



ALLIANCE FOR AUTOMOTIVE INNOVATION

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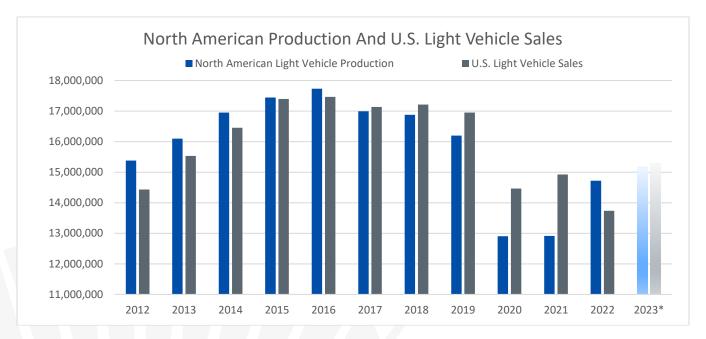


Forecast Meter

Sales & Production Summary and Forecast (Updated 6/22)

2022-2023 Sales, ¹ Extended Sales Forecast. ² and Production Forecasts ³				
	U.S. Sales & Forecasts	North American Production		
January '22	991,156 (-10% YoY)	1,111,390 (-4% YoY)		
February '22	1,052,524 (-11.8% YoY)	1,112,429 (-1% YoY)		
March '22	1,246,336 (-22% YoY)	1,350,102 (1% YoY)		
April '22	1,226,950 (-22% YoY)	1,177,851 (+8% YoY)		
May '22	1,104,993 (-23.8% YoY)	1,215,000 (+20.4% YoY)		
June '22	1,126,724 (-16.8% YoY)	1,259,515 (+13.8% YoY)		
July '22	1,129,371 (-8.4% YoY)	977,485 (+7% YoY)		
August '22	1,128,200 (7% YoY)	1,413,262 (+29 %)		
September '22	1,112,245 (+3.9% YoY)	1,258,501 (+38% YoY)		
October '22	1,151,774 (+13.8% YoY)	1,299,707 (+12.4% YoY)		
November '22	1,120,067 (+6% YoY)	1,200,244 (+5.5% YoY)		
December '22	1,263,268 (+4.9% YoY)	1,074,938 (+3.4% YoY)		
January '23	1,033,002 (+4.2% YoY)	1,195,548 (+12.9% YoY)		
February '23	1,136,332 (+8.7% YoY)	1,257,482 (+15% YoY)		
March '23	1,365,966 (+8.6% YoY)	1,442,991 (+6.7 YoY)		
April '23	1,347,159 (+13.1% YoY)	1,281,626 (+8.6 YoY)		
May '23	1,362,019 (+18.0% YoY)	1,462,273 (+25.5 YoY)		
2022 Full Year	15.3 million units (WardsIntelligence)	14,721,053 (+9.8% YoY) (U.S. 10,019,791)		

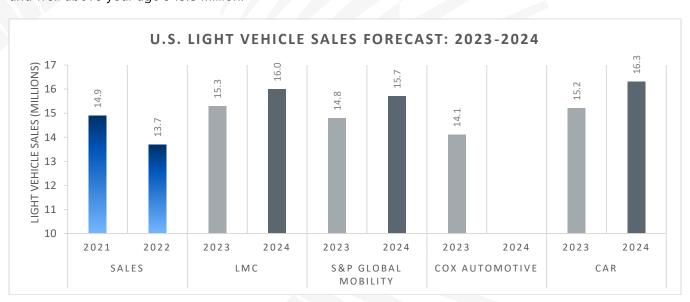




U.S. Light Vehicle Sales Outlook (Updated 6/6)

Wards Intelligence Outlook (5/4).4: "Smoother production schedules and higher inventory, as well as slightly stronger than expected sales over the first five months of 2023, has led to Wards Intelligence partner LMC Automotive to increase it sales outlook for 2023 to 15.3 million units from 15.1 million – the 20234 forecast remains 16.0 million.

"The initial look at June indicates sales rise to a 15.6 million-unit seasonally adjusted annual rate from May's 15.1 million. If that holds firm, the second quarter will end at a 15.6 million-unit SAAR, up from Q1's 15.2 million and well above year-ago's 13.3 million."





North American Production & Inventory Outlook (Updated 6/22)

Wards Intelligence Production Outlook (6/22)...⁵: "Second-quarter production is tracking to 4.227 million units, 15.4% above year-ago's 3.661 million, and highest for the period since 4.40 million in 2019. The total is 3.9% below the 2019 Q2 tally, the closest any quarter has come to its pre-pandemic production volume since Q4-2020 – just prior to the start of the chip shortage.

"In the first look at Q3, production of all vehicles is projected to total 3.980 million units, 4.8% above like-2022, and 3.6% below the same-quarter 2019. Light-vehicle output is pegged at 3.833 million units, 5.0% above the same year-ago period."

S&P Global Mobility Outlook (6/22)⁶: "North America: The outlook for North America light vehicle production was increased by 317,000 units and reduced by 75,000 units for 2023 and 2024, respectively (and reduced by 37,000 units for 2025). With persistent demand and improving supply chain conditions, most notable among the Japanese manufacturers in the region, the outlook for 2023 was revised upwards by 2.1% to total 15.35 million units. While the immediate near-term outlook improves, rising interest rates and tightening credit standards are expected to begin to take their toll in the coming months with production in 2024 revised down 0.5% to total 15.48 million units. While production support exists in the form of inventory restocking, there are signs that manufacturers are working to preserve their strong pricing power at the expense of building back inventory levels at an excessive pace. Despite the supply chain improvements, the manufacturing environment remains vulnerable with renewed logistics concerns surrounding the US West Coast ports tempering the overall outlook. Additional concern surrounds the upcoming union negotiations between the United Auto Workers (UAW) in the US and Unifor in Canada when their respective contracts expire in September 2023. Hard-line stances from union leadership along with strong pay and benefits expectations from rank-and-file members create a ripe environment for higher strike probabilities. However, a strike event is not reflected in our baseline forecast settings."

Wards Intelligence Inventory Outlook (6/6)⁷: "Currently, inventory is projected to rise in June from May to 1.84 million units. But it is forecast to fall in July and August as manufacturers slow production for summer-related shutdowns. Over the final four months of 2023, the trend again reverses course and inventory rises to roughly 2 million units by the end of the year."

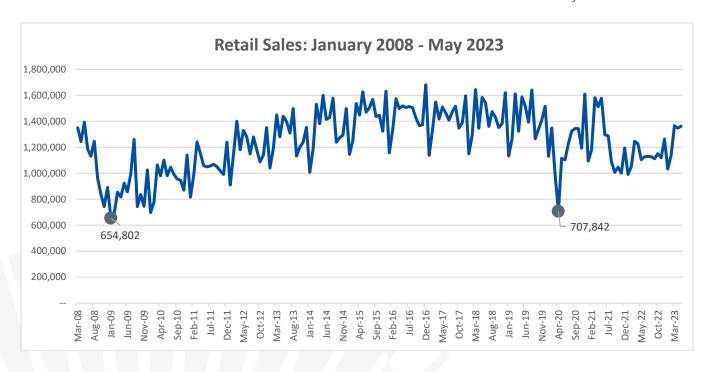
Market Meter

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

Monthly Sales (Updated 6/6)

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 6/6)

WardsIntelligence. "U.S. light-vehicle sales in May finished slightly below expectations, coming in at a 15.1 million-unit seasonally adjusted annual rate, but still well above like-2022's 12.6 million.

"May's daily selling rate over 25 selling days was 54,481, 27.8% above like-2022's 42,618 – 24 selling days. Raw volume totaled 1.362 million units, up 22.9%.

"Based on DSRs, May marked the ninth straight year-over-year increase, and its DSR was the highest for any month since 60,397 in May 2021.

"May's results show automakers are relying more on fleet deliveries to keep volume up, but also are raising retail incentives to keep dealer traffic flowing.

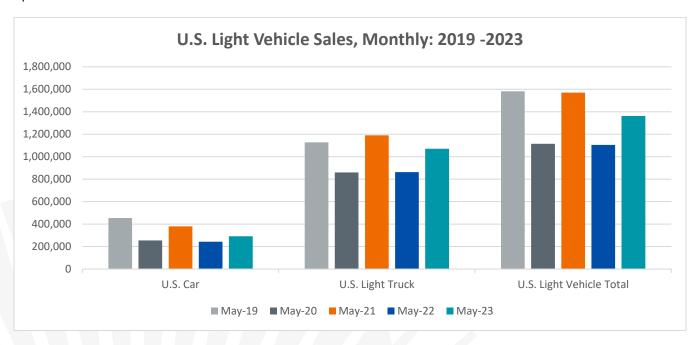
"According to TrueCar, the average incentive on retail sales rose to \$1,931 in May, 64.2% above same-month 2022's total and highest for any month since \$2,001 in October 2021. April was up 28.4% and March increased 4.8%. For historical comparison, incentives in May 2019 – the year prior to the start of the pandemic and subsequent supply-chain disruptions – averaged \$3,732.

"Along with pent-up demand, while the heavy mix of pricey vehicles continues to push average transaction prices up, they increased only 2.7% year-over-year in May, says TrueCar, a paltry uptick in comparison with the rise in incentive spending. Incentives as a percentage of ATPs increased to 4.2% in May from April's 3.7%, and was the highest since 4.3% in December 2021 – May 2022 was 2.6%.

Manufacturers are building more vehicles that cost less to buy, but a good portion of them are flowing to fleet customers – most fleet volume never shows up in inventory. Wards Intelligence estimates fleet deliveries



increased 53% year-over-year in May, accounting for 18% of total sales, up from 14% in like-2023. Retail was up an estimated 12%."



Fleet Sales (Updated 6/6)

TrueCar_9: "Fleet sales for May 2023 are expected to be up almost 40% from a year ago and up 4% from April 2023 when adjusted for the same number of selling days."

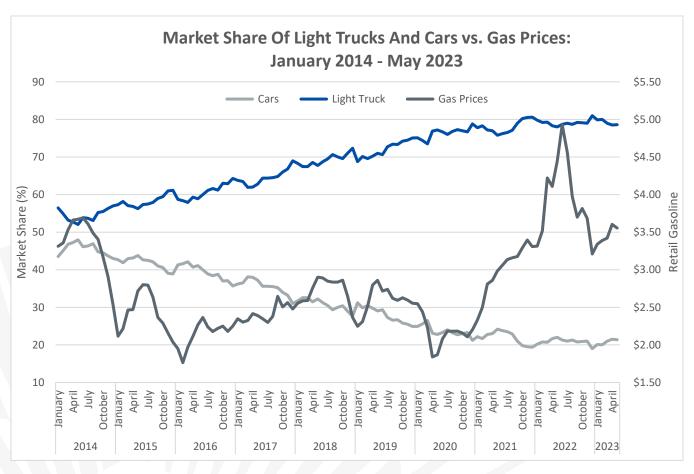
J.D. Power_10: "Fleet sales are expected to total 258,500 units in May, up 49.6% from May 2022 on a selling day adjusted basis. Fleet volume is expected to account for 19% of total light-vehicle sales, up from 15% a year ago."

Segments vs. Gas Prices (Updated 6/6)

Monthly Sales For May: Light trucks accounted for 78.6 percent of sales in May, nearly flat with the market share a year ago. Compared to the same period in 2022, sales of cars are up about 50,000, and down more than 162,000 from May 2019, when cars comprised 29% of the market as opposed to the 21.4% of the market passenger cars have now.

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...¹¹ and gas was over \$3.00...¹² 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 \$2.83 a gallon (through December 2022) 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

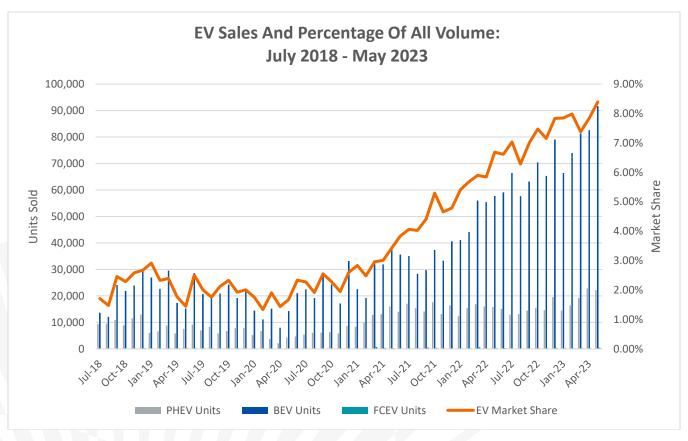




EV Powertrain Sales (Updated 6/6)

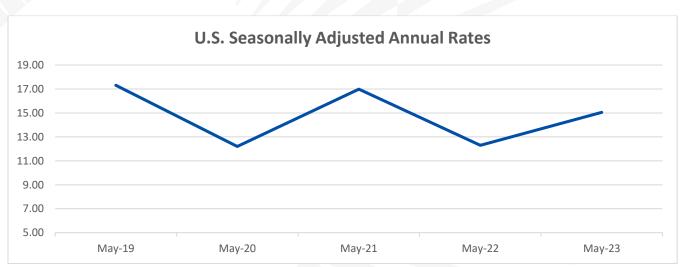
Sales of electric vehicles (BEV, PHEV, & Fuel Cell) accounted for 8.4% of total vehicle sales in May 2023 (114,333) – the highest monthly volume and market share to date. Market share increased .55 percentage points from April 2023 according to Wards Intelligence data. May's EV market share is up 1.7 pp from a year ago. Sales of battery electric vehicles led the way for EVs, accounting for 6.7 percent of total sales, up 1.5 pp from May 2022. Plug-in hybrids accounted for 1.6%, up 0.2 pp from the same time last year....¹⁴





Seasonally Adjusted Annual Rates (Updated 6/6)

WardsIntelligence¹⁵: "U.S. light-vehicle sales in May finished slightly below expectations, coming in at a 15.1 million-unit seasonally adjusted annual rate, but still well above like-2022's 12.6 million."





Average Transaction Price (Updated 6/22)

Kelley Blue Book (May) (Updated 6/22). "he average price Americans paid for a new vehicle in May remained below the manufacturer's suggested retail price (MSRP) for the fifth consecutive month, according to data released today by Kelley Blue Book, a Cox Automotive company. The average transaction price (ATP) of a new vehicle in the U.S. increased May 2023 to \$48,528, a month-over-month increase of 0.5% (\$251) from an upwardly revised April reading of \$48,277.

"New-vehicle transaction prices in May were up 3% (\$1,393) compared to year-ago levels. The year-over-year increase in May of 3% was the smallest in 2023; in May 2022, new-vehicle prices were up 13.5% year over year. Meanwhile, auto manufacturers' incentive spend in May rose to the highest level in the past year at 3.9% of the ATP, averaging \$1,914. One year ago, average incentive spending was 2.5% of ATP.

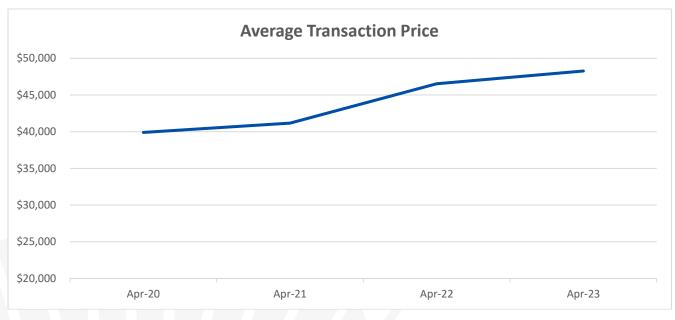
"In May 2023, the average price consumers paid for a new vehicle fell to \$410 below MSRP, or sticker price. For comparison, a year ago, the average ATP was \$637 above MSRP.

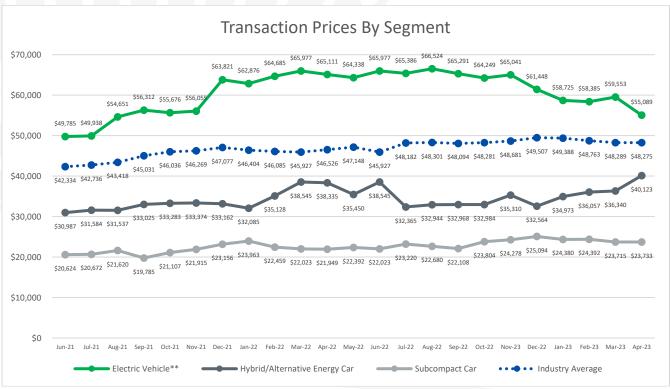
"The initial estimate for the average price paid for a new electric vehicle (EV) in May is \$55,488, mostly stable from last month and aligned with the industry change. The ATP for EVs in May 2023 is down a noteworthy \$9,370 (down 14%) compared to one year ago. New EV pricing peaked in June 2022 and has fallen more than \$5,800 so far in 2023. EV incentives are trending higher."

J.D. Power (Updated 6/6)_17: "New-vehicle transaction prices continue to rise, with the average price reaching a May record of \$45,838. This is a 0.7% increase from a year ago. The record transaction prices means that consumers are on track to spend nearly \$46.9 billion on new vehicles this month—the second highest for the month of May and 13% higher than May 2022.

"Manufacturer discounts have remained relatively consistent compared with April but have increased materially from a year ago. The average incentive spend per vehicle has risen 88.1% from May 2022 and is currently on track to reach \$1,788. Expressed as a percentage of MSRP, incentive spending is currently trending at 3.7%, an increase of 1.6 percentage points from May 2022. One of the factors contributing to this low level of spending relative to historical norms is the lower discounts on leased vehicles."







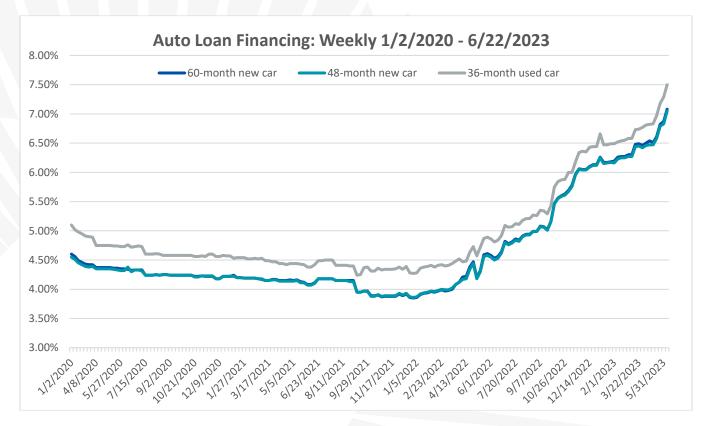
Auto Loan Financing (Updated 6/22)



Interest Rates (updated 6/6): Interest rates continued their upward trajectory on the 60-month, 48-month and 36-month used car loans. Rates now stand at 7.08%, 7.05%, and 7.5%, respectively. Since the beginning of 2020, 60-month rates are up 2.48 pp, and are up 2.55 pp since the same time a year ago...¹⁸

JD Power (5/4)¹⁹: "Elevated pricing coupled with interest rate increases continue to inflate monthly loan payments. The average monthly finance payment in May is on pace to be \$736, up \$48 from May 2022. That translates to a 7.0% increase in monthly payments from a year ago. The average interest rate for new-vehicle loans is expected to be 7.0%, an increase of 206 basis points from a year ago."

Dates	60-month new car	48-month new car	36-month used car
1/2/2020	4.60%	4.55%	5.10%
6/8/2022	4.53%	4.50%	4.81%
5/31/2023	6.87%	6.83%	7.29%
6/22/2023	7.08%	7.05%	7.50%
Two Week Change	0.21%	0.22%	0.21%
Change since 1/3/20	2.48%	2.50%	2.40%
One Year Change	2.55%	2.55%	2.69%



Crude Oil and Gas Prices (Updated 6/22)

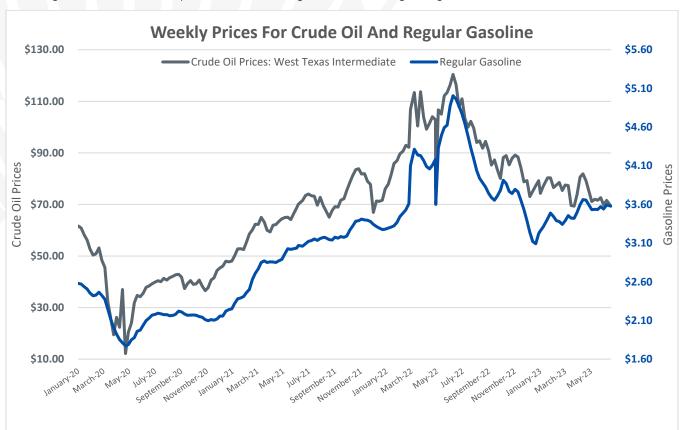
EIA Outlook For Gasoline (6/22)...²⁰: "So far, gasoline crack spreads (the difference between the wholesale price of gasoline and crude oil)



have been at or above the 2018–2022 average during 2Q23 in response to low gasoline inventories. U.S. gasoline consumption has been above 2022 levels, while significant refinery maintenance during the spring turnaround season reduced gasoline production. U.S. refiners are required to change over to producing summer-grade gasoline by the start of May, which also contributes to higher gasoline prices and crack spreads."

EIA Outlook For Oil (6/22)_2¹: "We estimate West Texas Intermediate (WTI) crude oil prices will average \$83/b over the three years from 2022 to 2024, while annual growth in U.S. crude oil production over the same period will average 0.4 million b/d. That compares to average crude oil production growth of 1.1 million b/d during the three-year period from 2017 to 2019, when the WTI price averaged only \$58/b. The changing response to crude oil prices by U.S. producers may reflect a combination of the use of capital to increase dividends and repurchase shares instead of investing in new production, the effects of tighter labor markets and higher costs, and increased pressure on oilfield supply chains. Despite this shift from the historical price response, we still expect U.S. crude oil production to continue growing to record levels, driven primarily by production growth in the Permian Basin."

Gas And Oil Holding Mostly Steady (6/6): Oil prices, as benchmarked at West Texas Intermediate, held steady at \$69.42. Since election day 2020, oil prices are \$33 a barrel higher. Gas prices are mostly unchanged from two weeks prior. Gas is 39% higher than the beginning of 2020...²²





Production Meter

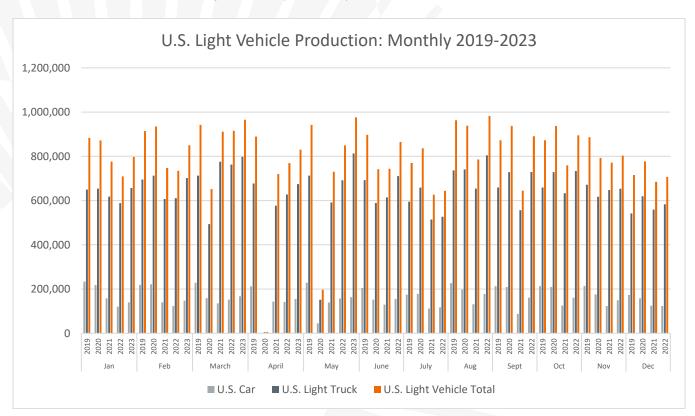
North American Production (Updated 6/22)

Wards Intelligence²³: "Production in North America finished well above expectations in May, with overbuilds nearly across the board by manufacturer. In fact, May's total of 1.509 million units – including light vehicles and medium-/heavy-duty trucks - was the highest for any month in the era of the pandemic and subsequent supply-chain disruptions, which first hit North America in early 2020. The total was 24.9% above like-2022 and highest for any month since August 2019's 1.522 million units. May's production also represented an overbuild of 119,500 units vs. month-ago's expectations for the period. Furthermore, May's surge, plus an upward revision to June, puts the second-quarter tracker 131,000 units above month-ago's outlook for the period."

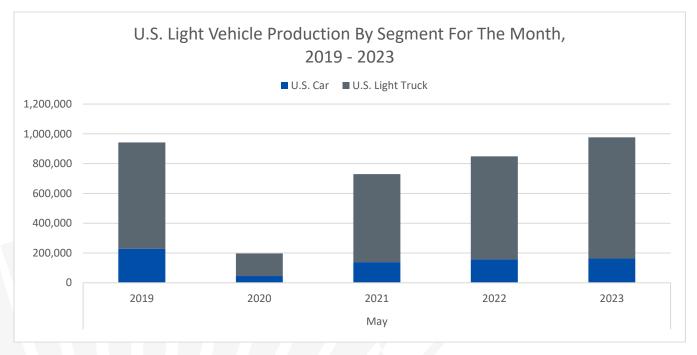
U.S. Light Vehicle Production (Updated 6/22)

Monthly Production (Upodated 6/22)

U.S. Light vehicle production for May 2023 increased month-over-month by 17.7 percent, totaling 976,264 vehicles (163,257 cars, 813,007 light trucks), year-over-year, production is up 21.8 percent from 2022. __24







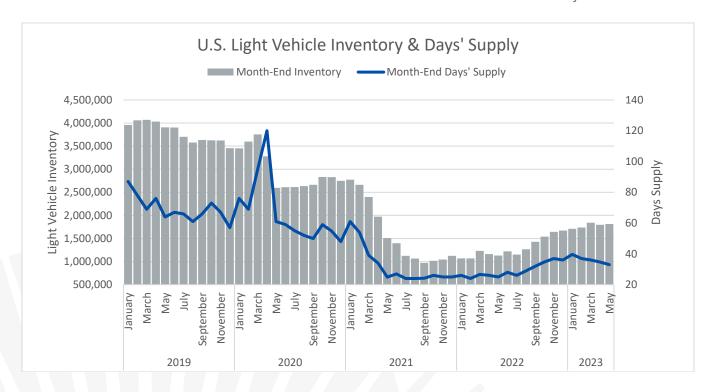
U.S. Light Vehicle Inventory and Days' Supply (Updated 6/6)

WardsIntelligence Inventory Update (6/6)_25: "Perhaps a sign that supply-chain disruptions are improving even better than thought, U.S. light-vehicle inventory increased at the end of May from April, totaling 1.813 million units, up 1% from the prior month and 60.4% above like-2022.

"May 31 days' supply was 33, down from the prior month's 34, but a solid increase from same-month 2022's 24. In the five years prior to the pandemic impacting the market in 2020, May days' supply averaged 62 and inventory averaged 3.76 million units. Although a small increase, significant about the month-to-month gain is that the last time May inventory increased from April was in 1990.

The aberration is a consequence of the volatility created in the past three years by the pandemic and subsequent supply-chain problems, which threw off several typical seasonal trends. However, it also is an indication most automakers still want more inventory on dealer lots in order to tap deeper into the pent-up demand that has built up since March 2020, when the pandemic first hit the U.S. market. In accordance with that, it also points to strengthening production for the U.S. market from North America and overseas plants."





Global Meter

Global Light Vehicle Sales (Updated 6/6)

Wards Intelligence_26: "Global sales of light vehicles and medium-/heavy-duty trucks increased year-over-year for the third straight month in April, based on Wards Intelligence's world data.

Including temporary estimates for some countries, global volume totaled 6.947 million units in April, 23.7% above like-2022's 5.618 million. Excluding medium/heavy trucks, light vehicles totaled 6.274 million units, up 16.1% from April 2022.

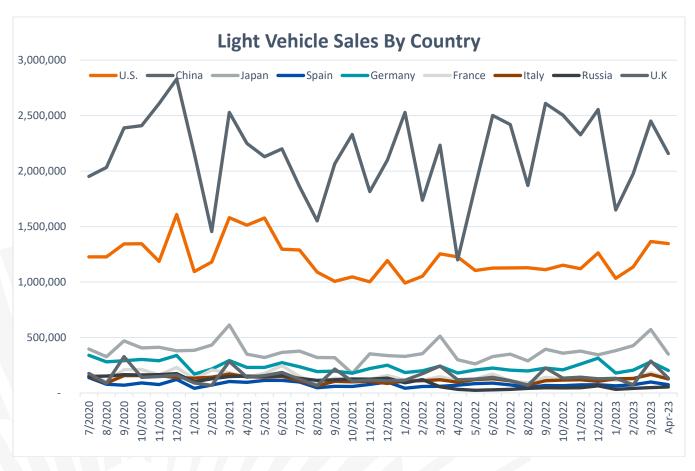
Calendar year-to-date through April, total-vehicle sales were up 8.6% to 28.343 million units. The year-to-date light-vehicle total of 26.844 million units was 6.9% above January-April 2022.

All major regions except South America posted increases in April.

The biggest gain was in the Asia-Pacific where demand rose 39.8% in April from same-month 2022. AP global market share rose to 49.6% from like-2022's 43.9%.

WI partner LMC Automotive forecasts global light-vehicle sales to rise 6.2% year-over-year in 2023 to 86.1 million units, with 2024 pegged at 90.3 million, up 4.9%."





Global Light Vehicle Production (Updated 6/22)

S&P Global Mobility Forecast (6/22)_27: "As we approach mid-year, the pace and cadence of production recovery across various markets is becoming more apparent. Many regions have finally transitioned away from supply chain disruptions in favor of supporting recovering vehicle demand and inventory restocking. There remains a keen focus on the state of consumer demand and underlying conditions to support the release of pent-up demand. Elevated vehicle pricing in some markets and weakening credit conditions remain critical considerations. Yet, for many areas, vehicle sales have been running at or near recessionary levels for several years and consumers are finally considering a new vehicle purchase. Looking beyond 2023, the general production outlook reflects a more constrained position given the aforementioned pull-ahead in inventory restocking in many markets. The June 2023 forecast update reflects a mix of upgrades and downgrades, yet net to the upside in the immediate near-term, as the industry shifts away from supply chain issues and supports demand recovery in select markets. The acceleration in inventory restocking supported by strengthening output in the near-term results in downward revisions beyond 2023 as the production profile more closely aligns to demand expectations. The more noteworthy regional adjustments with the latest forecast update are detailed below:

"Europe: The outlook for Europe light vehicle production was increased by 166,000 units and reduced by 189,000 units for 2023 and 2024, respectively (and reduced by 48,000 units for 2025). Production activity in Europe continues to outperform expectations. As a result of that strength, our outlook for H1-2023 has been



increased by 99,000 units. However, our Q2-2023 estimates indicate that sequential deceleration is already occurring after several consecutive quarters of growth. As a result, although we have increased H2-2023 by around 67,000 units, we maintain the view that growth will slow throughout the year. Reflecting the current softness of order intakes reported in key European countries (and likely to feed the next 6-9 months of production), we have reduced the forecast for 2024 by 1.1% relative to the May forecast update, mainly on the first quarter of the year. While 2023 volumes are somewhat secured by inventory restocking and a reduction of the sales backlog, we believe that the backlog will decrease rather quickly in H2-2023, and lingering weak underlying demand given the context of higher prices and tighter credit conditions will guide volumes next year once corrections to inventory and backlog levels are completed.

"Greater China: The outlook for Greater China light vehicle production was reduced by 99,000 units and by 250,000 for 2023 and 2024, respectively (and reduced by 141,000 units for 2025). Chinese light vehicle output continued to exhibit relative strength in April with passenger vehicle production surging 76% relative to the prior year owing to both a weak base of comparison as well as strong New Energy Vehicle (NEV) business and export activity. Reflecting the ongoing recent momentum, the production outlook for Q2-2023 has been increased by 171,000 units; however, it should be noted that the outlook for Q4-2023 has been reduced by 276,000 on the expected need to maintain inventory discipline and given the recent extension of the NEV tax cut policy to next year, negatively impacting potential pre-buying activity that would have occurred at the end of this year. Given the demographic impacts of revised expectations around an increasingly aging and declining population, the intermediate-to-longer term production forecast has been recast, including the outlook for 2024 and 2025 being reduced and now reflecting growth rates of 5.0% and 5.3%, respectively, for the region.

"Japan/Korea: Full-year 2023 Japan production was increased by 26,000 units. Toyota is the main driver for the modest increase as the company satisfies pent-up demand with semiconductor shortage issues continuing to improve. Long-term volumes were largely downgraded by 3.3% per year. Japan exports are expected to lose momentum, primarily to North America, China and Europe, as the export portfolio remains centered on internal combustion engines. Full-year 2023 South Korea production was increased by 62,000 units relative to the previous forecast, reflecting continued steady production recovery without disruptions in the supply chain and given continued export growth. Furthermore, 2024 production was rebalanced and increased by 81,000 units as momentum is expected to remain intact. However, production for 2025 was reduced by 23,000 units in consideration of a quicker fulfillment of outstanding backlog orders. In the longer-term, higher global demand for the Chevrolet Trax, extended production of the Kia Stonic and the addition of the KG Mobility Torres Pickup increased production by about 40,000 units per year.

"North America: The outlook for North America light vehicle production was increased by 317,000 units and reduced by 75,000 units for 2023 and 2024, respectively (and reduced by 37,000 units for 2025). With persistent demand and improving supply chain conditions, most notable among the Japanese manufacturers in the region, the outlook for 2023 was revised upwards by 2.1% to total 15.35 million units. While the immediate near-term outlook improves, rising interest rates and tightening credit standards are expected to begin to take their toll in the coming months with production in 2024 revised down 0.5% to total 15.48 million units. While production support exists in the form of inventory restocking, there are signs that manufacturers are working to preserve their strong pricing power at the expense of building back inventory levels at an excessive pace. Despite the supply chain improvements, the manufacturing environment remains vulnerable with renewed logistics concerns surrounding the US West Coast ports tempering the overall outlook. Additional concern surrounds the upcoming union negotiations between the United Auto Workers (UAW) in the US and Unifor in Canada when their respective contracts expire in September 2023. Hard-line stances from union leadership along with strong pay and benefits expectations from rank-and-file members create a



ripe environment for higher strike probabilities. However, a strike event is not reflected in our baseline forecast settings.

"South America: The outlook for South America light vehicle production was reduced by 37,000 units and by 117,000 units for 2023 and 2024, respectively (and reduced by 112,000 units for 2025). The near-term forecast downgrade was primarily focused on Brazil and Colombia on reduced demand expectations as affordability remains a central issue further complicated by high interest rates and deteriorating credit conditions. The downward production revisions for 2024 and 2025 were primarily spread between Brazil and Argentina and were more aggressive than the underlying demand reductions on expectations that manufacturers will seek to maintain inventory discipline with post-pandemic restocking largely complete.

"South Asia: The outlook for South Asia light vehicle production was reduced by 34,000 units and by 25,000 units for 2023 and 2024, respectively (and reduced by 11,000 units for 2025). Production downgrades for this month were focused primarily on deterioration in the ASEAN market as well as Pakistan. Regarding the ASEAN market, while efforts remain underway to fulfill order backlogs, automakers are adjusting to somewhat modestly reduced domestic demand and export expectations through the near-term forecast horizon. One exception is Thailand with automakers continuing to maintain robust output of midsize pickups and subcompact cars to satisfy outstanding orders and rebuild inventories. Forecast expectations for Pakistan were revised downward again this month on deteriorating conditions in the country. The recent political crisis resulting in the former prime minister Imran Khan's removal and the formation of a new government could undermine the government's effectiveness at economic management, further weaken the Pakistani currency and threaten the renewed International Monetary Fund (IMF) financing program. The resulting uncertainty has the potential to negatively impact vehicle sales and production in the near-term."

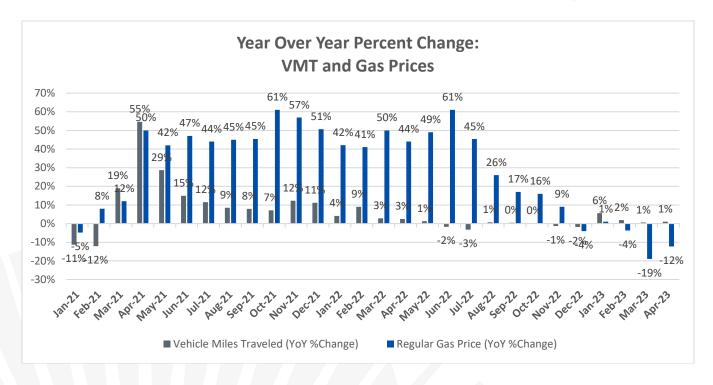
Recovery Meter

Roadway Travel (Updated 6/22)

According to the U.S. Department of Transportation, seasonally-adjusted vehicle miles traveled in April increased 1.2 percent from the same time a year ago. The cumulative travel estimate for 2023 is 1,008.7 billion vehicle miles...²⁸

- "Travel on all roads and streets changed by +0.1% (+0.2 billion vehicle miles) for April 2023 as compared with April 2022. Travel for the month is estimated to be 256.1 billion vehicle miles.
- "The seasonally adjusted vehicle miles traveled for April 2023 is 267.0 billion miles, a 1.20% (3.2 billion vehicle miles) change over April 2022. It also represents a 0.10% change (0.2 billion vehicle miles) compared with March 2023.
- "Cumulative Travel for 2023 changed by +2.0% (+19.8 billion vehicle miles). The cumulative estimate for the year is 1,008.7 billion vehicle miles of travel.





Economic News (Updated 6/22)

Manufacturing Jobs Held Steady In May, While Motor Vehicles And Parts Gained 6,800. "Manufacturing jobs overall were little changed in May, according to a breakdown by industry released today by the Bureau of Labor Statistics. Durable goods added 3,000 jobs while non-durable goods lost 5,000 for an overall loss of 2,000. Within durable goods, transportation was the best performer with a gain of 10,500 jobs. That included an increase of 6,800 in motor vehicles and parts."²⁹

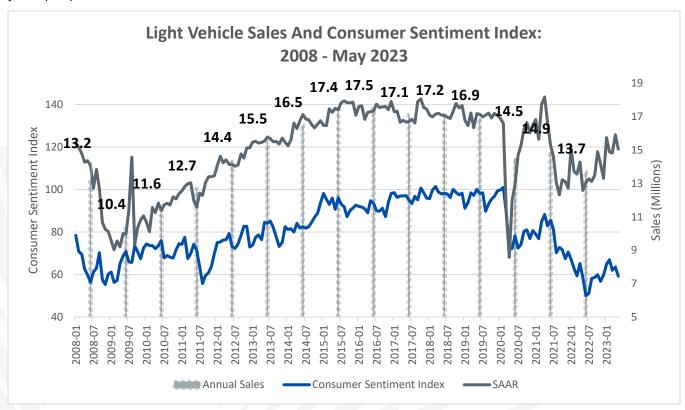
The ISM Index Slips To 46.9 Percent In May. "The manufacturing economy slowed further in May as companies cope with uncertainty, the Institute for Supply Management said today. The Tempe, Ariz.-based group's manufacturing index, known as the PMI, slipped to 46.9% for the month, down from 47.1% in April. An index reading below 50% indicates economic contraction. May was the seventh consecutive month in negative territory." ³⁰

Consumer Confidence and Sales (Updated 6/22)

Surveys of Consumers Director Joanne Hsu³¹: "Consumer sentiment lifted 8% in June, reaching its highest level in four months, reflecting greater optimism as inflation eased and policymakers resolved the debt ceiling crisis. The outlook over the economy surged 28% over the short run and 14% over the long run. Sentiment is now 28% above the historic low from a year ago and may be resuming its upward trajectory since then. As it stands, though, sentiment remains low by historical standards as income expectations softened. A majority of consumers still expect difficult times in the economy over the next year.



Year-ahead inflation expectations receded for the second consecutive month, falling to 3.3% in June from 4.2% in May. The current reading is the lowest since March 2021. In contrast, long-run inflation expectations were little changed from May at 3.0%, again staying within the narrow 2.9-3.1% range for 22 of the last 23 months. Long-run inflation expectations remained elevated relative to the 2.2-2.6% range seen in the two years pre-pandemic."

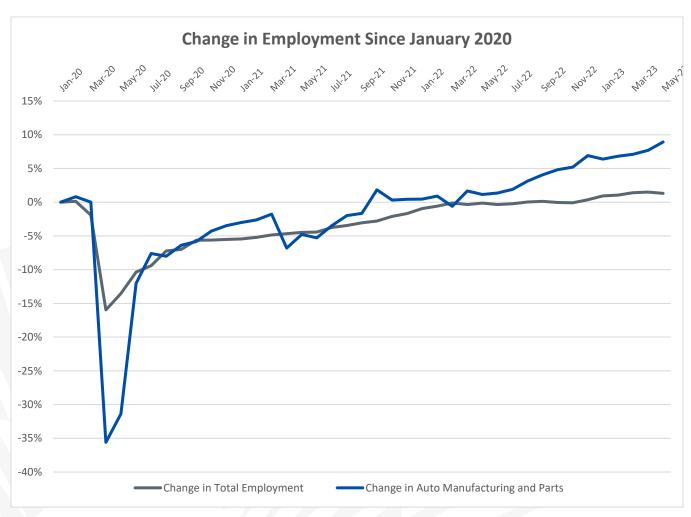


Employment (Updated 6/22)

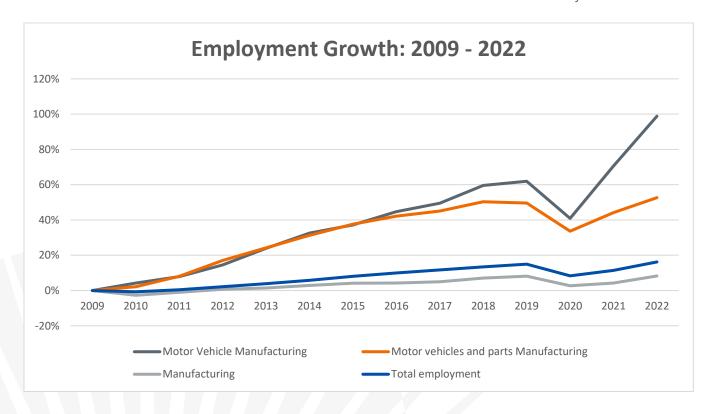
Motor Vehicle And Parts Manufacturing Gained 6,800 Jobs In May.³²

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...³³





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...³⁴ 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

¹WardsIntelligence, U.S. Light Vehicle Sales, January 2021 – December 2022

² WardsIntelligence, North America Production, January 2021 – December 2022

³ WardsIntelligence, North America Platform by Plant Production Forecast, Q1

⁴ Haig Stoddard, "U.S. Light-Vehicle Inventory Rises in May from April as Affordable Vehicles Gain Some Traction," WardsIntelligence, 6/2/23

⁵ "North America Production Hits Pandemic High in May," WardsIntelligence, 6/20/2023

⁶ S&P Global Mobility, email, "S&P Global Mobility Monthly Automotive Update – June 2023," 6/19/23

⁷ Haig Stoddard, "U.S. Light-Vehicle Inventory Rises in May from April as Affordable Vehicles Gain Some Traction," WardsIntelligence, 6/2/23

⁸ Haig Stoddard, "U.S. Light-Vehicle Sales Record 28% Year-Over-Year Increase in May," WardsIntelligence, 6/1/23

⁹ TrueCar, Press Release, "TrueCar Releases Analysis of May Industry Sales," 5/30/2023

¹⁰ J.D. Power, Press Release, "May 2023 New-Vehicle Sales to Surge 15.6% Year Over Year As New-Vehicle Expenditures Grow 13% in Same Period." 5/25/2023

¹¹ WardsIntelligence, U.S. Light Vehicle Sales, January 2013 – May 2023

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

¹⁴ WardsIntelligence, U.S. Light Vehicle Sales, September 2020; U.S. Light Vehicle Sales, September, 2021

¹⁵ Haig Stoddard, "U.S. Light-Vehicle Sales Record 28% Year-Over-Year Increase in May," WardsIntelligence, 6/1/23

¹⁶ Kelley Blue Book, Press Release, "New-Vehicle Sales Incentives Continue to Climb in May as Transaction Prices Increase Moderately, According to Kelley Blue Book," 6/12/23

¹⁷ J.D. Power, Press Release, "May 2023 New-Vehicle Sales to Surge 15.6% Year Over Year As New-Vehicle Expenditures Grow 13% in Same Period," 5/25/2023

¹⁸ Bankrate, "<u>Current Car Loan Interest Rates</u>," Accessed 6/6/2023

¹⁹ J.D. Power, Press Release, "May 2023 New-Vehicle Sales to Surge 15.6% Year Over Year As New-Vehicle Expenditures Grow 13% in Same Period," 5/25/2023

EIA, "Short-Term Energy Outlook," 2/2023
 EIA, "Short-Term Energy Outlook," 2/2023

²² U.S. Energy Information Administration, Regular Gasoline, www.eia.gov, Accessed 1/5/23; U.S. Energy Information Administration, Weekly Cushing, OK WTI Spot Price, www.eia.gov, Accessed 1/5/23

²³ "North America Production Hits Pandemic High in May," WardsIntelligence, 6/20/2023



WardsIntelligence, "North America Production, November," 2019, 2020, 2021, 2022
 Haig Stoddard, "U.S. Light-Vehicle Inventory Rises in May from April as Affordable Vehicles Gain Some Traction," WardsIntelligence, 6/2/23
 Haig Stoddard, "April Marks Third Straight Increase in Global Sales," WardsIntelligence, 6/1/23
 S&P Global Mobility, email, "S&P Global Mobility Monthly Automotive Update – June 2023," 6/19/23
 U.S Department of Transportation, https://www.fhwa.dot.gov/policyinformation/travel_monitoring/21septvt/, Accessed 6/22/2023
 Bill Koenig, "Manufacturing Employment Little Changed in May," SME, 6/2/2023
 Bill Koenig, "Manufacturing Slows in May Amid Uncertainty," SME, 6/1/2023
 University of Michigan, Survey of Consumers, http://www.sca.isr.umich.edu/, Accessed 6/22/23
 Bureau of Labor Statistics, Table B-1. Employees on nonfarm payrolls by industry sector and selected industry detail, October 2022
 Bureau of Labor Statistics, Current Employment Statistics, Accessed 6/22/2023
 Jerry Hirsch. "Auto Industry Has Soared Since 2010, Leading Economic Recovery," Los Angeles Times, 1/3/14

³⁴ Jerry Hirsch, "<u>Auto Industry Has Soared Since 2010, Leading Economic Recovery</u>," Los Angeles Times, 1/3/14