

READING THE METER

A Look Inside A Cleaner, Safer, Smarter Auto Industry.

August 4, 2021

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Forecast Meter

Forecast Summary (Updated 8/4)

2020-2021 Sales,¹ Extended Sales Forecast² and Production Forecasts³		
	U.S. Sales & Forecasts	North American Production
June '20	1,103,791 (-24% YoY)	1,135,807 (-19.7% YoY)
July '20	1,227,091 (-12.1% YoY)	1,261,884 (+2.2% YoY)
August '20	1,325,144 (-19.1% YoY)	951,983 (-1.1% YoY)
September '20	1,344,310 (6.4% YoY)	1,395,830 (+2.1% YoY)
October '20	1,345,401 (0.9% YoY)	1,413,207 (+3.7% YoY)
November '20	1,193,180 (-15.4% YoY)	1,260,763 (-6.4% YoY)
December '20	1,608,875 (5.9% YoY)	1,115,542 (+2.8% YoY)
January '21	1,094,689 (-3.6% YoY)	1,175,940 (-14.0% YoY)
February '21	1,180,506 (-5.3% YoY)	1,120,200 (-22.9% YoY)
March '21	1,581,067 (+59.7% YoY)	1,376,904 (31% YoY)
April '21	1,512,186 (+111.4 YoY)	1,094,891 (-21% YoY)
May '21	1,577,941 (+41% YoY)	729,879 (+271% YoY)
June '21	1,296,517 (+17% YoY)	1,107,958 (-1.9% YoY)
July '21	1,288,494 (-7.9% YoY)	1,300,000 (forecast)
1st Quarter '20	3,476,512 (-12.7% YoY)	3,754,533 (-11.7% YoY)
2nd Quarter '20	2,948,410 (-33.3% YoY)	1,371,420 (-67.6% YoY)
3rd Quarter '20	3,904,539 (-9.2% YoY)	3,989,982 (-.5% YoY)
4th Quarter '20	4,159,622 (-2.1% YoY)	3,789,512 (-2.5% YoY)
1st Quarter '21	3,869,872 (+11.3 YoY)	3,688,512 (-4.7% YoY)
2nd Quarter '21	4,153,855 (+20.2% YoY)	3,309,000 (132% YoY)
3rd Quarter '21		4,191,000 (forecast)
2020 Calendar Year	14,463,935 (-14.7% YoY)	12,905,447 (-23.1%)
2021 Full Year Estimate	16.6 million units (15% YoY)	15.8 million units (22.7% YoY)

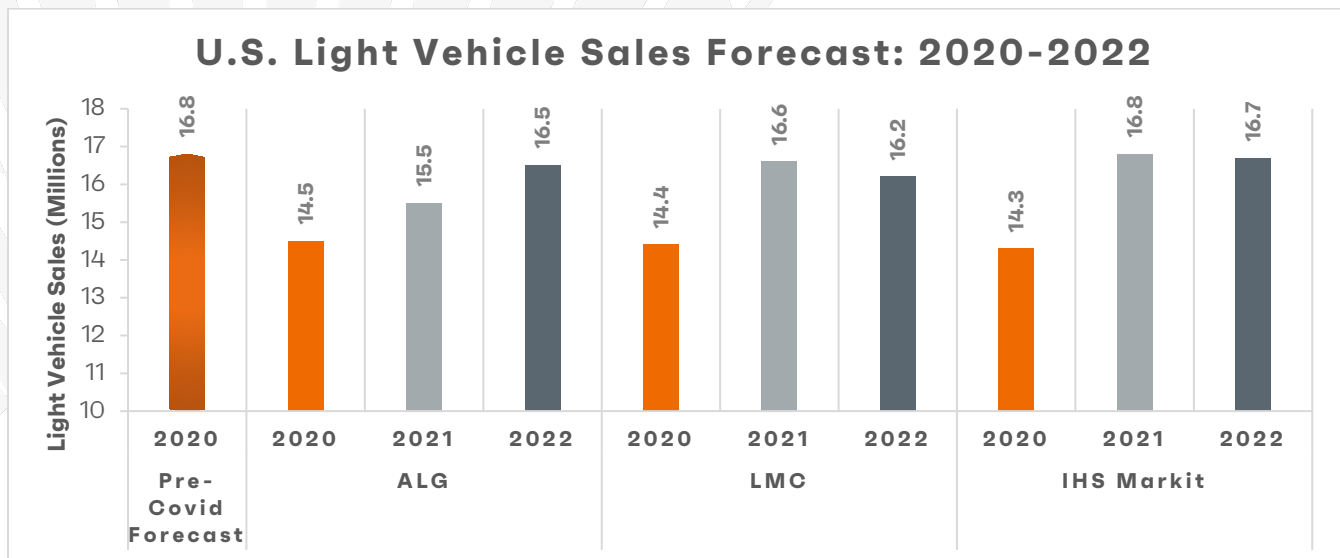
U.S. Light Vehicle Sales Outlook (Updated 8/4)

Wards Intelligence Outlook⁴: “If not for the dearth of inventory, sales in 2021 would be tracking above 17 million units for the entire year. Instead, the year-to-date seasonally adjusted annual rate through July is at 16.5 million units. Sales are expected to rebound before the end of the year but Wards Intelligence partner LMC Automotive has lowered its outlook for 2021 to 16.6 million units from 16.9 million. To get to the forecast, sales over the final five months will have to total a 16.7 million-unit SAAR.

“But sales are not likely to improve much, if at all, in August from July, and possibly could be worse.

“Since the inventory drain began, a higher percentage of a current month’s output is making its way through the pipeline to count as final sales within the same month to meet surging demand. That factor, combined with beginning-month inventory, could mean sales turn up in August on a seasonally adjusted basis, but WI’s initial outlook calls for a decline from July’s 14.8 million-unit SAAR.

“If sales don’t start to rebound in August, month-to-month growth should begin in September, and Q4 could be one of the strongest 3-month periods on record.”



North American Production & Inventory Outlook (Updated 8/4)

Wards Intelligence Inventory Outlook⁵: “Despite the current gloom, irrespective of whether sales strengthen or weaken in August from July, inventory should rise month-to-month for the first time since January, setting the stage for robust results in Q4.”

Wards Intelligence Production Outlook: “Currently, production is forecast to pick up significantly in August from July – in fact, despite a swath of known plant downtime caused by the chip issue, LMC expects August to be the strongest production month to-date this year.

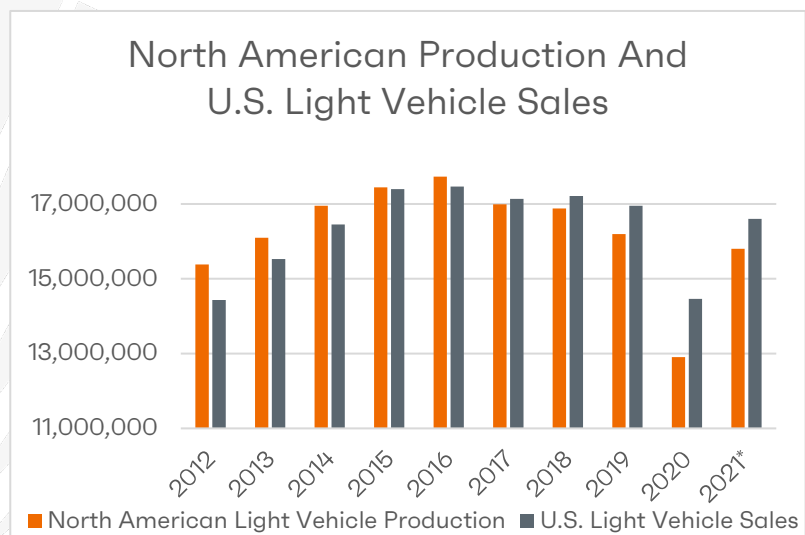
“However, as has been the trend through the first seven months of this year, supply-chain disruptions could continue to push future production totals below expectations, mainly from the microchip shortage - and there already is planned factory downtime as far ahead as October due to the chip shortage - but existing bottlenecks in shipments via water, rail and truck also loom large.

“Furthermore, the rise in Covid-19 cases in North America and abroad could cause an increase in safety measures that further limit vehicle production for the U.S.”⁶

“Wards Intelligence partner LMC Automotive slashed over 200,000 units from its July North America production estimate – nearly all due to the microchip shortage.”⁷

IHS Markit Outlook⁸: “The outlook for North America light vehicle production was reduced by 494,000 units and by 71,000 units for 2021 and 2022, respectively (and reduced by 48,000 units for 2023). The production outlook for 2021 was meaningfully reduced as the semiconductor issues are not improving at the pace that was previously expected. Production in the third quarter was expected to begin a marked improvement in the supply of semiconductors yet continued challenges on that front result in a forecast update that erases any increases compared to the benchmark

December 2020 forecast with production revised down 284,000 units. Production in the fourth quarter shows improvement compared to the December 2020 forecast, but was also revised down on reduced supply chain improvements. Production in 2022 was revised down a marginal 0.4% to 17.03 million units with most of the reduction occurring in the first quarter as supply chain issues are expected to spill over into 2022. Further downside potential exists as the industry continues to struggle with sluggish supply chain improvements. There is growing concern that the lack of industry wide inventory will begin to affect overall US vehicle demand with a June 2021 sales rate that came in at a lower than expected 15.37 million units on a seasonally adjusted annual rate (SAAR) basis pointing to possibly more constrained demand. With production also crimped in other key markets, US inventory is expected to remain severely constrained through 2022.”

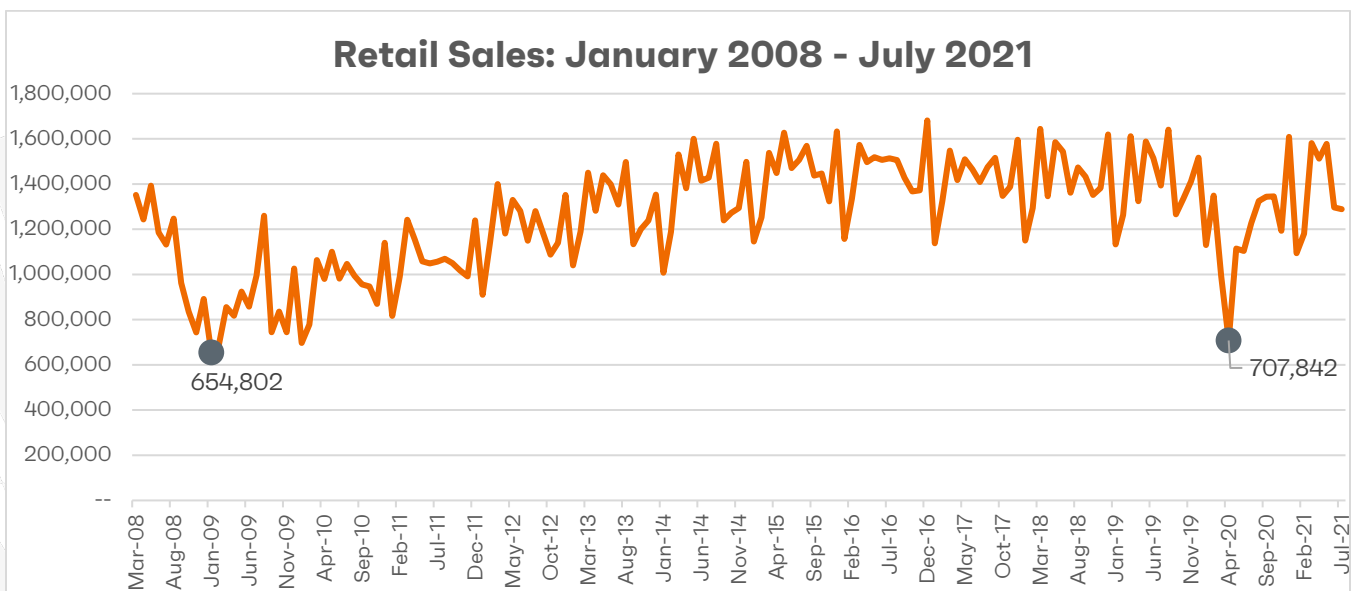


Market Meter

U.S. Light Vehicle Sales (Updated 8/4)

Monthly Sales (Updated 8/4)

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.



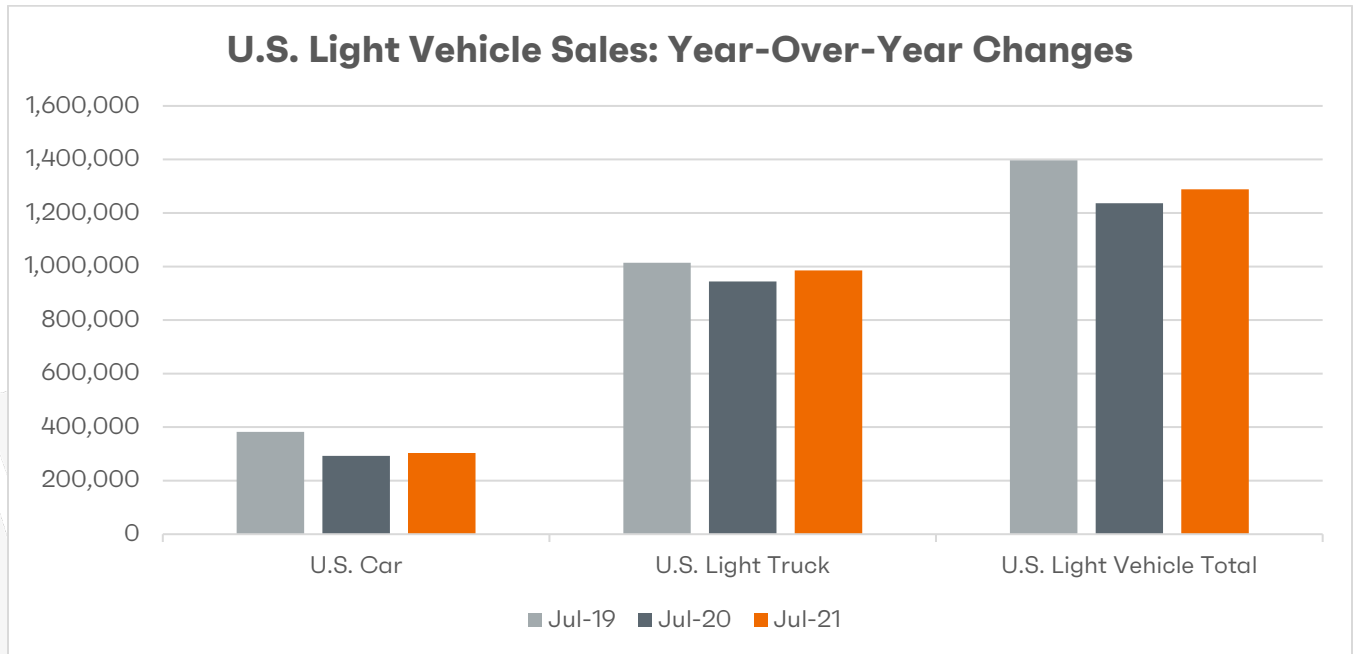
July Sales (Updated 8/4)

WardsIntelligence: “Ever-worsening product availability further capped U.S. light-vehicle sales in July, as deliveries on an annualized basis fell sequentially a third straight month to the lowest level outside of pandemic-ridden 2020 in over eight years.

“July sales totaled a seasonally adjusted annual rate of 14.8 million units, nearly the same as like-2020’s 14.7 million, but the third in a string of declines that began in May when sales fell to 17.0 million from April’s 18.3 million, followed by another huge drop to 15.4 million in June. Prior to 2020, the last time a monthly SAAR was lower than July’s total was 14.5 million units in October 2012.

“July’s raw volume totaled 1.289 million units, 4.2% above like-2020’s 1.237 million units, which was an 8-year low for the period due to lockdown measures taken last year to battle the Covid-19 pandemic. The daily selling rate over the month’s 27 selling days was 47,722, 0.3% above July 2020’s 47,563 – 26 selling days.

Calendar year-to-date volume through July totals 9.57 million units, 25.1% above 7-month 2020's 7.65 million. The year-to-date SAAR totals 16.5 million units vs. January-July 2020's 13.2 million."⁹



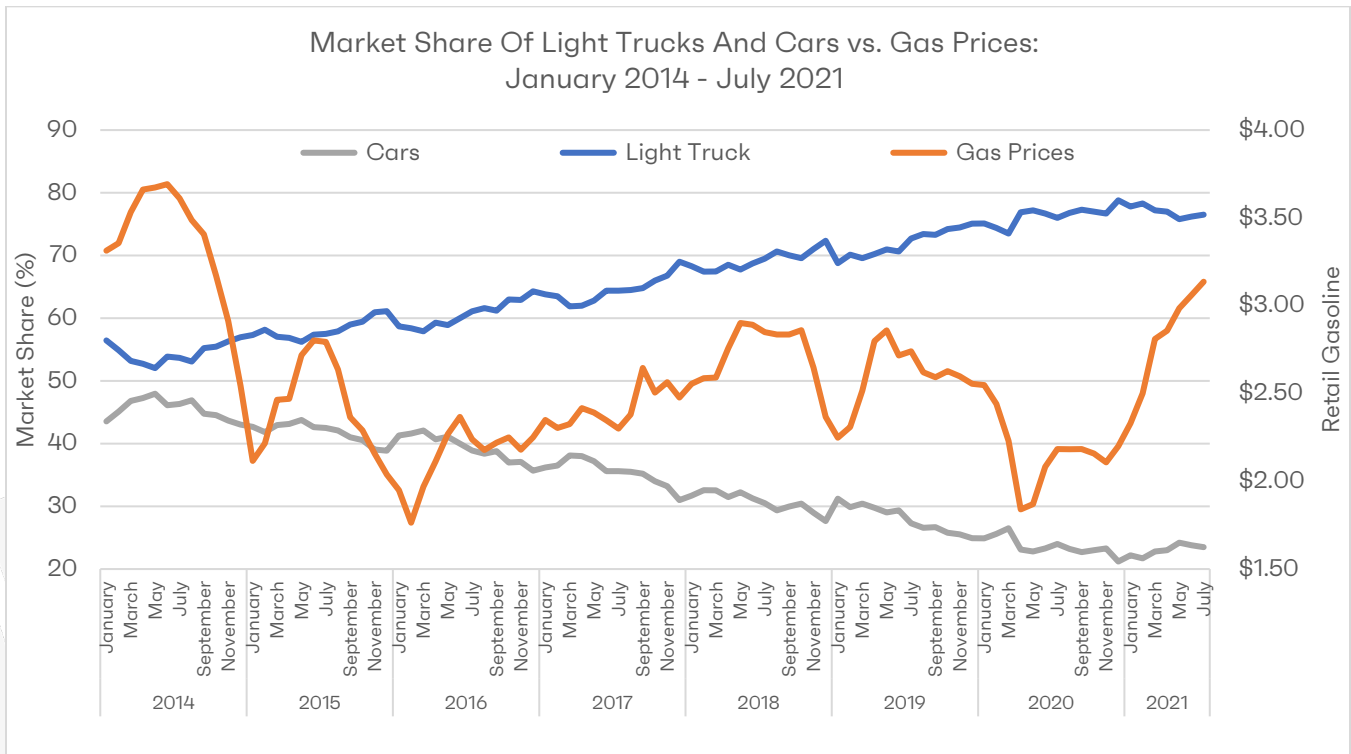
Fleet Sales (Updated 6/3)

Wards Intelligence: “Estimated fleet volume in May, although up 95% from year-ago’s pandemic downward-skewed total, accounted for just 10% of the month’s volume after averaging 16% in the first four months of 2021 and well below its pre-pandemic mark of close to 20%.”¹⁰

Segments vs. Gas Prices (Updated 8/4)

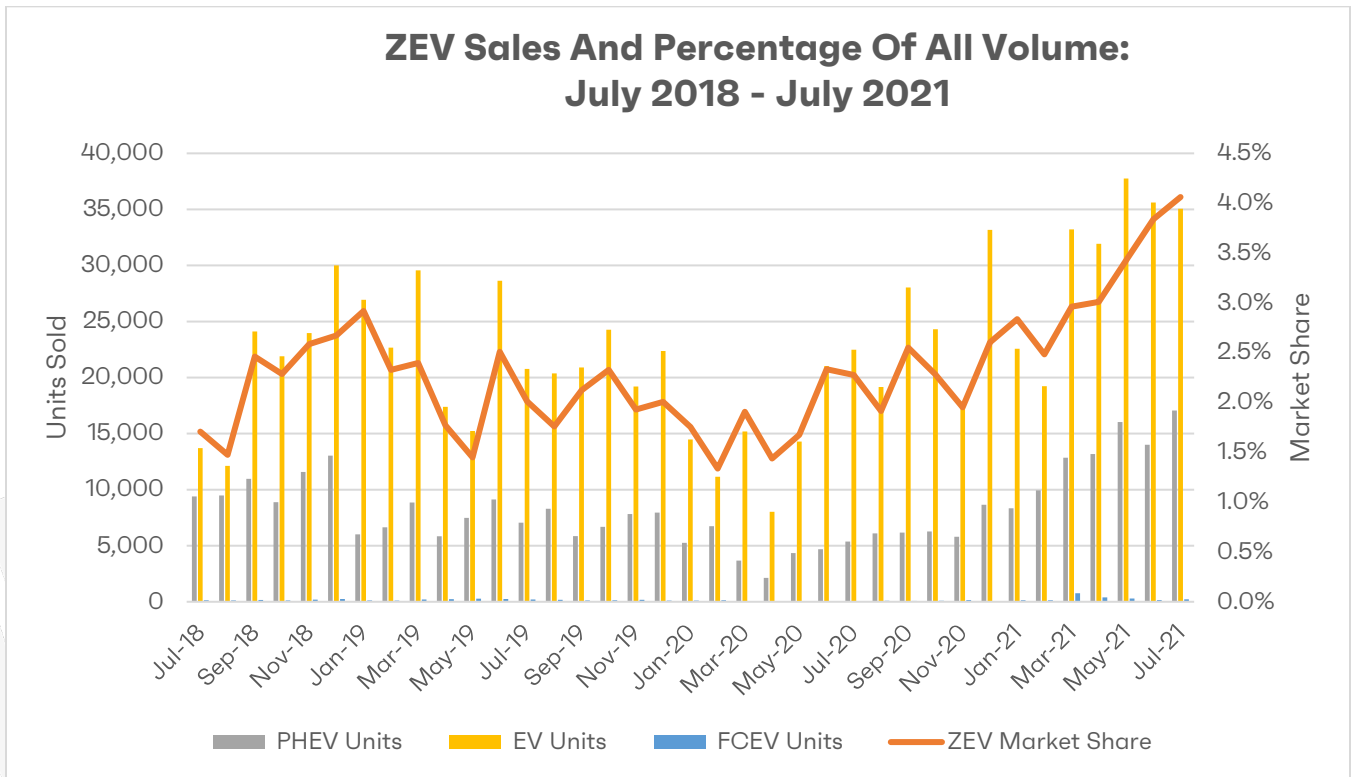
Monthly Sales For June: Light trucks accounted for 76.5% of sales in June, a .2% increase in market share from a year ago. Compared to 2020, sales of cars are up more than 10,000, but down nearly 80,000 from June 2019.

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 segments¹¹ and gas was over \$3.00¹² a gallon. As fuel prices dropped below the \$3.00 mark in mid-September 2014, light truck sales began to take off. Gas prices since have averaged only \$2.67 a gallon (through June 2021) and when combined with increased fuel economy for light trucks, an increase of 4 mpg since 2013, the perfect conditions existed to continue fueling light truck market growth.¹³



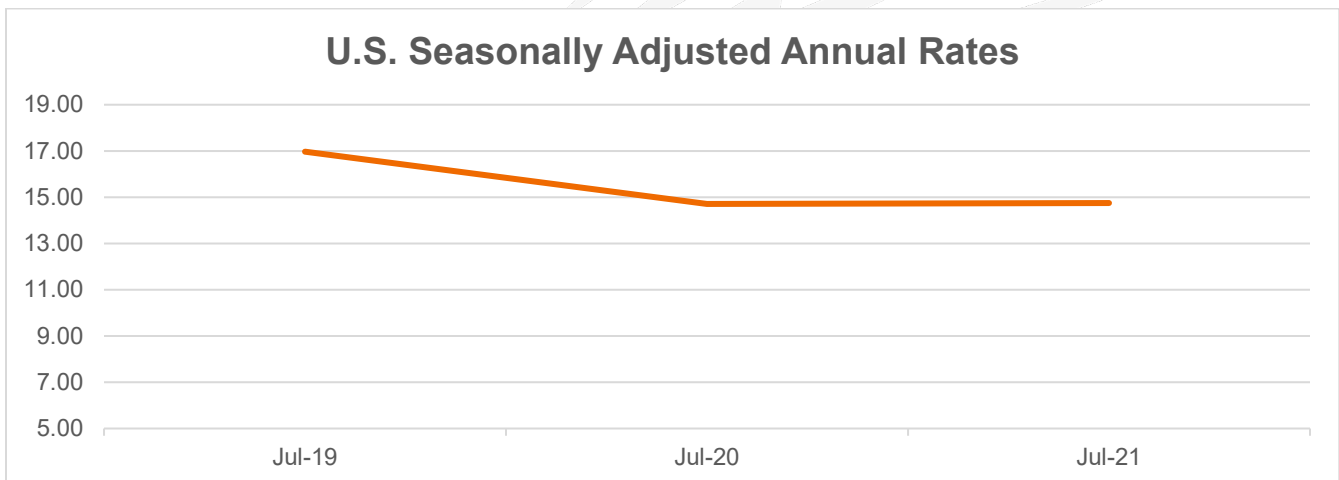
ZEV Powertrain Sales (Updated 8/4)

Sales of zero emission vehicles (BEV, PHEV, & Fuel Cell) accounted for 4.1% of total vehicle sales in June 2021, up 1.8% from a year ago and up .3% from June 2021. Sales of battery electric vehicles led the way for ZEVs, accounting for 2.72% of total sales, up .89% from July 2020. Plug-in hybrids accounted for 1.32%, three times the amount from the same time last year.¹⁴



Seasonally Adjusted Annual Rates (Updated 8/4)

WardsIntelligence: “July sales totaled a seasonally adjusted annual rate of 14.8 million units, nearly the same as like-2020’s 14.7 million, but the third in a string of declines that began in May when sales fell to 17.0 million from April’s 18.3 million, followed by another huge drop to 15.4 million in June. Prior to 2020, the last time a monthly SAAR was lower than July’s total was 14.5 million units in October 2012.”¹⁵

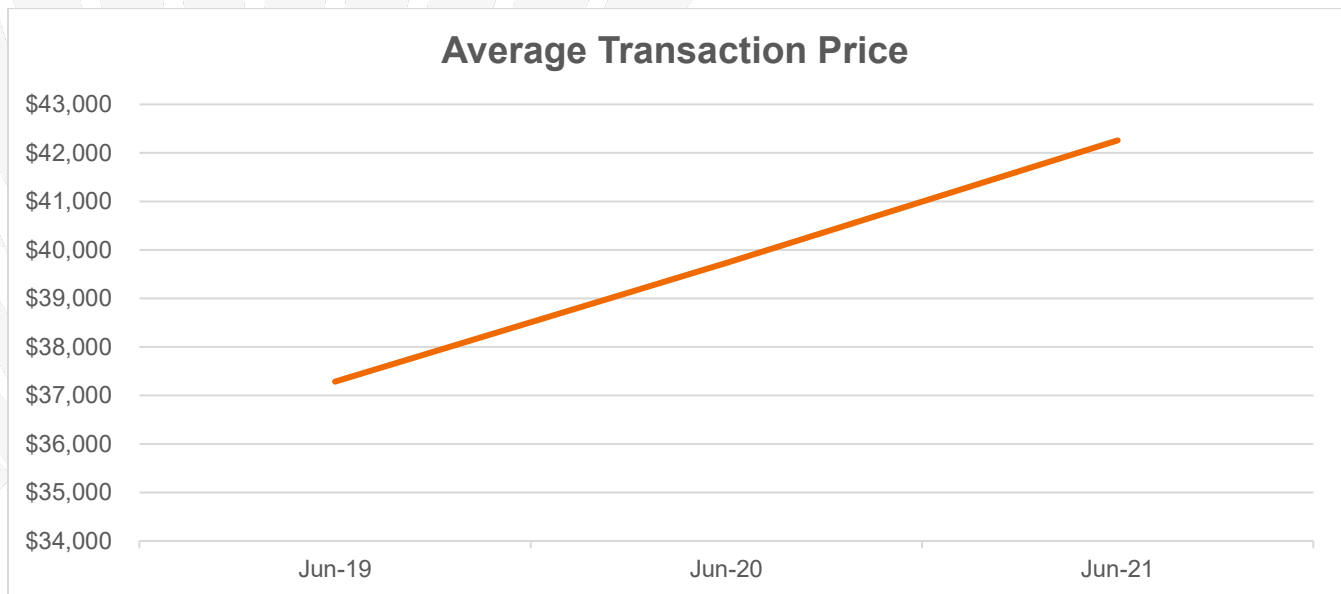


Average Transaction Price (Updated 8/4)

J.D. Power¹⁶: “For July 2021, average transaction prices are expected reach an all-time high of \$41,044. For context, average transaction prices are trending to be nearly 17% higher in July 2021 than they were in July 2020. This is partially due to the continued retraction in manufacturer incentives. The average manufacturer incentive per vehicle is on pace to be \$2,065, a decrease of \$2,170 from a year ago and the lowest amount on record for the month of July. Expressed as a percentage of the average vehicle MSRP, incentives for July 2021 are trending toward a record low of 4.8%, down nearly 5.5 percentage points from a year ago, and the first time on record below 5%.

“The combination of strong retail volumes and higher prices means that consumers are on track to spend \$48.7 billion on new vehicles this month, the highest on record for the month of July.”

Kelley Blue Book: “The estimated average transaction price for a light vehicle in the United States was \$41,263 in May 2021, according to the analysts at Kelley Blue Book. New-vehicle prices increased \$2,125 (up 5.4%) from May 2020, while increasing \$493 (up 1.2%) from April 2021.”¹⁷

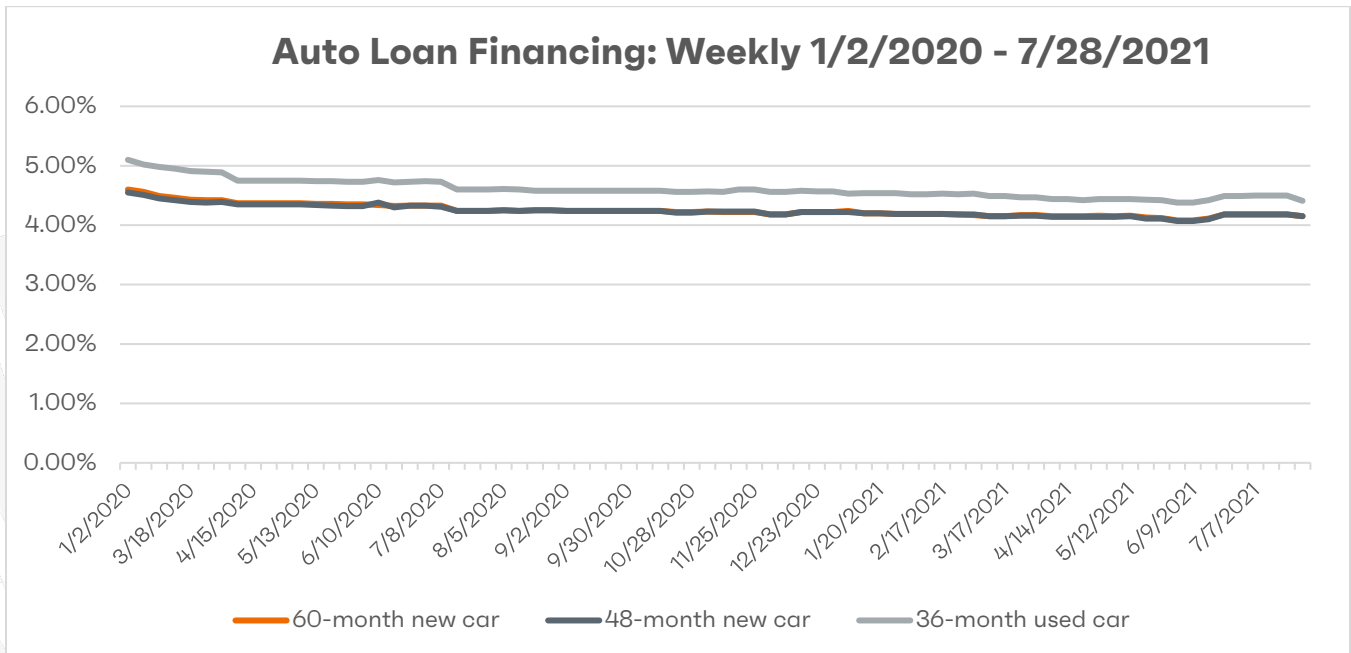


Auto Loan Financing (Updated 7/28)

Financing Dips Slightly: Interest rates for new cars and used cars dipped .03% after holding steady for five weeks in a row. The interest rate for 60 months currently stands at 4.15%. Rates dipped more significantly for a 36-month used car loan, lowering .09% to 4.41%. Since the beginning of last year, rates are down 0.45%, and down 0.09% since the same time a year ago.¹⁸

Dates	60-month new car	48-month new car	36-month used car
7/30/2020	4.24%	4.24%	4.60%
1/2/2020	4.60%	4.55%	5.10%

7/21/2021	4.18%	4.18%	4.50%
7/28/2021	4.15%	4.15%	4.41%
One Week Change	-0.03%	-0.03%	-0.09%
Two Week Change	-0.03%	-0.03%	-0.09%
Change since 1/3/20	-0.45%	-0.40%	-0.69%
One Year Change	-0.09%	-0.09%	-0.19%



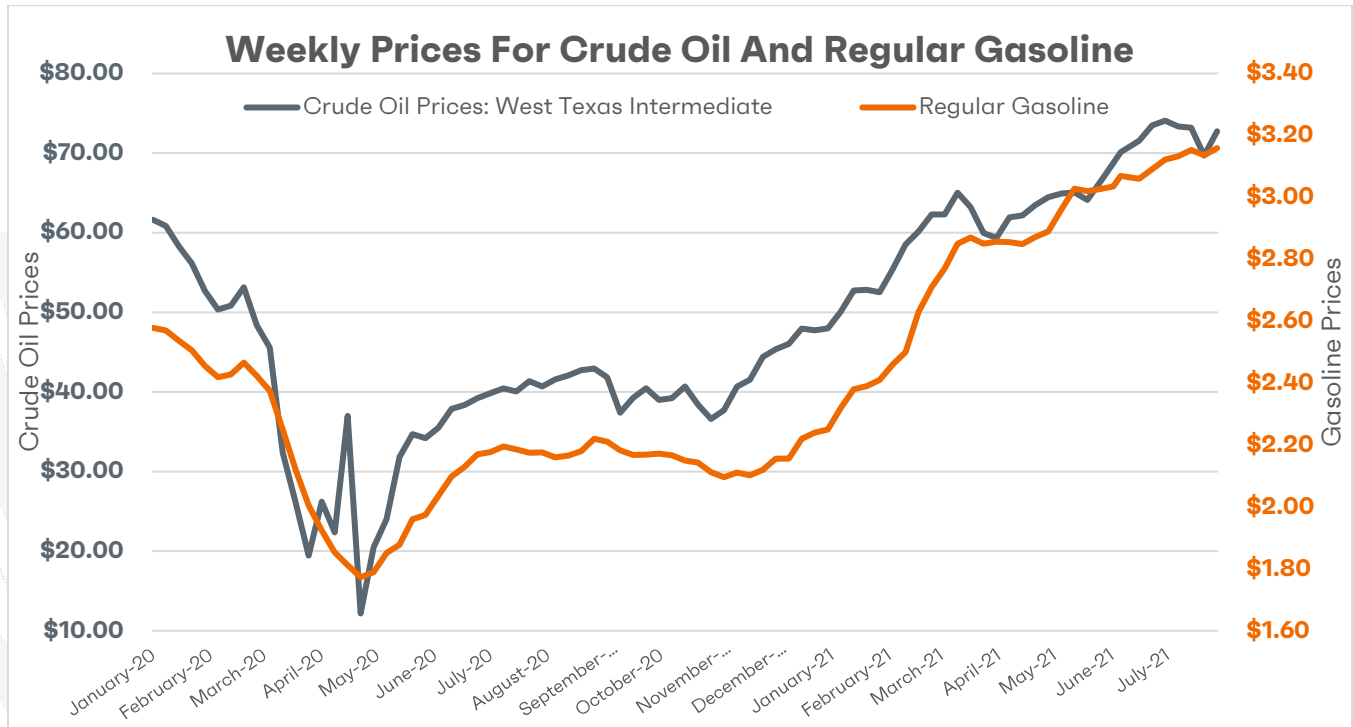
Crude Oil and Gas Prices (Updated 8/4)

EIA Outlook For Gasoline¹⁹: “U.S. regular gasoline retail prices averaged \$2.78 per gallon (gal) in 1H21, compared with an average of \$2.20/gal in 1H20. In June, monthly retail gasoline prices averaged \$3.06/gal, the first time the monthly average was more than \$3.00/gal since October.”

EIA Outlook For Oil²⁰: “Brent crude oil prices averaged \$73/b in June 2021, up \$5/b from May. June was the first month when Brent crude oil prices averaged more than \$70/b since May 2019. The increase likely reflected market expectations of continuing near-term tightness in global oil markets, which were evident in ongoing declines in global oil inventories. As vaccination rollouts have continued to ramp up in parts of the world, personal travel and mobility have been rising during much of 2021. Increasing oil consumption combined with production restraint from OPEC+ and relatively flat crude oil output in the United States have kept global oil consumption above global oil supply, draining inventories. Although global oil inventories during May and June fell at a slower rate than earlier in the year, the inventory draws of 1.2 million b/d over the past two months indicate the oil market was still in a structural deficit. Crude oil prices received additional support from increasing global economic

activity and decreasing global COVID-19 cases. These factors have also contributed to rising prices across a wide range of assets including equities and other commodities.”

Gas Prices Continue To Climb, Remain Above \$3 A Gallon: Oil prices, as benchmarked at West Texas Intermediate, climbed nearly \$2 to \$72.75 to start August, remaining near three year highs. Since election day, oil prices have climbed nearly \$36 a barrel. Gas prices rose again this week to \$3.16, the highest mark since October 2014. Gas is 22% higher than the beginning of 2020.²¹

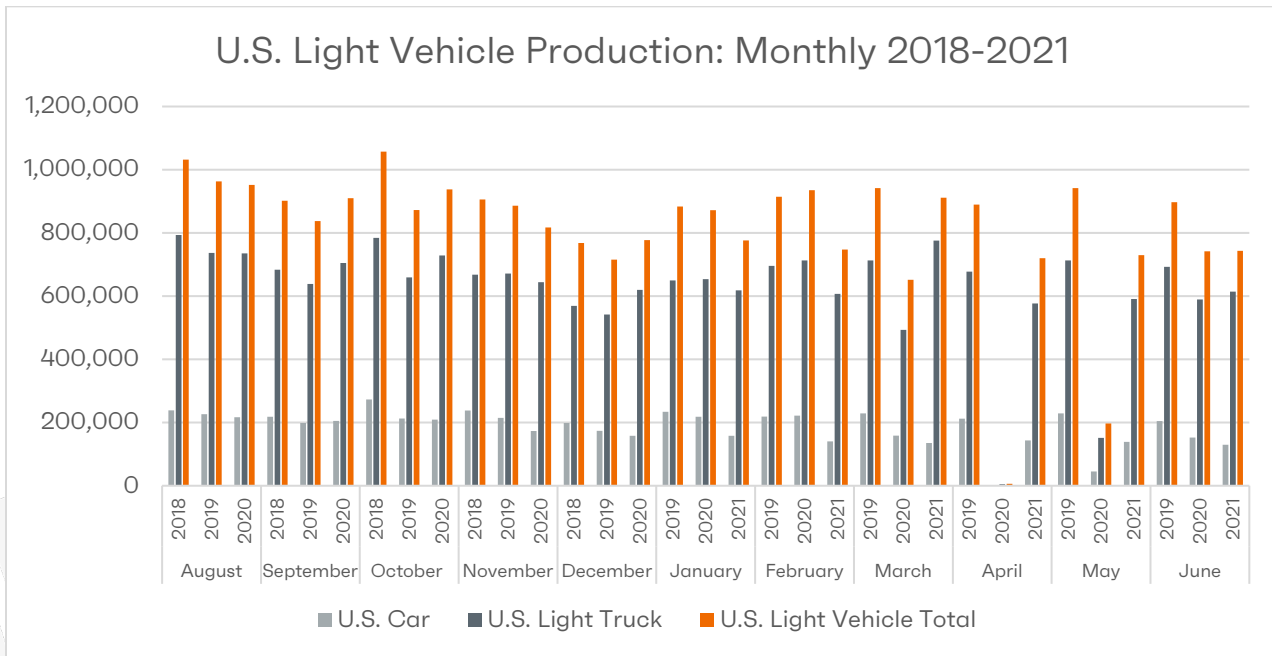


Production Meter

U.S. Light Vehicle Production (Updated 7/21)

WardsIntelligence²²: “Combined production of light-vehicles and medium-/heavy-duty trucks in June fell short of expectations to the tune of 134,000 units, finishing at 1.147 million units. The total even was 1.6% below like-2020’s pandemic-caused downward-skewed total of 1.166 million units. . . . June light-vehicle output totaled 1.108 million units, 1.9% below same-month 2020, which capped a Q2 tally of 3.309 million – 132% above Q2-2020’s Covid-impacted 1.427 million.”

U.S. Light vehicle production for June 2021 totaled 743,550, down 17% from 2019:



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U.S. Light Vehicle Inventory and Days' Supply (Updated 8/4)

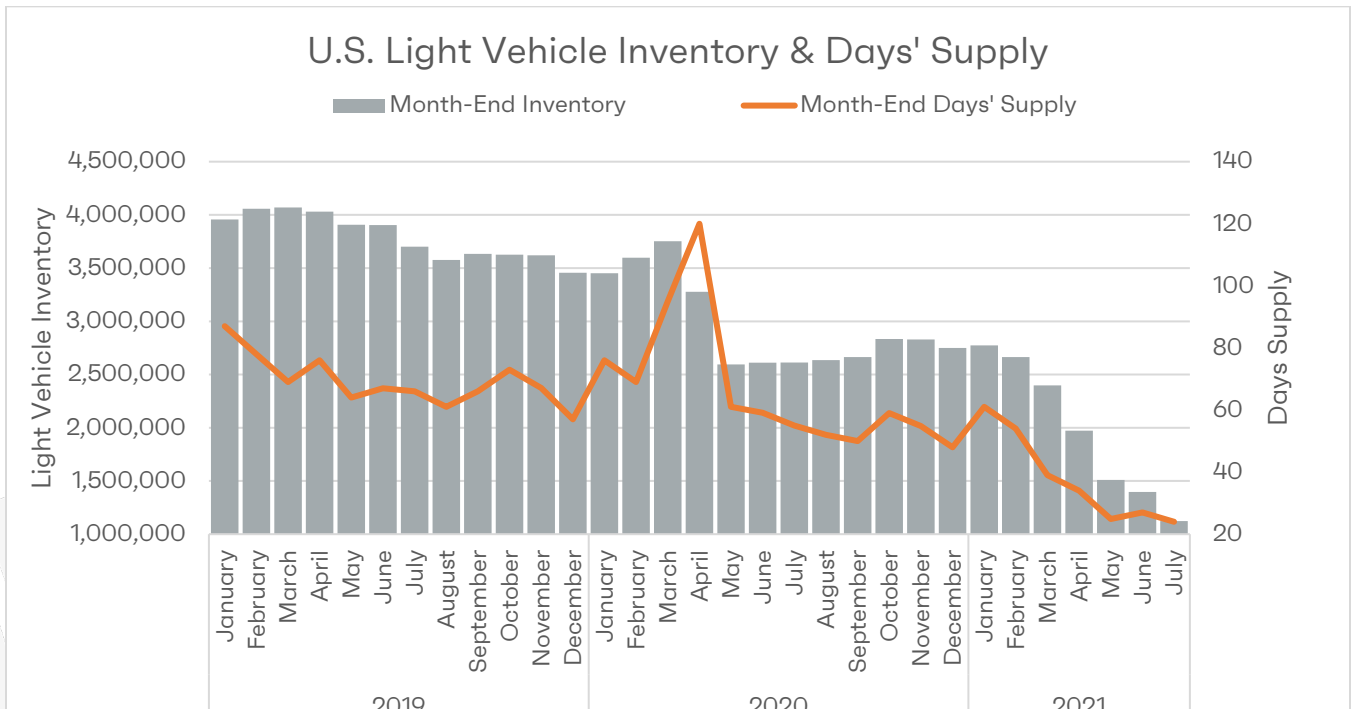
WardsIntelligence Inventory Update²⁴: “U.S. light-vehicle inventory fell 19.4% from June, finishing July at 1.12 million units, 56% below the same year-ago period.

“The decline continues a trend of sharply falling inventory due to supply disruptions caused mostly by the global microchip shortage that have sharply curtailed production for the U.S. market in North America and overseas plants. The downward slide has been ongoing since January, with declines accelerating in Q2.

“July 31 days’ supply totaled 24, down from like-2020’s 54 and well below the 60-65 range normal for the month.

“Inventory of domestically made vehicles totaled 829,889 units, down 58% from like-2020, and equal to a 23 days’ supply. Import inventory totaled 293,252 units, down 51% year-over-year, and equal to a 24 days’ supply.

“Despite the current gloom, irrespective of whether sales strengthen or weaken in August from July, inventory should rise month-to-month for the first time since January, setting the stage for robust results in Q4.”



Global Meter

Global Light Vehicle Sales Outlook (Updated 7/21)

Wards Intelligence Outlook: “Global vehicle sales reached 7.15 million in May, jumping 34.6% over year-ago’s 5.31 million. Despite the growth, sales for the month fell 8% compared to May 2019’s 7.78 million.

“Improvement in vehicle sales was seen in every region, with South America recording the highest increase (+158.3%). Several countries across all regions experienced three-digit gains in sales.

“Through the first five months of 2021, world light-vehicle sales jumped 34.9% to 34.91 million, compared to year-ago’s 25.88 million. The recovery in vehicle sales is visible since the market is slowly approaching 2019’s levels.

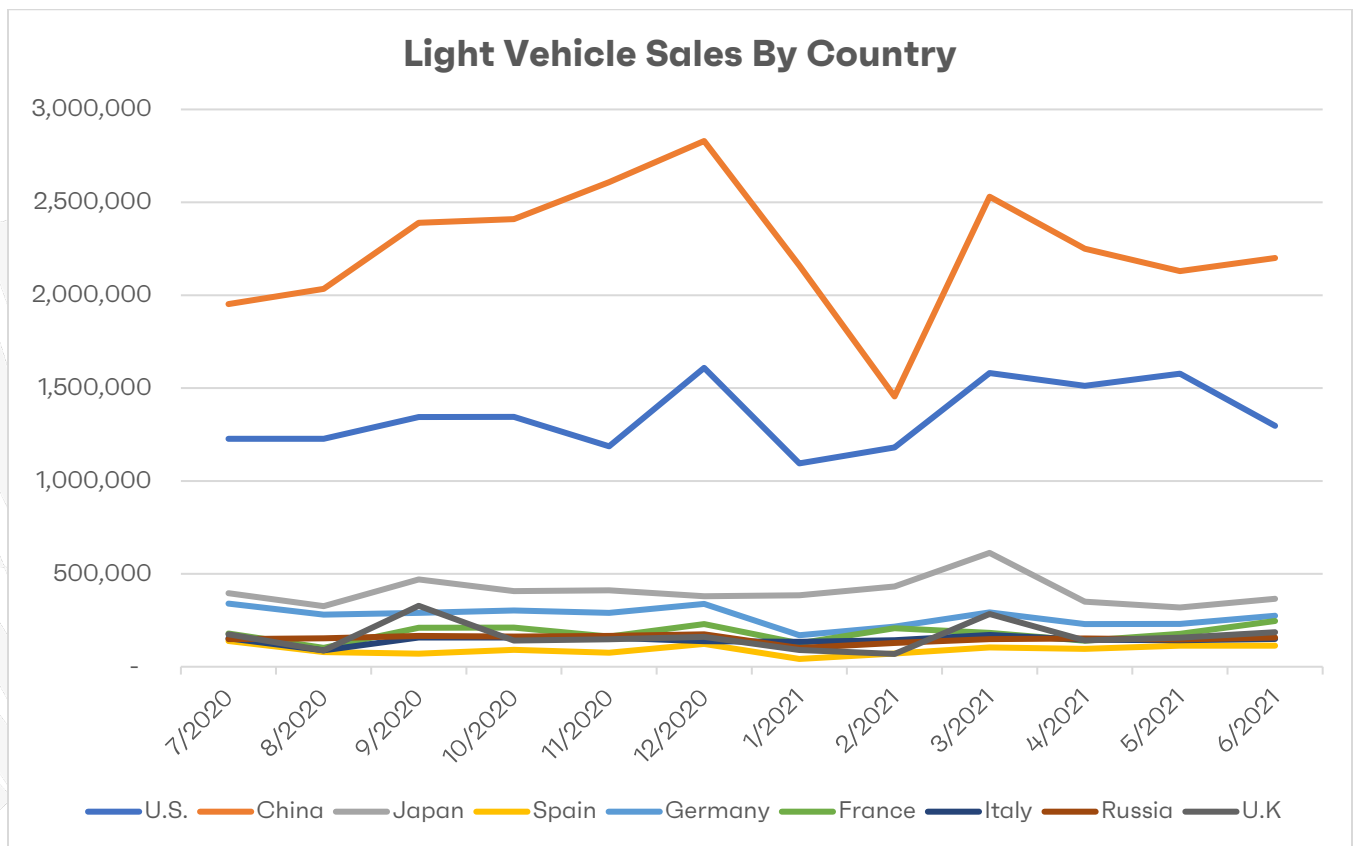
“Vehicle sales in Asia-Pacific saw an 8.1% year-on-year increase, reaching 3.15 million. But May deliveries were 12.5% lower than prior month. Most countries saw a strong uptake in total vehicle sales except for China and South Korea.

“In Europe, all countries saw vehicle sales increase in May, raising the region’s global market share to 21.1%. Total deliveries jumped 76.9% to 1.51 million. The U.K. and Ireland experienced the biggest jumps in vehicle sales at 554.6% and 264.5%, respectively.

“South America experienced the highest growth at 158.3% reaching 279,000 vehicle sales in May. Brazil, Chile, and Venezuela deliveries increased more than 200%. Year-to-date sales were up 37.7% to 1.39 million for the region.

“World sales saw slower growth in May compared to prior month, while year-to-date deliveries were down 4% compared to 2019.”²⁵

Sales in select countries around the globe, raw volume by month:

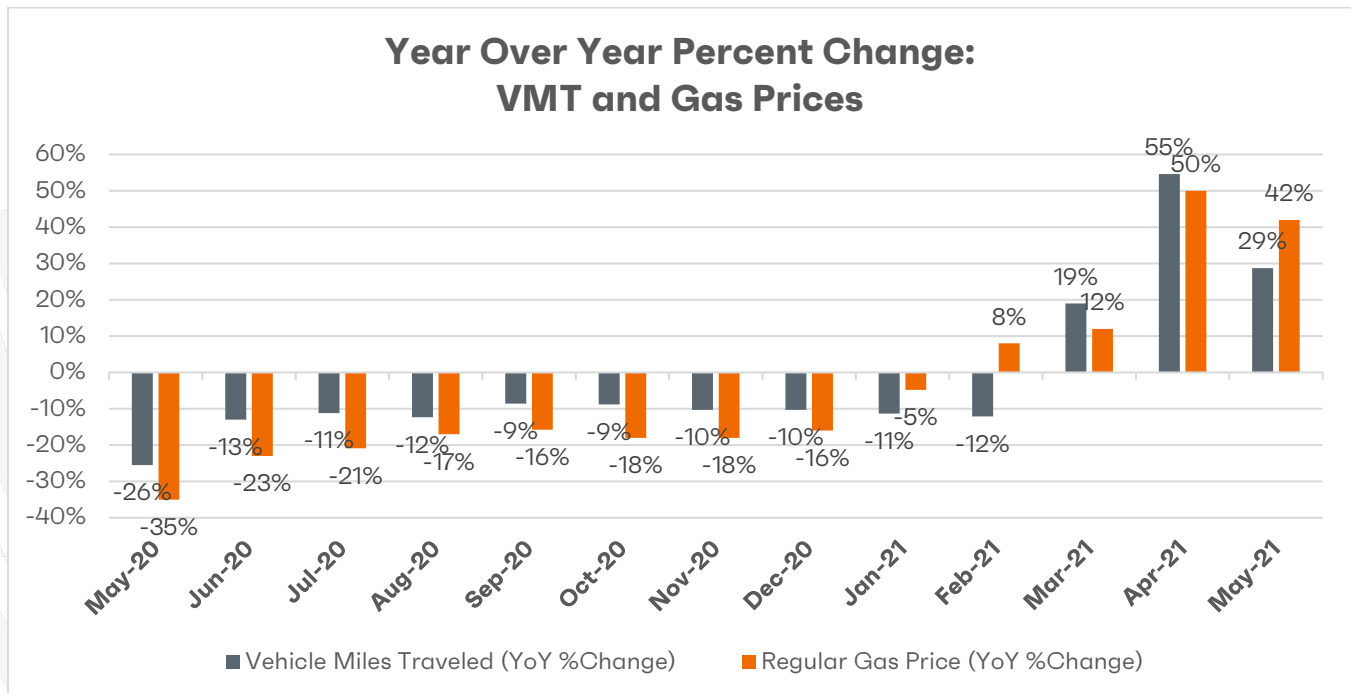


Recovery Meter

Roadway Travel (Updated 7/14)

According to the U.S. Department of Transportation, seasonally-adjusted vehicle miles traveled in May rose 31.1% from the same time a year ago. The cumulative travel estimate for 2021 is 1,222.2 billion vehicle miles.²⁶

- Travel on all roads and streets changed by 28.7% (61.2 billion vehicle miles) for May 2021 as compared with May 2020. Travel for the month is estimated to be 273.9 billion vehicle miles.
- The seasonally adjusted vehicle miles traveled for May 2021 is 259.7 billion miles, a 31.1% (61.6 billion vehicle miles) increase over May 2020. It also represents 3.2% increase (8.1 billion vehicle miles) compared with April 2021.
- Cumulative Travel for 2021 changed by (137.1 billion vehicle miles). The cumulative estimate for the year is 1,222.2 billion vehicle miles of travel.



Economic News (Updated 7/7)

Manufacturing Added 15,000 Jobs In June. “Manufacturing added 15,000 jobs in June, the U.S. Bureau of Labor Statistics said today. But the manufacturing employment picture was mixed. Durable goods industries added 18,000 jobs, according to a breakdown by industry issued by the bureau. Non-durable goods industries cut 3,000 jobs. Within durable goods, results varied. Job gainers included fabricated metal products (up 5,700), primary metals (up 3,100), furniture (up 8,500) and miscellaneous manufacturing (up 3,300).”²⁷

Motor Vehicles And Parts Were Down 12,300 (Seasonally Adjusted). “Holding the sector back was motor vehicles and parts, down 12,300. The auto industry continues to cope with a global shortage of semiconductors. That has resulted in reduced production of vehicles and temporary plant shutdowns.”²⁸

- **Motor Vehicle And Parts Manufacturing 11,400 Jobs In June (Not Seasonally Adjusted).**²⁹

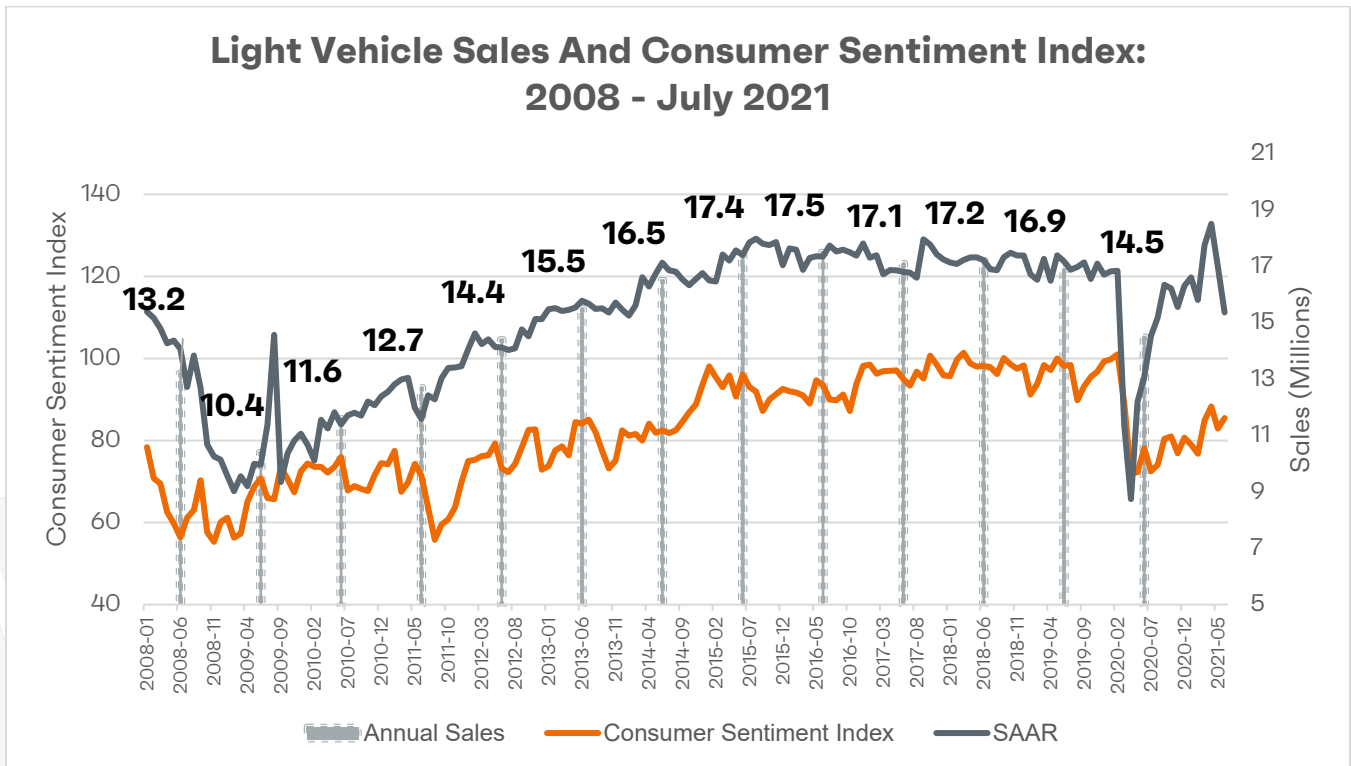
For June, The ISM Ticked Down To 60.6 From 61.2 In May. “Growth in U.S. manufacturing slowed slightly in June, as supply chain problems persist and businesses say they are still struggling to find workers to keep up with demand. The Institute for Supply Management, a trade group of purchasing managers, said Thursday that its index of manufacturing activity ticked down in June to a reading of 60.6 from 61.2 in May.”³⁰

The Index Of Prices For Raw Materials Increased To 92.1, A Level Not Seen Since 1979 During The Oil Crisis. “The index of prices paid for raw materials increased to 92.1, a level not seen since the 1979 Iranian revolution and oil crisis. Logistics challenges, elevated commodities prices and shortages of various supplies continue to pressure manufacturers. Shortages of semiconductors have been particularly disruptive to the auto industry, where production earlier this year was restrained because of the lack of supply.”³¹

Auto Sales Make Big Contribution To Increase In GDP In The First Quarter. “In the first months of 2021, what was good for the auto industry was decidedly good for the American economy. Spending on motor vehicles and parts rose almost 13 percent in the first quarter, making a big contribution to the increase in gross domestic product, the Commerce Department reported Thursday... In fact, demand in the first quarter was robust enough that the auto industry was able to post healthy results despite a shortage of computer chips that forced temporary shutdowns of many auto plants.”³²

Consumer Confidence and Sales (Updated 8/4)

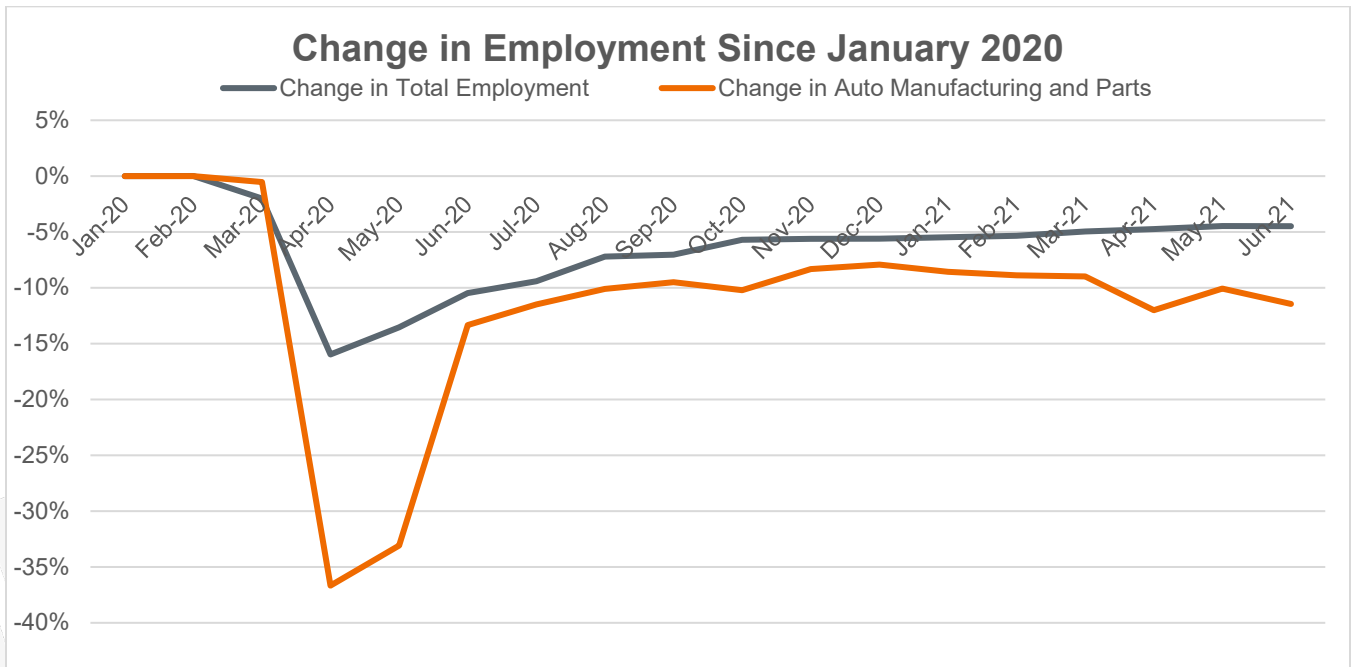
“Consumer sentiment edged upward at the end of July, although it still posted a monthly decline of 5.0%. The largest monthly declines remained concentrated in the outlook for the national economy and complaints about high prices for homes, vehicles, and household durables. While most consumers still expect inflation to be transitory, there is growing evidence that an inflation storm is likely to develop on the not too distant horizon. The improved finances of consumers have greatly reduced consumers' resistance to price increases.”³³



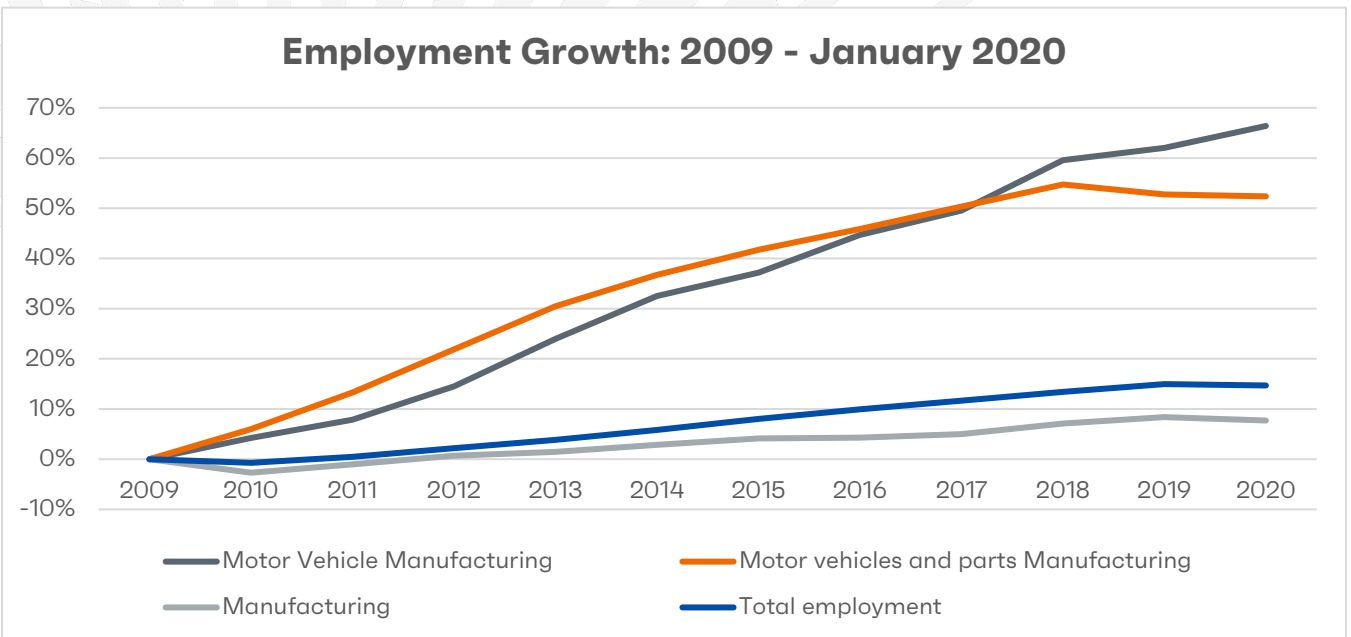
Employment (Updated 7/7)

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 raced back but is now fighting losses due to supply chain disruptions with semiconductors. Employment in motor vehicles and parts is down 100,000 since January 2020.³⁴

- **Motor Vehicle And Parts Manufacturing 11,400 Jobs In June (Not Seasonally Adjusted).³⁵**



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.³⁶ 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.



Sources

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- ² Haig Stoddard, "COVID-19 Impact Will Tank March, Second-Quarter U.S. Light-Vehicle Sales," *WardsIntelligence*, 3/25/20; Haig Stoddard, "March 25 COVID-19 Update: 2020 North America Production, U.S. Sales Forecasts," *WardsIntelligence*, 3/30/20; Haig Stoddard, "U.S. Light-Vehicle Sales Start on the Road Back in May," *WardsIntelligence*, 5/21/20
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- ⁴ Haig Stoddard, "July U.S. Light-Vehicle Inventory Falls 19%; 2021 Sales Outlook Chopped," *WardsIntelligence*, 8/4/21
- ⁵ Haig Stoddard, "July U.S. Light-Vehicle Inventory Falls 19%; 2021 Sales Outlook Chopped," *WardsIntelligence*, 8/4/21
- ⁶ Haig Stoddard, "July U.S. Light-Vehicle Inventory Falls 19%; 2021 Sales Outlook Chopped," *WardsIntelligence*, 8/4/21
- ⁷ Haig Stoddard, "U.S. Light-Vehicle Sales Continue Downward Slide in July," *WardsIntelligence*, 8/4/21
- ⁸ IHS Markit, email, "IHS Markit Monthly Automotive Update - July 2021," 7/16/21
- ⁹ Haig Stoddard, "U.S. Light-Vehicle Sales Continue Downward Slide in July," *WardsIntelligence*, 8/4/21
- ¹⁰ Haig Stoddard, "U.S. Light-Vehicle Sales Still Solid, But Dried-Up Inventory Dents May's Results," *WardsIntelligence*, 6/2/21
- ¹¹ WardsIntelligence, U.S. Light Vehicle Sales, January 2013 – June 2021
- ¹² U.S. Energy Information Administration, Weekly Retail Gasoline and Diesel Prices, Regular price per gallon, including taxes
- ¹³ WardsIntelligence, Fuel Economy Index, December 2013 & 2019
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