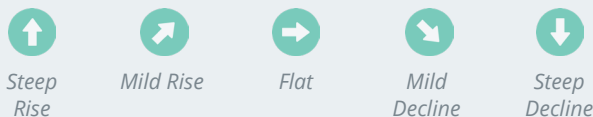
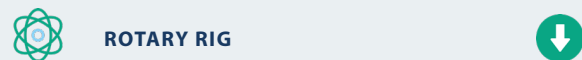
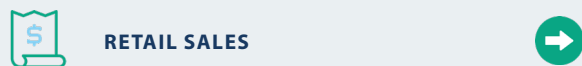


## Industry Snapshots

Arrow denotes 12-month moving total/average direction.



## Macroeconomic Outlook

As we wrap up the third quarter of 2020, we are seeing many encouraging signs that support our outlook for recovery and rise in US Real Gross Domestic Product (GDP) during the second half of this year and into at least 2021. In order to forecast macroeconomic business cycle rise, we typically require that at least five key leading indicators be in rising trends. We now have about twice that number, including (but not limited to):

- ITR Leading Indicator™
- ITR Retail Sales Leading Indicator™
- JP Morgan Global Purchasing Managers Index (PMI)
- Conference Board’s US Leading Indicator
- OECD’s US Leading Indicator
- Bullish signs for the US housing market

If your business moves through the business cycle in a coincident manner with GDP, you should be seeing – or soon experiencing – some recovery in your business. Those who move more closely with the US industrial sector should also be beginning to feel the effects of nascent rise in quarterly US Industrial Production.

*“If you wait for the macroeconomy to enter a full-fledged recovery, you may fall behind the curve”*

This is not to say all is clear ahead for the US economy. The following are downside threats to our forecast for recovering quarterly GDP and industrial activity in the second half of the year:

- The onset of the fall flu season could lead to additional reopening reversals.
- Month-to-month momentum in US Total Retail Sales stalled in August.
- The Federal Reserve’s Weekly Economic Index ticked down slightly for the week of September 5 and again the week of September 12.
- Oil Prices and US Intermodal Rail Traffic showed some jitters in the first half of September.
- There is uncertainty regarding unemployment benefits and the possibility of additional fiscal stimulus.

Please note that the above figures are not yet statistically meaningful. They are simply emerging risks of which you should be aware. We will be watching them closely to see if they develop further. If you, like us, look at a lot of data, keep in mind that some volatility is normal. As our own Alex Chausovsky notes in “A Closer Look” on page 7, the preponderance of evidence is pointing toward general recovery ahead.

Take advantage of pessimism at the bottom of the business cycle to get ahead of the competition – consider capital expenditures now, while interest rates are relatively low, or consider strategic acquisitions. If you wait for the macroeconomy to enter a full-fledged recovery, you may fall behind the curve.

## Make Your Move

Communicate your competitive advantages to your customers to maintain market share during this time of diminished activity levels. As you prepare for next year, consider how you can leverage those advantages, or create new ones, to reach new customers.

## Investor Update

Stock Prices reached a month-end record high in August and transitioned to Phase B, Accelerating Growth. The stronger-than-normal rise in August suggests it would not be surprising for a dip in Stock Prices to occur in September, as has been the case in the first half of the month. However, positive trends in leading indicators suggest economic fundamentals are generally firming.

## ITR Economics Long-Term View

2020

DECLINE

2021

RECOVERY AND RISE

2022

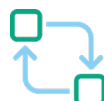
GROWTH

## Industry Analysis



### RETAIL SALES

- Monthly US Total Retail Sales were \$545.9 billion in August, essentially flat compared to August of 2019
- Flat year-over-year Retail Sales represent a softening relative to the previous two months' roughly 3.5% year-over-year growth, posted prior to the expiration of enhanced unemployment benefits
- Our system of leading indicators suggests US Total Retail Sales are likely to transition to a full-fledged recovery trend in the first half of 2021



### WHOLESALE TRADE

- US Total Wholesale Trade in June and July was down 3-4% from respective year-ago levels, a marked improvement from 20+% declines in April and May
- The most recent three months of Consumer Nondurable Goods New Orders were 11.8% below the same three months one year ago; Durable Goods New Orders were down 7.6%
- Leading indicators suggest that Wholesale Trade will transition to a recovery trend in the first half of next year



### AUTO PRODUCTION

- Monthly North America Light Vehicle Production was 1.2 million vehicles in July, up 4.6% from July 2019 after double-digit declines the previous four months
- US Light Vehicle Retail Sales for August were down 19.1% from August 2019, the sixth straight month of double-digit decline
- The US Auto Loan Delinquency Rate stood at 5.03% in the second quarter, nearly a full percentage point above the five-year average; expect more negativity in the auto sector



### MANUFACTURING

- US Total Manufacturing Production in the three months through August was 8.3% below the year-ago level
- The State Street Industrial Sector ETF is exhibiting positive momentum in its quarterly and monthly rates-of-change, which bodes well for future manufacturing sector activity
- The ITR Leading Indicator™ suggests an early-2021 business cycle low for Manufacturing Production



### ROTARY RIG

- The US Rotary Rig Count averaged 260 rigs in the three months through August, down 72.7% from the same three months one year ago
- Oil Futures Prices have been oscillating around \$40 per barrel in recent weeks, roughly \$6-12 below the price needed to profitably drill a new well
- Expect Prices to generally rise into the middle of next year, sustainably exceeding \$50 per barrel by the second quarter of 2021



### CAPITAL GOODS NEW ORDERS

- Monthly US Nondefense Capital Goods New Orders (excluding aircraft) in June and July were virtually even with year-ago levels, compared to 7-8% declines in April and May
- The most recent three months of US Defense Capital Goods New Orders were up 11.6% from the same three months in 2019
- We expect Defense Capital Goods New Orders to expand into at least the middle of next year; target opportunities accordingly



### TOTAL NONRESIDENTIAL CONSTRUCTION

- US Total Nonresidential Construction in the three months through July was virtually even with the year-ago level
- Sectors related to in-person consumer activity such as Private Multi-Tenant Retail have been hit hard by the pandemic, while the Public Nonresidential component is expanding
- Be cautious about your projections, as Nonresidential Construction tends to lag the economy through the business cycle by around one year



### TOTAL RESIDENTIAL CONSTRUCTION

- US Total Residential Construction in the three months through July was virtually flat versus one year ago
- The most recent three months of US Housing Starts were up 10.0% year over year, and numerous other housing market leading indicators are rising
- Record low mortgage rates bode well for Residential Construction into 2021

## Leading Indicator Snapshot

	3Q2020	4Q2020	1Q2021
ITR Leading Indicator™	●	●	●
ITR Retail Sales Leading Indicator™	●	●	●
The Conference Board's US Leading Indicator	●	●	●
US ISM PMI (Purchasing Managers Index)	●	●	●
US Total Industry Capacity Utilization Rate	●	●	●

● Denotes that the indicator signals cyclical rise for the economy in the given quarter.

● Denotes that the indicator signals cyclical decline for the economy in the given quarter.

● N/A

### KEY TAKEAWAYS

- Our leading indicator analysis suggests that business cycle decline in the US industrial sector will persist into early 2021
- Our system of leading indicators signals that a subsequent recovery trend in industrial activity will extend into at least mid-2021
- Some of the daily and weekly leading indicators we track have softened in the first half of September; while some volatility in the data is normal, we are watching closely to determine whether these movements represent the beginning of sustained trend reversals or are simply noise amid broader general rise

## A Closer Look: The US Economy

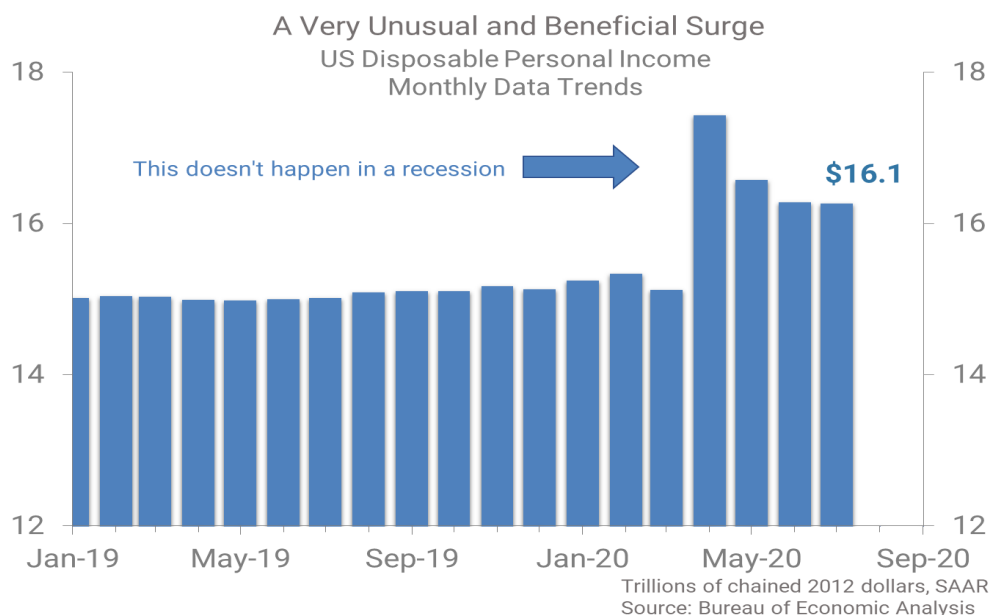
### The Resilience of the US Consumer

BY: ALEX CHAUSOVSKY

*What you need to know: US consumer charting course to recovery despite some choppy waters*

The US consumer has long been the driving force behind economic growth in the United States. Personal consumption activity accounts for roughly two thirds of our Gross Domestic Product (GDP). Today, the consumer is the single largest determining factor in the viability of the budding economic recovery. If we continue spending money, the recovery will remain on track. However, if we pull back on our spending in a meaningful way for an extended period, the green shoots of recovery evident in the summer and early fall may wither and die.

It is therefore encouraging that the latest data in two key consumption-related metrics – Disposable Personal Income (DPI) and US Total Retail Sales – is showing resiliency despite the pandemic-driven recession. DPI is the total after-tax income received by individuals in the US that is available for spending or saving. The July reading for DPI came in at a robust \$16.1 trillion (chained 2012 dollars). This is up 8.4% relative to July of 2019. To put this in broader context, DPI was hovering around the \$15.0 trillion mark in early 2020, prior to the onset of the pandemic.

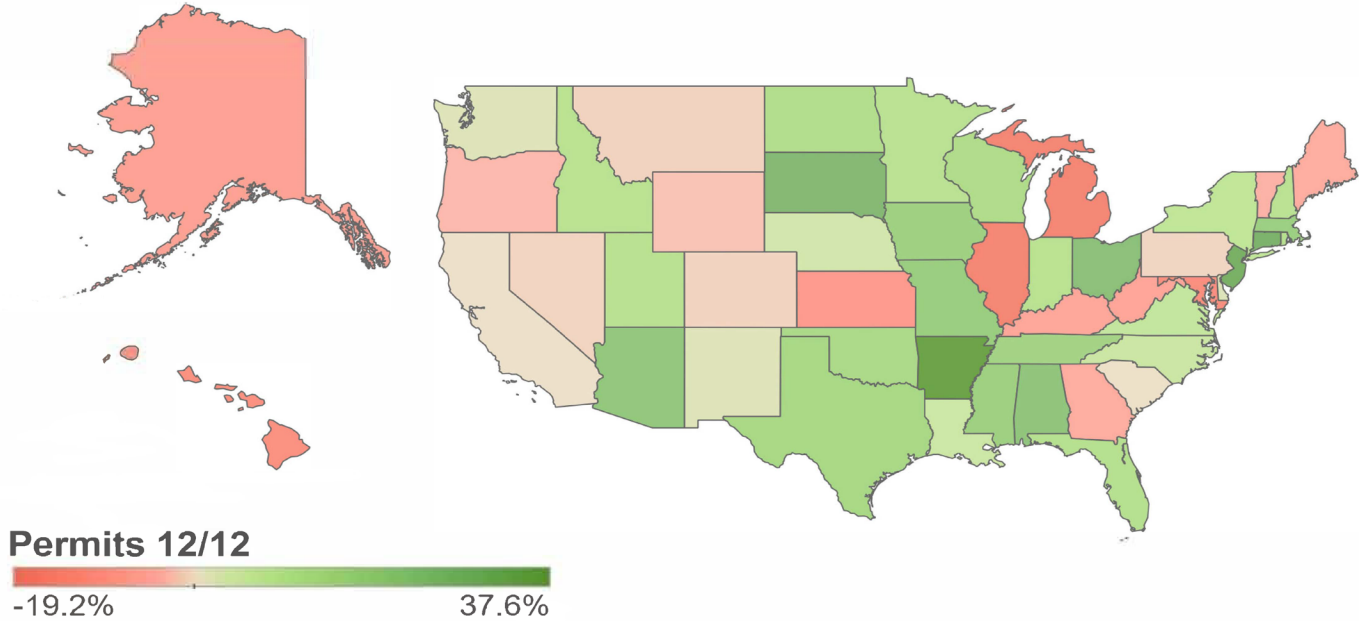


The higher disposable income level is both fascinating and reassuring. It indicates that consumers are much better prepared to weather this storm than they were during the Great Recession (average DPI during 2009 was 0.2% below the 2008 average) or other economic downturns. How long this resiliency in DPI will persist in the near term remains to be seen, given the absence of further government stimulus, but we are encouraged by the positive signals into the summer months.

Another encouraging sign that the recovery is taking hold is evident in the latest US Total Retail Sales data. Retail Sales encompass a variety of things on which consumers spend money, from cars to food to clothing and everything in between. Monthly US Total Retail Sales were up on a year-over-year basis in June and July, and virtually flat compared to the year-ago level in August. The recovery in the monthly data relative to the abyss seen in April, as well as general rise in other weekly economic datapoints, reflects improving economic conditions since the spring shutdowns.

There are certainly risks as we move forward, including the lack of further government stimulus (with a particular emphasis on unemployment benefits), the uncertainty surrounding the impact of colder weather and the flu season on the pandemic, and the timing and efficacy of a COVID-19 vaccine. During the first half of September, we have also seen some of the weekly economic datapoints stall in their general ascents. We will be closely watching these datasets to see if the US consumer’s resiliency holds up in the face of these headwinds, as the leading indicators suggest. We encourage you to watch the signs of the recovery with us in the months ahead. Stay tuned!

## State-by-State: Permits



- After double-digit rates of year-over-year decline in April and May as a result of the pandemic, monthly US Housing Unit Permits snapped back in June (up 11.7% from one year ago) and July (up 14.0%).
- The ITR Checking Points™ system suggests that further accelerating growth is probable in at least the near term.
- The Southeast, Midwest, and Southwest reported double-digit year-over-year gains in monthly Permits in both June and July. The Northeast came close to reaching this threshold, with June permitting activity up 11.8% versus one year ago and July activity up 8.8%.
- Conversely, permits in the Mountain region were below the year-ago level in June and only modestly (6.2%) above the year-ago level in July. The West region has not seen permitting activity rise above year-ago levels since the onset of the pandemic.

## Reader's Forum

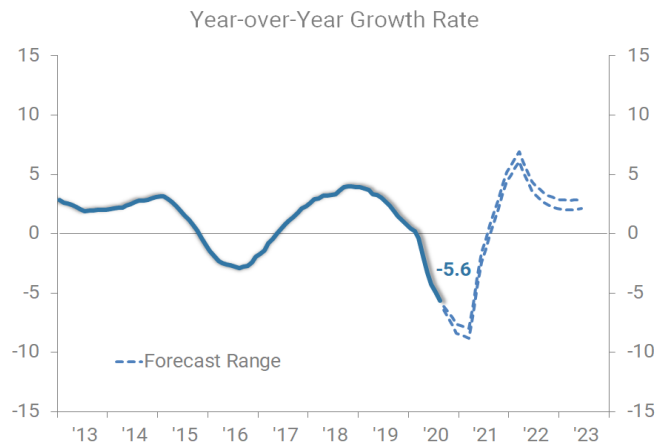
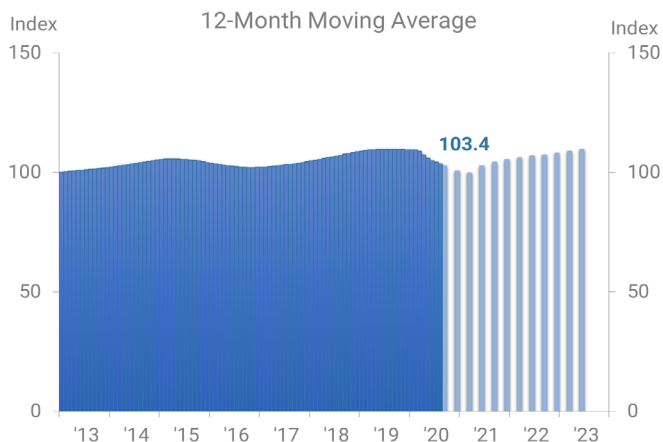
**What is the likely economic impact of the recent West Coast wildfires and East and Gulf Coast hurricanes?  
How do you account for events like these in your forecasts?**

Sara Aybar, Economist at ITR Economics™, answers:

We expect the fires and hurricanes will have demonstrable impacts on the cities and, to a lesser degree, the states involved. We have learned from prior fires and hurricanes that effects tend to diminish as distance from the "area of impact" increases. The fires and hurricanes color our expectations for the economies involved in proportion to the anticipated magnitude of disruption. Please keep in mind that rebuilding follows destruction; often, one person's loss will – thanks to funding via insurance, the government, or philanthropy – become a job or project for someone else.

## US Industrial Production Index

Index, 2012=100, NSA



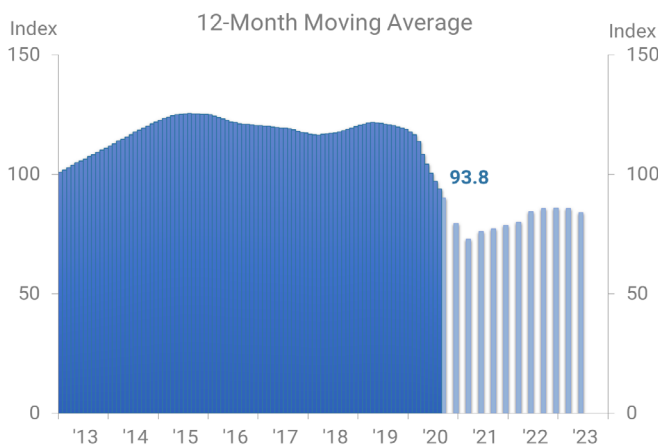
FORECAST	Y-o-Y Growth Rate
2020:	-8.0%
2021:	4.8%
2022:	2.5%

Quarterly average US Industrial Production rose in July and August, establishing a tentative June low as forecasted. However, results were tracking the upper end of the range of the forecast published in the prior report. We revised the forecast accordingly. We lifted this year's growth-rate expectation upward by 3.1 percentage points. Our 2021 forecast is virtually unchanged on a growth-rate basis, and we cut our 2022 forecast by 2.2 percentage points.

Our expectation for general rise in quarterly activity into at least the second half of 2022 is unchanged, as is our expectation for an early-2021 low in annual activity. We expect that by year-end 2022, annual Production will be approximately 1.1% below the pre-pandemic level. The primary downside threats to this forecast are (1) the possibility of a second series of broad-based shutdowns as we enter the fall flu season and (2) uncertainty related to unemployment benefits and fiscal stimulus. However, these are counterbalanced by upside risk in the form of the massive fiscal and monetary stimulus.

## US Civilian Aircraft Equipment Production Index

Index, 2012 =100, NSA



FORECAST	Y-o-Y Growth Rate
2020:	-33.1%
2021:	-1.1%
2022:	9.1%

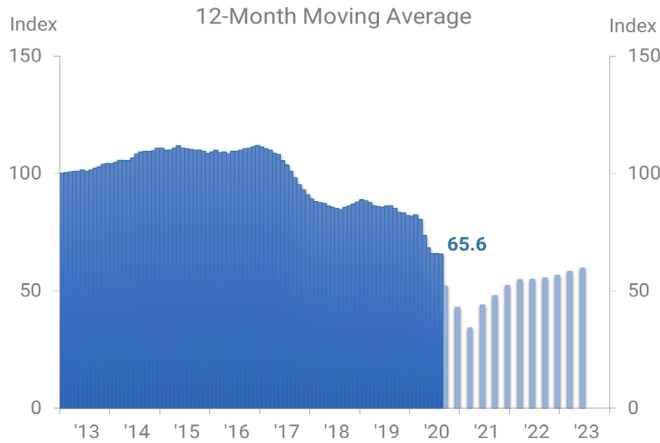
Quarterly Production activity is rising. Even though the industry has been seeing more canceled orders than new orders since the onset of the pandemic, recent year-over-year decline in Production was less severe than we had anticipated in the prior report. We revised the forecast accordingly. Expect annual activity to decline into early 2021 before it rises through at least 2022. At the end of 2022 we anticipate annual Production will be about 26.4% below the pre-pandemic level.

As of mid-September, the number of weekly travelers reported by TSA checkpoints was down 66.5% from the same week one year ago. This represents a general easing in the rate of year-over-year decline since the 90+% declines in mid-April, but the rate-of-change ascent has been less well-defined since about early August. This may indicate that the "easy" stage of regaining traveler activity is behind us, leaving the airline industry with the hard work of convincing otherwise reluctant business and leisure travelers to fly again. This fits with our general thesis of Production being well below pre-pandemic levels in the coming years.



## US Automobile Production Index

Index, 2012 =100, NSA



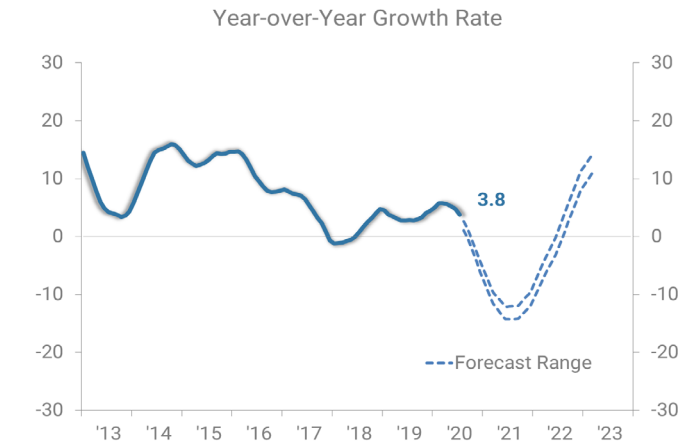
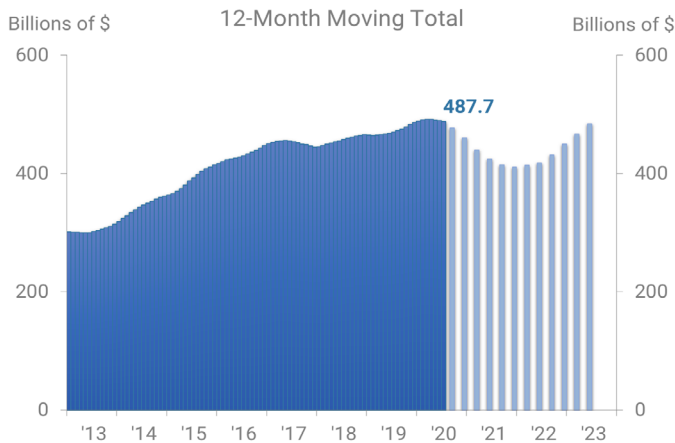
FORECAST	Y-o-Y Growth Rate
2020:	-47.7%
2021:	22.0%
2022:	8.0%

Monthly US Automobile Production in both July and August was roughly on par with year-ago levels. This is a positive ITR Checking Point™ given the 99.2% to 26.4% declines in each of the preceding four months. This is not to say that the industry is out of the woods yet; US Light Vehicle Retail Sales through August have yet to show anything more promising than double-digit decline relative to last year for any of the months since the pandemic began. Furthermore, uncertainty regarding enhanced unemployment benefits and elevated auto loan delinquency rates suggest a number of consumers may not be in a position to purchase vehicles for at least the near term.

Our forecast is unchanged. We expect double-digit growth in Production next year relative to a severely depressed 2020, and additional growth in 2022. However, Production will likely come in at double-digit percentages below the pre-pandemic level through at least 2022. Ensure your business is right-sized to handle this lower level of activity.

## US Private Nonresidential Construction

Measured in Billions of Dollars, NSA



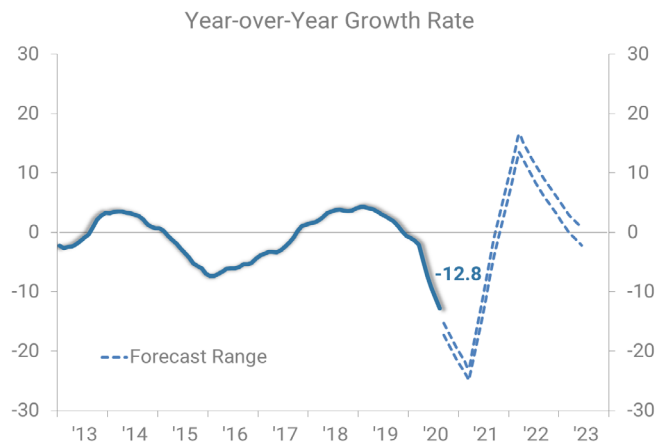
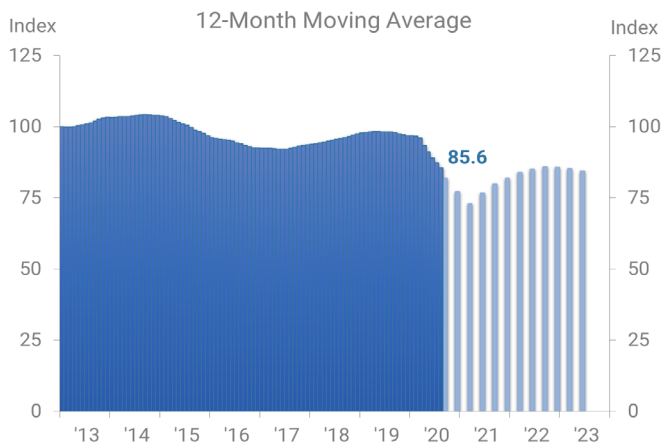
FORECAST	Y-o-Y Growth Rate
2020:	-5.3%
2021:	-10.8%
2022:	9.6%

US Private Nonresidential Construction during the three months through July totaled \$120.0 billion, 3.3% below the same three months one year earlier. We adjusted the forecast slightly following the release of additional post-shutdown data. The timing of the upcoming business cycle low, expected to occur in the second half of 2021, is unchanged. Expect annual Construction to decline through 2021. Growth is probable throughout 2022.

Construction typically lags the economy by about one year due to the time it takes for changes in the economy to trickle down to spending on long-term construction projects. Accordingly, the economic challenges of 2020 will likely primarily manifest in 2021 for the nonresidential construction sector. Focus on areas tied to remodeling or repurposing nonresidential construction spaces, such as converting areas in malls to e-commerce fulfillment centers or helping manufacturers adjust their physical spaces to ensure social distancing.

## Primary Metals Production Index

Index, 2012 =100, NSA



FORECAST	Y-o-Y Growth Rate
2020:	-20.4%
2021:	6.3%
2022:	4.5%

The pace of year-over-year decline in monthly US Primary Metals Production has gradually eased, from a tentative low of 30.9% contraction in May to 21.7% contraction in August (latest available data). Results were within the forecast range in the second quarter, and the outlook is consistent with the preponderance of leading indicator evidence. There is some risk that results could track closer to the upper end of the forecast range, given our upward revision to our US Industrial Production outlook, but this is balanced against severe decline in other indicators related to Metals Production, such as US Motor Vehicle Metal Stamping Production. The forecast is unchanged. Annual Primary Metals Production will decline into early 2021, then rise into at least the second half of 2022.

Quarterly US Primary Metals New Orders ticked up in July but were still 11.6% below one year ago. A full recovery in this market by the end of 2022 is not probable. At that point in time, we expect annual activity will be about 11.3% below the pre-pandemic level. Plan your capacity accordingly.