

READING THE METER

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

June 23, 2021

Contents

Forecast Meter.....	2
Forecast Summary (Updated 6/3).....	2
U.S. Light Vehicle Sales Outlook (Updated 6/16).....	2
North American Production Outlook (Updated 6/23).....	3
Market Meter	5
U.S. Light Vehicle Sales (Updated 6/3).....	5
Segments vs. Gas Prices (Updated 6/3).....	6
ZEV Powertrain Sales (Updated 6/3).....	7
Seasonally Adjusted Annual Rates (Updated 6/3).....	8
Average Transaction Price (Updated 6/23).....	8
Auto Loan Financing (Updated 6/16).....	9
Crude Oil and Gas Prices (Updated 6/23).....	10
Production Meter	11
U.S. Light Vehicle Production (Updated 6/23).....	11
U.S. Light Vehicle Inventory and Days' Supply (Updated 6/23).....	12
Global Meter.....	13
Global Light Vehicle Sales Outlook (Updated 6/23).....	13
Recovery Meter.....	14
Roadway Travel (Updated 6/23).....	14
Economic News (Updated 6/9).....	15
Confidence and Sales (Updated 6/16).....	16
Employment (Updated 6/9).....	16
Sources.....	18

Forecast Meter

Forecast Summary (Updated 6/3)

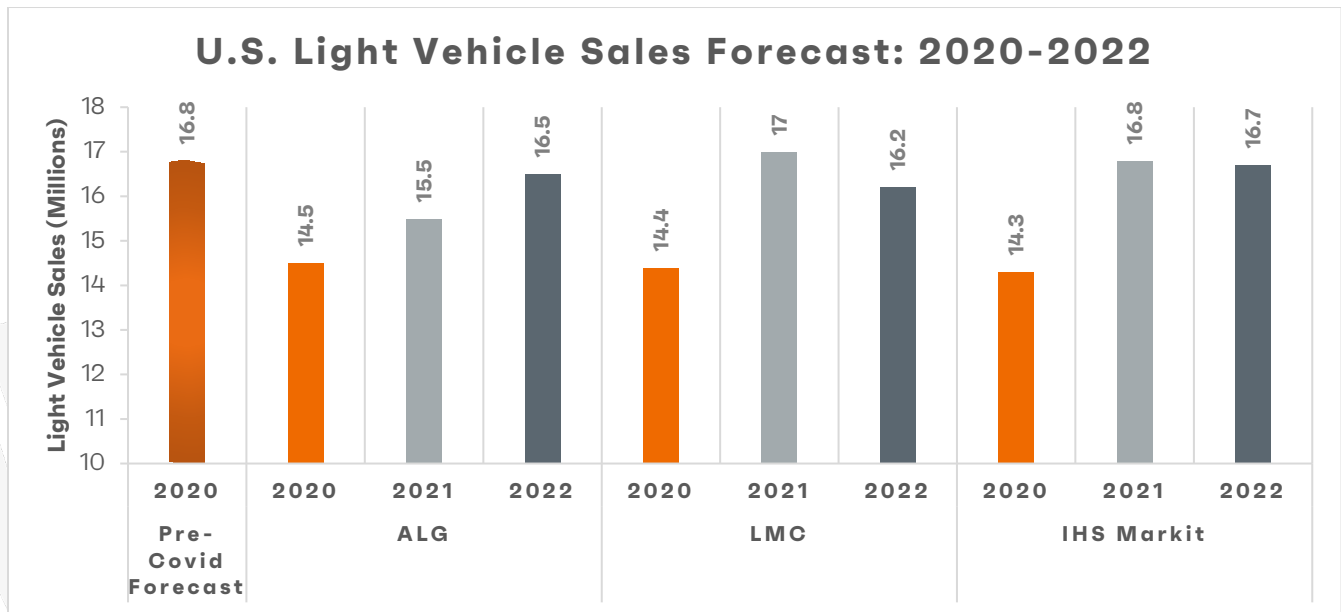
2020-2021 Sales, ¹ Extended Sales Forecast ² and Production Forecasts ³		
	U.S. Sales & Forecasts	North American Production
June '20	1,103,791 (-24% YoY)	743,216 (-17% YoY)
July '20	1,227,091 (-12.1% YoY)	1,261,884 (+2.2% YoY)
August '20	1,325,144 (-19.1% YoY)	951,983 (-1.1% YoY)
September '20	1,344,310 (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)	
1 st Quarter '20	3,476,512 (-12.7% YoY)	3,754,533 (-11.7% YoY)
2 nd Quarter '20	2,948,410 (-33.3% YoY)	1,371,420 (-67.6% YoY)
3 rd Quarter '20	3,904,539 (-9.2% YoY)	3,989,982 (-.5% YoY)
4 th Quarter '20	4,159,622 (-2.1% YoY)	3,789,512 (-2.5% YoY)
1 st Quarter '21	3,869,872 (+11.3 YoY)	3,688,512 (-4.7% YoY)
2020 Calendar Year	14,463,935 (-14.7% YoY)	12,905,447 (-23.1%)
2021 Full Year Estimate	17 million units (17.5% YoY)	15.8 million units (22.7% YoY)

U.S. Light Vehicle Sales Outlook (Updated 6/16)

Wards Intelligence Outlook⁴: “Although May’s results were above expectations, and still a healthy total, they indicate U.S. market volume likely will remain crimped – and probably get worse before starting to improve - until automakers can resume full production. The global microchip shortage still is causing production stoppages and slowdowns, and not likely to significantly improve until this summer. Even then, supply shortages for the automotive industry are expected to continue at some level through the end of the year, with North America likely bearing the brunt.”

J.D. Power June Outlook⁵: ““Looking forward to June, with sales continuing to outpace production in aggregate, falling inventory levels may start to put pressure on the current sales pace. However, based on what we have seen so far, retailers may continue to adapt by turning inventory more quickly to maintain sales velocity. However, regardless of inventory position, manufacturers and retailers will continue to benefit from strong consumer demand and a higher profit per unit sold.”

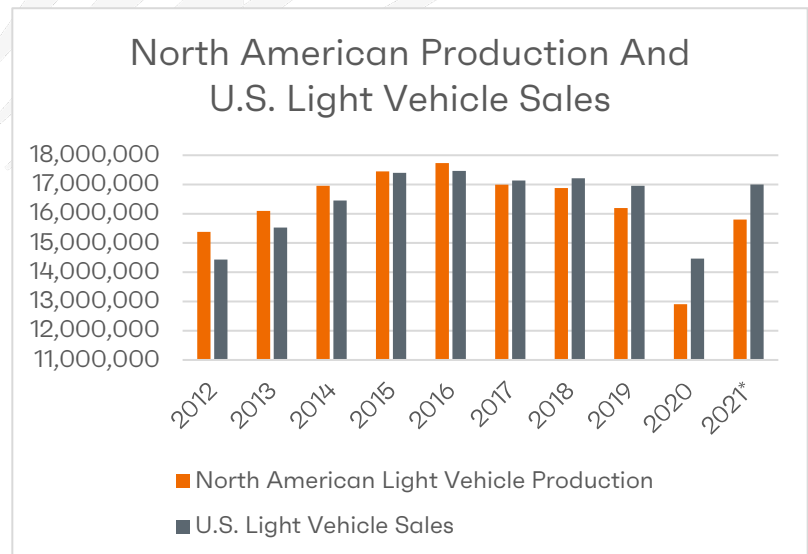
Ward Intelligence 2021 Outlook⁶: “WI’s revised outlook for how the remainder of the year rolls out has June sales posting a 16.0 million-unit SAAR, which means Q2 will total 17.0 million. That will be followed by 16.6 million in Q3 and 17.4 million in Q4. The first quarter totaled 16.9 million.”



North American Production Outlook (Updated 6/23)

Wards Intelligence Outlook⁷: “Third-quarter North America production will rise to a 5-year high this year, based on the Wards Intelligence Production Tracker’s first look at the period.

“However, the increase remains shrouded in risk thanks to the ongoing global semiconductor shortage, which caused more cuts to the second quarter estimate. The good news is this round of reductions related to the micro supply was the least severe in several months. . . . Excluding the big trucks, light-vehicle production is expected to total 4.25 million units in Q3, 6.2% above like-2020, and 6.9% above July-September 2019.



“Lifting production to the long-time high is a combination of strong demand in the U.S. and a dearth of inventory. In fact, although production capacity constraints related to the chip issue still are expected during the period, light-vehicle capacity utilization will reach a 5-year Q3 high, rising to 93.1% from like-2020’s 89.8%.

“The need for inventory build-up has caused the cancellation of several summer shutdowns. But, mostly due to the chip shortage and some necessary retooling shutdowns or maintenance, not all plants are foregoing summer downtime. The lack-of-inventory problem would not even be close to resolved if all plants could remain open the entire summer, but it means production aimed at inventory build-up will continue further into 2022.

“Of course, the amount of production for inventory build-up is predicated on demand meeting forecasted levels. WI’s forecast partner LMC Automotive expects light-vehicle sales in North America of 19.9 million units in 2021 and 20.3 million in 2022, with about 75% locally sourced. If the sales outlook holds firm – and the biggest risk to it is more unexpected supply disruptions further limiting inventory – 2022 will outdo the last pre-pandemic year of 2019 when deliveries totaled 20.2 million units.

“As it did in the first quarter, the chip shortage, as well as other disruptions to the supply chain, tamped down capacity utilization in the second quarter. April-June production capacity utilization is estimated at 75.3% for light vehicles. Except for last year’s pandemic-skewed 31.5%, it was the lowest for the period since 72.0% in 2011.

“Second-quarter production for all vehicles is tracking to 3.47 million units, 144% above year-ago’s Covid-19-impacted total of 1.43 million, and 20.7% below like-2019’s 4.40 million. Losses in first-half 2021 attributed to the supply chain disruptions total 1.1 million units.

Light-vehicle production in Q2 is pegged at 3.36 million units, 145% above year-ago, but 20.7% below like-2019.”

IHS Markit May Update: “The outlook for North America light vehicle production was reduced by 291,000 units and increased by 86,000 units for 2021 and 2022, respectively (and increased by 101,000 units for 2023). The production outlook for 2021 was reduced amid the ongoing semiconductor shortage and other supply chain and logistical issues. Ford continues to experience greater exposure to the semiconductor shortage with continued downtime extensions along with planned downtime that extends into September 2021 that results in a reduction of 190,000 units for the year. Stellantis quietly continues to extend downtime relating to the semiconductor shortage resulting in production being reduced by 90,000 units for 2021. Solid economic fundamentals along with robust demand for autos and the current inventory situation all support far higher levels of production in 2022, but production is expected to remain constrained with mostly baseline production levels to total 17.1 million units. Looking further to the future, As OEMs continue to aggressively pursue a shift towards EVs over the next decade, the June forecast provides a framework to achieve such goals. Although headwinds remain during the transition period, there is a rapid uptick in EV production in North America, notably post 2025. Nevertheless, a delicate balancing act remains throughout the 2020s as

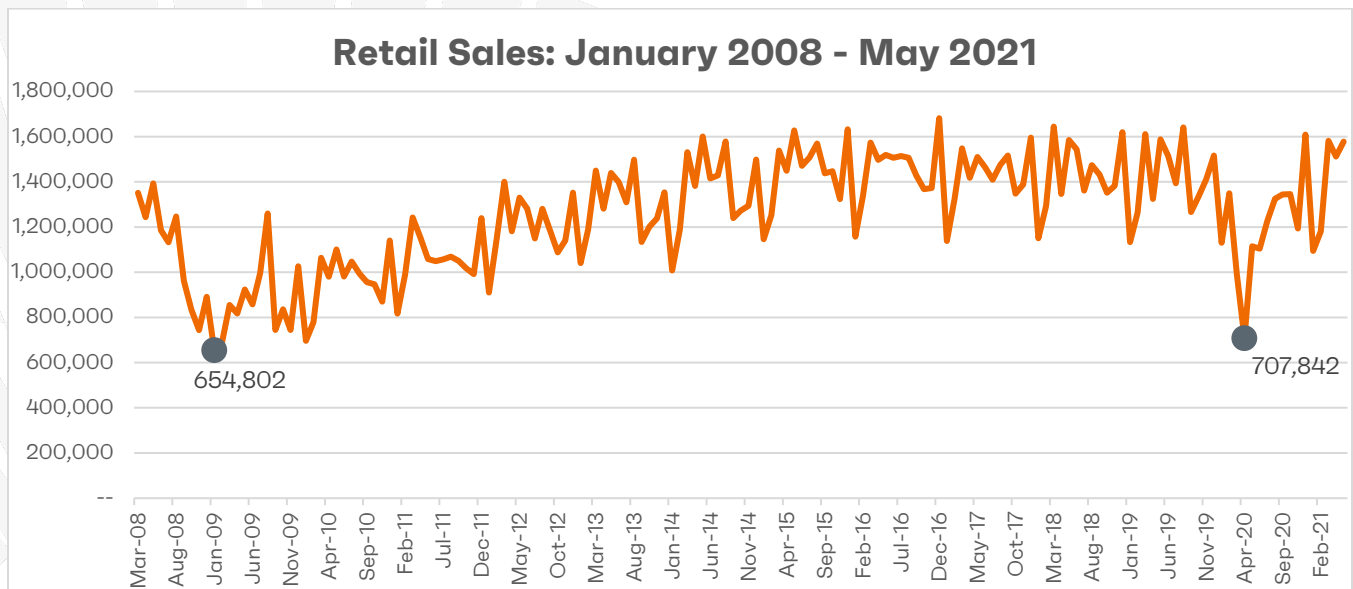
OEMs work to shift buyers to EVs and away from ICE models, and a rebalancing of market share may occur during this transition period.”⁸

Market Meter

U.S. Light Vehicle Sales (Updated 6/3)

Monthly Sales (Updated 6/3)

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.



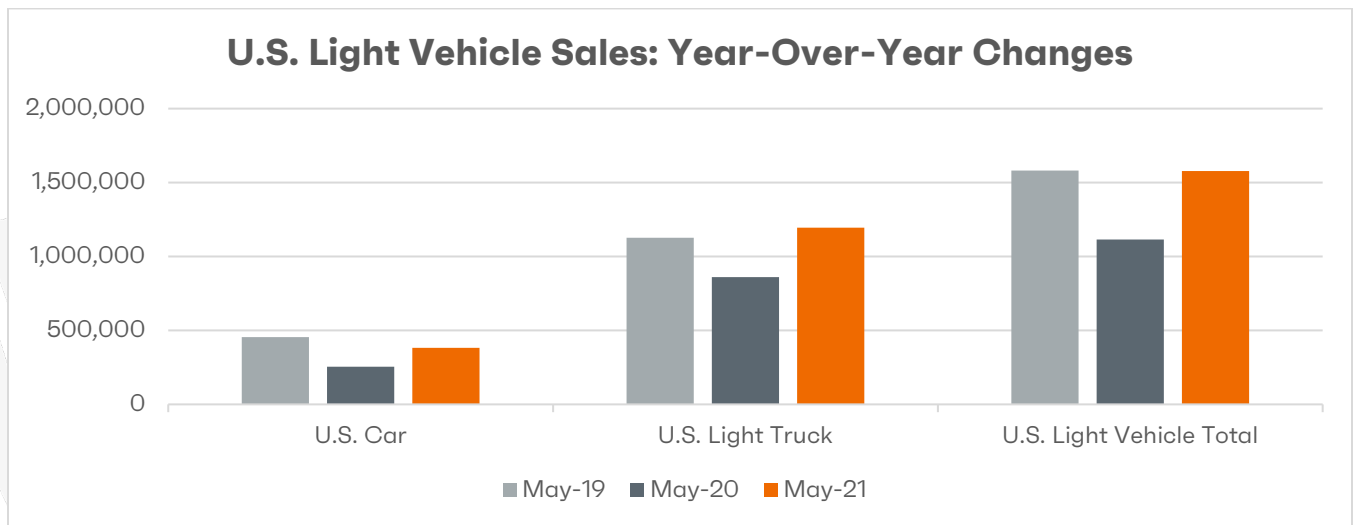
May Sales (Updated 6/3)

WardsIntelligence: “The ongoing inventory drain since the beginning of the year finally pulled sales to well below current demand in May, as the seasonally adjusted annual rate fell to 17.0 million units from April’s revised 18.8 million and the 17.4 million year-to-date total.

“May’s SAAR was a big increase from like-2020’s pandemic-smacked 12.1 million units and relatively close to same-month 2019’s 17.3 million. . . Raw volume in May totaled 1.578 million units, 41.0% above like-2020. The daily selling rate equaled 60,693 vs. 43,042 in the year-ago month – 26 selling days both periods....

“Another sign lean inventory is significantly drawing down sales is that car share increased year-over-year in May to 24.2% from 23.1%. It was the first year-over-year rise in car share since December 2012. “The increase, however, is due to inventory drying up faster for more popular light trucks – especially pickups - not a rebound in demand for cars.

“The decline in trucks was most evident in pickups. Pickup penetration in May dropped to 16.6%, lowest for any month since 16.0% in March 2019.”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

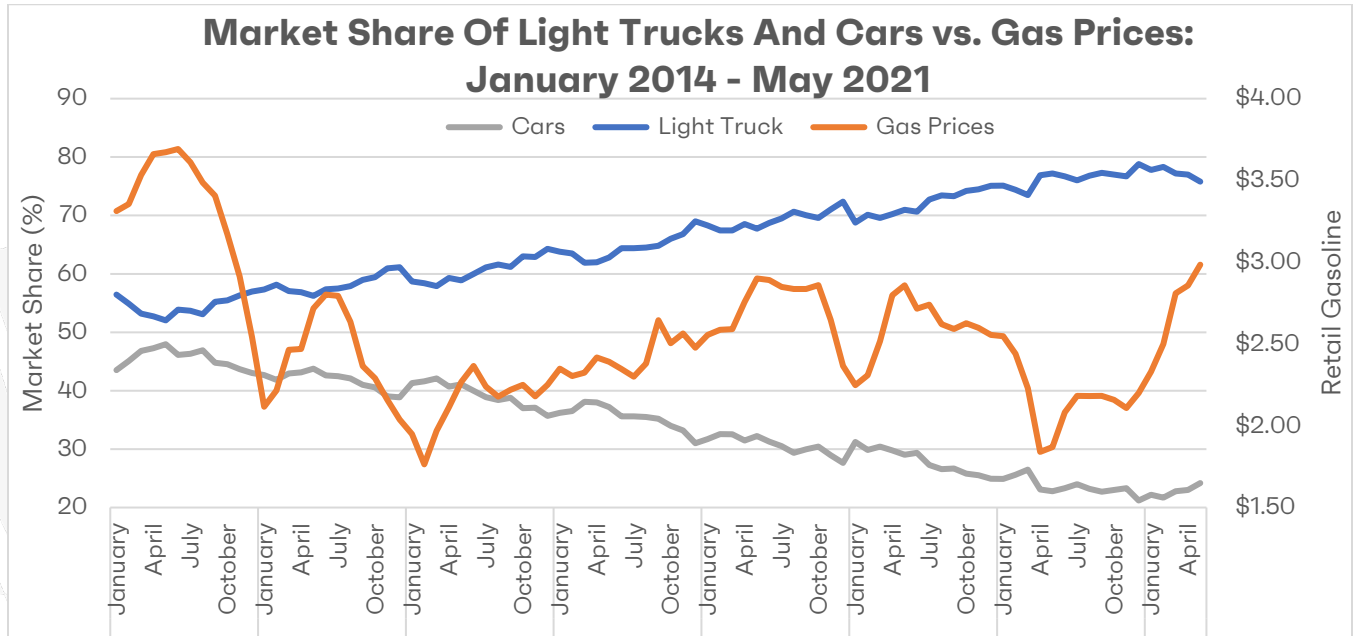
Segments vs. Gas Prices (Updated 6/3)

Monthly Sales For May: Light trucks accounted for 75.8% of sales in May, a 1.1% drop in market share from a year ago. Compared to 2020, sales of cars are up more than 127,000, but down nearly 72,000 from May 2019.

WardsIntelligence: “Another sign lean inventory is significantly drawing down sales is that car share increased year-over-year in May to 24.2% from 23.1%. It was the first year-over-year rise in car share since December 2012. The increase, however, is due to inventory drying up faster for more popular light trucks – especially pickups - not a rebound in demand for cars.

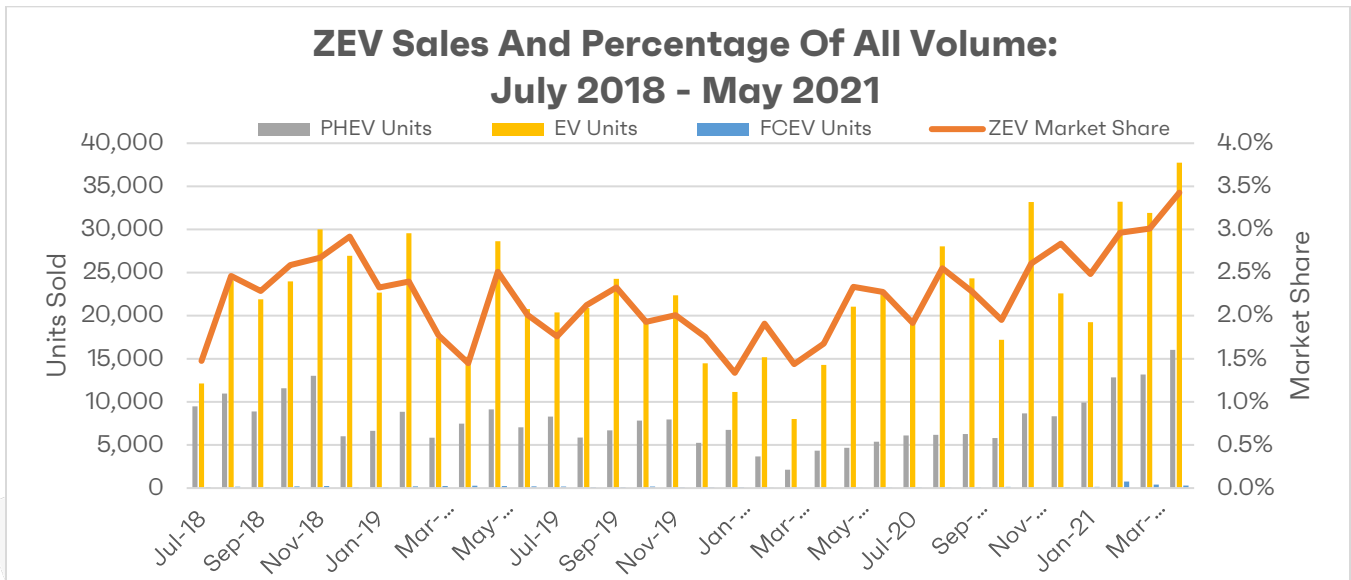
“The decline in trucks was most evident in pickups. Pickup penetration in May dropped to 16.6%, lowest for any month since 16.0% in March 2019.”¹¹

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.¹² and gas was over \$3.00.¹³ 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 \$2.68 a gallon (through October 2020) 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.¹⁴



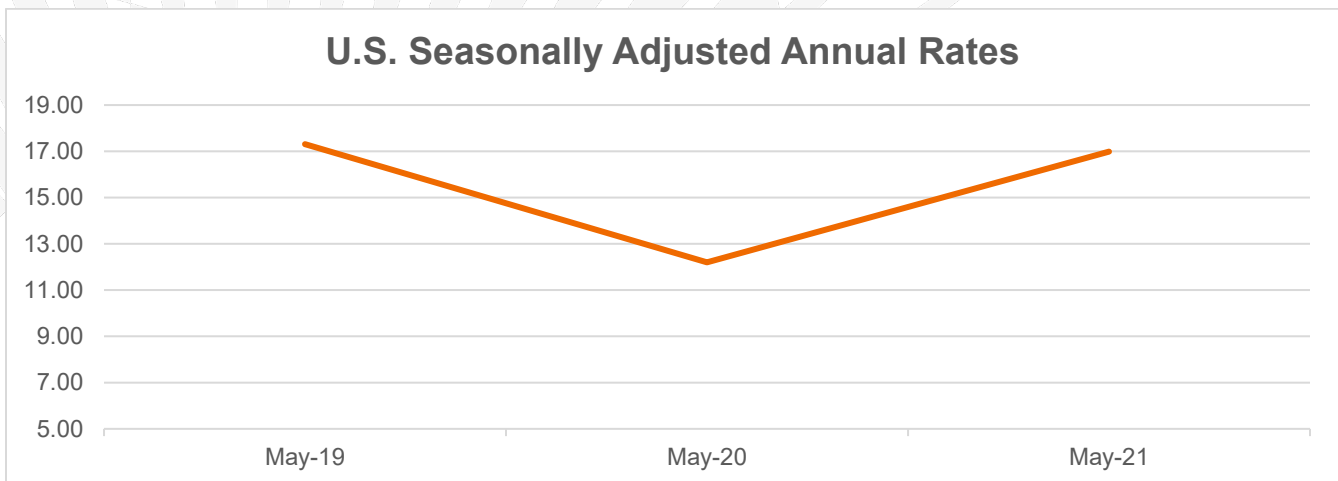
ZEV Powertrain Sales (Updated 6/3)

Sales of zero emission vehicles (BEV, PHEV, & Fuel Cell) accounted for 3.4% of total vehicle sales in May 2021, up from 1.7% from a year ago and up .4% from April 2021. Sales of battery electric vehicles led the way for ZEVs, accounting for 2.39% of total sales, up .86% from May 2020. Plug-in hybrids accounted for 1.02%, nearly triple the amount from the same time last year.¹⁵



Seasonally Adjusted Annual Rates (Updated 6/3)

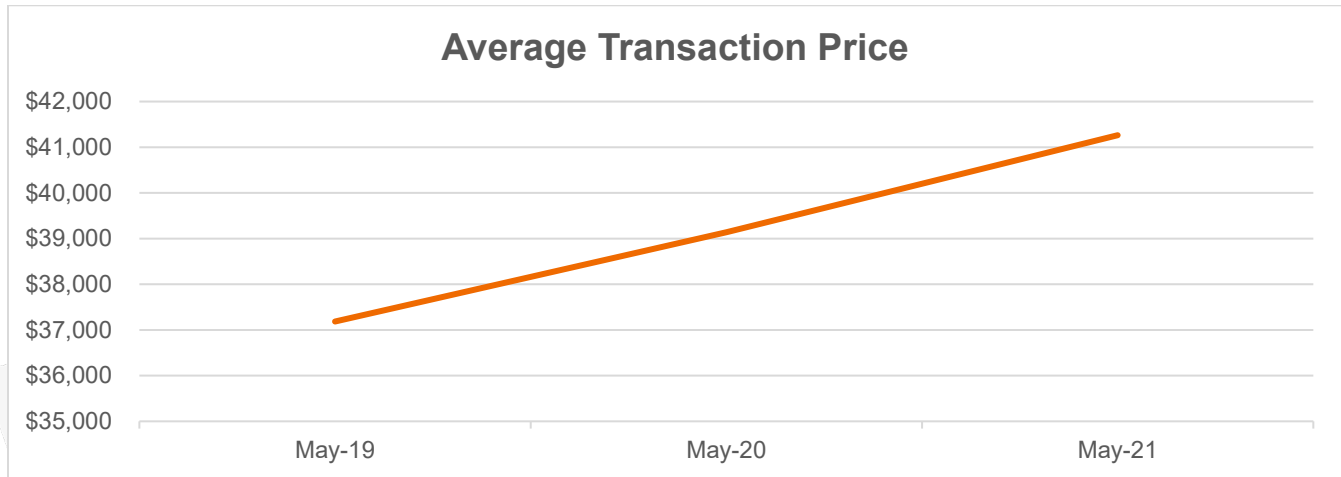
“The ongoing inventory drain since the beginning of the year finally pulled sales to well below current demand in May, as the seasonally adjusted annual rate fell to 17.0 million units from April’s revised 18.8 million and the 17.4 million year-to-date total. May’s SAAR was a big increase from like-2020’s pandemic-smacked 12.1 million units and relatively close to same-month 2019’s 17.3 million.”¹⁶



Average Transaction Price (Updated 6/23)

J.D. Power: “Consumers are on track to spend \$53.1 billion on new vehicles this month, the highest on record for any month. . . . The average new-vehicle retail transaction price in May is expected to reach a record \$38,255. The previous high for any month, \$37,966, was set in December 2020.”¹⁷

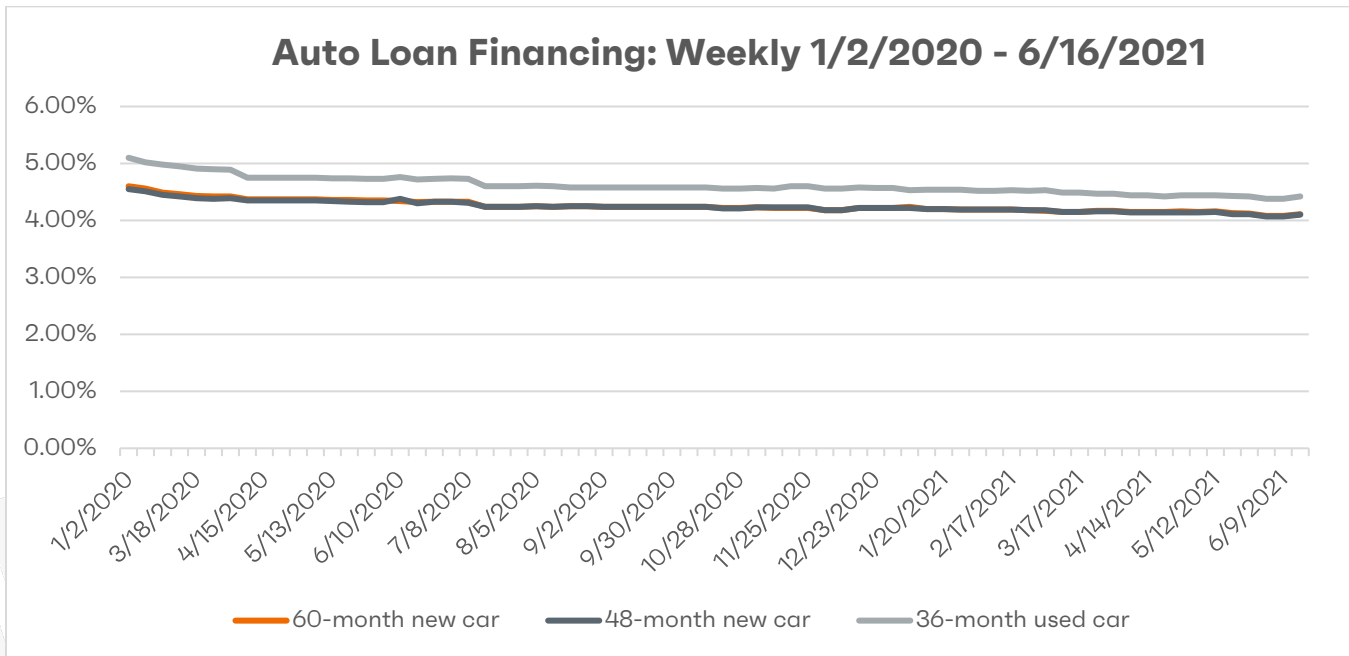
Kelley Blue Book: “The estimated average transaction price for a light vehicle in the United States was \$41,263 in May 2021, according to the analysts at Kelley Blue Book. New-vehicle prices increased \$2,125 (up 5.4%) from May 2020, while increasing \$493 (up 1.2%) from April 2021.”¹⁸



Auto Loan Financing (Updated 6/16)

Financing rises slightly: Interest rates for new cars and used cars increased slightly after dropping to their lowest level in more than a year. The interest rate for 60 months currently stands at 4.11%, .03% higher than last week. Rates rose to 4.42% for a 36-month used car loan. Since the beginning of last year, rates are down 0.49%, and down 0.21% since the same time a year ago.¹⁹

Dates	60-month new car	48-month new car	36-month used car
6/17/2020	4.32%	4.30%	4.72%
1/2/2020	4.60%	4.55%	5.10%
6/9/2021	4.08%	4.07%	4.38%
6/16/2021	4.11%	4.10%	4.42%
One Week Change	0.03%	0.03%	0.04%
Two Week Change	0.03%	0.03%	0.04%
Change since 1/3/20	-0.49%	-0.45%	-0.68%
One Year Change	-0.21%	-0.20%	-0.30%

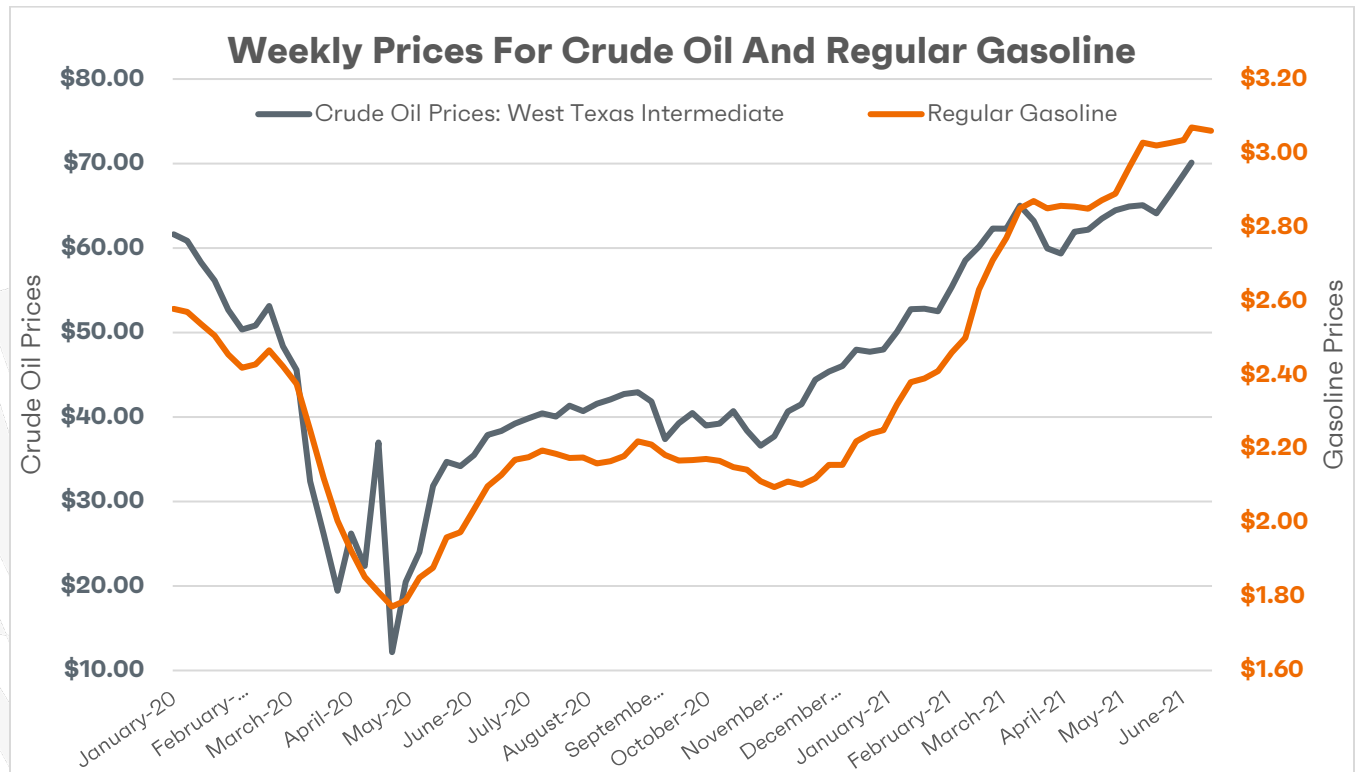


Crude Oil and Gas Prices (Updated 6/23)

EIA Outlook For Gasoline: “For the 2021 April–September summer driving season, we forecast U.S. regular gasoline retail prices will average \$2.92 per gallon (gal), up from an average of \$2.07/gal last summer. The higher forecast gasoline prices reflect higher crude oil prices and higher wholesale gasoline margins. Wholesale gasoline margins have risen as a result of relatively low inventories and rising gasoline demand. Margins also temporarily widened because of outages on the Colonial Pipeline. These developments caused U.S. average regular gasoline retail prices to reach a monthly average of \$2.99/gal in May, peaking at \$3.03/gal on May 17, which were the highest monthly and weekly prices since 2014. We expect that prices will average \$3.03/gal in June before falling to \$2.76/gal by September.”²⁰

EIA Outlook For Oil: “Brent crude oil spot prices averaged \$68 per barrel (b) in May, up \$4/b from April. Brent prices were higher in May as global oil inventories continued to decline, albeit at a slower pace than in the first four months of the year. In the coming months, we expect that global oil production will increase to match rising levels of global oil consumption. The rising oil production in the forecast is largely a result of the OPEC+ decision to raise production. We expect rising production will end the persistent global oil inventory draws that have occurred for much of the past year and lead to relatively balanced global oil markets in the second half of 2021 (2H21). We expect Brent prices will remain near current levels in 3Q21, averaging \$68/b. However, in 2022, we expect that continuing growth in production from OPEC+ and accelerating growth in U.S. tight oil production—along with other supply growth—will outpace decelerating growth in global oil consumption and contribute to declining oil prices. Based on these factors, we expect Brent to average \$60/b in 2022.”²¹

Gas Prices Remain Above \$3 A Gallon: Oil prices, as benchmarked at West Texas Intermediate, jumped more than \$1 a barrel in mid-June to \$70.11, the highest it has been in nearly three years. Since election day, oil prices have climbed over \$32 a barrel. Gas prices dropped by a penny this week to \$3.06. Gas first rose above \$3 a gallon in mid-May, for the first time since October 2014. Gas is 19 percent higher than the beginning of 2020.²²

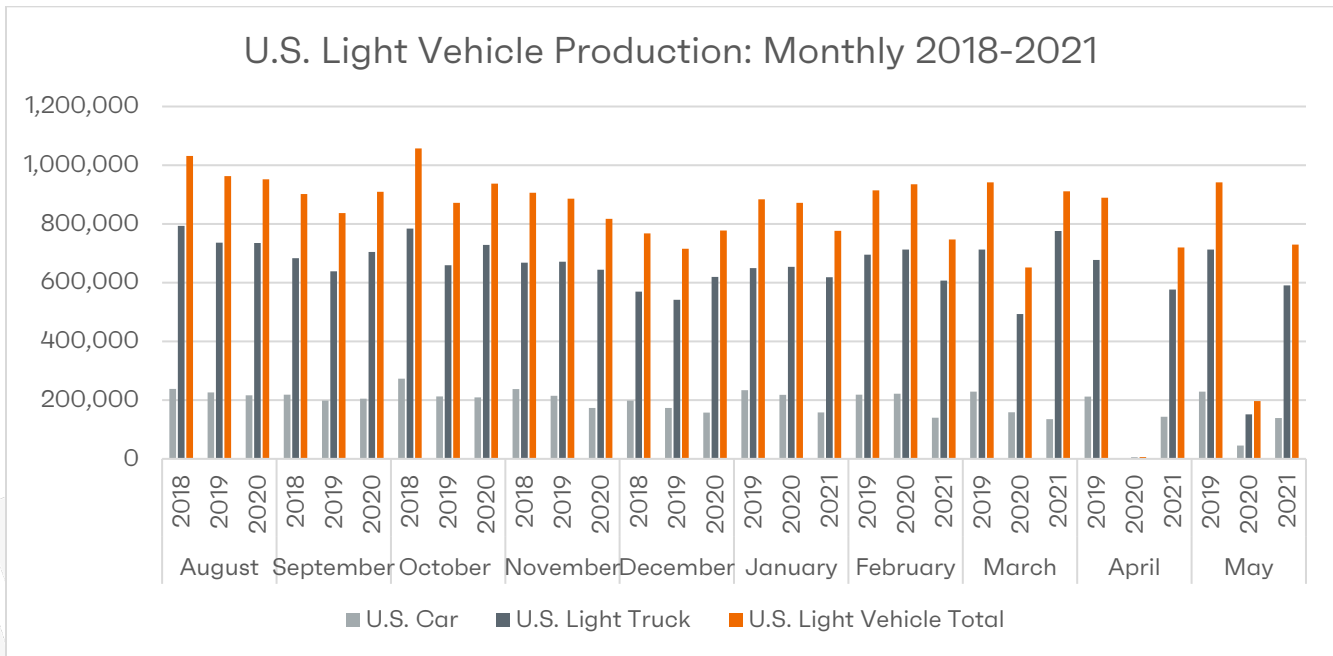


Production Meter

U.S. Light Vehicle Production (Updated 6/23)

WardsIntelligence²³: “Downward revisions are lessening in magnitude, but parts shortages caused another 139,000 units to be lopped off second-quarter expectations, and, despite improvement, the supply of microchips for the automotive industry is anticipated to remain a sticking point into 2022. . . . Production of all vehicles in May totaled 1.09 million units, well above like-2020’s 241,994. The total was 83,500 units lower than month-ago’s expectations for May. Light-vehicle production totaled 1.06 million units, 360% above May 2020’s 229,788.”

Light vehicle production for May 2021 totaled 729,879, down 23% from 2019:



24

U.S. Light Vehicle Inventory and Days' Supply (Updated 6/23)

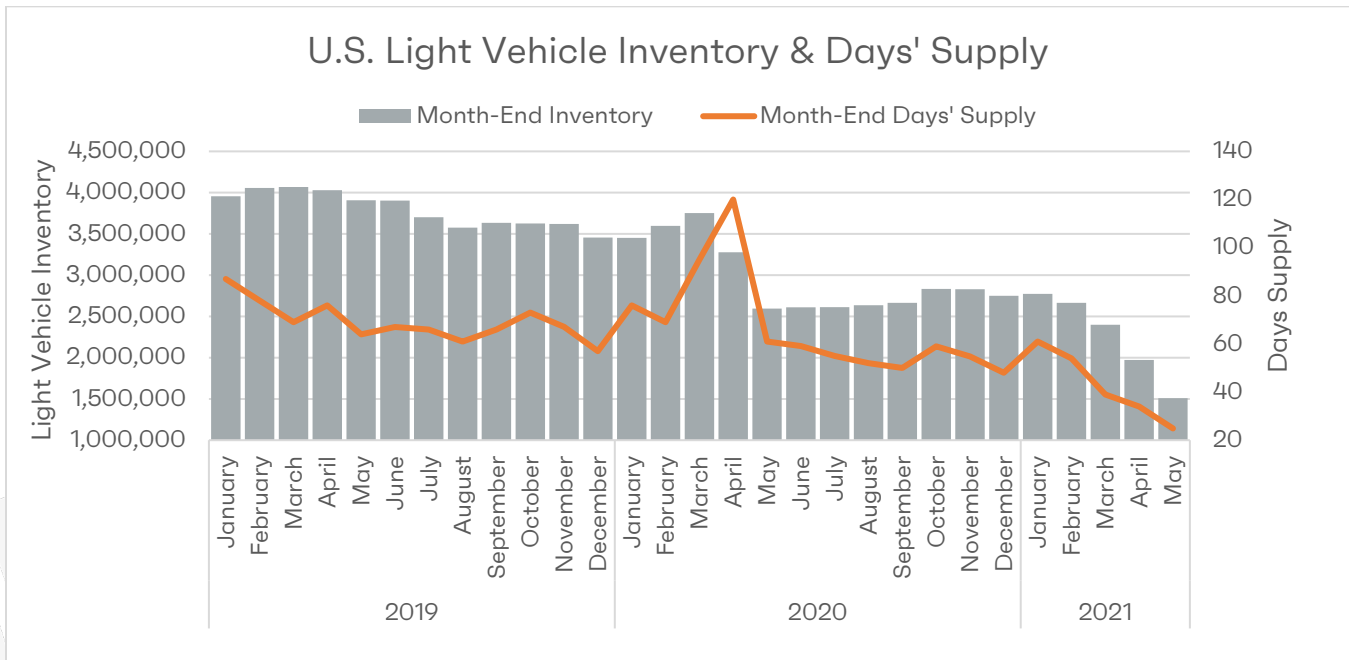
WardsIntelligence Inventory Update²⁵: "U.S. light-vehicle inventory continues to spiral downward, dropping 23.5% from April's extreme low and down 42.1% from like-2020.

"After a rough first quarter, production stoppages and slowdowns caused mostly by the global microchip shortage and exacerbated by other supply disruptions due to poor weather and other Covid-19-related issues, are hitting North America manufacturers even harder in the second quarter.

"Combined with near record levels for demand, the production losses are drying up dealer lots, and U.S. and Canada sales in May – though relatively strong – showed the first definite signs of inventory fatigue.

"May 31 light-vehicle inventory totaled 1.51 million units, lowest for any month since August 2009's 1.41 million. The total was 60% below pre-pandemic May 2019's 4.03 million units.

"Days' supply of 25 was the lowest for any month in at least four decades, and probably a lot longer. By comparison, May 2020's days' supply was 61 and like-2019 was 64."



Global Meter

Global Light Vehicle Sales Outlook (Updated 6/23)

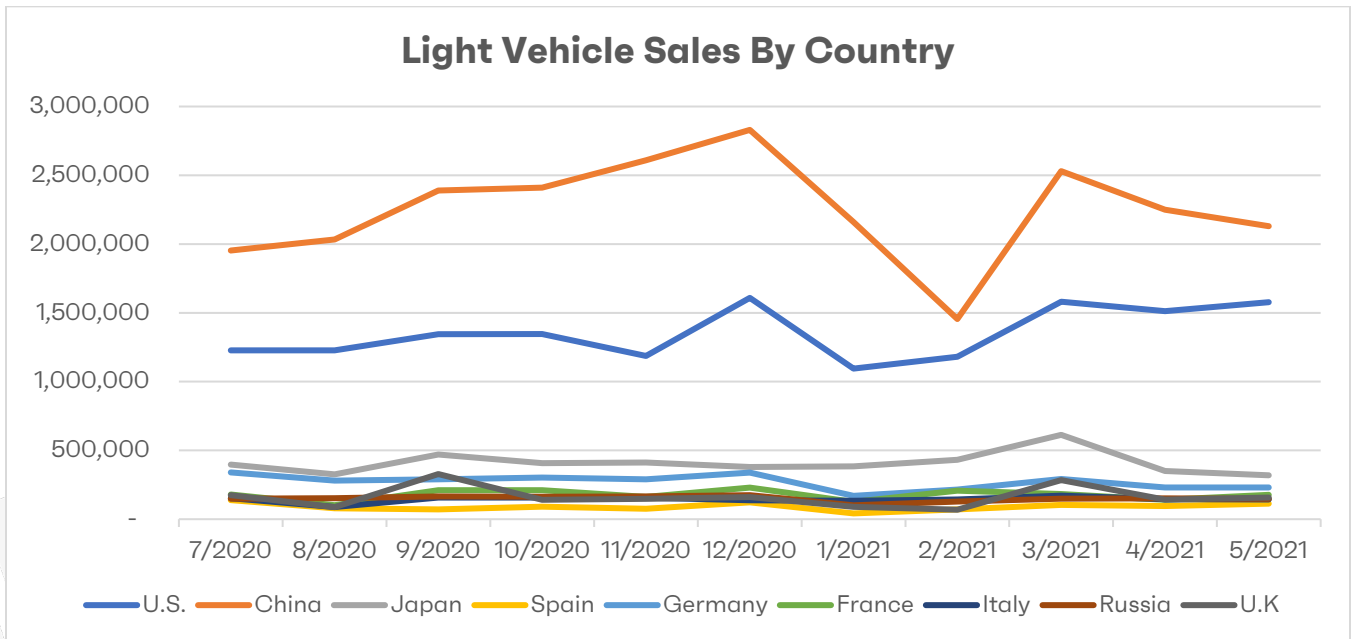
Wards Intelligence Outlook: “World vehicle sales soared 80.1% in April to 7.38 million, compared to year-ago’s 4.10 million. All regions saw growth in sales as regional restrictions began to lift due to COVID-19 vaccination roll-outs.

“The recovery over year-ago’s sharp decline was notable across all regions, as South America (+262.7%), Europe (+239.3%) and North America (+112.8%) experienced triple-digit gains. Several countries in Europe, Asia Pacific and South America saw four-digit gains in sales.

“Through the first four months of 2021, Europe sales were up 27.8% to 5.79 million, with only Netherlands and Romania year-to-date sales not pulling ahead. We expect further growth in sales and significant year-over-year comparisons in May 2021, as May 2020 was 54.1% down from 2019.

“Sales in the Asia Pacific region saw the smallest increase in April, improving 28.9% to 3.52 million. The region controlled 47.7% of the total market, much lower than last year’s inflated 66.6% share. Sales in China saw a relatively modest 3.9% increase to 2.25 million vehicles. Although most countries experienced significant growth, South Korea (estimated -2.8%) came in behind the rest of the region.”²⁶

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

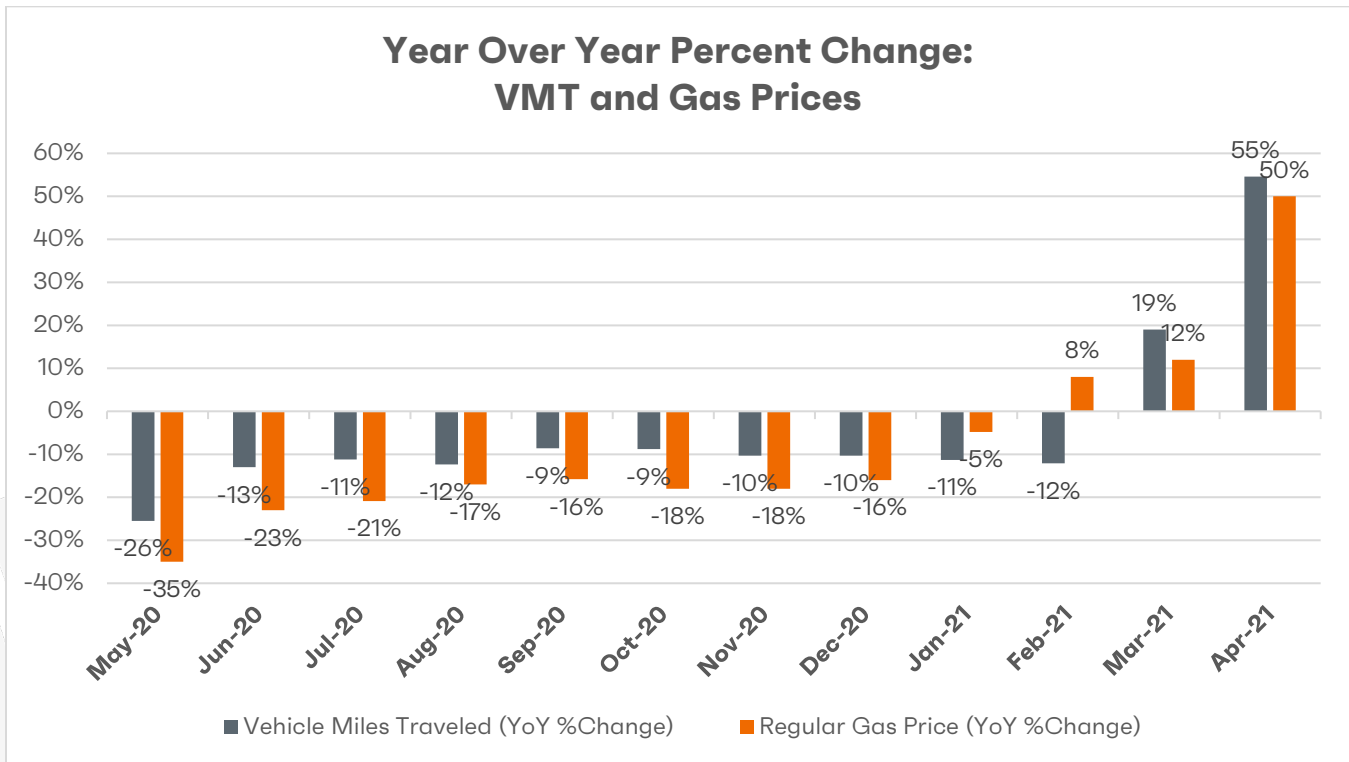


Recovery Meter

Roadway Travel (Updated 6/23)

According to the U.S. Department of Transportation, seasonally-adjusted vehicle miles traveled in April rose 56.5 percent from the same time a year ago. The cumulative travel estimate for 2021 is 947.5 billion vehicle miles.²⁷

- Travel on all roads and streets changed by 54.6% (90.6 billion vehicle miles) for April 2021 as compared with April 2020. Travel for the month is estimated to be 256.5 billion vehicle miles.
- The seasonally adjusted vehicle miles traveled for April 2021 is 248.6 billion miles, a 56.5% (89.7 billion vehicle miles) increase over April 2020. It also represents -4.7% decline (-12.3 billion vehicle miles) compared with March 2021.
- Cumulative Travel for 2021 changed by 8.6% (75.2 billion vehicle miles.) The cumulative estimate for the year is 947.5 billion vehicle miles of travel.



Economic News (Updated 6/9)

Manufacturing Added 23,000 Jobs In May. “Job creation disappointed again in May, with nonfarm payrolls up what normally would be considered a solid 559,000 but still short of lofty expectations, the Labor Department reported Friday. . . .Other gains came from health care and social assistance (46,000), information (29,000), manufacturing (23,000), transportation and warehousing (23,000), wholesale trade (20,000) and professional and business services (35,000).”

- **Motor Vehicle And Parts Manufacturing Added 19,200 Jobs In May (not seasonally adjusted).**²⁸

“U.S. Manufacturing Activity Picked Up In May As Pent-Up Demand Amid A Reopening Economy Boosted Orders, But Unfinished Work Piled Up Because Of Shortages Of Raw Materials And Labor.

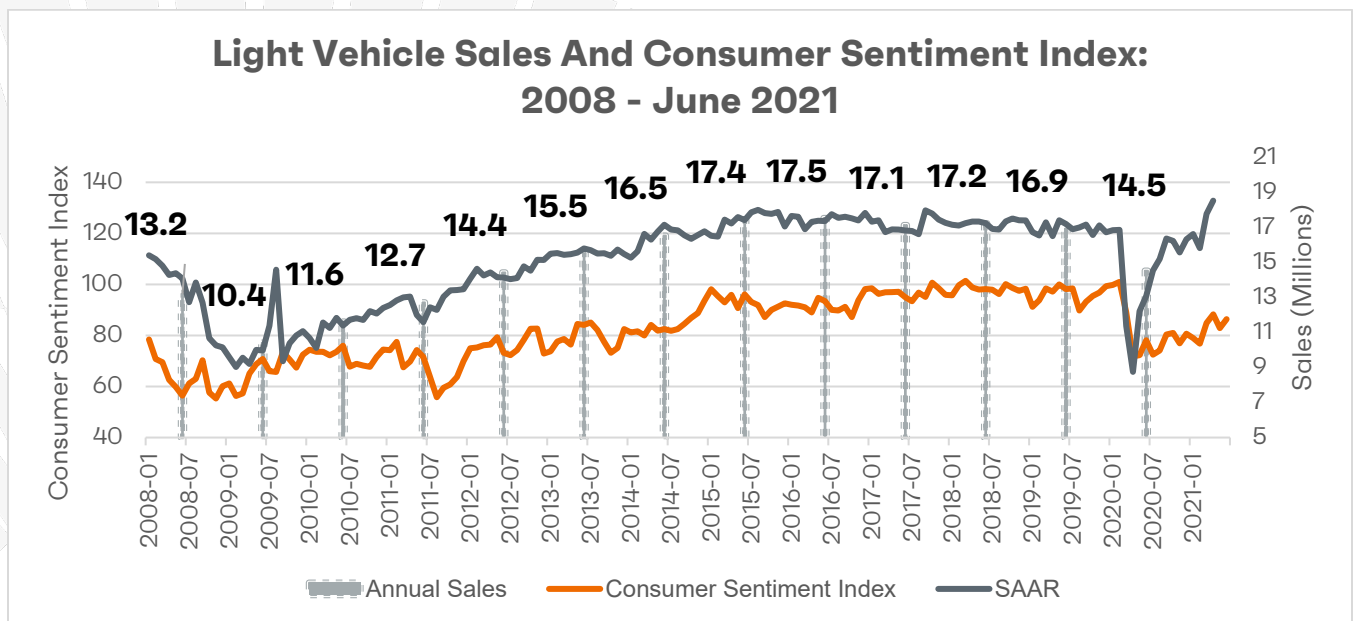
The Institute for Supply Management (ISM) survey on Tuesday found companies and their suppliers ‘continue to struggle to meet increasing levels of demand,’ noting that ‘record-long lead times, wide-scale shortages of critical basic materials, rising commodities prices and difficulties in transporting products are continuing to affect all segments’ of manufacturing.”²⁹

“The ISM's Index Of National Factory Activity Increased To A Reading Of 61.2 Last Month From 60.7 In April. A reading above 50 indicates expansion in manufacturing, which accounts for 11.9% of the U.S. economy. Economists polled by Reuters had forecast the index rising to 60.9 in May.”³⁰

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.”³¹Consumer

Confidence and Sales (Updated 6/16)

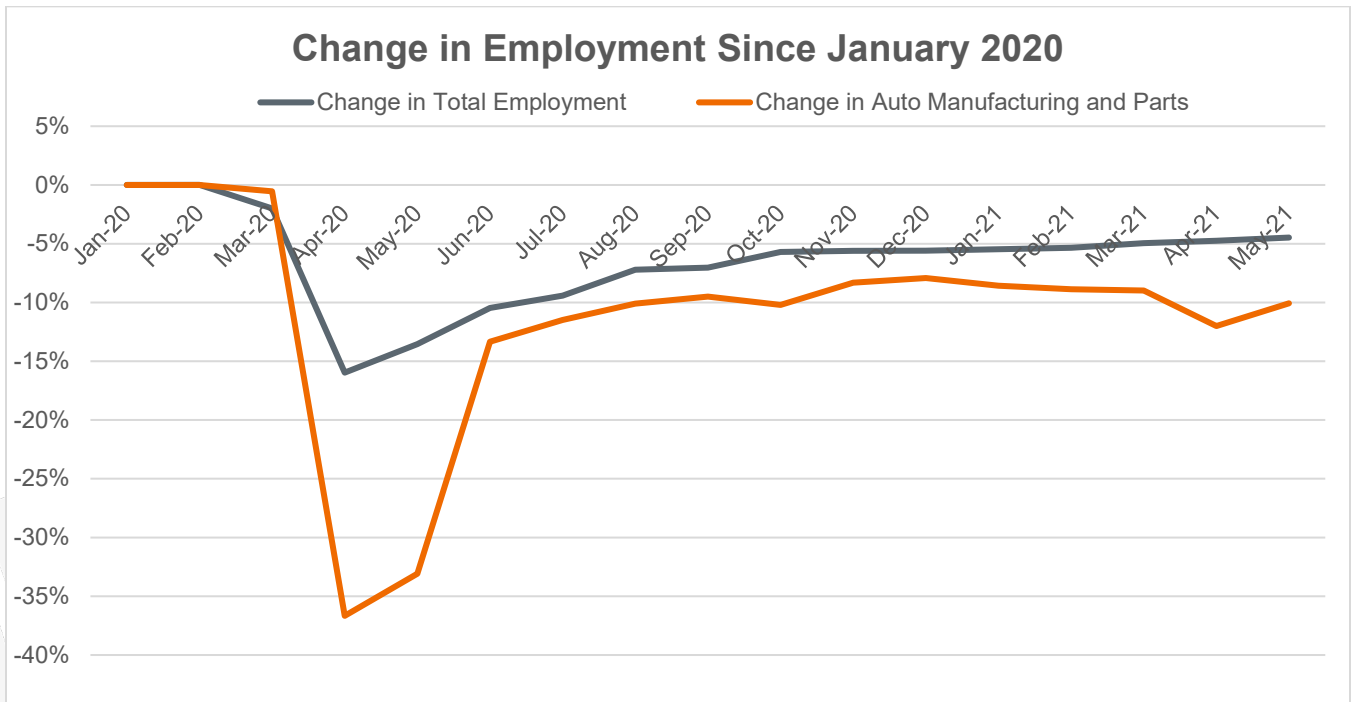
“Consumer sentiment rose in early June, recouping two-thirds of May's loss. The early June gain was mainly among middle and upper income households and for future economic prospects rather than current conditions. Stronger growth in the national economy was anticipated, with an all-time record number of consumers anticipating a net decline in unemployment. Rising inflation remained a top concern of consumers, although the expected rate of inflation declined in early June.”³²



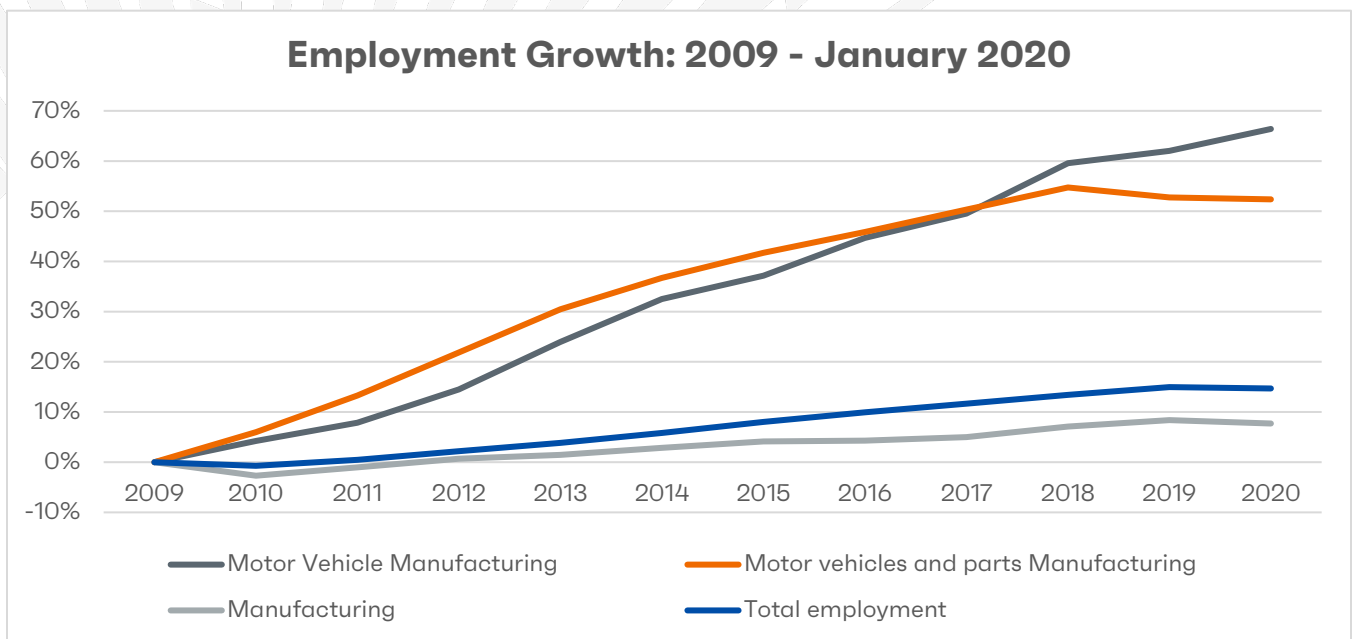
Employment (Updated 6/9)

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 86,000 since January 2020.³³

- **Motor Vehicle And Parts Manufacturing Added 19,200 Jobs In May (not seasonally adjusted).**³⁴



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.³⁵ 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, "U.S. Light-Vehicle Sales Still Solid, But Dried-Up Inventory Dents May's Results," *WardsIntelligence*, 6/2/21
- ⁵ J.D. Power, "New-Vehicle Sales in May on Pace to Set Another Monthly Record; Consumer Expenditures & Retailer Profit per Unit Reach All-Time Highs," Press Release, 5/27/21
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