

READING THE METER

A Look Inside A Cleaner, Safer, Smarter Auto Industry. October 28, 2020

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Forecast Meter

Forecast Summary (Updated 10/21)

2020 Sales, Extended Sales Forecast and Production Forecasts					
	U.S. Sales & Forecasts	North American Production			
March	992,392 (-33% YoY)	1.01 million units (-34% YoY)			
April	707,852 (-48.7%YoY)	8,463 (-99.4% YoY)			
May	1,114,931 (-29.5% YoY)	248,602 (-83% YoY)			
June	1,103,791 (-24% YoY)	743,216 (-17% YoY)			
July	1,227,091 (-12.1% YoY)	1,261,884 (+2.2% YoY)			
August	1,325,144 (-19.1% YoY)	951,983 (-1.1% YoY)			
September	1,344,310 (6.4% YoY)	1.36 million units (-5% YoY) (estimate)			
October Estimate	15.3M SAAR (-7.6% YoY)	1.47 million units (5% YoY)			
1 st Quarter	3,476,512 (-12.7% YoY)	3.86M (-11.7% YoY)			
2 nd Quarter	2,948,410 (-33.3% YoY)	1.4M (-67.6% YoY)			
3 rd Quarter	3,904,539 (-9.2 YoY)	4.10 million units (5% YoY)			
Calendar YTD	10,312,741 (-18.8% YoY)	9.40 million units (-27.1% YoY0			
2020 Full Year Estimate	12.6-14.2M (-15%-26% YoY)	13.4 million units (-20.2% YoY)			

U.S. Light Vehicle Sales Outlook (Updated 10/28)

J.D. Power October Retail Sales Outlook^{iv}: "New-vehicle retail sales for the month of October are expected to be up from October 2019, according to a joint forecast from J.D. Power and LMC Automotive. Retail sales for new vehicles are projected to reach 1,187,800 units, a 3.0% increase compared with October 2019 when adjusted for selling days. October 2020 contains one additional selling day over October 2019. Comparing the same sales volume without adjusting for the number of selling days translates to an increase of 6.8% year over year."

J.D. Power October Total Sales Outlook': "Total new-vehicle sales, including retail and non-retail transactions, for the month of October are projected to reach 1,321,400 units, a 4.5% decrease from October 2019 when adjusted for selling days. Reporting the same numbers without controlling for the number of selling days translates to a decrease of 0.9% from the prior year. The seasonally adjusted annualized rate (SAAR) for total new vehicle sales is expected to be 15.9 million units, down 0.8 million units from 2019, the smallest year-over-year decline since the pandemic began."

Wards Intelligence October Outlook^{vi}: "What should not be a surprise at this point is U.S. light-vehicle sales are expected to continue the sequential growth in October that has been ongoing since April, with the momentum suggesting that there will be no downturn in sales through the end of the year, and raising odds demand in 2021 will top 16 million units, save another hit to the economy due to the Covid-19 pandemic.



"Sales on seasonally adjusted basis are forecast to rise sequentially for the sixth straight month in October to a 16.8 million-unit SAAR. Because October's sales period has an extra weekend in it this year – and includes deliveries through Nov. 2 - volume will surge to 1.395 million, highest since last December, and 4.6% above year-ago's 1.334 million. The daily selling rate will rise year-over-year for the first time since January, totaling 49,821 over the month's 28 selling days, and 0.8% above like-2019's 49,407 – 27 selling days....

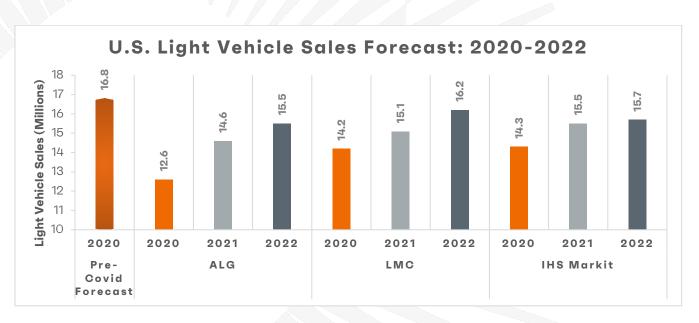
"Retail volume, which is mostly vehicles sold off dealer lots, is expected to rise year-over-year for the second straight month, while fleet deliveries – despite anecdotal signs of improvement – are expected to continue the string of hefty double-digit declines that began in March.

Boding well for vehicle production is the industry will continue its stretch of amazingly high inventory turnover in October, with sales volume projected to equal roughly half the period's beginning stock level for the fourth consecutive month.

"Furthermore, light-vehicle inventory is forecast to end October down 24% from the same year-ago period, not much of an improvement from September's 27% decline. October's days' supply is forecast at 55, well below the typical 72-73 the month normally posts. If sales continue to turnover 50% of inventory the rest of the year, the SAAR will remain well above 16 million units over the next two months, and days' supply could fall into the 40s at the end of December – compared with a typical 60 for that month."

IHS Markit October Update: "US light vehicle retail demand has proven more resilient in the nearterm in spite of a very challenged US economic outlook. As a result, the US light vehicle sales outlook has been increased to 14.3 million units and 15.5 million units for 2020 and 2021, respectively." vii

"IHS Markit expects the market's sales recovery to be over years, with the US not seeing 17 million light-vehicle registrations annually again through 2025." viii





North American Production Outlook (Updated 10/21)

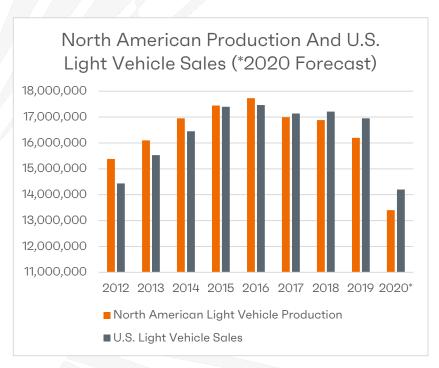
IHS Markit October Update ix: "The outlook for North America light vehicle production was increased by 92,000 units and 715,000 units for 2020 and 2021, respectively (and increased by 512,000 units for 2022). Production was revised higher based on stronger US sales expectations for the year and the continued need to restock depleted inventories. For 2021, improved demand expectations and ongoing inventory requirements further support the upgraded outlook. Given the rapid inventory depletion due to COVID-19 related factory shutdowns earlier in the year, production continues to play catch-up to meet stronger than expected vehicle demand. With regional production well past the production restart phase, manufacturers are now expected to remain in a restocking phase for an extended period that spans to mid-2021. Production increases are broad-based with pickups and utility vehicles seeing the largest increases to keep pace with above average segmental demand. US light vehicle retail demand has proven more resilient in the near-term in spite of a very challenged US economic outlook. As a result, the US light vehicle sales outlook has been increased to 14.3 million units and 15.5 million units for 2020 and 2021, respectively."

WardsIntelligence October Update*: "Although trimmed slightly from last month's expectations, Q4 output is expected to grow 3.6% year-over-year to a total of 4.03 million units. Some 6,300 units were cut from month-ago's expectations for Q4, but mostly due to adjustments to weaker selling vehicles. If the outlook holds firm, the Q4 gain will be the first quarterly year-over-year increase since Q4-2018.

"The entire year is projected to finish at 13.43 million units, 19.9% below 2019's 16.78 million.

Though demand in North America has been steadily rising since the pandemic skewered it in late-March and April, sales still are not back to pre-Covid 19 levels, and there remain several slower sellers that automakers are not rushing to restock dealer lots with. Most of the slower sellers are cars, as consumers – even in a recessionary period – continue to prefer utility vehicles, and because many price-sensitive buyers apparently either are staying out of the market or defecting to used vehicles to meet their needs.

"Rising demand over the past six months has put North American light-vehicle assembly plants in total back to pre-pandemic capacity



utilization levels. In fact, both Q3 and forecasted Q4 are pegged well above the same-period 2019 levels. Based on estimated straight-time capacity assuming two 8-hour shifts, five days per week over



52 weeks, North American light-vehicle plant capacity utilization rose to 89.7% in Q3 from Q2's pandemic-induced drop to 31.3% and like-2019's 88.2%. The fourth quarter is expected to record utilization of 88.3%, compared with 83.7% in Q4-2019.

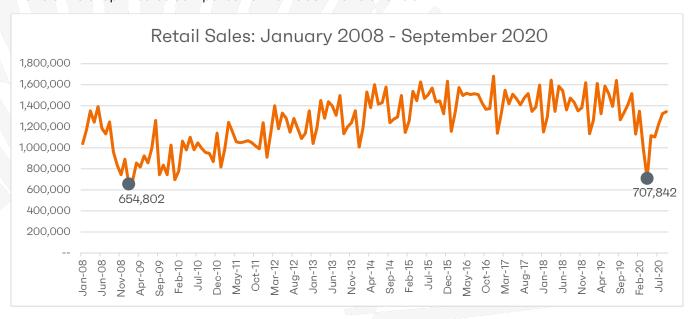
"In Q4, truck output is expected to rise 8.3% year-over-year to 3.16 million units. Light trucks are projected to increase 9.1%, while medium-/heavy-duty trucks will decline 10.8% - but a strong improvement from the 26% decline in Q3 and 66% drop in Q2. Fourth-quarter car output is set to decline 10.2% year-over-year."

Market Meter

U.S. Light Vehicle Sales (Updated 10/7)

Monthly Sales (Updated 10/7)

This chart helps to put into context the monthly retail sales due to the COVID pandemic and showing the relative drop in sales compared to the 2008 financial crisis.



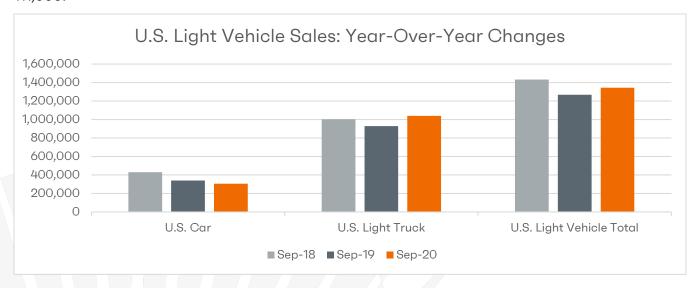
October Sales (Updated 10/7)

WardsIntelligence*: "September's SAAR of 16.3 million units was the fifth straight month of sequential growth since the pandemic descended onto the market, and was a strong improvement on August's 15.2 million, though still well below same-month 2019's 17.1 million. Raw volume in September totaled 1.34 million units, 6.1% above like-2019's 1.27 million. However, the daily selling rate over the month's 25 selling days of 53,772 was down 2.4% from September 2019's 55,093 – 23 selling days."



Cleaner, Safer, Smarter,

Year over year, September light vehicle sales are up 6.1 percent from 2019. The segment trend continues to favor light trucks over cars, with trucks capturing more three-quarters of the market (77.3%), and gaining 4.06% market share over 2019, with the overall truck volume up more than 111.000. xii



Fleet Sales

Wards Intelligence "Retail volume, which is mostly vehicles sold off dealer lots, is expected to rise year-over-year for the second straight month, while fleet deliveries – despite anecdotal signs of improvement – are expected to continue the string of hefty double-digit declines that began in March."

IHS Markit xiv: "Automakers have also reported shifting some of the production they had planned for rental car fleets to retail cars, following the canceled order and as production resumed in June. In making that change, automakers may be able to soften the impact of lost rental fleet orders over the course of the year. . . . Two other factors which IHS Markit expects could be impacting compact and mid-size car sales are the disappearance of service jobs in the first half and canceled rental-fleet orders. As compact and mid-size cars are less expensive than utility vehicles, the lack of buying power from this group could be having an impact on passenger car registrations, particularly at the low end. While not all rental-fleet orders were for cars, the loss of orders from major rental-car companies from Hertz to Avis had impact on first half as well. Those canceled orders coincided with production shutdown as well, and as production resumed, automakers in some cases shifted planned production from rental-car fleet vehicles to vehicles configured for retail. Benefits from that change would be seen in the second half, however."

J.D. Power**: The baseline forecast from J.D. Power called for 13.4 million in retail sales and 3.4 million in fleet/other sales. With the revised forecast of 12.9-14.2 in total sales, fleet sales fall to a range from 1.6 million to 1.9 million, a decline of 44%-53% from the baseline.

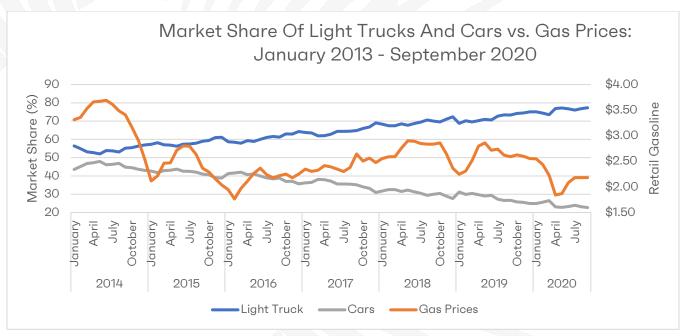


J.D. Power Retail and Fleet Sales Forecast						
	Pessimistic Forecast	Optimistic Forecast	Pre-COVID Baseline Forecast			
Retail Sales Forecast (million)	11.3	12.3	13.4			
Fleet/Other Sales Forecast (million)	1.6	1.9	3.4			
Total Sales Forecast (million)	12.9	14.2	16.8			
Fleet Percent of Total Sales	12%	13%	20%			
Retail Percent of Total Sales	88%	87%	80%			
Fleet Loss From Baseline of 3.4 (million)	-1.8	-1.5	-			
Fleet Loss as % Baseline Fleet Sales	-53%	-44%	-			
Fleet Loss as % Total Sales	-14.0%	-10.6%	-			

Segments vs. Gas Prices (Updated 10/7)

Segment Sales For September: Light trucks accounted for 77.3% of sales in September, a 4.1% gain in market share from a year ago. Compared to 2019, sales of cars are down more than 33,000, but negligibly different from August 2020. Total sales are up more than 77,000 from August 2020, but down 87,000 from September 2020.**

Historic Perspective: The upward trend in the popularity of light trucks over cars has been steady since 2013, when only 2% of annual market share separated the two segments.*vii and gas was over \$3.00.*viii a gallon. As fuel prices dropped below the \$3.00 mark in mid-September 2014, light truck sales began to take off – and never looked back. Gas prices since have averaged only \$2.47 a gallon (through August 2020) and when combined with increased fuel economy for light trucks, an increase of 4 mpg since 2013.*ix, the perfect conditions existed to continue fueling light truck market growth.

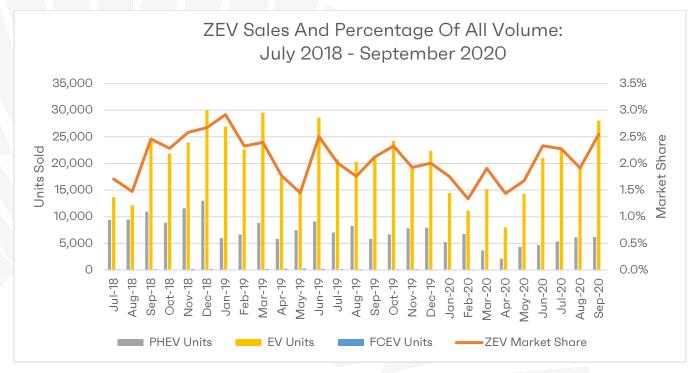




ZEV Powertrain Sales (Updated 10/7)

Sales of zero emission vehicles (BEV, PHEV, & Fuel Cell) accounted for only 2.6% of total vehicle sales in September 2020, up .5% from a year ago and up .7% from August 2020. Sales of battery electric vehicles led the way for ZEVs accounting for 2.1% of the total, up .4% from September 2019. Plug-in hybrids accounted for .5%, unchanged from a year ago.

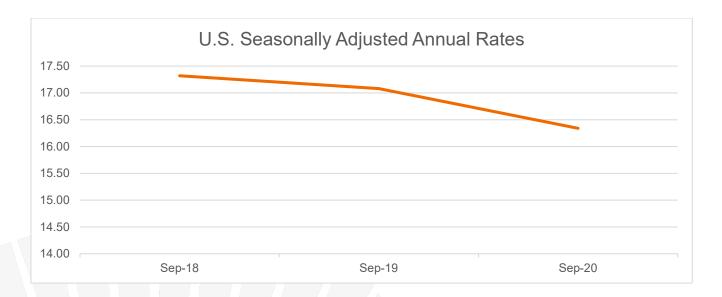
IHS Markit**: "In the first half of 2020, electric vehicles (EVs) continued to gain market share in the US, while the share of plug-in hybrid EVs (PHEVs) continued to fall. In the first half, 1.50 percent of US registrations were EVs, up from 1.35 percent a year earlier. Hybrid electric vehicles (HEV) saw their share improve from 2.97 percent in the first half of 2019 to 3.13 percent in the first half of 2020, while PHEVs saw their share drop from 0.53 percent to 0.39 percent over the same period. Non-electrified powertrains continue to both dominate the landscape but see their share slightly eroded. In the first half of 2020, their share fell to 95.0 percent, from 95.2 percent in the year-earlier period."



Seasonally Adjusted Annual Rates (Updated 10/7)

"The third quarter ended in a flourish with U.S. light-vehicle sales topping a 16 million-unit seasonally adjusted annual rate for the first time since February. September's SAAR of 16.3 million units was the fifth straight month of sequential growth since the pandemic descended onto the market, and was a strong improvement on August's 15.2 million, though still well below same-month 2019's 17.1 million. . . . The third-quarter SAAR totaled 15.3 million units, a significant increase on Q2's 11.4 million, and highest since Q4-2019's 16.8 million. The 2019 Q3 SAAR was 17.0 million units." xxi





Average Transaction Price (Updated 10/7)

Kelley Blue Book: "The valuation analysts at Kelley Blue Book today reported the estimated average transaction price for a light vehicle in the United States was \$38,723 in September 2020. New-vehicle prices increased \$940 (up 2.5%) from September 2019, while raising \$23 (up 0.1%) from last month." xxiii

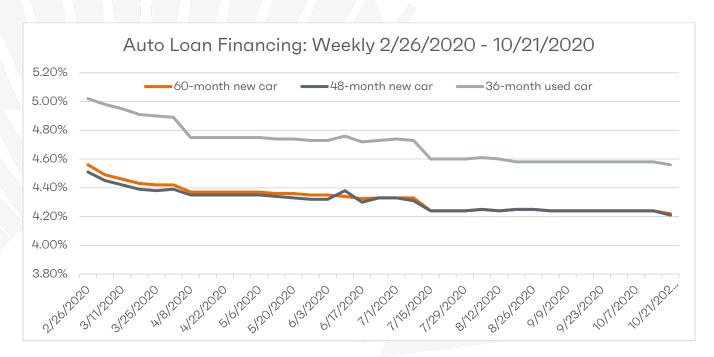
Incentive Spending: "Based on data from ALG, average incentive spending in September declined slightly from August but was up 5.2% year-over-year." xxiii



Auto Loan Financing (Updated 10/28)

Financing Drops To Lowest Level This Year: Rates for the week of October 21st fell to their lowest rates all year, at 4.22% for a 60-month new vehicle loan. Rates had remained relatively static since mid-July. Since the beginning of the year, rates are down .38% and down .39% from about a year ago. xxiv

Dates	60-month new car	48-month new car	36-month used car
10/23/2019	4.61%	4.57%	5.11%
1/2/2020	4.60%	4.55%	5.10%
10/14/2020	4.24%	4.24%	4.58%
10/21/2020	4.22%	4.21%	4.56%
One Week Change	-0.02%	-0.03%	-0.02%
Two Week Change	-0.02%	-0.03%	-0.02%
Change since 1/3/20	-0.38%	-0.34%	-0.54%
One Year Change	-0.39%	-0.36%	-0.55%



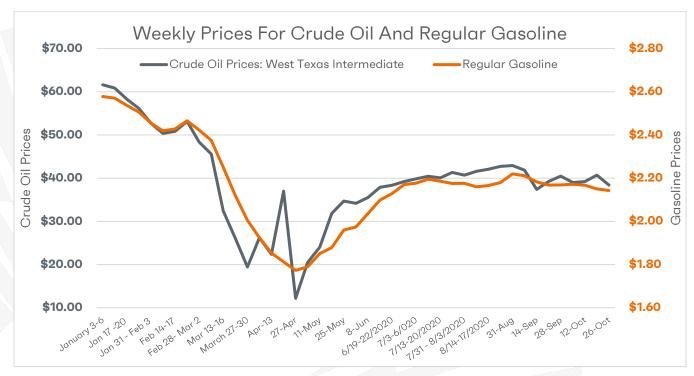
Crude Oil and Gas Prices (Updated 10/28)

EIA Outlook For Gasoline****: "EIA estimates U.S. gasoline consumption totaled 8.5 million barrels per day (b/d) in September, down 0.3 million b/d from August, and if confirmed in monthly data, it would be the lowest level for September since 1999."



EIA Outlook For Production ****** "EIA reported that U.S. crude oil production averaged 11.0 million b/d in July (the most recent month for which historical data are available), up 0.5 million b/d from June. In May, U.S. crude oil production reached a two-and-a-half-year low of 10.0 million b/d, resulting from curtailed production amid low oil prices. Since then, U.S. production has increased mainly because tight oil operators have brought wells back online in response to rising prices. EIA estimates that production rose to 11.2 million b/d in September."

Oil And Gas Remain Low: Oil prices, as benchmarked at West Texas Intermediate, as well as gasoline prices, both continued their rebound that began over the summer and are mostly holding steady, though October has seen a slight dip in prices, down to \$2.14 (falling just below the low point in August), oil dipped back under \$40 to \$39. Compared to the start of the year, crude oil is down 38%, while gas prices are down 17%.xxvii

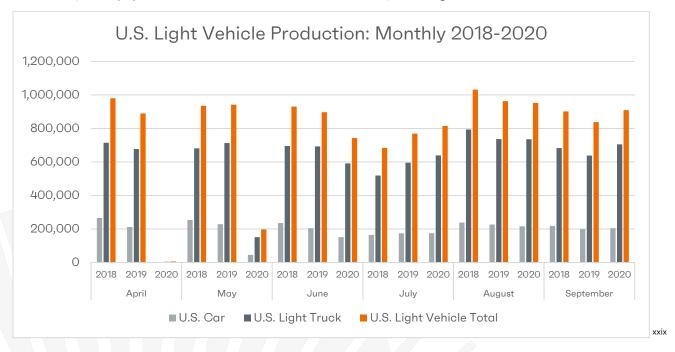


Production Meter

U.S. Light Vehicle Production (Updated 10/21)



especially pickups, SUVs and most CUVs. . . . September's data still includes some temporary estimates, but Q3 production finished at 4.10 million units, a smidgeon below like-2019's 4.12 million."



U.S. Light Vehicle Inventory and Days' Supply (Updated 10/7)

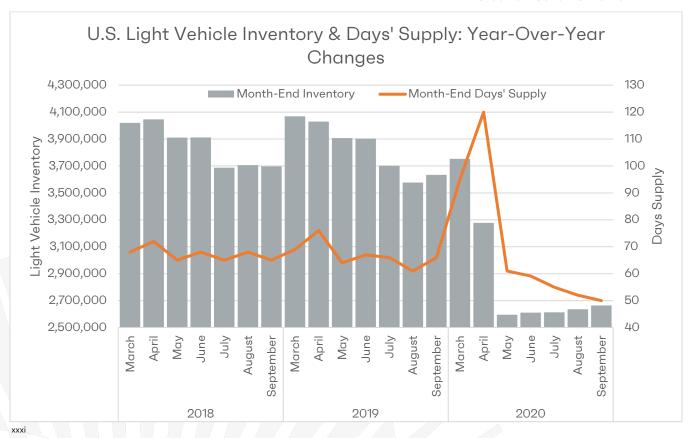
September Inventory Update***: "September U.S. light-vehicle inventory increased 3.6% from August but remained at a 9-year low for the fifth straight month. Inventory ended September totaling 2.66 million units, 26.7% below the same year-ago period but a welcomed increase for automakers from the prior month's 2.57 million.

"Though a potential hindrance to near-term sales, boding well for local production is that inventory of domestically made vehicles ended September down 27.9% year-over-year. Light-truck plants will continue to strain to keep up with demand, with plants building pickups busting at the seams. Plants solely building cars will not have the same problem, as demand for sedans continues to worsen relative to the rest of the industry. Inventory of import, or overseas-sourced, vehicles was down a lesser 22.0% year-over-year heading into October.

"Sept. 30 light-vehicle days' supply totaled 50, lowest for the month since 49 in 2011 and well below the typical 63 to 65 the month historically ends at.

"Based on the current Q4 sales forecast, Wards Intelligence expects inventory to continue making upward strides in the next three months toward being more in balance with demand – meaning less lost sales due to shortages on dealer lots. But inventory will remain tilted toward the short-supply side heading into 2021."

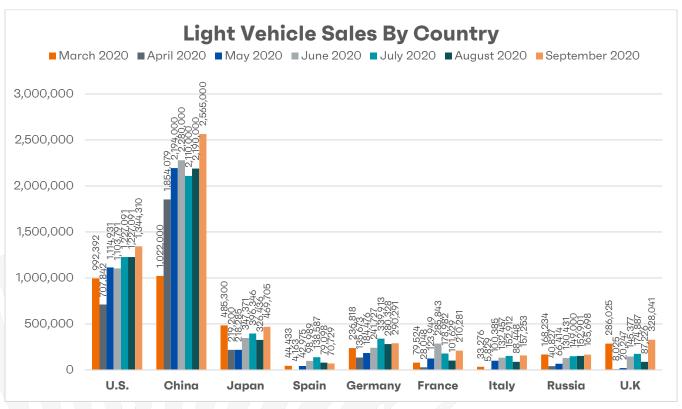


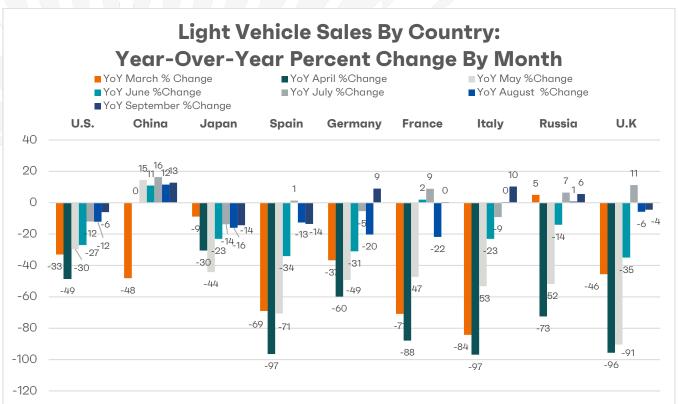


Global Meter (Updated 10/21)

Sales in select countries around the globe, including year-over-year percent change by month as well as raw volume by month:









Recovery Meter

North American Assembly Facility Operating Status (Updated 9/3)

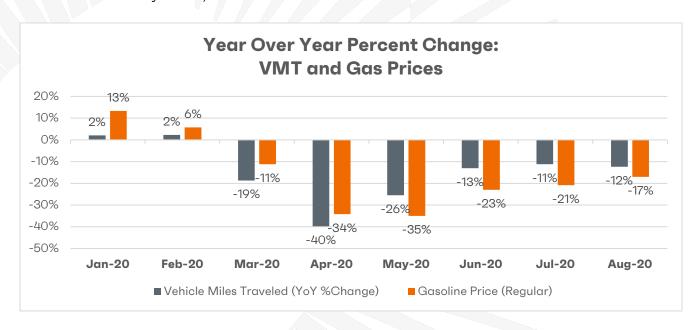
After all automotive manufacturing was shut down for the first time since World War II for roughly eight weeks, automakers have resumed production at all plants across North America. The extent to which production has ramped up or employment has been reinstated continues to fluctuate due to the impacts of COVID-19. We will continue to monitor the operational status of assembly facilities.

To view information on plant operating status during the shutdown, please click here.

Roadway Travel (Updated 10/21)

According to the U.S. Department of Transportation, vehicle miles traveled continued to increase month-to-month, peaking in July, but falling back again in August**xxii:

- "Travel on all roads and streets changed by -12.3% (-35.3 billion vehicle miles) for August 2020 as compared with August 2019. Travel for the month is estimated to be 251.3 billion vehicle miles.
- "The seasonally adjusted vehicle miles traveled for August 2020 is 239.7 billion miles, a -11.8% (-32.2 billion vehicle miles) decline from August 2019. It also represents a 0.8% increase (2 billion vehicle miles) compared with July 2020.
- "Cumulative Travel for 2020 changed by -15.3% (-332.5 billion vehicle miles). The cumulative estimate for the year is 1,844.4 billion vehicle miles of travel."



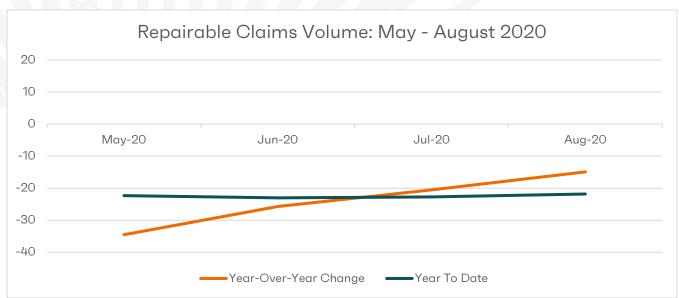


Repairable Claims (New 9/16)

In addition to highlighting key data regarding vehicle production and sales, the number of auto accidents and insurance claims are also useful to understand since the start of the COVID pandemic. The following chart and statistics help to highlight how vehicle repairs and insurance claims have decreased since that start of the year.

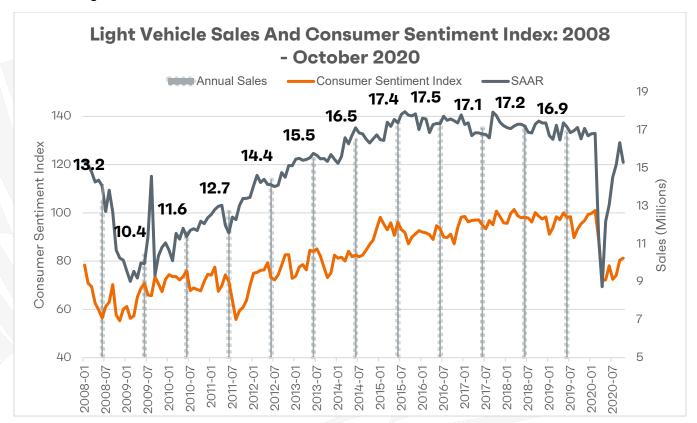
Latest Data From CCC: "The primary factor most highly correlated to accident frequency is vehicles per road mile – i.e. how many vehicles on a given road at any given point. . . . With the number of COVID-19 cases rising again as many return to school, and the approach of normal flu season, many companies plan to keep at least part of their staff remote through the remainder of the year. This will likely mean non-comprehensive may remain down -10 to -15 percent for full year 2020.

- "Overall repairable appraisal counts for the industry were down -14.9 percent in August 2020 versus August 2019.
- "Excluding comprehensive losses, counts also remained down over 25 percent year-to-date, although August 2020 non-comprehensive counts were down only -20.5 percent versus down -24.7 percent in July 2020.
- "With the number of COVID-19 cases rising again as many return to school, and the approach of normal flu season, many companies plan to keep at least part of their staff remote through the remainder of the year. This will likely mean non-comprehensive may remain down -10 to -15 percent for full year 2020." xxxiii



Consumer Confidence and Sales (Updated 10/28)

At the start of the year, consumer sentiment, as measured by the University of Michigan, was registering a 100 on their index, but as Covid-19 took hold, the index dropped at its worst by more than a quarterxxxiv. The index made slight gains in October (81.2) over September, when it first climbed over 80 for the first time since March. While the April low of 71 is only 10 points off from where the index sits currently, it is still much higher than it was during the depths of the recession in 2008. While new vehicle sales continue to recover despite wavering consumer confidence, the rest of the year could see sales stall against consumer sentiment headwinds.

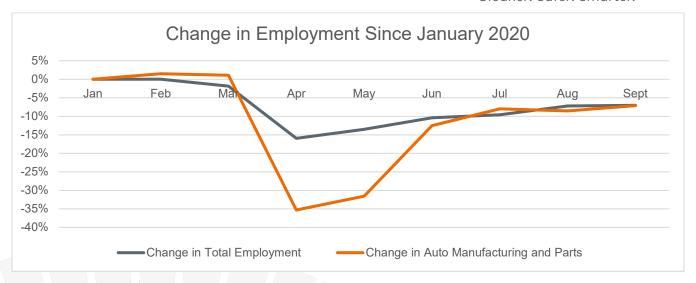


*SAAR for October is estimated

Employment (Updated 10/7)

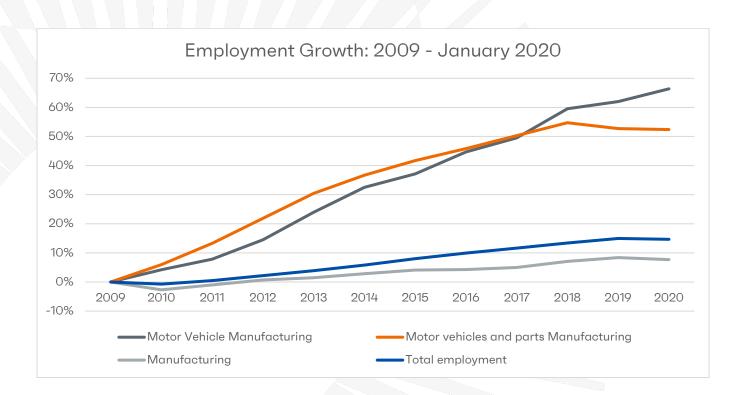
After a loss of nearly 350,000 employees (about 35% of the workforce) in the height of the pandemic, employment in the Automobile Manufacturing and Parts sectors has raced back and is now only down about 70,000 employees, constituting an 7 percent loss since January. September's employment is an improvement of over 14,000 jobs since August. ****





After the recession in 2009, the auto industry was credited with being on the leading edge of the recovery, which began a ripple effect through other parts of the country xxxvi.

Additionally, the chart below shows how the recovery of jobs in motor vehicle manufacturing alone and motor vehicle and parts manufacturing far outpaced the recovery of manufacturing and total jobs.





¹ WardsIntelligence, "U.S. Light Vehicle Sales, March," 4/1/2020; WardsIntelligence, "U.S. Light vehicle Sales, April," 5/1/2020

- iii Haig Stoddard, "COVID-19's Toll on North America Vehicle Production in March, Q2," WardsIntelligence, 3/30/20
- iv J.D. Power, email," Automotive Forecast: Vehicle Sales Rise for Second Consecutive Month," 10/28/2020
- ^v J.D. Power, email," Automotive Forecast: Vehicle Sales Rise for Second Consecutive Month," 10/28/2020
- vi Haig Stoddard, "U.S. Light-Vehicle Sales Growth Will Continue in October," WardsIntelligence 10/23/20
- vii IHS Markit, email, "IHS Markit Monthly Automotive Update October 2020," 10/16/2020
- viii IHS Markit, email, "IHS Markit Monthly Automotive Update August 2020," 8/14/2020
- ix IHS Markit, email, "IHS Markit Monthly Automotive Update October 2020," 10/16/2020
- ^x Haig Stoddard, "North American Production Rises in September; Gains to Continue in Q4," WardsIntelligence 10/20/20
- xi Haig Stoddard, "Tags: Market Analysis September U.S. Light-Vehicle Sales Top 16 Million SAAR," *WardsIntelligence*, 10/1/2020
- xii WardsIntelligence, "U.S. Light Vehicle Sales, September 2020," 10/1/20; WardsIntelligence, "U.S. Light Vehicle Sales, September 2018, 10/1/18
- xiii Haig Stoddard, "U.S. Light-Vehicle Sales Growth Will Continue in October," WardsIntelligence 10/23/20
- xiv IHS Markit, "IHS Markit Analysis: US Registration Data Show Market Share Improvement for Pick-up Trucks, Decline for Compact Cars in H1," 8/17/20
- xv J.D. Power, "J.D. Power Auto Industry Impact Report," 6/4/2020
- xvi WardsIntelligence, "U.S. Light Vehicle Sales, September 2020," 10/1/208
- xvii WardsIntelligence, U.S. Light Vehicle Sales, January 2013 December 2019
- xviii U.S. Energy Information Administration, Weekly Retail Gasoline and Diesel Prices, Regular price per gallon, including taxes
- xix WardsIntelligence, Fuel Economy Index, December 2013 & 2019
- xx IHS Markit, "IHS Markit Analysis: US Registration Data Show Market Share Improvement for Pick-up Trucks, Decline for Compact Cars in H1," 8/17/20
- wi Haig Stoddard, "September U.S. Light-Vehicle Inventory Rises But Lean-Running Remains the Name of the Game," WardsIntelligence, 10/2/2020
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