic Product (3/12)	\sim		0.3	-2.1	3.6	1.6	Expect sharp decline in the second quarter. Rise in GDP will return in the second half of the year and extend through at least 2022.

The Core US Economy At-a-Glance

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

PHASE KEY



Phase A:

Recovery



Phase B: Accelerating Growth



Phase C: Slowing Growth



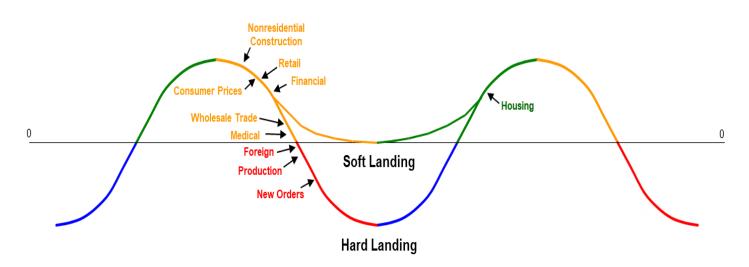
Phase D: Recession

SUMMARY

With the release of new data, we get an updated view into how much the double black swan events of COVID-19 and the oil supply/demand imbalance are affecting the economy. Given this new information and our ongoing research, we have downgraded our outlooks for US Industrial Production, US Nondefense Capital Goods New Orders (excluding aircraft), US Private Sector Employment, US Wholesale Trade of Durable Goods, US Wholesale Trade of Nondurable Goods, and US Real Gross Domestic Product (GDP). We expect that decline in the 12MMT/As for Industrial Production, Nondefense Capital Goods New Orders, Employment, and both Wholesale Trade indicators will be sharper than previously anticipated. The timing of the expected early-2021 lows in the annual data trends for these core segments is unchanged. Subsequent rise for each of these indicators will extend into at least late 2022. Similarly, we now expect sharper GDP decline in the second quarter than what we previously quoted. GDP 3MMA rise will return in the second half of this year and persist through at least 2022. US Retail Sales exhibited acute decline in the restaurant/bar and motor vehicle segments and robust growth in the non-store and food/beverage store segments. Plan for the Total Retail Sales 12MMT to decline into early 2021 before recovering and rising through at least 2022.



ITR Trends 10[™]



OVERVIEW

The Trends 10 summary provides a dynamic look at the economy. Each major segment of the economy is shown in terms of where it is in the business cycle. Each phase of the business cycle (A, B, C, D) carries its own Management Objectives[™] which enable firms to enhance profitability while preparing for the next phase of the business cycle.

The Trends 10 also provides a view of the economy that is very similar to a train. The order of the cars on the train may vary slightly, but in general it is safe to assume that Housing is one of the first industries to move through a high or a low, and thus is a leading indicator to the industries that follow. Firms operating in the industries that follow, such as New Orders, Wholesale Trade, or Nonresidential Construction, can "see" what awaits them, and are empowered to prepare for the change in cyclical momentum before it actually occurs. These preparations can be in the form of cash planning, discretionary capital expenditures, sales promotions and projections, and marketing/sales plan rollouts. Firms operating in the nonresidential space tend to lag most of the economy, affording them the advantage of watching several "railroad cars" precede them through peaks and troughs, which thus gives them more than ample time for effective planning and internal changes.

Individual companies can also compute their own rates-of-change, or ITR can compute them with you. Either way, the company 12/12 can be placed in the appropriate portion of the business cycle, and the company can gain specific insight as to where it stands in terms of the current phase, and what earlier-turning industries are saying in terms of the shift into the next phase of the business cycle. The benefit is real as firms plan with confidence. Timely, effective changes will greatly enhance a firm's ability to realize maximum performance benefit in all phases of the business cycle.





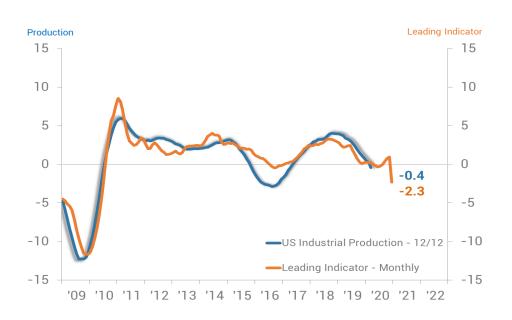
ITR Leading Indicator™

STEEP DECLINE TO A NEW LOW

With April data, the ITR Leading Indicator[™] declined to a new low for this cycle. This decline, precipitated by COVID-19 shutdowns and unusually low oil prices, signals decline in the US Industrial Production 12/12 into the first half of 2021. We are monitoring the Leading Indicator for a return to rise as shutdowns are lifted, as that will be an early signal of the recovery we are expecting for the US economy next year.

The Leading Indicator is shifted forward by eight months on the chart below.

INDICATOR ANALYSIS



ABOUT THE REPORT





US Economic Outlook

Recent datapoints illustrate the black swan events' impact on both the industrial and consumer sides of the US economy. US Industrial Production transitioned to Phase D, Recession, in March while US Total Retail Sales for the month came in 6.7% below the March 2019 level. The net result: preliminary first-quarter US Real GDP was down 1.2% from the fourth quarter. (Astute readers may note that this is less than the 4.8% contraction reported by the press. The press cites an annualized rate of contraction, whereas we focus on the quarterto-quarter movement, since every quarter is different.)

Building upon last month's analysis of leading indicators showing the impact of the black swans, we can now point to some additional indicators that show the sharp downward movement in the ratesof-change we are forecasting for the US economy in the coming quarters:

- The Conference Board's US Employment Trends Index contracted 45.0% from March 2019 to March 2020, the sharpest pace of contraction over any 12-month period in a data history stretching back to the mid-1970s.

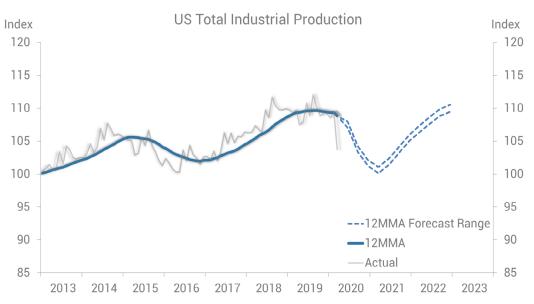
- The 1/12 rate-of-change for the OECD's OECD Plus Six Non-Member Economies Leading Indicator, a key leading indicator to both global and US economic activity, showed a secondary downward movement, or "double dip," in March.

- The US Economic Policy Uncertainty Index set a record high in March (35-year data history).

However, cell phone data and retail traffic data show US consumers are beginning to become more active as social-distancing measures are eased. We expect an early-2021 business cycle low for US Industrial Production in this cycle.

FORECAST PERIOD	12MMA FORECAST
Jun. 2020	107.1 - 107.9
Sep. 2020	103.4 - 104.2
Dec. 2020	101.2 - 102.1
Mar. 2021	100.1 - 101.1
Jun. 2021	101.4 - 102.3
Sep. 2021	103.2 - 104.1
Dec. 2021	105.0 - 105.9
Mar. 2022	106.4 - 107.4
Jun. 2022	107.7 - 108.7
Sep. 2022	108.8 - 109.9
Dec. 2022	109.5 - 110.5

INDICATOR ANALYSIS







ITR Retail Sales Leading Indicator™

INDICATOR DECLINED FURTHER IN MARCH

The ITR Retail Sales Leading Indicator[™] declined further in March. The Indicator, while above the previous low, has yet to exhibit defined upward movement and will likely decline in April in response to COVID-19. Our overall analysis of the Indicator suggests that Retail Sales are unlikely to transition to a sustained business cycle rising trend during the upcoming three to four quarters.

The Leading Indicator is shifted forward by 12 months on the chart below.

ITR CURRENT DATA



ABOUT THE REPORT





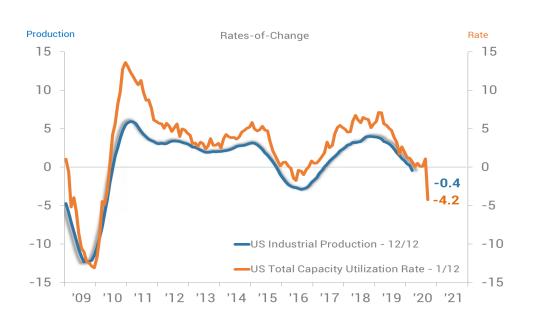
US Total Industry Capacity Utilization Rate

RATE 1/12 PLUMMETED IN MARCH DUE TO COVID-19 SHUTDOWNS

The US Total Industry Capacity Utilization Rate 1/12 dropped sharply in March. The drastic decline is consistent with COVID-19 containment shutdowns. Decline in the Rate 1/12 signals the US Industrial Production Index 12/12 will decline for at least the next two to three quarters.

The Rate is shifted forward by seven months on the chart below.

INDICATOR ANALYSIS



ABOUT THE REPORT



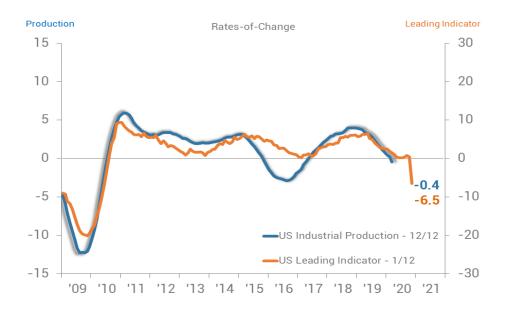
US Conference Board Leading Indicator

LEADING INDICATOR 1/12 DROPPED IN MARCH

The Conference Board's US Leading Indicator 1/12 declined sharply in March. The steep decline in the Indicator 1/12 is primarily due to two back-to-back black swan events, which interrupted the rising trend that had been forming. The decline suggests that weakness in US Industrial Production will persist into the second half of this year.

The Leading Indicator is shifted forward by eight months on the chart below.

INDICATOR ANALYSIS



ABOUT THE REPORT





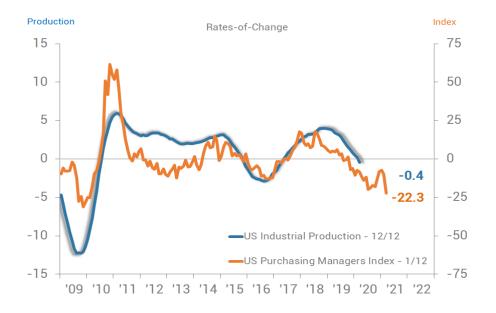
US ISM PMI (Purchasing Managers Index)

PMI DECLINED FURTHER IN APRIL

The US ISM PMI (Purchasing Managers Index) 1/12 declined further in April, falling below the previously established August 2019 low. This is primarily due to COVID-19-related shutdowns within the manufacturing sector. As a result, expect the US Industrial Production 12/12 to decline into 2021.

The PMI is shifted forward by 12 months on the chart below.

INDICATOR ANALYSIS



ABOUT THE REPORT



Index, 2012 = 100, NSA

US Industrial Production

HIGHLIGHTS

- · We revised our outlook for Industrial Production downward
- Production is still expected to decline into early 2021 but will descend lower than previously anticipated
- We expect a robust recovery due in part to the size and timeliness of the fiscal and monetary stimulus

FORECAST

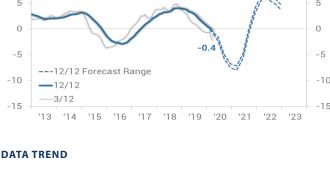
	12/12	12MMA
2020:	-7.1%	101.7
2021:	3.8%	105.5
2022:	4.3%	110.0

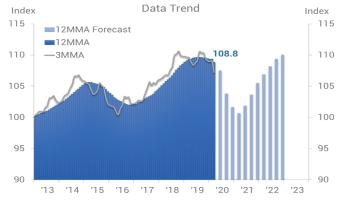
OVERVIEW

A series of leading indicator datapoints and ongoing developments have made it clear that the early-2020 black swan events will have a more pronounced negative impact on Production than we had previously anticipated. We lowered our 12MMA expectations by 3.5% and 3.0% for 2020 and 2021. The 2022 value was lowered by just 0.2%. We expect that the additional pain will clear out some of the structural economic imbalances now rather than later, making way for a robust recovery fueled by timely and massive fiscal and monetary stimulus.

The US Industrial Production 12MMA in March was 0.4% below the year-ago level. Monthly Production declined 5.2% from February to March, a severity surpassed only by the 6.7% decline from February to March of 1933. We are expecting shutdown orders to be lifted during the second half of the year, resulting in a rebound in US industrial activity (3MMA) beginning late this year. Use this downtime to make the necessary changes to your capacity, depending on your end-market breakdown.

Rate-of-Change 15 15 10 5 5 0 0 -5 -5 ---12/12 Forecast Range -10 -10 -12/12 3/12 -15 -15





LINKS

Ask an Analyst

RATE-OF-CHANGE

Data Methodology



ITR MANAGEMENT OBJECTIVE

Consider reaching out to ITR for an analysis of your specific vertical markets, as they may be reacting differently to current developments.



US Nondefense Capital Goods New Orders (excluding aircraft) Billions of Dollars, NSA

HIGHLIGHTS

- We lowered the forecast due to ramifications of the black swan events
- Spending will decline into early 2021 before rising through 2022
- The 12MMT will be below the current level for at least the duration of the forecast

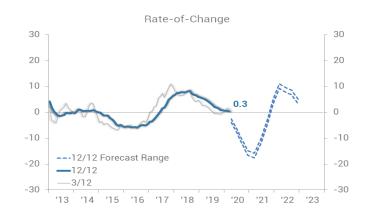
FORECAST

	12/12	12MMT
2020:	-15.8%	696.1
2021:	3.9%	723.3
2022:	4.2%	753.7

OVERVIEW

The ramifications of COVID-19 and persistently low oil prices suggest that significant decline in US Nondefense Capital Goods New Orders (excluding aircraft) is imminent. Accordingly, we revised the forecast downward by 9.0%, 10.7%, and 9.8% for 2020, 2021, and 2022, respectively.

The New Orders 12MMT ticked down in March and is virtually even with the year-ago level. New Orders will decline into early 2021. Due to the aforementioned developments, prior tentative lows in leading indicators – such as the ITR Leading Indicator™, the US ISM PMI (Purchasing Managers Index), and the US Total Industry Capacity Utilization Rate – failed to hold. The re-established decline in these leading indicators corroborates our expectation for additional New Orders business cycle decline in the coming quarters. Spending will then rise through 2022. New Orders will be below the current level through at least 2022.



DATA TREND

RATE-OF-CHANGE



LINKS

<u>Ask an Analyst</u>

Data Methodology



ITR MANAGEMENT OBJECTIVE

If the ongoing impacts of the black swan events are hitting your markets hard, consider cost-cutting measures such as pay freezes, hiring freezes, or the elimination of overtime.



US Private Sector Employment

Millions of Employees, NSA

HIGHLIGHTS

- Sharp decline in Employment is due to ongoing COVID-19 repercussions
- The Employment 12MMA will decline into early 2021
- Insurance benefits could hinder employers this summer

FORECAST

	12/12	12MMA
2020:	-11.3%	113.8
2021:	7.3%	122.2
2022:	5.4%	128.7

OVERVIEW

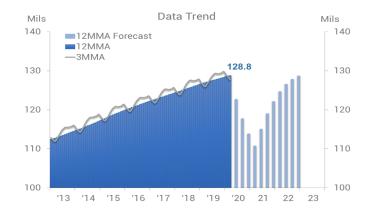
We revised our outlook for US Private Sector Employment due to the economic impact of the double black swan events – COVID-19 and the drastic fall in oil prices. We lowered our expectations by 9.4%, 6.2%, and 2.8% for 2020, 2021, and 2022, respectively.

Unemployment claims shot up seemingly overnight as businesses closed, and the numbers have continued to climb. We expect the Employment 12MMA will reach a low in early 2021, down roughly 18 million people from the early-2020 peak. The federal government has made available an additional \$600 per week to supplement normal unemployment benefits. Employers will likely find it more difficult to entice some employees to return to work – at least through July – if that supplement pushes them above their normal pay.

Rate-of-Change 15 15 10 10 5 5 1.4 0 0 -5 -5 ---12/12 Forecast Range -10 -12/12 -10 -3/12 -15 -15 '13 '14 '15 '16 '17 '18 '19 '20 21 22 23

DATA TREND

RATE-OF-CHANGE



LINKS

<u>Ask an Analyst</u>

Data Methodology

ITR MANAGEMENT OBJECTIVE

If you are trying to avoid laying off employees, consider renegotiating labor contracts, rotating your staff in two-week shifts, or temporarily eliminating overtime.





Trillions of Dollars, NSA

US Total Retail Sales

HIGHLIGHTS

- Monthly Retail Sales in March were up just 0.2% from February (12.4% to 16.3% is normal)
- The Retail Sales 12MMT will decline into early 2021
- Consumers are spending money at grocery stores, lawn and garden stores, and online

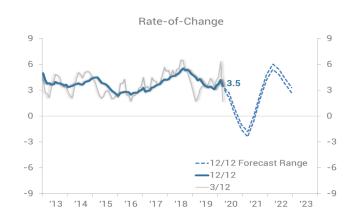
FORECAST

12/12	12MMT
-1.3%	\$6.154
4.5%	\$6.431
3.0%	\$6.624
	-1.3% 4.5%

OVERVIEW

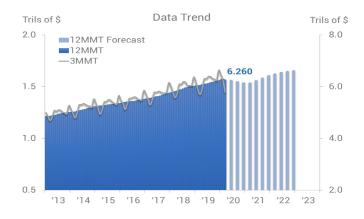
The February-to-March rise in monthly US Total Retail Sales was the mildest in the nearly 75-year data history. The Retail Sales 12MMT ticked down in March, as we anticipated. Expect Retail Sales to decline into early 2021. Results are likely to track the lower end of the forecast range in at least the near term. Retail Sales will then recover and rise during the remainder of 2021 and throughout 2022.

Decline in Total Retail Sales is not indicative of conditions in all retail markets. US Food and Beverage Stores Retail Sales (March 2020 up 25.7% from March 2019), US Nonstore Retail Sales (up 12.1%), and US Retail Sales of Building Materials, Garden Equipment, and Supplies Stores (up 10.1%) are performing strongly despite COVID-19. Conversely, US Automobile and Other Motor Vehicle Dealers Retail Sales (down 25.7%), US Department Stores Retail Sales (down 25.3%), and US Food Services and Drinking Places Retail Sales (down 24.6%) plummeted due to social distancing measures. Target opportunities accordingly.



DATA TREND

RATE-OF-CHANGE



LINKS

<u>Ask an Analyst</u>

Data Methodology

AC

ITR MANAGEMENT OBJECTIVE

Watch your cash flow closely, as cash is king on the back side of the business cycle. If applicable, consider applying for a small business loan to support your operations through the near term.



US Wholesale Trade of Durable Goods

Trillions of Dollars, NSA

Core / May 2020

HIGHLIGHTS

- The February Wholesale Trade 12MMT was 0.6% below last year
- The 12MMT will decline into early 2021, then rise into the second half of 2022
- · Falling employment will hinder Wholesale Trade

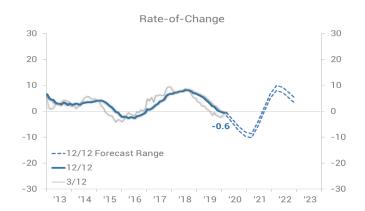
FORECAST

12/12	12MMT
-8.8%	\$2.604
6.0%	\$2.761
3.9%	\$2.868
	-8.8%

OVERVIEW

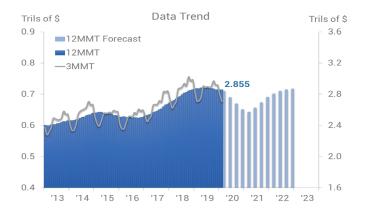
US Wholesale Trade of Durable Goods during the 12 months through February totaled \$2.855 trillion, down 0.6% from one year ago. We revised the Wholesale Trade forecast downward in light of new data, which suggests a steeper-than-anticipated general macroeconomic recession as the impacts of COVID-19 and the oil supply/ demand imbalance further permeate the economy. Decline in the Wholesale Trade 12MMT is expected to extend into early 2021. The 12MMT will then rise for the majority of 2021 as the economy recovers. Rise will persist into the second half of 2022 before the 12MMT generally plateaus late in that year.

Prior to the COVID-19 outbreak, many indicators were suggesting that the consumer was willing and able to spend. However, consumers will not be rushing out to stores the moment stay-at-home orders are lifted; they will need to regain their footing. We will need to see employment recover before Wholesale Trade returns to its 2019 level.



DATA TREND

RATE-OF-CHANGE



LINKS

<u>Ask an Analyst</u>

Data Methodology



ITR MANAGEMENT OBJECTIVE

Consider conducting market research and evaluating new products in light of your findings; buying behaviors may change due to recent events.



US Wholesale Trade of Nondurable Goods

Trillions of Dollars, NSA

Core / May 2020

3.6

3.2

HIGHLIGHTS

- · We revised our forecast downward to account for updated research regarding the impacts of the black swan events
- The 12MMT will decline into early 2021
- · Outside the restaurant and bar segment, the food and beverage industry is a potential winner

FORECAST

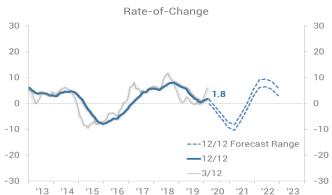
12/12	12MMT
,	12.0000
2020: -8.2%	\$2.859
2021: 4.0%	\$2.974
2022: 4.5%	\$3.108

OVERVIEW

We revised our outlook for US Wholesale Trade of Nondurable Goods in light of updated research into the macroeconomic impacts of COVID-19 and the oil market's supply/demand imbalance. We revised the Wholesale Trade 12MMT forecast downward by 3.7%, 5.8%, and 3.9% for 2020, 2021, and 2022, respectively.

The February Wholesale Trade 12MMT was up 1.8% from last year. Expect the Wholesale Trade 12MMT to decline imminently; decline will extend into early 2021. Spending will then rise with the overall US economy through at least 2022.

Grocery stores and, in most states, liquor stores have been designated as essential. We therefore expect that side of the food and beverage industry to fare better than other nondurable markets. Be aware that some factories have shut down as the illness spreads, which may cause supply chain issues. Check your supply chain for alternatives - ensure you have the products to meet your customers' needs.





3.140



LINKS

Trils of \$

■12MMT

-3MMT

1.0

0.9

0.8

Ask an Analyst

RATE-OF-CHANGE

Data Methodology



ITR MANAGEMENT OBJECTIVE



The Global Economy At-a-Glance

	12/12	12MMA	Current 12/12	2020	2021	2022
Canada Industrial Production	$\wedge \wedge$		-1.0	-7.0	2.7	4.2
Mexico Industrial Production Index	\sim		-2.0	-5.5	1.5	2.8
Brazil Manufacturing and Mining Industrial Production Index	\sim		-1.0	-8.5	0.5	2.3
Western Europe Industrial Production Index			-1.5	-8.3	0.6	2.5
Eastern Europe Industrial Production Index	\sim		0.9	-3.7	4.8	4.9
India Industrial Production Index	\sim		1.0	-3.2	3.0	4.6
China Industrial Production Index	\sim		1.9	-5.9	6.1	6.9

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

PHASE KEY



Phase A: Recovery



Phase B: Accelerating Growth



Phase C: Slowing Growth





US Real Gross Domestic Product

Trillions of 2012 Dollars, SAAR

HIGHLIGHTS

- We revised our outlook for GDP downward due to developments associated with the black swan events
- The GDP 3MMA will decline sharply in the second quarter
- Subsequent rise in the GDP 3MMA will extend through at least 2022

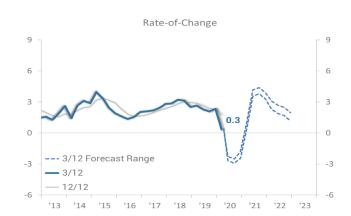
FORECAST

	3/12	3MMA
2020:	-2.1%	\$18.814
2021:	3.6%	\$19.488
2022	1.6%	\$19.793

OVERVIEW

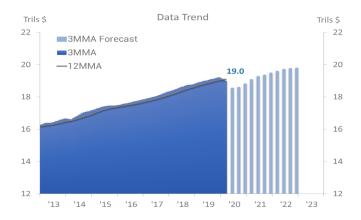
We revised our forecast for US Real Gross Domestic Product (GDP) due to developments tied to the COVID-19 shutdowns and the supply/demand imbalance in the oil market. The GDP 3MMA is expected to decline sharply during the second quarter before a rising trend takes hold and extends through at least 2022.

The March GDP 3MMA was virtually even with the yearago level but was 1.2% below the December 2019 level. (Please note that the -4.8% figure quoted by the press and by investment banks is an annualized growth rate derived from the same US Bureau of Economic Analysis dataset.) The second-quarter GDP figure will show us the full impact of the stay-at-home orders and shutdowns. As with our prior forecast, the revised forecast assumes that, beginning in the third quarter, neither black swan event will be a driving factor to the US economy; an elongated impact from either black swan would require that we lower the forecast. At the same time, the magnitude and timeliness of the monetary and fiscal stimulus is a potential upside risk to our expectations.



DATA TREND

RATE-OF-CHANGE



LINKS

<u>Ask an Analyst</u>

Data Methodology

ITR MANAGEMENT OBJECTIVE

Use this time of lower activity to solidify marketing plans to be implemented late this year.





MAY 2020







	12/12	12MMA	Current 12/12	2020	2021	2022	Highlights
US Stock Prices	\sim		7.1				Our analysis suggests that, at worst, the bulk of the decline is behind us.
US Consumer Price Index	\langle		1.9	-0.6	1.7	2.0	The Prices 3MMA will decline into the second half of the year.
US Producer Price Index	$\neg \uparrow$		0.8	-2.3	0.9	3.4	We revised the forecast downward to reflect changes to outlooks for the economy and prices of commodities such as oil and steel.
	3/12	3MMA	Current 3MMA	2020	3020	4020	
US Government Long-Term Bond Yields (%)	Am		0.82	0.68	0.61	0.72	We revised the outlook downward by an average of 17 basis points for the next four quarters; expect a 3Q20 low in Yields.
US Natural Gas Futures Prices (\$ per MMBtu)	Mr. An		1.78	1.63	1.67	1.97	Expect the Prices 3MMA to be relatively flat through the third quarter, before more defined rise takes hold late this year.
US Crude Oil Futures Prices (\$ per barrel)	m		28.80	22.30	22.67	25.55	We lowered the Prices outlook to reflect our new macroeconomic outlook and associated impact on oil demand.
US Steel Scrap Producer Price Index (12/12)	\sim		-23.3	-25.5	-24.8	-21.9	We revised our outlook and now expect that the Steel Prices will reach a price point similar to the 15/16 cycle at the trough.

The Financial US Economy At-a-Glance

*US Steel Scrap Producer Price Index is listed as 12/12 rates-of-change instead of three-month moving averages.

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

PHASE KEY







Phase B: Accelerating Growth



Phase C: Slowing Growth



Phase D: Recession

SUMMARY

Due to new information regarding the impacts of the two black swan events, we revised the outlooks for all series in this dashboard except the US Consumer Price Index and US Natural Gas Futures Prices. Deflation in both Consumer Prices and Producer Prices is expected for 2020 as a whole. US Stock Prices' March-to-April rise of 12.7% was a record high and came on the heels of a record February-to-March decline of 12.5%. Our analysis suggests that Stock Prices' tentative March 2020 low may hold, or that, at worst, the brunt of decline is likely behind us. US Oil, Natural Gas, and Steel Scrap prices are all below their year-ago levels, reacting to the diminished demand attendant to COVID-19 shutdowns. We expect recovery in both Natural Gas Prices and Steel Prices at the end of this year. It will take longer for the oil market to rebalance given the weak demand, oversupply, and potential changes to consumer behavior wrought by COVID-19. We lowered our US Government Long-Term Bond Yields forecast by an average of 17 basis points for the next four quarters.





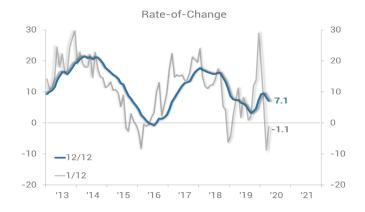
S&P 500 Index, 1941-43 = 10, NSA

US Stock Prices

HIGHLIGHTS

- A 12.7% gain for April followed the 12.5% decline in March
- Our analysis suggests that, at worst, the bulk of the decline is behind us
- March may hold as the low given the size of the April jump in the Index

RATE-OF-CHANGE

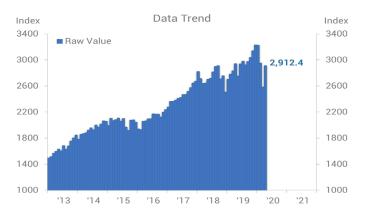


OVERVIEW

The S&P 500 posted its biggest March-to-April increase ever (in a history dating back to 1883). The 12.7% gain followed the largest February-to-March drop (down 12.5%) the month before. The rebound in the S&P 500 is encouraging regarding the decline that began in January not turning into a rout, as we had anticipated a decline for April.

A bear market lasting only three months (which would be the case if March holds as the low) is a rare occurrence, but it is not without precedent: the 1987 bear market lasted three months. Seven months is the shortest normal length of decline. Our analysis suggests it is possible that the March 2020 low will hold, but there are certainly risks of a secondary downward movement. A second shutting down of the economy by governments poses a risk to the stock market.

DATA TREND



LINKS

<u>Ask an Analyst</u>

Data Methodology



ITR MANAGEMENT OBJECTIVE

The market is shaping up to be a replay of what transpired in 1987. Although the low may be behind us, don't expect the breakneck rise to continue uninterrupted.



US Government Long-Term Bond Yields

10-Year Bonds, Percent, NSA

HIGHLIGHTS

- Yields were relatively stable in April, down six basis points over the course of the month
- We adjusted the outlook downward by an average of 17 basis points for the next four quarters
- A second wave of COVID-19 would pose a downside risk

FORECAST (3MMA)

2Q 2020:	0.68%
4Q 2020:	0.72%

FORECAST RANGE

Jun 2020:	0.53% - 0.83%
Sep 2020:	0.46% - 0.76%
Dec 2020:	0.57% - 0.87%
Mar 2021:	0.63% - 0.93%

OVERVIEW

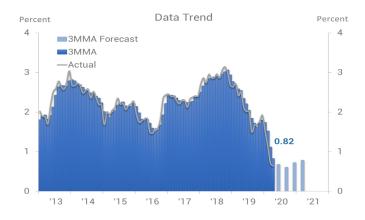
After dropping 38 basis points in February and 43 points in March, US Government Long-Term Bond Yields were relatively stable in April. Yields trended within a 19-basispoint range during April, ending the month six basis points down from March. Yields are at a record low for the 67-year data history.

We lowered the forecast based on the latest

developments stemming from the COVID-19 and oil price black swans. The timing of the Yields 3MMA low was pushed out from the second quarter to the third quarter. This timing is based on our expectations for when the US will be in Phase 3 of its reopening. The Yields 3MMA was lowered by an average of 17 basis points for the next four quarters. If a second wave of COVID-19 occurs, it would pose a downside risk to the forecast.



DATA TREND



LINKS

<u>Ask an Analyst</u>

Data Methodology



ITR MANAGEMENT OBJECTIVE

Utilize the current low cost of borrowing to help yourself get through this period of macroeconomic decline.





US Natural Gas Futures Prices

Dollars per MMBtu, NSA

HIGHLIGHTS

- Prices ticked up in April
- We expect Prices to be relatively flat through the third quarter, then rise in at least late 2020 and early 2021
- Production decline will eventually narrow the supply/ demand gap, driving Prices higher

FORECAST (3MMA)

2Q 2020:	\$1.63
4Q 2020:	\$1.97

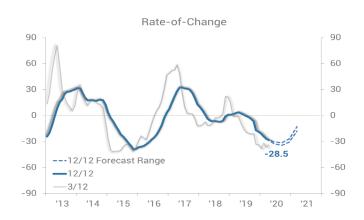
FORECAST RANGE

Jun 2020:	\$1.48 - \$1.78
Sep 2020:	\$1.52 - \$1.82
Dec 2020:	\$1.82 - \$2.12
Mar 2021:	\$2.04 - \$2.34

OVERVIEW

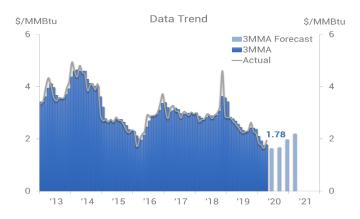
US Natural Gas Futures Prices ended April at \$1.95 per million BTUs, coming in higher than January, February, or March. Daily Prices briefly broke above \$2 on May 5 before settling just below \$2 in recent days. We expect the Prices 3MMA will trend relatively flat through the third quarter of this year, continuing to track the upper end of the forecast range, before more defined rise takes hold late this year and early next.

US Energy Information Administration data shows that monthly Natural Gas Production has declined for each of the last six months, a first in the 13-year data history. All seven regions (Anadarko, Appalachia, Bakken, Eagle Ford, Haynesville, Niobrara, and Permian) are exhibiting month-to-month Production decline. Meanwhile, US Total Natural Gas Consumption is declining as overall US utilities sector activity declines. As the utilities sector moves closer to a recovery trend late this year and early next, Prices will likely recover and rise. As always, an abnormally hot summer or cold winter could drive Prices above our forecast, while mild temperatures would reduce heating and cooling demand, potentially bringing Prices below range.



DATA TREND

RATE-OF-CHANGE



LINKS

<u>Ask an Analyst</u>

Data Methodology

AD

ITR MANAGEMENT OBJECTIVE

Ensure you are budgeting for higher energy costs late this year and next year.





US Crude Oil Futures Prices

Dollars per Barrel, NSA

HIGHLIGHTS

- Prices fell a record 70.5% from April 2019 to April 2020
- Prices have recently crept back into the lower \$20s
- Expect Prices to stay in the lower \$20s in the coming two to three quarters

FORECAST (3MMA)

2Q 2020:	\$22.30
4Q 2020:	\$25.55

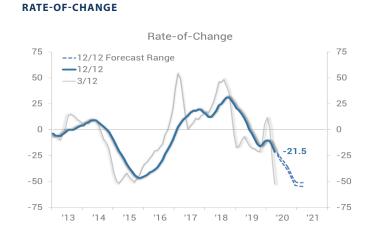
FORECAST RANGE

Jun 2020:	\$20.30 - \$24.30
Sep 2020:	\$20.67 - \$24.67
Dec 2020:	\$23.55 - \$27.55
Mar 2021:	\$26.70 - \$30.70

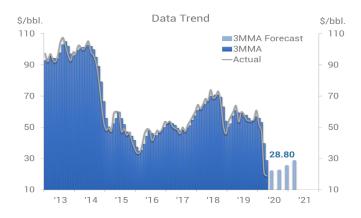
OVERVIEW

US Crude Oil Futures Prices ended April at \$18.84 per barrel, the lowest month-end price since January 2002. Prices' 70.5% drop from April 2019 to April 2020 sets the record for severity of decline over any 12-month period in our 37-year data history. Prices have since rebounded into the lower \$20s. We revised the forecast downward to reflect our new, lower macroeconomic outlook and the severity of the supply/demand imbalance in the oil market. We expect the Prices 3MMA to stay in the lowto-mid \$20s for the remainder of the year, with Prices creeping up late in the year as demand improves. Plan for Prices in the upper \$20s to low \$30s by early 2021.

On the supply side, Energy Information Administration data indicates that weekly US Field Production of Crude Oil was at 11.9 million barrels per day for the week ending on May 1 of this year. This is down from the 12.2 million barrels produced daily during the week ending May 4, 2019. Furthermore, OPEC is cutting production, and demand will rise as the global economy reopens. These factors will eventually rectify the current oversupply, supporting higher Prices. However, rebalancing will take time given the magnitude of the supply glut and still-weak demand.



DATA TREND



LINKS

<u>Ask an Analyst</u>

Data Methodology

ITR MANAGEMENT OBJECTIVE

Evaluate your customers and suppliers for financial solvency if they are directly or indirectly exposed to the oil patch.



Financial / May 2020

Index, 1982 = 100, NSA

HIGHLIGHTS

- We lowered our outlook due to updated leading indicator evidence and our revised outlook for US Industrial Production
- The Steel Prices 3MMA will form a low in late 2020, reaching depths reminiscent of the 2015-16 commodities crash and the Great Recession
- The 3MMA will then rise into at least early 2021

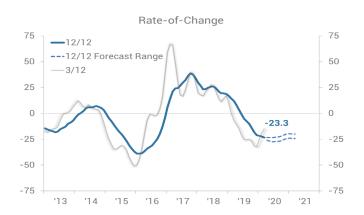
FORECAST

	12/12	ЗММА
2Q20:	-25.5%	308.31
3Q20:	-24.8%	304.62
4Q20:	-21.9%	268.65
1Q21:	-22.1%	348.81

OVERVIEW

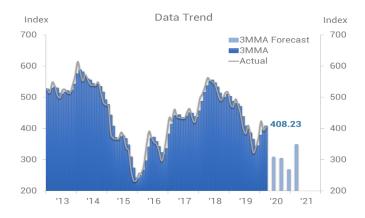
The March 3MMA came in 4.0% above the midpoint of our prior forecast; US Steel Scrap Producer Prices initially showed more resiliency to the black swan events than we anticipated. However, movements in leading indicators suggested that a downgrade to our outlook for Steel Prices was prudent. The revision is also consistent with our new, lower expectations for US Industrial Production.

The Steel Prices 3MMA rose further in March but remains 15.0% below the year-ago level. We are still anticipating a late-2020 3MMA low. However, due to the impact of the double black swans on the global economy, we now expect the 3MMA will reach depths reminiscent of the 2015-16 commodities crash and the Great Recession. The Steel Prices 3MMA will then rise into at least early 2021 as the global economy begins to move toward recovery and demand improves.



DATA TREND

RATE-OF-CHANGE



LINKS

<u>Ask an Analyst</u>

Data Methodology



ITR MANAGEMENT OBJECTIVE

If you ask your suppliers for concessions on pricing during the upcoming quarters, cite data to gain leverage.



US Consumer Price Index (Consumer Inflation)

Index, 1982-84 = 100, NSA

HIGHLIGHTS

- First-quarter Prices were up 2.1% from the same quarter last year
- The Prices 3MMA will decline into the second half of 2020
- Disinflation in Housing and deflation in Transportation and Energy intensified in March

FORECAST

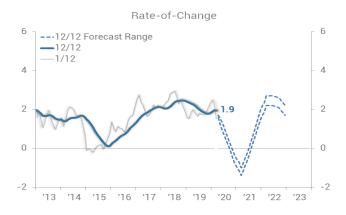
12/12 12MMA 2020: -0.6% 254.1 2021: 1.7% 258.3 2022: 2.0% 263.4			
2021: 1.7% 258.3		12/12	12MMA
	2020:	-0.6%	254.1
2022: 2.0% 263.4	2021:	1.7%	258.3
	2022:	2.0%	263.4

OVERVIEW

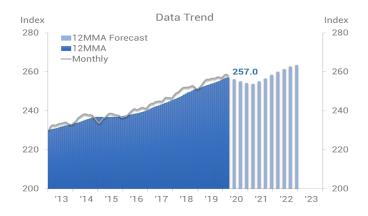
First-quarter Consumer Prices were 2.1% above the year-ago level. We expect the Prices 3MMA to decline into the second half of the year. Prices will then rise through at least 2022. Deflation (3/12 basis) will be at its most pronounced in the second half of this year.

March Consumer Prices for Energy were 5.7% below the March 2019 level. Consumer Prices for Transportation were down 2.4% over the same time period. Furthermore, inflation is easing in Consumer Prices for Housing. The disinflation in Housing and deflation in Transportation and Energy are the most pronounced since mid-2016. While it may bring consumers a measure of happiness, the easing in these pricing pressures will not offset the impact of lost jobs and high uncertainty. Expect a more price-conscious consumer this year; consider passing on cost savings, if applicable, to retain market share.

RATE-OF-CHANGE



DATA TREND



LINKS

<u>Ask an Analyst</u>

Data Methodology



ITR MANAGEMENT OBJECTIVE

If your business is contending with lower demand, use any resulting downtime to examine your process and distribution network and improve your resilience to black swan events.



US Producer Price Index (Producer Inflation)

Index, 1982 = 100, NSA

HIGHLIGHTS

- Monthly Prices in March came in 0.9% below March 2019
- We revised the forecast downward to reflect changes to outlooks for the economy and commodity prices
- Deflation (3/12 basis) is expected into early 2021

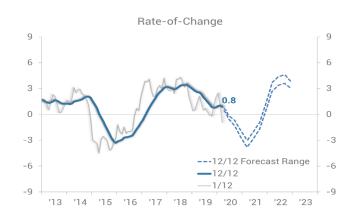
FORECAST

	12/12	12MMA
2020:	-2.3%	201.0
2021:	0.9%	202.9
2022:	3.4%	209.7

OVERVIEW

US Producer Prices for the first quarter came in 0.9% above the same quarter last year, but March 2020 Prices were 0.9% below March 2019 Prices, the most pronounced deflation since mid-2016. We revised the forecast downward to reflect downgraded outlooks for the economy and for prices of multiple commodities, most notably oil. We expect deflation in Producer Prices (3/12 basis) to extend into early 2021. As the impacts of the black swan events fade and momentum builds in the US economy, the increased demand will lead to inflation for the remainder of 2021 and throughout 2022.

Our outlooks for the American and Chinese industrial sectors suggest that lackluster demand will persist in the world's two largest economies into around late 2020 or early 2021. This signals a Producer Prices low (12/12) around early 2021, given the typical lead/lag relationships.



DATA TREND

RATE-OF-CHANGE



LINKS

<u>Ask an Analyst</u>

Data Methodology



ITR MANAGEMENT OBJECTIVE

If you cut your prices to capture volume, use prudence, as raising them again may be difficult both in the near term and in 2021, when your own costs increase.



Construction

MAY 2020







	12/12	12MMT	Current 12/12	2020	2021	2022	Highlights
US Single-Unit Housing Starts	2000		4.8	0.3	18.8	4.4	Our analysis suggests that the fundamentals supporting the housing industry remain strong. We adjusted our outlook accordingly.
US Multi-Unit Housing Starts	mand		22.6	-7.2	-12.0	25.1	We revised our outlook to reflect the effects of COVID-19-related shutdowns on this industry. Starts will decline into mid-2021.
US Private Office Construction	\sim		4.7	-8.8	-11.4	10.4	Construction spending will decline into late 2021. Expect spending to then rise through at least 2022.
US Total Education Construction	\sim		-0.1	-9.8	-3.5	5.9	We lowered our outlook for the Higher Ed component. Expect Total Education spending to decline into the second half of 2021.
US Total Hospital Construction	\sim		-3.5	1.7	3.5	-5.1	Spending in 2020 will be generally flat compared to 2019. Expect more noticeable rise in spending through 2021 and into early 2022.
US Private Manufacturing Construction	\sim		4.8	-19.3	-23.7	17.3	The Construction 12MMT ticked down as expected and will decline into late 2021. Expect rise throughout 2022.
US Private Multi-Tenant Retail Construction	$\sim \sim$		-40.5	-26.5	-0.7	14.9	We lowered this forecast due to the impact of social distancing on brick-and-mortar retail. Spending will decline into mid-2021.
US Private Warehouse Construction	\sim		3.5	1.6	1.5	7.4	Consumers' shift to non-store retail will cushion this series. Expect year-over-year growth for each of the next three years.
US Public Water & Sewer Facilities Construction	\mathcal{N}		12.8	-3.6	-7.3	6.9	We revised our expectations for the two components of overall Water & Sewer Construction. Expect imminent decline.

The Construction US Economy At-a-Glance

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

PHASE KEY







Phase B: Accelerating Growth



Phase C: Slowing Growth



Phase D: Recession

SUMMARY

We lowered our expectations for US Multi-Unit Housing Starts, US Total Education Construction, US Private Multi-Tenant Retail Construction, and US Water and Sewer Facilities Construction. We made these changes in light of the ongoing economic repercussions of COVID-19 and our consequent revised expectations for the US macroeconomy. We also revised our outlook for US Single-Unit Housing Starts. Our analysis suggests that the fundamentals that support the housing industry remain intact. Expect that upcoming decline will be more akin to a relatively brief disruption to prevailing growth than a typical, full blown recessionary trend. Our outlooks for US Private Office Construction, US Private Manufacturing Construction, and US Private Warehouse Construction are unchanged. Only three markets in the Construction Module – US Single-Unit Housing Starts, US Total Hospital Construction, and US Private Warehouse Construction – will end this year above the 2019 level. Limited inventory of existing homes coupled with low interest rates, the medical industry's designation as essential, and the shift toward online shopping will keep these respective markets relatively insulated from the broader industry downturns. By the end of 2021, however, Hospital Construction will be the only Construction Module market not in either Phase A, Recovery, or Phase B, Accelerating Growth. For the majority of construction markets, more-robust rise will occur in 2022, thanks to a stronger US economy. In the meantime, consider your options for cutting costs.





US Single-Unit Housing Starts

Thousands of Units, NSA

HIGHLIGHTS

- We revised the forecast due to ongoing developments related to the double black swan events
- Expect the Starts 12MMT to decline through the remainder of this year
- Starts will rise throughout 2021 and 2022, ending 2022 about 21.2% above the current level

FORECAST

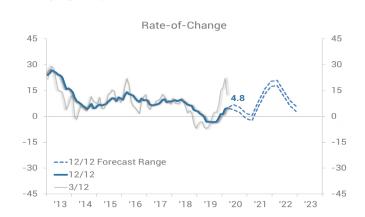
	12/12	12MMT	
2020:	0.3%	890.4	
2021:	18.8%	1057.8	
2022:	4.4%	1104.3	

OVERVIEW

We revised the forecast for US Single-Unit Housing Starts due to the still-unfolding impacts of 2020's double black swan events. Our analysis shows that the longstanding fundamentals that support the housing industry remain strong. Low mortgage rates and low inventories suggest an environment ripe for further building.

The Housing Starts 12MMT will peak imminently and then decline mildly through the remainder of 2020. Housing Starts will subsequently rise through 2021 and 2022. The upcoming period of decline will be more of an interruption to the prevailing growth trend – not the onset of a typical housing recession consistent with the more standard cause-and-effect model.

We could see more exaggerated decline in Housing Starts if banks become nervous about lending despite the Fed's reducing rates and reserve requirements, or if US New Home Sales continue to slump. March Sales came in below February for the first time in the 58-year data history.



DATA TREND

RATE-OF-CHANGE



LINKS

<u>Ask an Analyst</u>

Data Methodology



ITR MANAGEMENT OBJECTIVE

Consider cross-training your employees, if possible, to mitigate any potential absences due to COVID-19 or related precautionary measures.



US Multi-Unit Housing Starts

Thousands of Units, NSA

HIGHLIGHTS

- New data revealed the second-steepest February-to-March decline in the 62-year data history
- We revised our outlook due to the economic effects of COVID-19
- We expect the Starts 12MMT to decline about 30% from the recent peak to the upcoming mid-2021 low

FORECAST

12/12	12MMT
-7.2%	373.2
-12.0%	328.5
25.1%	410.9
	-7.2% -12.0%

OVERVIEW

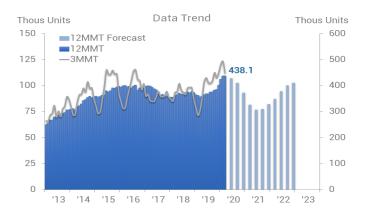
While the 12MMT was 2.2% above the forecast range, monthly US Multi-Unit Housing Starts ticked down in March to 28,400 units, coming in 0.4% below the March 2019 level. This is the second-steepest February-to-March decline in the 62-year data history. Trends in new car sales and the labor market point to a weakened US consumer. As some consumers are unable to make rent, builders will take note of the risk, hindering Starts. We lowered the forecast by 7.7% for 2020, 18.3% for 2021, and 1.5% for 2022 due to the economic impact of COVID-19.

The Starts 12MMT will decline through mid-2021. At the trough, we expect annual Starts to be approximately 30% below the February 2020 peak. Macroeconomic rise and the underlying shortage of affordable housing will support rise in Starts in the second half of 2021 and throughout 2022. We expect that Starts will be about 6% below the February 2020 peak by year-end 2022.



DATA TREND

RATE-OF-CHANGE



LINKS

<u>Ask an Analyst</u>

Data Methodology



ITR MANAGEMENT OBJECTIVE

Consider cutting expenses, reducing headcount, or instituting a pay freeze to conserve cash during the upcoming downturn in Starts.





US Private Office Construction

Billions of Dollars, NSA

HIGHLIGHTS

- Construction in the 12 months through February was up 4.7% year over year
- Expect an imminent 12MMT peak followed by decline into late 2021
- A 2021 US economic recovery won't manifest in Construction until 2022

FORECAST

	12/12	12MMT
2020:	-8.8%	\$62.5
2021:	-11.4%	\$55.4
2022:	10.4%	\$61.1

OVERVIEW

US Private Office Construction in the 12 months through February was up 4.7% from a year ago. The Construction 12MMT will peak imminently, then decline into late 2021. Spending will subsequently rise through at least 2022.

Many US companies' offices are shut down as the country battles COVID-19. We may see a movement toward a larger proportion of remote workers in the coming years, which could depress demand for office space. More immediately, cash flow constraints suggest that investment in the construction of new offices will be negatively impacted this year and into next. US Real GDP is expected to rise during 2021. The Office Construction market typically lags the economy by about one year. Many companies will be regaining their footing in 2021; Construction may not benefit from that upward momentum until 2022.



DATA TREND

RATE-OF-CHANGE



LINKS

<u>Ask an Analyst</u>

Data Methodology

SLOWING GROWTH

ITR MANAGEMENT OBJECTIVE

Stay on top of aging receivables as this market traverses the back side of the business cycle into the second half of 2021.



US Total Education Construction

Billions of Dollars, NSA

HIGHLIGHTS

- Construction transitioned to Phase D, Recession
- We adjusted the US Total Education Construction forecast following a downgrade to the Higher Education component
- Expect spending to decline into the second half of next year

FORECAST

12/12	12MMT
-9.8%	\$88.4
-3.5%	\$85.2
5.9%	\$90.3
	-9.8% -3.5%

OVERVIEW

The US Total Education Construction 12MMT declined further in February. Construction was down 0.1% from one year ago, marking a transition to Phase D, Recession. We adjusted our Construction outlook downward to account for our expectations for the Higher Education component, which we had downgraded due to ongoing economic repercussions stemming from COVID-19. Total Education Construction spending will decline through the remainder of 2020 and into the second half of 2021. Rise will then take hold and persist through at least 2022.

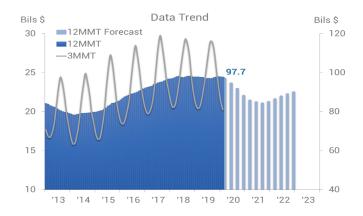
Traditional higher education institutions are facing uncertainty with regard to when their campuses will reopen and how many students they may lose to online learning programs. As some institutions trim their budgets, we are likely to see less investment in construction projects, particularly at the higher education level. We have already seen reports in the news of higher education projects halted.

However, the broader Education Construction market does offer some opportunities amidst COVID-19 related shutdowns; with classrooms empty, some schools and districts are moving forward on building renovations.



DATA TREND

RATE-OF-CHANGE



LINKS

<u>Ask an Analyst</u>

Data Methodology



ITR MANAGEMENT OBJECTIVE

Consider working with towns and cities to secure construction or renovation projects while students and faculty are required to stay home.





US Total Hospital Construction

Billions of Dollars, NSA

HIGHLIGHTS

- The Construction 12MMT was down 3.5% from the year-ago level
- Spending will trend along the lower range of our forecast in at least the near term before rising more noticeably into early 2022
- The potential for lost hospital revenue due to the delay of nonessential care is a downside risk

FORECAST

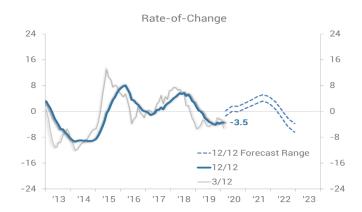
	12/12	12MMT
2020:	1.7%	\$25.2
2021:	3.5%	\$26.1
2022:	-5.1%	\$24.8

OVERVIEW

The US Total Hospital Construction 12MMT in February was down 3.5% from the year-ago level. Hospital Construction is an essential industry in the fight against COVID-19 and will likely be prioritized or expedited. Movements in our system of leading indicators – including trends in US Hospital Construction Starts – confirm the forecast trajectory. Taken together, these factors suggest our long-term forecast expectations are probable.

Spending will be relatively flat this year compared to 2019. Expect the Construction 12MMT to rise more noticeably through 2021 and into early 2022. Construction spending will likely trend along the lower range of our forecast in at least the near term due to potential labor and supply-chain disruptions. Spending will decline during the majority of 2022.

Many elective appointments, procedures, and surgeries have been cancelled or delayed. Therefore, many hospitals' financial positions may be compromised due to decreased revenue. This is a significant downside risk to our outlook.



DATA TREND

RATE-OF-CHANGE



LINKS

<u>Ask an Analyst</u>

Data Methodology



ITR MANAGEMENT OBJECTIVE

Scrutinize your supply chain; seek secondary or tertiary sources as necessary to minimize the impact of delayed delivery times.



US Private Manufacturing Construction

Billions of Dollars, NSA

HIGHLIGHTS

- The February Construction 12MMT was up 4.8% year over year
- The 12MMT ticked down in February and will decline into late 2021
- A drop in the US Manufacturing Capacity Utilization Rate informs our Construction outlook

FORECAST

	12/12	12MMT
2020:	-19.3%	\$59.7
2021:	-23.7%	\$45.6
2022:	17.3%	\$53.5

OVERVIEW

US Private Manufacturing Construction in the 12 months through February totaled \$74.3 billion, 4.8% above the year-ago level. The Construction 12MMT ticked down, in line with our expectations for this market. Expect Construction spending to decline into late next year. Rise will then characterize 2022; however, the 12MMT will remain below the current level through that time.

The US Manufacturing Capacity Utilization Rate fell 4.8 percentage points from February to March, reaching the lowest level of utilization (70.8%) since early 2010. This sharp decrease in capacity utilization is due to the COVID-19 manufacturing shutdowns. The diminished utilization signals that companies will likely have limited resources – and reduced incentive – to invest in new manufacturing spaces.

Rate-of-Change 60 60 40 40 20 20 4.8 0 0 -20 -20 ---12/12 Forecast Range -40 -40 -12/12 -60 -60 '13 '14 '15 '16 '17 '18 '19 '20 '21 '22 '23

DATA TREND

RATE-OF-CHANGE



LINKS

<u>Ask an Analyst</u>

Data Methodology



ITR MANAGEMENT OBJECTIVE

Ensure your business is right-sized; this Construction market will remain below the current level through at least 2022.



US Private Multi-Tenant Retail Construction

Billions of Dollars, NSA

HIGHLIGHTS

- Annual Construction was down 40.5% from the yearago level
- The 12MMT will decline into mid-2021
- Declining department store retail sales will reduce profits and subsequently limit investment in Multi-Tenant Retail Construction

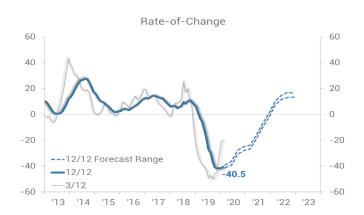
FORECAST

	12/12	12MMT
2020:	-26.5%	\$11.1
2021:	-0.7%	\$11.0
2022:	14.9%	\$12.7

OVERVIEW

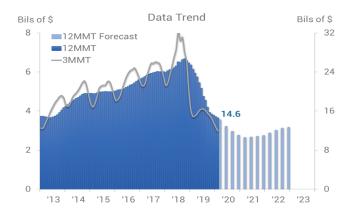
US Multi-Tenant Retail Construction during the 12 months through February was down 40.5% year over year. We adjusted the forecast downward to align with our macroeconomic and nonresidential construction outlooks, themselves revised downward in light of ongoing impacts stemming from COVID-19. The Construction 12MMT will decline into mid-2021. Expect spending to subsequently rise into at least late 2022. However, spending will not return to the current level through the length of this forecast.

Multi-Tenant Retail Construction was declining rapidly before the pandemic struck. Now, shutdowns and social distancing measures are curbing consumer spending at brick-and-mortar stores. We saw evidence of this in US Department Stores Retail Sales (excluding leased departments) in March, down 25.3% from March 2019. Some businesses may not recover. This will likely limit investment in multi-tenant retail projects in the coming years.



DATA TREND

RATE-OF-CHANGE



LINKS

<u>Ask an Analyst</u>

Data Methodology



ITR MANAGEMENT OBJECTIVE

Manage your accounts receivable closely as spending declines into mid-2021.



US Private Warehouse Construction

Billions of Dollars, NSA

HIGHLIGHTS

- The Construction 12MMT rose further in February, up 3.5% from the year-ago level
- Spending during 2020 will be relatively flat versus 2019
- E-commerce trends will likely buoy this market against COVID-19 negativity

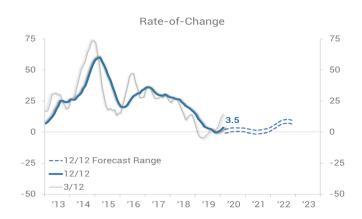
FORECAST

	12/12	12MMT
2020:	1.6%	\$33.9
2021:	1.5%	\$34.4
2022:	7.4%	\$36.9

OVERVIEW

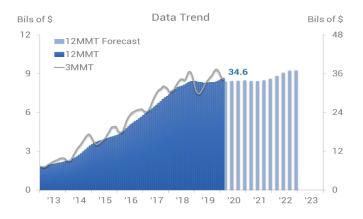
US Private Warehouse Construction in the 12 months through February was up 3.5% compared to the same time last year. The Construction 12MMT rose further and is trending along the upper end of our forecast range. The ITR Checking Points™ system suggests Construction could outperform our forecast. However, multiple leading indicators to Construction are suggesting downside macroeconomic risk, cautioning against an upward revision. The forecast is unchanged. Plan for Construction spending to trend closer to the forecast range as 2020 progresses. We expect that spending in 2020 as a whole will be only modestly higher than in 2019. Spending will rise more noticeably starting in late 2021 and extending through at least 2022.

US Non-Store Retail Sales in March came in 12.1% above the March 2019 figure. Stay-at-home orders are accelerating consumers' shift from brick-and-mortar stores toward "non-stores." As online retailers move to offer grocery products – one consequence of this trend – they will likely need further warehouse space. Such drivers will keep Construction growing this year.



DATA TREND

RATE-OF-CHANGE



LINKS

<u>Ask an Analyst</u>

Data Methodology



ITR MANAGEMENT OBJECTIVE

In this COVID-19-colored environment, look for opportunities associated with nearshoring and e-commerce.



US Public Water & Sewer Facilities Construction

Billions of Dollars, NSA

HIGHLIGHTS

Trends Report

- We lowered our expectations for US Public Water and Sewer Facilities Construction
- Expect spending to decline through around year-end 2021 before rising at least through 2022
- Municipal Bond Issuances fell sharply, suggesting diminished Construction projects later in 2020

FORECAST

12/12 12MMT 2020: -3.6% \$40.1 2021: -7.3% \$37.2 2022: 6.9% \$39.8			
2021: -7.3% \$37.2		12/12	12MMT
	2020:	-3.6%	\$40.1
2022: 6.9% \$39.8	2021:	-7.3%	\$37.2
	2022:	6.9%	\$39.8

OVERVIEW

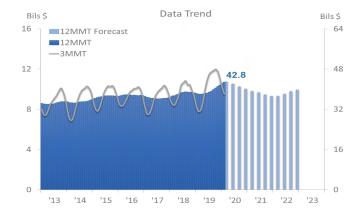
We revised our expectations for both the Water and Sewer components of US Public Water and Sewer Facilities Construction. Monthly US Municipal Bond Issuances fell sharply in March, coming in 35.6% below the March 2019 level. This signals that funding for public projects will be squeezed. While many Water and Sewer projects are likely to be designated as essential, the fiscal strain attendant to a weaker economy and the fight against COVID-19 will likely impact states and municipalities in the coming years. Furthermore, voters will likely be more reluctant to greenlight such projects, given the tax burden they typically impose.

Construction during the 12 months through February was 12.8% above the same time period last year. Construction spending will peak imminently and subsequently decline through 2021. The Construction 12MMT will then rise through at least 2022.



DATA TREND

RATE-OF-CHANGE



LINKS

<u>Ask an Analyst</u>

Data Methodology



ITR MANAGEMENT OBJECTIVE Ensure you have a strong cash position as this segment contracts through 2021.



Manufacturing

MAY 2020







The Manufacturing US Economy At-a-Glance

	12/12	12MMT/A	Current 12/12	2020	2021	2022	Highlights
US Metalworking Machinery New Orders	$\sim \sim$		-1.6	-17.0	16.8	2.7	We adjusted our outlook downward given revisions to our macroeconomic expectations and key markets such as automotive.
US Industrial Machinery New Orders	\sim		14.5	-9.3	16.9	-7.2	New Orders will decline imminently. However, markets like Food Production could place upside pressure on spending through 2020.
US Construction Machinery New Orders	\checkmark		-11.1	-20.1	26.6	2.0	Spending will decline into early 2021. However, single-unit housing may be an area of opportunity in the coming quarters.
US Electrical Equipment New Orders	\sim		1.5	-9.5	3.0	4.7	Spending will transition to decline in the near term, with decline extending into the first half of 2021.
US Computers & Electronics New Orders	~~~~		0.6	-4.1	1.6	4.6	The New Orders 12MMT will generally decline into early 2021 as consumers and businesses curtail spending in a weaker economy.
US Defense Capital Goods New Orders	Theme		6.8	16.8	-8.9	-0.8	The New Orders 12MMT will rise throughout 2020, unlike most New Orders indicators in this module; target opportunities accordingly.
North America Light Vehicle Production	Lung		-6.0	-21.7	7.3	1.6	A severe drop in industry-related Retail Sales signals the consumer is unwilling or unable to purchase big ticket items.
US Oil & Gas Extraction Production	\sim		9.1	-4.1	-4.4	8.8	We adjusted our outlook. Activity will decline into late 2021 as the impact of very low oil prices ripples through this market.
US Mining Production (excluding oil & gas)	\sim		-2.5	-13.6	0.6	5.0	We revised the Production 12MMA outlook, as decline into early 2021 is now expected to be sharper than previously forecast.
US Chemicals & Chemical Products Production	$\sim\sim$		-1.2	-8.1	0.3	2.8	The US Chemical Activity Barometer Index fell sharply in March; expect decline in Production into the first half of 2021.
US Civilian Aircraft Equipment Production	$\overline{}$		-6.4	-27.9	-7.8	14.3	Our 2020 outlook for 27.9% contraction is unchanged; we lifted 2021 and 2022 after our research showed a sharper recovery is probable.
US Medical Equipment & Supplies Production	\checkmark		2.5	-2.5	1.3	5.0	Supply chain issues are likely hindering Production. The Production 12MMA will decline into mid-2021.
US Heavy-Duty Truck Production	~~~~		-4.9	-32.4	12.7	15.3	Downgrades to key macroeconomic indicators suggest decreased demand for Production; we revised our outlook accordingly.
US Food Production	~~~~		1.0	0.7	2.2	0.8	March brought unprecedented rise in spending at food/beverage stores, and unprecedented decline at bars/restaurants.

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

PHASE KEY



Phase A: Recovery



Phase B: Accelerating Growth



Phase C: Slowing Growth



Phase D: Recession

SUMMARY

We revised our outlooks for many of the manufacturing markets in this module to account for updated research and new data, which clarified the economic impacts of COVID-19 shutdowns and very low oil prices. We lowered our expectations for US Metalworking Machinery New Orders, North America Light Vehicle Production, US Oil and Gas Extraction Production, US Mining Production (excluding oil and gas), US Chemicals and Chemical Products Production, and US Heavy-Duty Truck Production. While US Industrial Machinery New Orders are accelerating, they are expected to decline into early next year. We still expect US Food Production will avoid the bulk of the shutdown effects and grow mildly this year, and US Defense Capital Goods New Orders will also grow for 2020. These two markets are exceptions; annual spending or activity for the rest of the markets in this module will end the year below the 2019 level. However, apart from the aircraft and the oil and gas markets, which are contending with more severe impacts following the black swan events, the majority of manufacturing markets are expected to close 2021 above 2020 levels. Defense spending, however, will also decline in 2021, coming off record highs this year.



US Metalworking Machinery New Orders

Billions of Dollars, NSA

HIGHLIGHTS

- We revised our outlook for New Orders downward after adjusting our expectations for the industrial sector and B2B spending
- The New Orders 12MMT will decline into early 2021
- Spending will then rise through at least 2022, returning to around the current level by year-end 2022

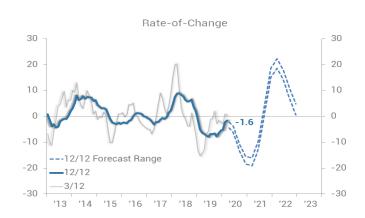
FORECAST

12/12	12MMT
-17.0%	\$25.1
16.8%	\$29.3
2.7%	\$30.1
	-17.0% 16.8%

OVERVIEW

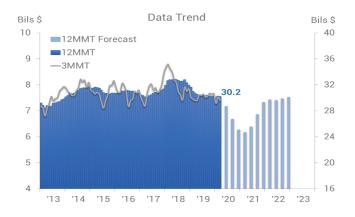
Severe disruptions to the US and world economies due to COVID-19 and the oil price crash necessitated downward revisions to our expectations for US Industrial Production and US Nondefense Capital Goods New Orders (excluding aircraft). The sharp recessions in these core segments of the economy, coupled with decline in key end markets such as automotive, will impede US Metalworking Machinery New Orders. Therefore, we lowered our outlook for annual New Orders by 5.1%, 4.4%, and 2.5% for 2020, 2021, and 2022, respectively.

The New Orders 12MMT ticked down in March and was 1.6% below the year-ago level. Expect New Orders spending to decline into early 2021. Ongoing supply and price shocks in the oil market and further supply chain disruption due to COVID-19 could pose downside risks to our expectations. Rise will take hold during the first half of 2021 and persist through at least 2022. Spending will near the current level by around year-end 2022.



DATA TREND

RATE-OF-CHANGE



LINKS

<u>Ask an Analyst</u>

Data Methodology



ITR MANAGEMENT OBJECTIVE

Look into cost-cutting measures, such as the temporary elimination of overtime or increased requirements for capital expenditures, as New Orders decline into early 2021.



US Industrial Machinery New Orders

Billions of Dollars, NSA

HIGHLIGHTS

- The New Orders 12MMT in March was up 14.5% year over year
- Expect New Orders spending to peak imminently and then decline into early 2021
- Spending will then rise throughout 2021 before declining through at least 2022

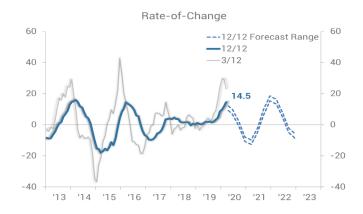
FORECAST

12/12	12MMT
-9.3%	\$30.8
16.9%	\$36.0
-7.2%	\$33.4
	-9.3% 16.9%

OVERVIEW

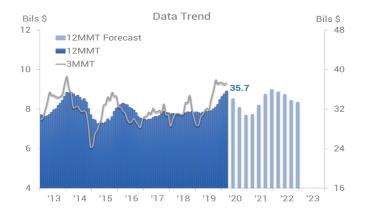
US Industrial Machinery New Orders in the 12 months through March were up 14.5% from the year-ago level. The February-to-March rise was more robust than average, a notably strong result given the backdrop of the black swan events. New Orders came in 1.2% above the forecast range. Our analysis suggests New Orders are likely to track the upper end of the forecast range in at least the coming quarters. The New Orders 12MMT will peak imminently and subsequently decline into early 2021. Spending will then rise through the remainder of 2021 before declining throughout 2022.

Given the economic repercussions of the double black swan events, certain end-use markets for industrial machinery, such as US Textiles and Products Production and US Plastics Products Production, are expected to move through Phase D, Recession, during at least the remainder of this year. These trends will likely contribute to downside pressure on the New Orders 12/12 through at least the end of 2020. However, business cycle rise expected in US Food Production into late this year – Food Production is exempt from mandated shutdowns related to COVID-19 – will likely place upside pressure on the New Orders 12/12 through the end of 2020.



DATA TREND

RATE-OF-CHANGE



LINKS

<u>Ask an Analyst</u>

Data Methodology



ITR MANAGEMENT OBJECTIVE

You may find that orders are being cancelled or pushed out. Take stock of your clients, the risks they pose, and their value to you. Consider offering flexible payment structures or extended credit accordingly.



US Construction Machinery New Orders

Billions of Dollars, NSA

HIGHLIGHTS

- New Orders in the 12 months through March were down 11.1% year over year
- · Spending will decline into early next year
- Growth in US Single-Unit Housing Starts bodes well for related New Orders in the coming quarters

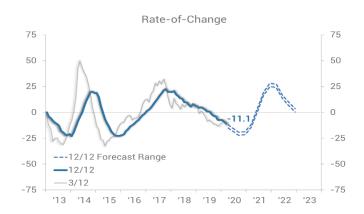
FORECAST

	12/12	12MMT
2020:	-20.1%	\$26.5
2021:	26.6%	\$33.5
2022:	2.0%	\$34.2

OVERVIEW

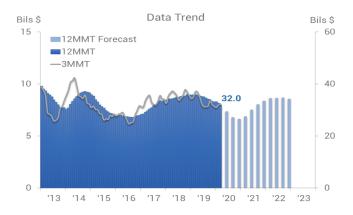
US Construction Machinery New Orders in the 12 months through March were down 11.1% from a year ago. The New Orders 12MMT will decline into early next year, troughing about 20.6% below the year-ago level. Spending will subsequently rise through at least 2022.

Expected decline in US Mining Production (excluding oil and gas) will likely limit demand for the surface mining machinery component of New Orders into late 2020. However, the residential construction market may provide relatively more favorable economic conditions for New Orders tied to that sector. Growth in annual US Single-Unit Housing Starts (up 4.8% from one year ago) bodes well for New Orders opportunities in the residential housing market in at least the coming quarters. Market your products and services accordingly.





RATE-OF-CHANGE



LINKS

<u>Ask an Analyst</u>

Data Methodology



ITR MANAGEMENT OBJECTIVE

Spending will not reach the previous peak through at least 2022. Ensure that your business is right-sized.



ITReconomics.com

US Electrical Equipment New Orders

Billions of Dollars, NSA

HIGHLIGHTS

- New Orders in the 12 months through March were up 1.5% year over year
- Decline in the New Orders 12MMT will take hold in the near term and persist into the first half of 2021
- Spending will then rise through the remainder of 2021 and most of 2022

FORECAST

12/12	12MMT
-9.5%	\$33.9
3.0%	\$34.9
4.7%	\$36.6
	-9.5% 3.0%

OVERVIEW

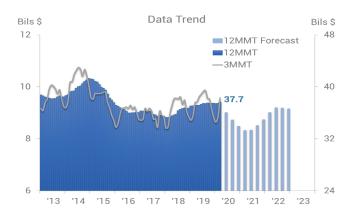
US Electrical Equipment New Orders in the 12 months through March were up 1.5% compared to the same time last year. The 12/12 rate-of-change ticked up, but our analysis suggests that New Orders will transition to Phase D, Recession, in the near term, given market complications stemming from the double black swan events. The New Orders 12MMT will transition to decline in the near term. Decline will persist into the first half of 2021. Rise will then take hold and persist through much of 2022; New Orders will mildly decline late that year.

Actual and expected cyclical decline in US Electric and Gas Utilities Production corroborates our expectation for business cycle decline in New Orders into the first half of 2021; with reduced Production, there will be less wear and tear on existing equipment and thus less incentive to order electrical equipment. Furthermore, the weakened economy will also likely limit some of the demand for electrical equipment. However, domestic suppliers could experience a boost as more companies seek to diversify their supply chains.

RATE-OF-CHANGE



DATA TREND



LINKS

<u>Ask an Analyst</u>

Data Methodology



ITR MANAGEMENT OBJECTIVE

Manage your accounts receivable closely, but take care not to damage valuable longstanding relationships.



US Computers & Electronics New Orders

Billions of Dollars, NSA

HIGHLIGHTS

- New Orders in the 12 months through March were 0.6% above the year-ago level
- The New Orders 12MMT will generally decline into early 2021
- Spending will rise through much of 2021 and 2022 before generally plateauing in late 2022

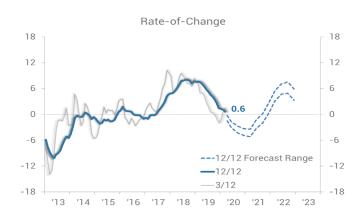
FORECAST

	12/12	12MMT
2020:	-4.1%	\$272.0
2021:	1.6%	\$276.3
2022:	4.6%	\$289.0

OVERVIEW

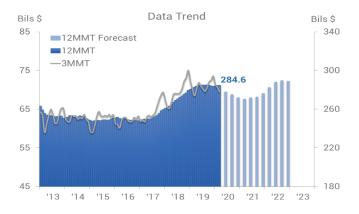
US Computers and Electronics New Orders in the 12 months through March were virtually even with the yearago level. The New Orders 12MMT will generally decline into early 2021. Expect spending to then rise through much of 2022 before plateauing through the end of that year. Spending will exceed the current level by around mid-2022.

While purchases of certain computers and electronics related to telecommuting have increased in response to stay-at-home orders, monthly US Retail Sales at Electronics and Appliance Stores in March were down 15.6% from one year ago. As consumers and businesses tighten their belts in response to a weakened US economy and elevated uncertainty, New Orders are likely to decline, particularly within categories that are discretionary in nature. Tailor your product offerings accordingly.



DATA TREND

RATE-OF-CHANGE



LINKS

<u>Ask an Analyst</u>

Data Methodology



ITR MANAGEMENT OBJECTIVE

Cash is king on the back side of the business cycle. Watch your cash flow closely.



US Defense Capital Goods New Orders

Billions of Dollars, NSA

HIGHLIGHTS

- The February-to-March percentage change was within normal precedents
- Expect spending growth to accelerate for the remainder of 2020
- Spending for both 2021 and 2022 will be close to the current 12MMT

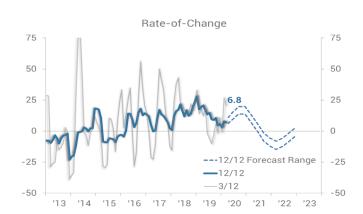
FORECAST

12/12	12MMT
16.8%	\$184.7
-8.9%	\$168.3
-0.8%	\$167.0
	16.8% -8.9%

OVERVIEW

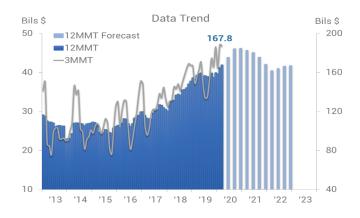
US Defense Capital Goods New Orders for the 12 months through March totaled \$167.8 billion. The March 12MMT was 6.8% above the year-ago level. The ITR Checking Points[™] system suggests that Phase B, Accelerating Growth, will likely extend into the second half of the year, as the industry adapts and responds to the recent black swan events. However, decline in the 12MMT will take hold by early 2021 and persist into early 2022. Expect total 2022 spending to come in relatively even with the 2021 total.

The February-to-March percentage change was near the historical median, suggesting that the recent black swans did not deter overall spending. However, not every segment of defense is growing. While US National Defense Expenditures for Ships were up 10.7% from the same time last year (annual basis), US Defense Aircraft and Parts spending was down 16.1%. On balance, however, look to defense for opportunity, as the industry will reach record highs this year.



DATA TREND

RATE-OF-CHANGE



LINKS

<u>Ask an Analyst</u>

Data Methodology



ITR MANAGEMENT OBJECTIVE

Consider taking advantage of low interest rates to upgrade machinery and technology, as record-high New Orders are expected for the remainder of this year.



North America Light Vehicle Production

Data Source: WardsAuto, Millions of Units, NSA

HIGHLIGHTS

- We revised the Production outlook downward in response to new market data and our downgraded macroeconomic outlook
- The Production 12MMT is expected to decline into early 2021
- Retail Sales data signals the consumer is unwilling or unable to make larger purchases

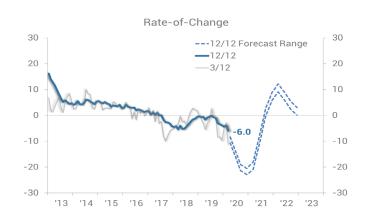
FORECAST

12/12	12MMT
-21.7%	12.7
7.3%	13.7
1.6%	13.9
	-21.7% 7.3%

OVERVIEW

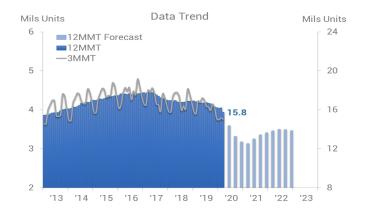
The impacts of the COVID-19 shutdowns were apparent in the latest data for North America Light Vehicle Production; March Production came in 30.5% below the same month last year. A similar drop was seen in US Light Vehicle Retail Sales, with March Sales down 37.9% from the March 2019 level. This is the worst Februaryto-March decline (26.4%) in Retail Sales' nearly 100-year data history. While we are seeing continued spending on essential goods, the Retail Sales data is a sign that consumers are less willing or less able to make largeticket purchases. A similar trend is occurring in US New Homes Sold, despite low interest rates. We revised our Production outlook downward to account for new industry data and our downgraded macroeconomic expectations.

As layoffs and furloughs sap consumer strength, we are likely to see further decline in Production in 2020; Production will end that year down 21.7% from the 2019 total. We expect the consumer will start to regain financial footing during 2021; the Production 12MMT will rise from the second quarter of that year into mid-2022. However, at its 2022 height, Production will likely be around the mid-2012 level.



DATA TREND

RATE-OF-CHANGE



LINKS

<u>Ask an Analyst</u>

Data Methodology

ITR MANAGEMENT OBJECTIVE

Review your competitive advantages and identify other markets where you may be able to leverage your strengths.



US Oil & Gas Extraction Production

Index, 2012 =100, NSA

HIGHLIGHTS

- We adjusted the Production outlook to account for our revised expectations for industrial sector activity
- The Production 12MMA will peak imminently before declining into late 2021
- Activity will then rise through at least 2022

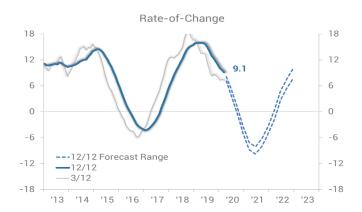
FORECAST

	12/12	12MMA
2020:	-4.1%	165.6
2021:	-4.4%	158.4
2022:	8.8%	172.3

OVERVIEW

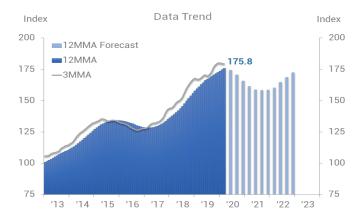
We adjusted our expectations for US Oil and Gas Extraction Production to account for our revised outlook for US Industrial Production, which was updated to reflect our most recent findings regarding the extent of the economic impacts of both the oil market supply-demand imbalance and COVID-19. We revised our outlook for the Extraction Production 12MMA downward by 3.1%, 7.1%, and 2.0% for 2020, 2021, and 2022, respectively.

The Production 12MMA rose further in March and was up 9.1% compared to the same time a year ago. Expect Production activity to peak imminently before declining into late 2021. Prior trends in the US Rotary Rig Count suggest that business cycle decline in Production will persist into at least late this year. Our US Crude Oil Futures Prices forecast suggests Production decline will be generally more acute in 2021 than in 2020. Production will rise during 2022, but will be below the current level throughout that year.



DATA TREND

RATE-OF-CHANGE



LINKS

<u>Ask an Analyst</u>

Data Methodology

SLOWING GROWTH

ITR MANAGEMENT OBJECTIVE

Ensure you have enough working capital to keep your operations running as Production declines into late 2021.



US Mining Production (excluding oil & gas)

Index, 2012 =100, NSA

HIGHLIGHTS

- The Production forecast was downgraded to account for our revised macroeconomic outlook
- The Production 12MMA will decline to an early-2021 low, descending lower than previously forecast

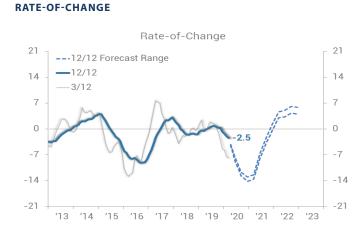
FORECAST

	12/12	12MMA
2020:	-13.6%	79.1
2021:	0.6%	79.5
2022:	5.0%	83.5

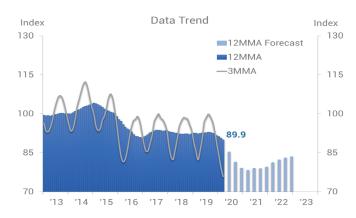
OVERVIEW

We downgraded the US Mining Production (excluding oil and gas) 12MMA outlook for each of the next three years due to a revised industrial sector outlook. Ongoing decline in the US Mining Utilization Rate (excluding oil and gas) 1/12 signals business cycle decline for Production is likely to extend into at least late 2020. An environment of low commodity prices will likely hinder this sector into the first half of 2021. We revised the forecast for the Production 12MMA downward by 4.3%, 5.8%, and 1.1% for 2020, 2021, and 2022, respectively.

Production during the 12 months through March was down 2.5% from the year-ago level. The February-to-March decline in monthly Production was the worst such decline since the mid-1970s. While the timing of the expected early-2021 low in the Production 12MMA has not changed, we are now anticipating that the decline will be deeper before rise takes hold and persists through the remainder of the outlook horizon. We are monitoring commodity prices closely, as sharper- or longer-thanexpected declines would pose a downside risk to the Production outlook.







LINKS

<u>Ask an Analyst</u>

Data Methodology

AD

ITR MANAGEMENT OBJECTIVE

Ensure you are right-sized for the future, as overall Production is expected to decline to levels not seen since the 1980s.



US Chemicals & Chemical Products Production

Index, 2012 =100, NSA

HIGHLIGHTS

- We adjusted our outlook for Production downward in response to a revision to our US Industrial Production outlook
- A key industry leading indicator declined sharply in March
- The Production 12MMA will decline into the first half of 2021

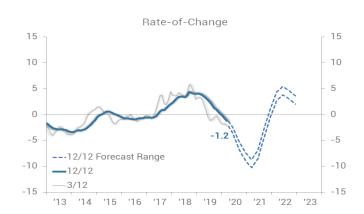
FORECAST

	12/12	12MMA	
2020:	-8.1%	92.4	
2021:	0.3%	92.6	
2022:	2.8%	95.2	

OVERVIEW

We adjusted our expectations for US Chemicals and Chemical Products Production downward. Ongoing COVID-19 repercussions and the oil supply/demand imbalance led us to revise our macroeconomic forecasts and suggest diminished demand for Production. The Production 12MMA will decline into the first half of 2021. Activity will subsequently rise through at least 2022.

The monthly US Chemical Activity Barometer Index fell sharply in March and was down 7.4% compared to the March 2019 reading. This suggests that business cycle decline in Production will likely persist into at least early 2021. If you sell into to the paint segment of Production, we recommend a particularly conservative approach. US Paint and Coating Production in March came in 27.2% below the same month one year ago; given this segment's ties to the automotive market and to housing, we think additional pain lies ahead.



DATA TREND

RATE-OF-CHANGE



LINKS

<u>Ask an Analyst</u>

Data Methodology



ITR MANAGEMENT OBJECTIVE

Manage your accounts receivable tightly. However, take care to not damage your business relationships.



US Civilian Aircraft Equipment Production

Index, 2012 =100, NSA

HIGHLIGHTS

- March Production was 24.7% below the March 2019 level
- We revised 2021 and 2022 upward, as our latest research shows a sharper recovery is more probable
- Airlines are rescinding orders of new aircraft as air travel drops rapidly

FORECAST

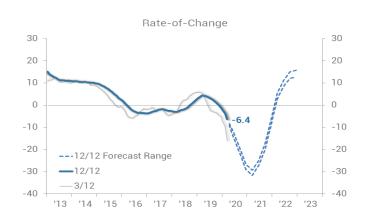
	12/12	12MMA
2020:	-27.9%	85.6
2021:	-7.8%	78.9
2022:	14.3%	90.2

OVERVIEW

We upgraded our 2021 and 2022 expectations for US Civilian Aircraft Production to account for updated market research. Our research shows that the positive effects from the industry bailout package and economic stimulus are likely to allow for a sharper recovery than previously forecast.

Production declined 13.4% from February to March, the worst decline for that time period in the 49-year data history. Cashflow issues are plaguing airlines and will contribute to Production decline into late 2021. Rise will then persist through at least 2022.

Demand for air travel has declined rapidly in response to COVID-19. While the bailouts will offset some of the negativity, we will not likely see investment in the industry return to pre-black swan levels within this forecast horizon. The aforementioned strains have curtailed or delayed plans for expansion and innovation – Boeing cancelled a \$4.2 billion joint venture with Embraer, and Airbus shut down a project aimed at powering aircraft engines with electricity. It may be beneficial to move into the repair and maintenance market, as orders for new aircraft will likely decline further.



DATA TREND

RATE-OF-CHANGE



LINKS

<u>Ask an Analyst</u>

Data Methodology



ITR MANAGEMENT OBJECTIVE

Production is expected to end 2022 around 2011 levels; look to scale your capacity accordingly. Use any downtime this Phase D trend affords to improve efficiencies for beyond 2022.



US Medical Equipment & Supplies Production

Index, 2012 =100, NSA

HIGHLIGHTS

- Production in the 12 months through March was up 2.5% year over year
- Activity will decline into mid-2021 before rising through at least 2022
- Manufacturers from various industries have switched to medical production to support the response to COVID-19

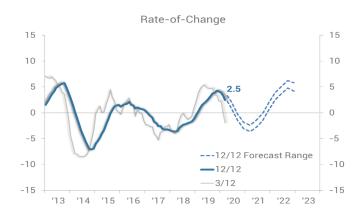
FORECAST

	12/12	12MMA
2020:	-2.5%	95.9
2021:	1.3%	97.1
2022:	5.0%	102.0

OVERVIEW

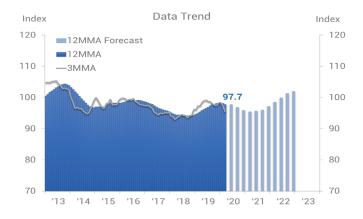
The US Medical Equipment and Supplies Production 12MMA declined further in March but was up 2.5% compared to the same time a year ago. Our analysis suggests results will likely continue to trend toward the lower end of the forecast range in at least the near term. Expect decline in Production activity to persist into mid-2021. Production will subsequently rise through at least 2022.

Production activity declined 1.19% from February to March, which is more than normal and the sharpest February-to-March decline since 2001. Some of the decline can likely be attributed to supply chain issues and resultant pressure on US imports of medical manufacturing inputs. At the same time, many manufacturers from various industries have stepped up to produce much-needed medical gear such as ventilators, masks, gowns, and face shields. GM, Ford, L.L. Bean, and many smaller companies are among those making the switch. The invocation of the Defense Production Act could push even more manufacturers to shift to medical production.



DATA TREND

RATE-OF-CHANGE



LINKS

<u>Ask an Analyst</u>

Data Methodology

ITR MANAGEMENT OBJECTIVE

Cash is king on the back side of the business cycle. Consider applying for a small business loan, if necessary, to assist in keeping operations running smoothly.



US Heavy-Duty Truck Production

Index, 2012 =100, NSA

HIGHLIGHTS

- We revised our expectations for the Production 12MMA downward
- The February-to-March Production decline was the worst since the Great Recession
- Our downgraded Wholesale Trade outlook suggests
 diminished demand for Production is likely this year

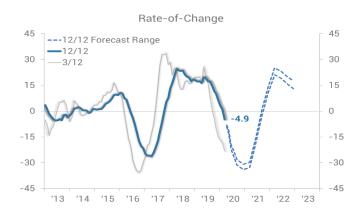
FORECAST

	12/12	12MMA
2020:	-32.4%	76.7
2021:	12.7%	86.4
2022:	15.3%	99.6

OVERVIEW

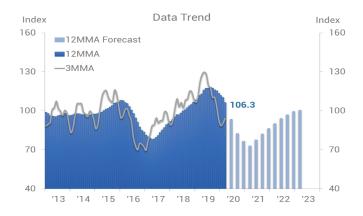
March US Heavy-Duty Truck Production came in 33.5% below the March 2019 level. This was the worst February-to-March decline since the Great Recession. We downgraded our expectations for the next three years to account for new market data and our downwardrevised macroeconomic outlook. We expect an economy weakened by COVID-19 shutdowns and very low Oil Prices to negatively impact investment in heavy trucks into the first half of 2021; plan for a first-half-of-2021 low in the Production 12MMA. Production will then rise through at least 2022 but will not regain the current level during that time.

We downgraded our expectations for US Wholesale Trade of Durable Goods to align with our revised industrial sector outlook. Our Wholesale Trade forecast signals that Heavy-Duty Truck Production is likely to decline throughout 2020. However, the US ISM PMI (Purchasing Managers Index) 1/12 is generally rising off a tentative third-quarter-of-2019 low, signaling the return of upward momentum in the Production rates-of-change by 2021.



DATA TREND

RATE-OF-CHANGE



LINKS

<u>Ask an Analyst</u>

Data Methodology



ITR MANAGEMENT OBJECTIVE

Promote your competitive advantages to secure contracts in growing markets such as the food and beverage industry.





Index, 2012 =100, NSA

US Food Production

HIGHLIGHTS

- Food Production in the 12 months through March was up 1.0% year over year
- Expect Production activity to generally rise through 2022, apart from brief decline around year-end 2020
- The impact of social distancing measures on industry retail sales in March was unprecedented

FORECAST

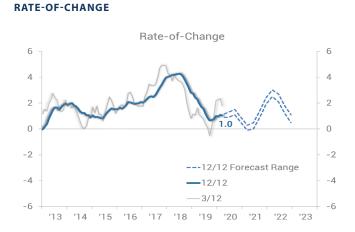
	12/12	12MMA
2020:	0.7%	115.9
2021:	2.2%	118.4
2022:	0.8%	119.3

OVERVIEW

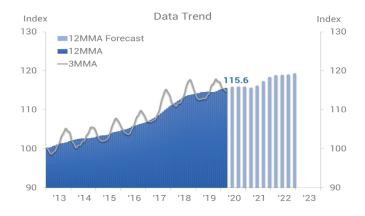
US Food Production during the 12 months through March was up 1.0% from the year-ago level. The Production 12MMA will generally rise through at least 2022, except for a brief period of decline around year-end 2020.

US Food and Beverage Stores Retail Sales in March were up 25.7% compared to March of 2019. This is more than three times the magnitude of the prior 1/12 record high. Conversely, US Food Services and Drinking Places Retail Sales came in 24.6% below the March 2019 figure, nearly six times as severe as the previous 1/12 record low. Our research shows that for every dollar that left restaurants and bars in March, about 65 cents transferred into additional spending at food and beverage stores.

Restaurant closures and the shutdown of eat-in services have reduced demand for certain foods that restauranteurs had typically purchased from food producers and distributors. The degree to which the forced shift in consumer behavior will translate to longterm changes in the food industry remains to be seen. In the meantime, expect the disruptive effects of COVID-19 to ripple throughout the food industry in the coming quarters.



DATA TREND



LINKS

<u>Ask an Analyst</u>

Data Methodology



ITR MANAGEMENT OBJECTIVE

Consider conducting market research so you can target specific markets in line with the potential shift in consumer trends.

