READING THE METER

A look inside a cleaner, safer, smarter auto industry.

ALLIANCE FOR AUTOMOTIVE INNOVATION

Contents – August 22, 2024

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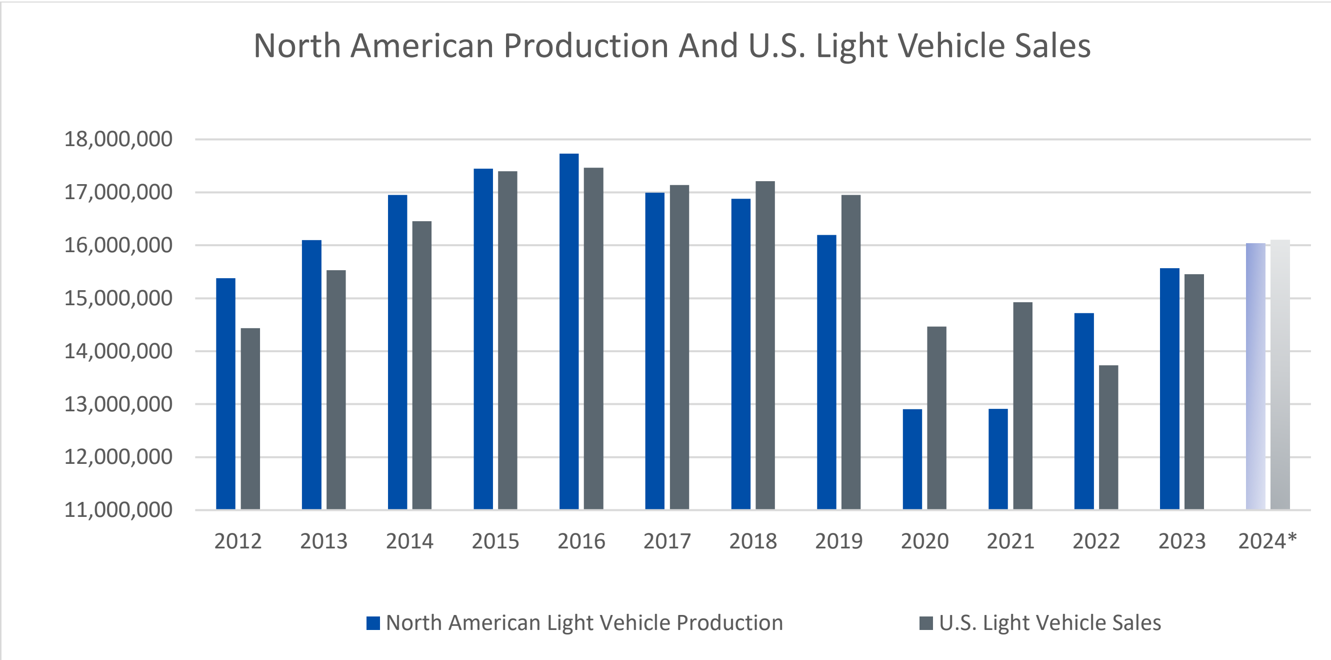
Cleaner. Safer. Smarter.

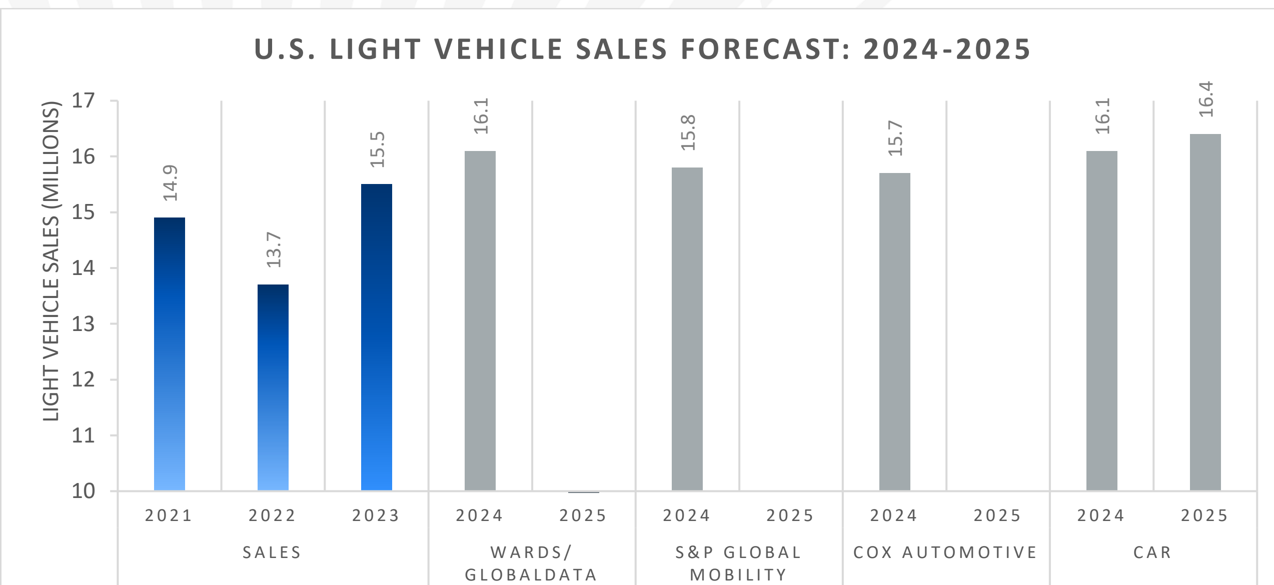
Forecast Meter

Sales & Production Summary and Forecast (Updated 8/22)

2023-2024 Sales,[1] Extended Sales Forecast[2] and Production Forecasts[3]		
	U.S. Sales & Forecasts	North American Production
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)
June ‘23	1,370,976 (+19.9% YoY)	1,387,090 (+13.8% YoY)
July ‘23	1,299,199 (+19.9% YoY)	1,173,342 (+15.6 YoY)
August ‘23	1,328,526 (+12.8% YoY)	1,467,284 (+4.5% YoY)
September ‘23	1,331,952 (+13.9% YoY)	1,353,072 (+7.6% YoY)
October ‘23	1,200,286 (+5.7% YoY)	1,388,720 (+4.5% YoY)
November ‘23	1,218,647 (+7.3% YoY)	1,372,253 (+8.1 YoY)
December ‘23	1,433,266 (+17.3 YoY)	1,082,176 (-2.3% YoY)
January ‘24	1,076,047 (-1.3% YoY)	1,327,765 (+7.8% YoY)
February ‘24	1,247,516 (+5.2% YoY)	1,358,836 (+10% YoY)
March ‘24	1,438,012 (+4.6% YoY)	1,414,502 (-5.7% YoY)
April ‘24	1,313,512 (+0.6% YoY)	1,473,567 (+15.9% YoY)
May ‘24	1,429,028 (+0.8% YoY)	1,485,373 (-1.7% YoY)
June ‘24	1,321,932 (-3.4% YoY)	1,346,584 (-6.1% YoY)
July ‘24	1,273,115 (-2.0% YoY)	1,117,833 (-4.4% YoY)
2023 Full Year	15,457,447 (+12.4% YoY)	16,144,461 (+9.3% YoY) (U.S. 10,611,580)
2024 Estimate	16.1 M	16.0 M (U.S. 10.8M)



U.S. Light Vehicle Sales Outlook (Updated 8/22)



Wards Intelligence Outlook (8/22)[4]: "[I]f sales don't show more signs of life in August, Wards Intelligence/GlobalData's forecast of 16.1 million light vehicles – or roughly 16.5 million including medium- and heavy-duty trucks – could be downgraded."

Cox Automotive Forecast (6/26):[5] "Cox Automotive forecasts U.S. new-vehicle sales in June to show mild improvement over last year, but high prices and interest rates continue to hinder a stronger market. In June, the seasonally adjusted annual rate (SAAR), or sales pace, is expected to finish near 16.0 million. This is down slightly from last June's 16.1 million level and a modest uptick from last month's 15.9 million pace.

"According to Cox Automotive's Kelley Blue Book estimates, new-vehicle sales volume through the first half of 2024 is forecast to increase by nearly 225,000 units compared to the first half of 2023 – an increase of 2.9%. The sales pace through the first half is expected to be 15.6 million, up from 15.4 million in the first half of 2023.

"With expectations of uncertainty in the second half of 2024, Cox Automotive is holding its full-year new-vehicle sales forecast steady at 15.7 million, a gain of 1.3% from 2023, when sales finished at 15.5 million. This increase is aligned with the slow growth expected in 2024. Fleet sales are forecast to finish the year at 2.9 million, up from 2.8 million in 2023. Full-year retail sales are forecast to increase from 12.8 million in 2024 to 12.7 million in 2023."

J.D. Power (6/26)[6]: "New-vehicle retail sales for June 2024 are expected to decrease when compared with June 2023. Retail sales of new vehicles are expected to reach between 1,009,845 and 1,073,000 units, a 2.5% to 8.2% decrease. New-vehicle retail sales for the first six months 2024 are projected to reach between 6,273,900 and 6,337,000 units, a 0.6% to 1.6% increase from the first six months of 2023 on a selling day adjusted basis. Comparing the same sales volume without adjusting for the number of selling days translates to an increase of 1.9% to 2.9% from a year ago."

North American Production & Inventory Outlook (Updated 8/22)

Wards Intelligence Production Outlook (8/22)[7]: "Third-quarter production is tracking to 4.048 million units, 0.7% below Q3-2023's 4.074 million. It will be the first quarter since Q1-2022 to record a year-over-year decline. If sales in North America, especially the U.S., don't start recording stronger gains, production could remain flat, or worse, with year-ago volumes over the remainder of the year.

"More specifically, if sales don't show more signs of life in August, Wards Intelligence/GlobalData's forecast of 16.1 million light vehicles – or roughly 16.5 million including medium- and heavy-duty trucks – could be downgraded.

"An early look at sales thus far in August indicates a small year-over-year gain on tap for light-vehicles – but not a significant enough increase to cause production in August and September to rise above the Tracker outlook.

"Despite the recent downturns, production through the first nine months of 2024 is projected at 12.431 million units, 1.1% above January-September 2023's 12.300 million."

S&P Global Mobility Outlook (8/22)[8]: "The outlook for North America light vehicle production was reduced by 173,000 units and by 102,000 units for 2024 and 2025, respectively (and reduced by 85,000 units for 2026). The outlook for North American production was revised down rather sharply to 15.6 million units on further inventory related reductions targeting the Detroit 3 automakers and production related issues, most notably at Toyota. Production at Toyota's Princetown West plant for the Toyota Grand Highlander and Lexus TX remains idled as it works with suppliers for a fix related to a recent airbag recall. Production was initially expected to resume in early August, but downtime was extended until late October resulting in the loss of an additional 51,000 units, representing 29% of the total reduction for the year. The outlook for Tesla continues to sour with generalized demand concerns for Tesla vehicles with the Cybertruck now forecast to be relegated to niche status within the lineup. Further out in 2026, production of the all-new entry level C-CUV EV is likely to slip into 2027 resulting in a proactive reduction in this forecast release. Regional production in 2025 was revised down 0.6% to total 15.84 million units as the inventory correction process is expected to continue into early 2025. Production in 2026 was revised down 0.5% to total 16.40 million units."

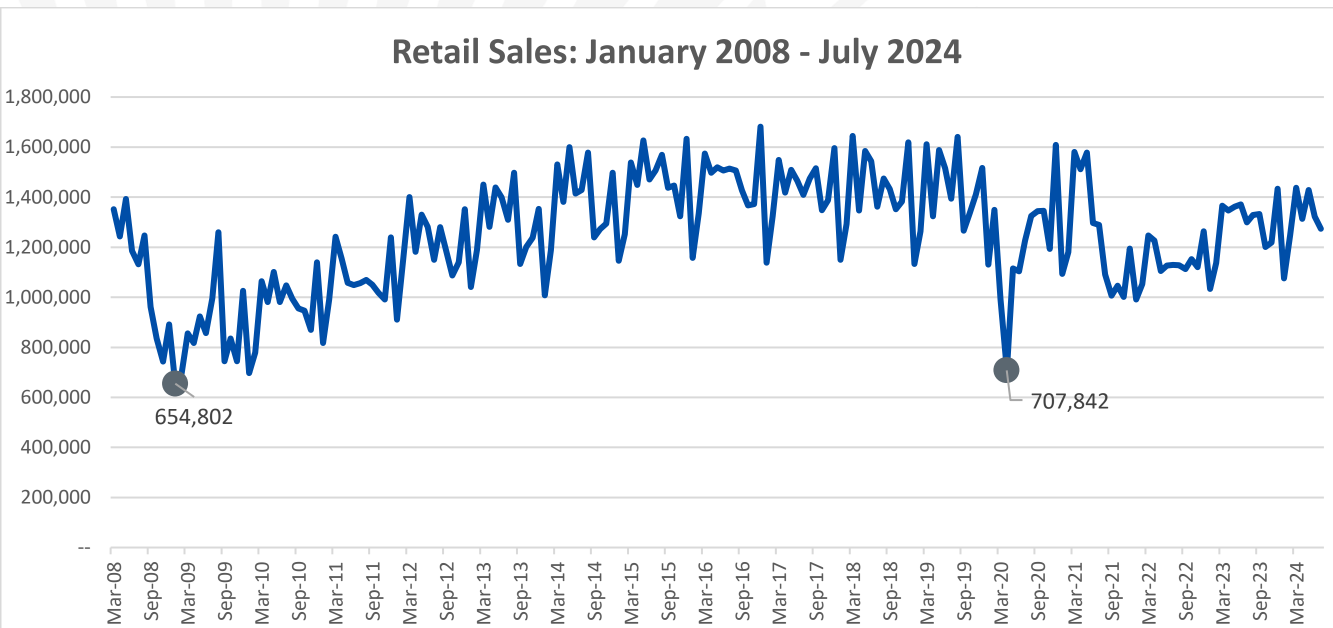
Wards Intelligence Inventory Outlook (8/22) [9]**:** "With U.S. demand initially expected to grow faster throughout the year, production through the first four months of 2024 appeared on a good upward path. However, though sales continue to increase year-over-year, growth has slowed, leaving inventory for some vehicles too high as automakers prepare to roll out the '25 models in earnest in Q4. The rise in production of new electric vehicles for the U.S. market, which in most cases has outpaced demand, also is creating pockets of excess inventory, contributing to production slowdowns."

Market Meter

U.S. Light Vehicle Sales (Updated 8/7)

Monthly Sales (Updated 8/7)

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



July Sales (Updated 8/7)

WardsIntelligence[10]: “U.S. light-vehicle sales disappointed in July, falling below expectations by totaling a 15.8 million-unit seasonally adjusted annual rate, an improvement on June’s five-month-low 15.3 million but below like-2023’s 15.9 million.

“The kicker is that the month did not see the rebound expected after June’s SAAR fell to a 5-month-low 15.3 million units, in part due to some sales not consummated because of a cyberattack on software some dealers use to complete transactions, among other functions.

“After posting a 14.9 million-unit SAAR in January, sales over the next four months averaged a total of 15.7 million. Instead of rebounding even higher above June’s total to at least even out the past two months with the February-May average, July’s results were nearly flat with that 4-month period. July’s total also is further indication that the cyberattack did not have as much of a negative impact on June’s results as initially thought.

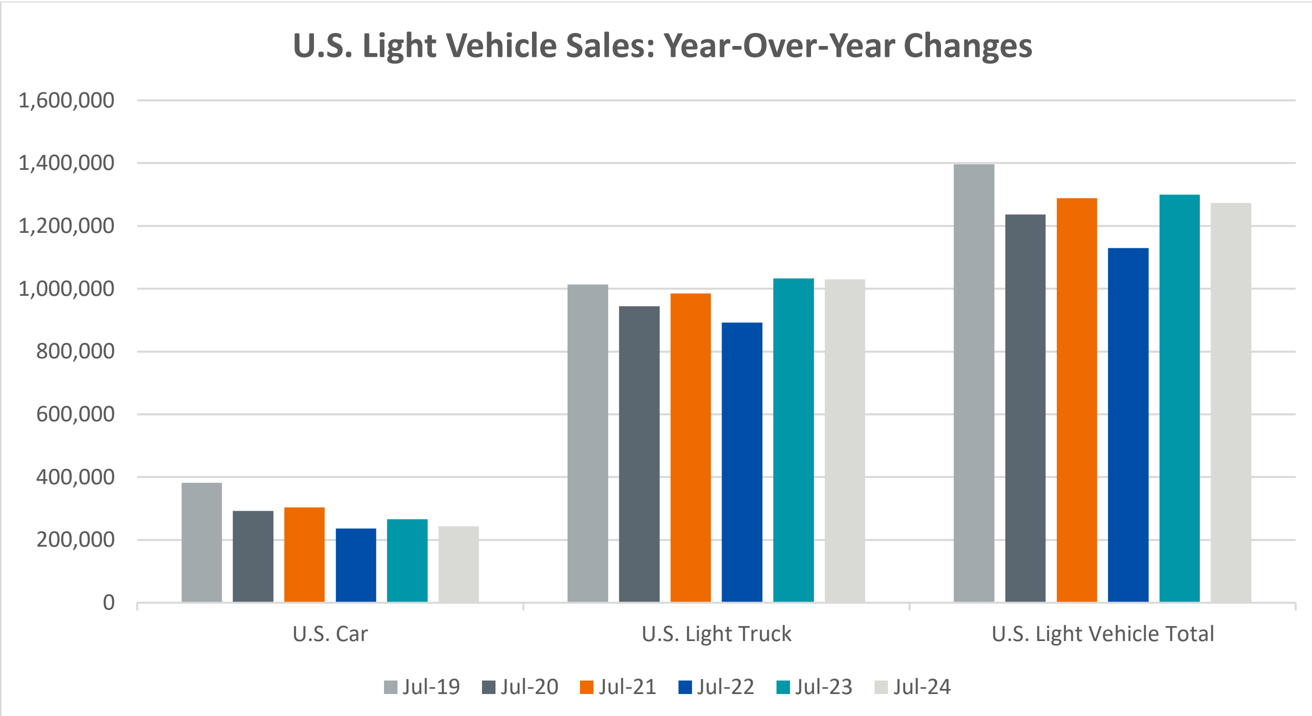
“With inventory rising steadily, a lack of affordable vehicles and fresh mainstream products on dealer lots appear to be what’s keeping sales from elevating to a new level. July’s SAAR was not much better than the 15.7 million units averaged over the prior 12 months through June. Also, 12-month trailing sales volume has been stuck at 15.7 million units since March – including through July.

“Furthermore, as it relates to the mix of affordable vs. pricier vehicles, most of the pent-up demand built up since 2020 with the start of the pandemic/supply-chain disruptions is in lower-priced segments. Not only has there been a decline in the number of entry-priced vehicles offered in the market over the past four years, but because automakers skewed limited production capacity in the 2021-2022 timeframe of the semiconductor shortage toward profitable, higher priced vehicles, more demand was satiated for those vehicles relative to lower cost models.

“Raw volume in July totaled 1.273 million units, 2.0% below like-2023’s 1.300 million. The daily selling rate was 50,925, down from the year-ago total of 51,971 – 25 selling days both periods.

“July was the second straight month volume fell from the same year-ago period. Prior to June, raw volume had increased each month in 2024, while the DSR last declined in January.

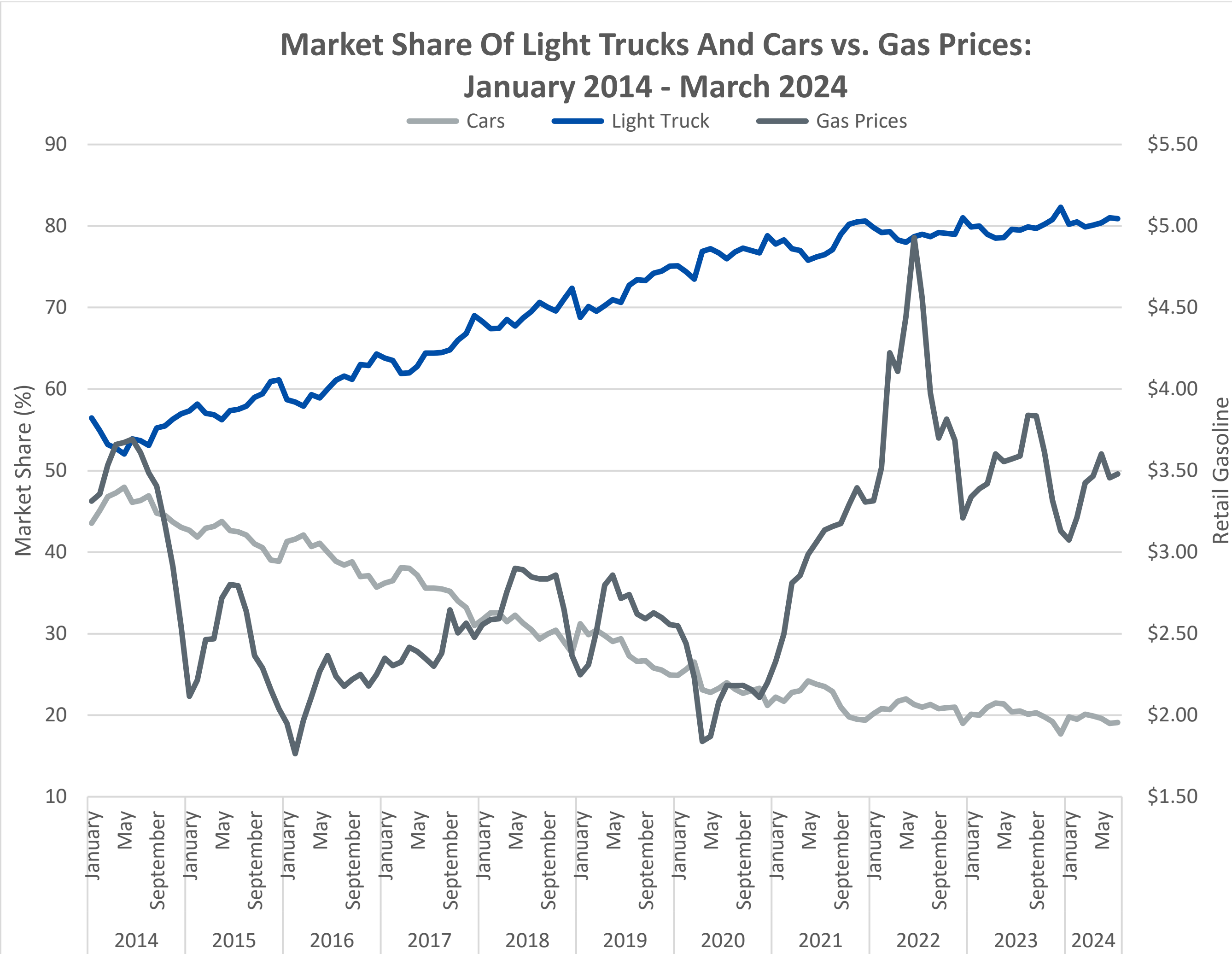
“Calendar year-to-date sales through July totaled 9.08 million units, 1.4% above like-2023’s 8.95 million. The year-to-date SAAR through July totaled 15.6 million units, slightly above like-2023’s 15.5 million.”



Segments vs. Gas Prices (Updated 8/7)

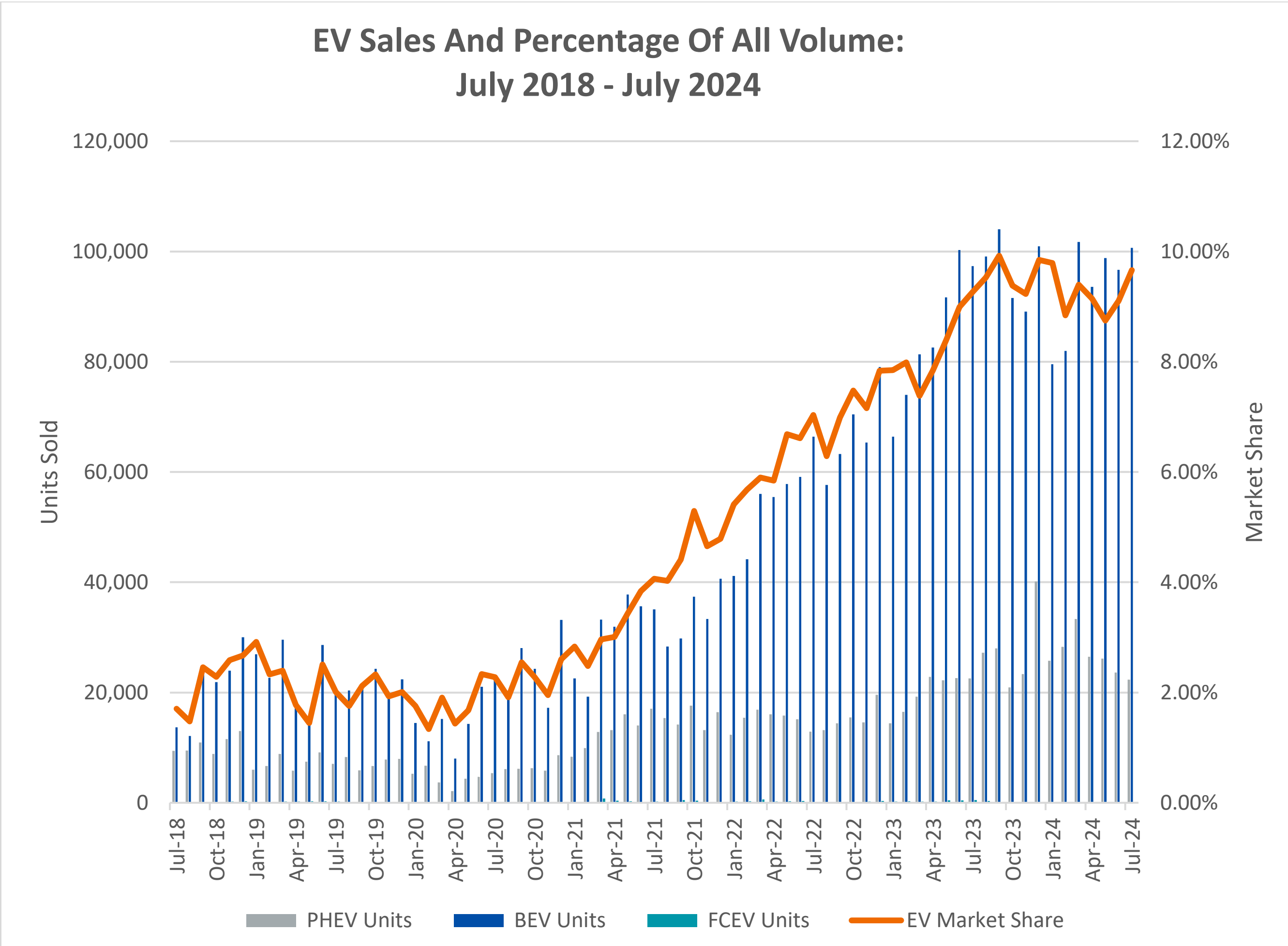
Monthly Sales For July: Light trucks accounted for 81 percent of sales in July, up slightly from the market share a year ago. Compared to the same period in 2023, sales of cars are down by 22,706 units, and down more than 139,000 from July 2019, when cars comprised 27% of the market as opposed to the 19 percent 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 $2.92 a gallon (through July 2024) 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]



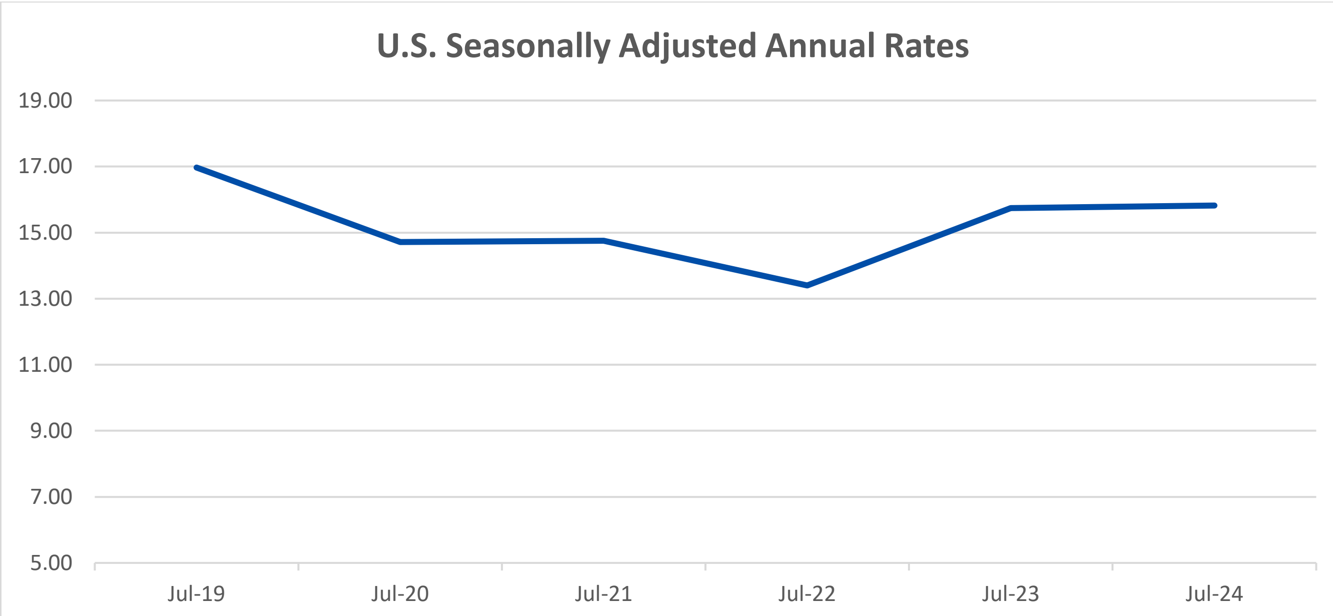
EV Powertrain Sales (Updated 8/7)

Sales of electric vehicles (BEV, PHEV, & Fuel Cell) accounted for 9.7 percent of total vehicle sales in July 2024 (123,025), per Wards estimates. Market share increased 0.56 percentage points (pp) from June 2024. July's EV market share is up 0.4 pp from a year ago. Sales of battery electric vehicles led the way for EVs, accounting for 7.9 percent of total sales, up 4.2 pp from July 2023. Plug-in hybrids accounted for 1.75 percent, up 0.02 pp from the same time last year.[14]



Seasonally Adjusted Annual Rates (Updated 8/7)

WardsIntelligence[15]: "U.S. light-vehicle sales disappointed in July, falling below expectations by totaling a 15.8 million-unit seasonally adjusted annual rate, an improvement on June's five-month-low 15.3 million but below like-2023's 15.9 million."



Average Transaction Price (Updated 8/22)

Kelley Blue Book (July) (Updated 8/22)[16]**:** "New-vehicle prices were lower year over year for the 10th consecutive month in July. Higher inventory levels and higher incentives have shifted the U.S. auto market to favor buyers, but high loan rates and tight credit conditions continue to hold industry sales below potential.

"In July, according to data released today by Kelley Blue Book, the average transaction price (ATP) for a new vehicle in the U.S. was $48,401. New-vehicle prices in July were mostly unchanged from the revised-lower June ATP of $48,424 (lower by $23) and last year ($106). According to Kelley Blue Book, new-vehicle ATPs were lower in July by 3.1% from the peak in December 2022 at $49,929.

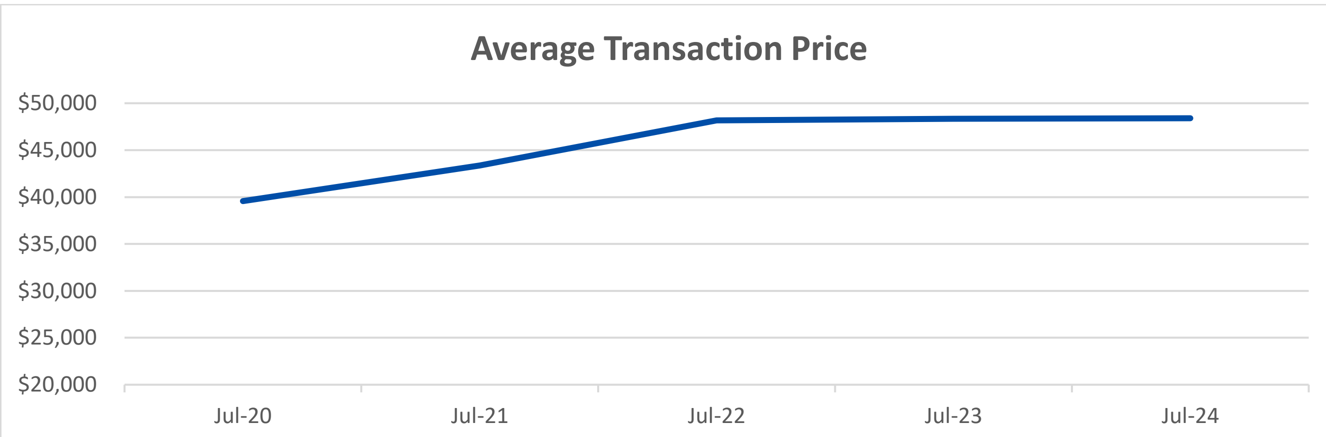
"Healthy inventory levels – 2.91 million vehicles at the start of July, higher by 52% year over year, according to Cox Automotive's vAuto Live Market View – continue to keep downward pressure on vehicle prices. But stubbornly high auto loan rates, which make monthly payments higher, are leading many consumers to stay on the sidelines or hunt for affordable options. Only one new vehicle in July posted an ATP below $20,000, the Mitsubishi Mirage, which will be discontinued at the end of the year.

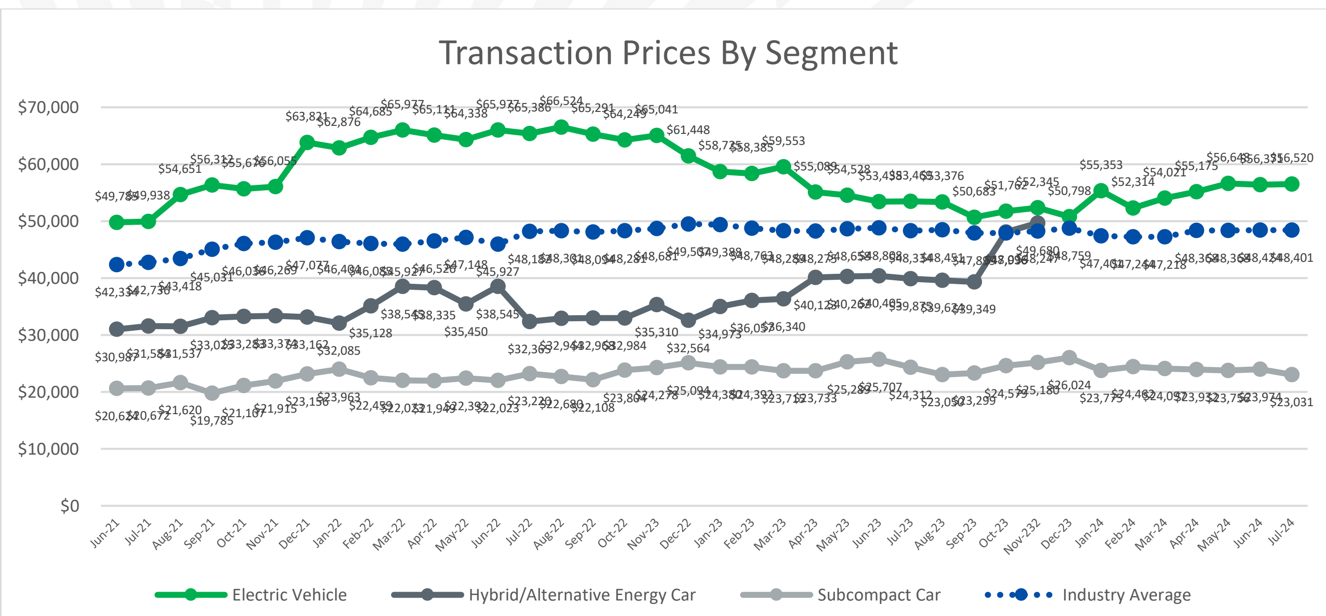
"Average incentives in July rose to 7.0% of the average transaction price – $3,383 – up from 6.4% in June and the most generous level seen in 2024. Incentives are now higher by 59.1% compared to one year ago, when the average incentive package was 4.4% of ATP in July 2023. New-vehicle incentives in July were at the highest point in more than three years.

"The average transaction price for an EV in July, at $56,520, was higher than in June but lower year over year by 1.5%. The average incentive package offered with a new EV in July was over 12% of the transaction price, the highest level in more than three years and roughly twice the level seen in July 2023 when typical incentive packages were equal to 6.0% of ATP. EV incentives in July were 73% higher than the industry average.

Average transaction prices at Tesla continue to move higher after dropping to near the industry average in December 2023. In July, Tesla ATPs were $59,593, up 11% from one year ago and at the highest point since February 2023. Success of the popular new Cybertruck is likely pulling Tesla prices higher, although the volume products, the Model 3 and Model Y, have seen prices rise consistently through the year. In July, the ATP for the Model Y was $52,055, up 5% from January, while the Model 3 was $53,878, up a remarkable 30% from January when Model 3 ATPs were $41,531. The Model Y and the Model 3 are the top-selling EVs in the U.S. market."

J.D. Power (Updated 8/7)[17]: "The average new-vehicle retail transaction price is declining compared with a year ago due to higher manufacturer incentives, larger retailer discounts and rising availability of lower-priced vehicles increases. Transaction prices are trending towards $44,271—down $1,166 or 2.6%—from July 2023."



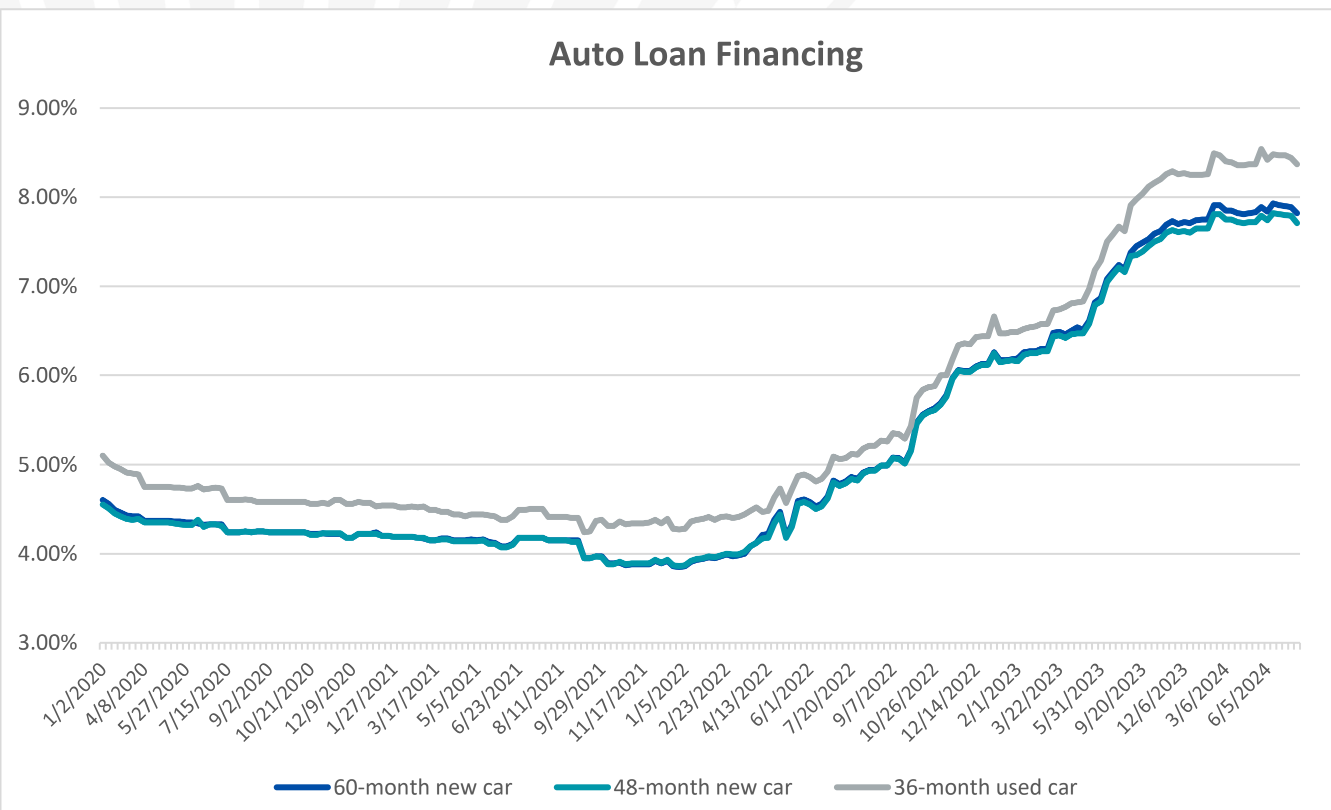


Auto Loan Financing (Updated 8/22)

Interest Rates (updated 8/22): Interest rates dipped slightly on the 60-month, 48-month and the 36-month used car loans over the past two weeks. Rates now stand at 7.82%, 7.71%, and 8.37%, respectively. Since the beginning of 2020, 60-month rates are up 3.22 pp, and are up 0.44 pp since the same time a year ago.[18]

JD Power (8/7)[19]: "Average monthly finance payments this month are on pace to be $727, up $5 from July 2023. The average interest rate for new-vehicle loans is expected to be 6.90%, flat 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%
8/16/2023	7.38%	7.34%	7.91%
7/31/2024	7.89%	7.79%	8.44%
8/14/2024	7.82%	7.71%	8.37%
Two Week Change	-0.07%	-0.08%	-0.07%
Change since 1/3/20	3.22%	3.16%	3.27%
One Year Change	0.44%	0.37%	0.46%

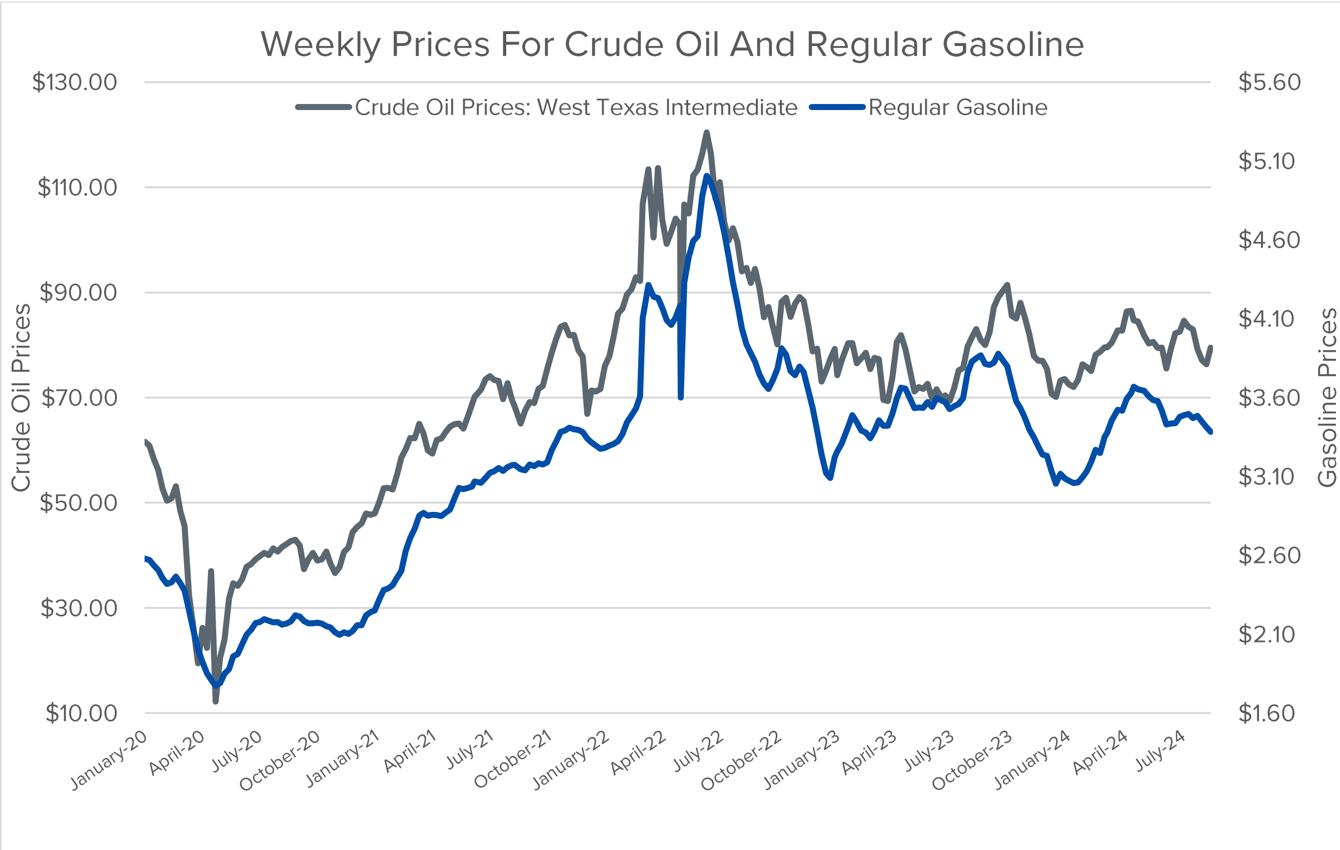


Crude Oil and Gas Prices (Updated 8/22)

Gas And Oil Remain Elevated (8/22): Oil prices, as benchmarked at West Texas Intermediate were $79.49, up $3.16 from the prior week. Since election day 2020, oil prices are $43 a barrel higher. Gas is down slightly from a week ago at $3.38. Gas is 31% higher than the beginning of 2020 and has not been below $3 a gallon since May 2021.[20]

EIA Outlook For Oil (8/7):[21] "Crude oil prices. Although crude oil prices have fallen recently, we continue to expect crude oil prices will rise in the second half of 2024 (2H24). The Brent crude oil spot price ended July at $81 per barrel (b), compared with an average for the month of $85/b. We expect the Brent price will return to between $85/b and $90/b by the end of the year. Rising crude oil prices in our forecast are the result of falling global oil inventories. We estimate global oil inventories decreased by 0.4 million barrels per day (b/d) in 1H24 and will fall by 0.8 million b/d in 2H24. Inventory withdrawals stem in part from ongoing OPEC+ production cuts. Although we expect crude oil prices to rise in the coming months, our forecast for the annual average Brent crude oil price in 2025 is down from a forecast of $88/b in our July STEO, owing mostly to reduced oil consumption."

EIA Outlook For Gasoline (7/9)[22]**:** "We forecast regular-grade gasoline prices will average around $3.50 per gallon in 2025 and gasoline consumption will average 8.9 million b/d. Continued increases in vehicle efficiency mean U.S. drivers will drive more miles in 2025 than before, but we expect 1% less U.S. gasoline consumption than in 2023 and 5% less than the record set in 2018."



Production Meter

U.S. Light Vehicle Inventory and Days' Supply (Updated 8/7)

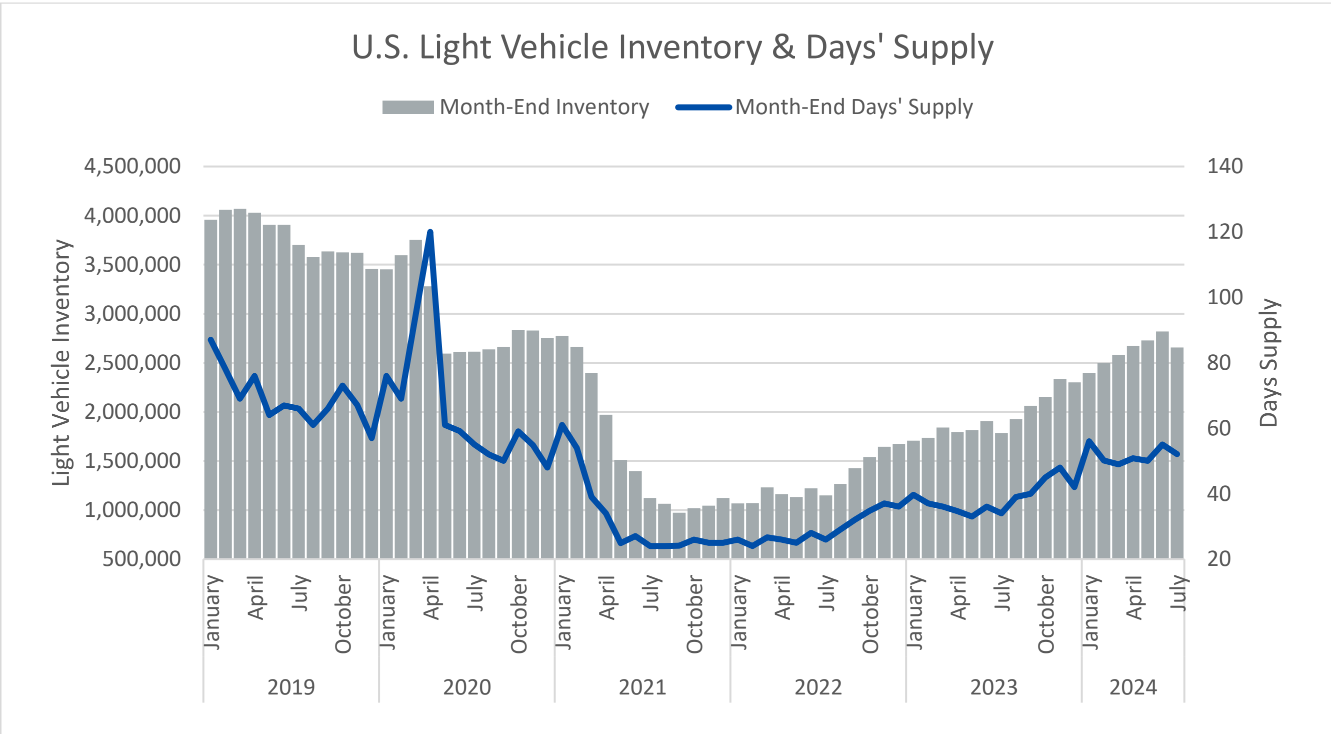
WardsIntelligence Inventory Update (8/7)[23]: "Sluggish growth in demand for new vehicles in the U.S. is playing out in in the form of production slowdowns aimed at managing rising inventory levels.

"U.S. light-vehicle inventory ended July totaling 2.65 million units, 48.4% above like-2023 but roughly 40,000 below expectations. The subpar outcome was despite sales falling short of projections in July, meaning deliveries drained fewer vehicles from dealer lots, which ostensibly should have left end-of-July inventory above WI's forecast.

"That inventory fell further than anticipated from June's 2.80 million units – July inventory typically falls from June due to summer-related shutdowns at most plants – indicates North America production, the source for over three-fourths of U.S. sales volume, weakened significantly last month.

"In fact, production has been in decline since the spring. After a 2.4% year-over-year increase in Q1, and a hefty 16% gain in April, North America light-vehicle output declined year-over-year in both May and June and is expected to decline again in July.

"July 31 days' supply totaled 52, down from June's 56 but above like-2023's 34. It was the highest days' supply for July since 54 in 2020. In 2019, the year prior to the onset of the pandemic and subsequent supply-chain disruptions that decimated inventory levels, July posted a 66 days' supply."



North American Production (Updated 8/22)

Wards Intelligence[24]: "Production in North America of all vehicles finished below expectations in July, and cuts were made to the rest of Q3, as automakers appear to be reacting to excess inventory of some slow-selling vehicles, caused by lower-than-expected demand in the U.S.

"Production of light vehicles and medium-/heavy-duty trucks totaled 1.118 million units in July, 4.4% below like-2023. It was the third straight month production declined year-over-year, which followed a two-year stretch of mostly growth. July's total, which still includes some estimates, was 74,900 units below month-ago's projection for the period.

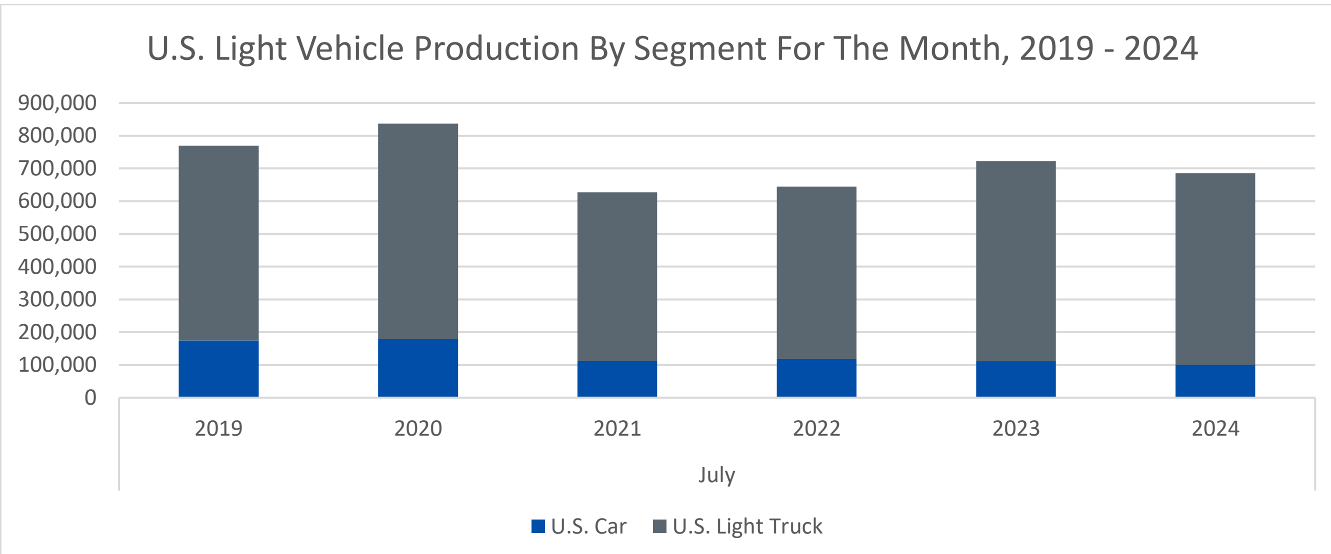
"Production is tracking to resume growth in August and September, but if the trend of the past few months continues, that puts downside risk to the rest of Q3. In fact, compared with month-ago's tracker for the period, this month's update cuts 25,800 units from August and 27,000 from September.

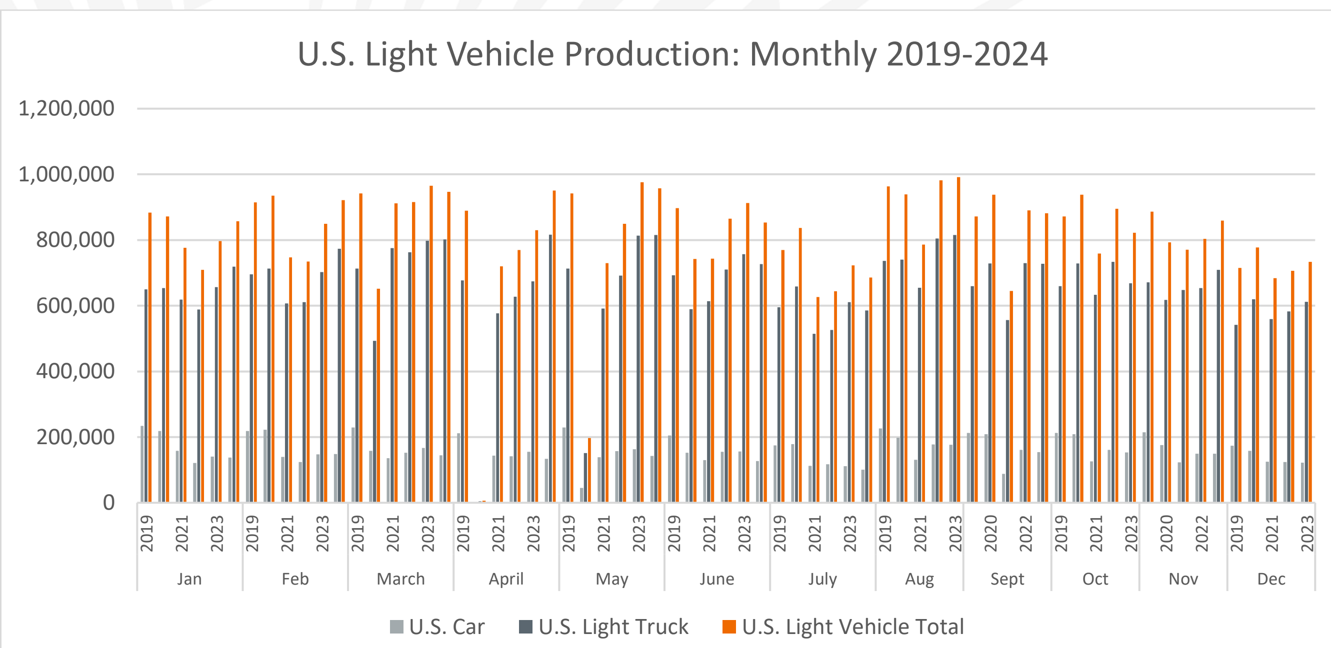
"With U.S. demand initially expected to grow faster throughout the year, production through the first four months of 2024 appeared on a good upward path. However, though sales continue to increase year-over-year, growth has slowed, leaving inventory for some vehicles too high as automakers prepare to roll out the '25 models in earnest in Q4. The rise in production of new electric vehicles for the U.S. market, which in most cases has outpaced demand, also is creating pockets of excess inventory, contributing to production slowdowns."

U.S. Light Vehicle Production (Updated 8/22)

U.S. Monthly Production (Updated 8/22)

U.S. Light vehicle production for July 2024 was down 18.5 percent month-over-month, totaling 685,990 vehicles (100,447 cars, 585,543 light trucks), year-over-year, production is down 4.8 percent from 2023.[25]





Global Meter

Global Light Vehicle Sales (Updated 8/7)

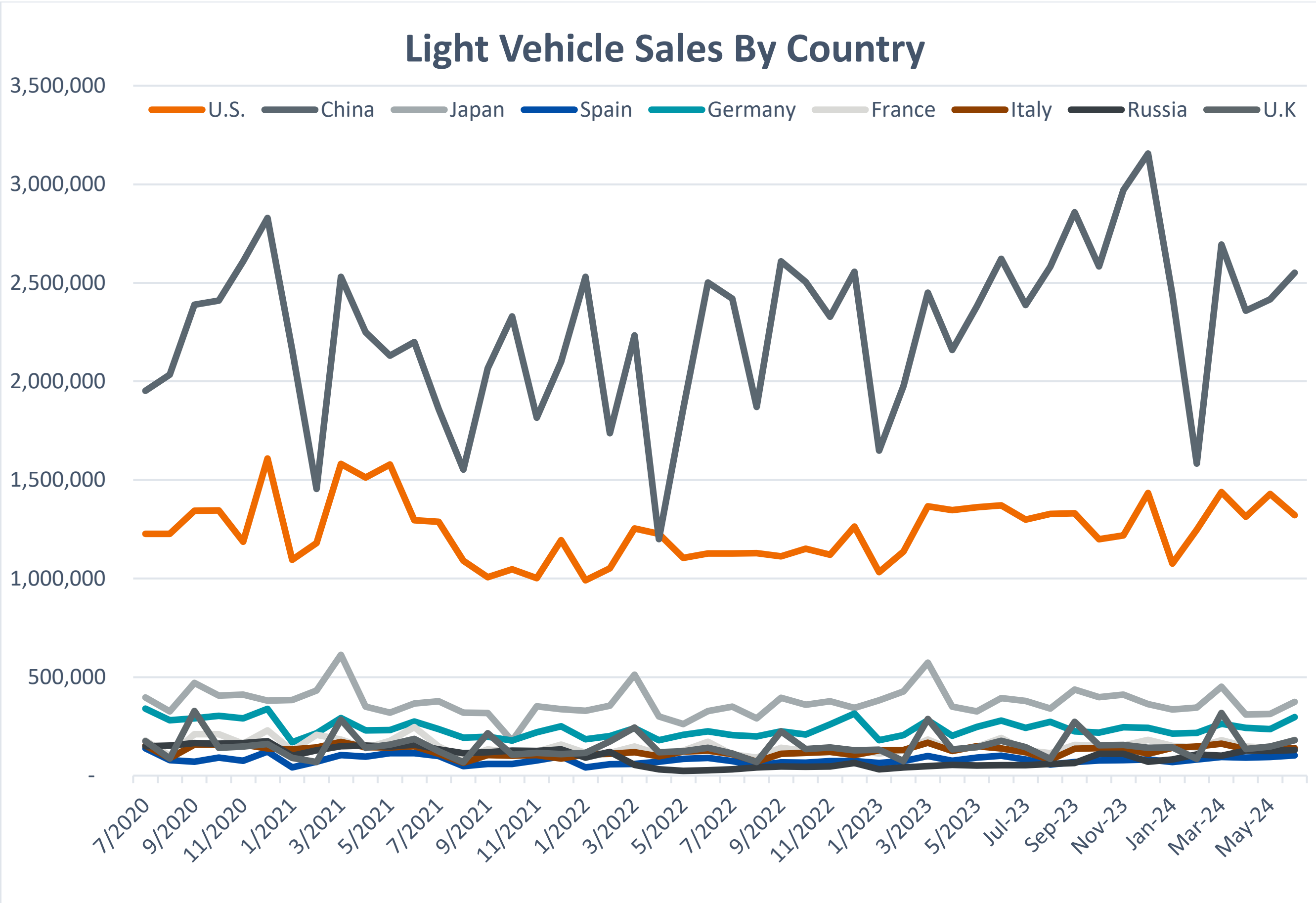
Wards Intelligence[26]: "Global sales in the first half of 2024 ended with pervasive weakness in all major regions, based on Wards Intelligence's survey of world markets.

"Combined sales of light vehicles and medium-/heavy-duty trucks totaled 8.06 million units in June, down 1.3% from like-2023. It was the first year-over-year decline since February.

"However, sales in first-half 2024 still rose, growing 2.8% from like-2023 to 45.43 million units.

"All major regions recorded growth in the first half, with Europe leading the pack with a 7.9% year-over-year gain, followed by South America (4.8%), North America (3.1%) and Asia-Pacific (1.8%). Less China, which recorded a 5.8% gain in the first half, the rest of AP fell 4.4%.

"Excluding medium- and heavy-duty trucks, Wards Intelligence partner GlobalData estimates June's global light-vehicle seasonally adjusted annual rate at 89.7 million units, 2 million above May but below same-month 2023 by that same total. However, GlobalData expects light-vehicle sales in July to rise from June to a level above 92 million, which would be the highest of the year. GlobalData cut 200,000 units from its global light-vehicle sales forecast for 2024, which now stands at 88.7 million units, up 2.2% from 2023."



Global Light Vehicle Production (Updated 8/22)

S&P Global Mobility Forecast (8/22)[27]**:** "The global auto industry continues to wrestle with slowing sales growth in several key markets and rather high inventories, among other factors. The near-term outlook continues to be distinguished by automakers seeking to balance regional demand dynamics and inventory conditions. The production outlook reflects those ongoing challenges, yet after two months of fairly meaningful reductions, this month's forecast update incorporates more modest revisions with some notable regional adjustments (both positive and negative) reflecting the impact of expanded policy support in China offset by a focus on inventory management and company-specific adjustments in North America. Propulsion mix developments continue to vary by region as some markets face slower EV adoption growth rates while other areas continue to see rather encouraging results. The August forecast update reflects a mix of both upgrades and downgrades in the near-term, with adjustments spread across several regions. Downward revisions are primarily focused on North America and Japan/Korea as those markets navigate dynamic demand fundamentals, inventory management, changing vehicle launch activity and near-term production challenges, among other factors. The associated upgrades in the extreme near-term are primarily associated with Greater China and Europe on stronger government stimulus for China and a modestly improved production outlook for Eastern Europe. The more noteworthy regional adjustments with the latest forecast update are detailed below:

“**Europe:** The outlook for Europe light vehicle production was increased by 60,000 units and by 31,000 units for 2024 and 2025, respectively (and was largely unchanged for 2026). The outlook for Western and Central Europe, including Turkey, was revised down by 14,000 units. Despite better-than-expected actuals in Q2-2024, with an increase of 58,000 units, the outlook for H2-2024 was downgraded due to somewhat stagnated vehicle demand and supply chain issues, resulting in a reduction of 72,000 units. Most of this reduction was attributed to Stellantis, which cut production by 79,000 units in H2-2024, following a similar trend in the past two months. The broader market continues to be influenced by elevated vehicle pricing, lingering high inflation and the ongoing shift in electrification. The overall regional outlook for 2024 has been modestly upgraded, primarily due to ongoing production capacity expansion in Russia. Looking ahead to 2025, the revisions are more limited, with a slight downgrade of 16,000 units for Western and Central Europe including Turkey, offset by an increase of 48,000 units in the CIS region. There is largely no change in the overall outlook for 2026..

“**Greater China:** The outlook for Greater China light vehicle production was increased by 227,000 units and reduced by 354,000 for 2024 and 2025, respectively (and reduced by 214,000 units for 2026). The first wave of incentives and subsidies to support demand and promote the scrappage of ICE vehicles has proven less effective than initial expectations. According to the CPCA, passenger vehicle sales grew by a modest 2.9% in H1-2024. Starting in August, in an effort to further motivate potential consumers, the government announced a bolstered “second wave” of scrappage incentives. According to reports, the plan has received 364,000 applications with a daily increase of over 10,000 applications. The forecast continues to reflect some negative impact to production from European tariff actions; however, we expect export activity to remain quite robust as markets wait for Chinese localization efforts to more fully ramp-up. Considering the positive influence from the increased scrappage subsidy, the outlook for 2024 was increased to 29.3 million units and now reflects modest growth of 0.8% relative to 2023. Conversely, the outlook for 2025 and 2026 was reduced to reflect something of a pay-back effect to the bolstered incentive policy as well as the expectation of a somewhat weaker market recovery amidst macro challenges.

“**Japan/Korea:** Full-year 2024 Japan production was downgraded modestly by 11,000 units relative to last month’s forecast. The downward revision is primarily associated with Daihatsu as the company is expected to face production impacts later this year on difficulties in complying with new regulations relating to cyber security, real driving emissions (RDE) and back monitors. In the longer-term, there were no major changes relative to last month’s forecast. Partial strikes as part of wage negotiations in South Korea in July had a slightly greater than expected impact on Hyundai and GM Korea’s output (all negotiations have now been settled). Therefore, 2024 production was downgraded by 28,000 units to 4.15 million units. In contrast, global demand for the Renault Arkana was increased by about 30,000 to 35,000 units per year from 2025, so South Korea production was upgraded accordingly to 4.11 million units in 2025 and 3.91 million units in 2026. In the long term, there was no significant change other than to increase output by about 34,000 units per year from 2027 to 2028 to be in line with global demand for the aforementioned Renault Arkana.

“**North America:** The outlook for North America light vehicle production was reduced by 173,000 units and by 102,000 units for 2024 and 2025, respectively (and reduced by 85,000 units for 2026). The outlook for North American production was revised down rather sharply to 15.6 million units on further inventory related reductions targeting the Detroit 3 automakers and production related issues, most notably at Toyota. Production at Toyota’s Princetown West plant for the Toyota Grand Highlander and Lexus TX remains idled as it works with suppliers for a fix related to a recent airbag recall. Production was initially expected to resume in early August, but downtime was extended until late October resulting in the loss of an additional 51,000 units, representing 29% of the total reduction for the year. The outlook for Tesla continues to sour with generalized demand concerns for Tesla vehicles with the Cybertruck now forecast to be relegated to niche status within the lineup. Further out in 2026, production of the all-new entry level C-CUV EV is likely to slip into 2027 resulting in a proactive reduction in this forecast release. Regional production in 2025 was revised down

0.6% to total 15.84 million units as the inventory correction process is expected to continue into early 2025. Production in 2026 was revised down 0.5% to total 16.40 million units.

"South America: The outlook for South America light vehicle production was reduced by 2,000 units and by 1,000 units for 2024 and 2025, respectively (and reduced by 18,000 units for 2026). In the extreme near-term, the outlook for the region remains largely in-line with expectations as stronger production actuals for Brazil offset lingering weakness in Argentina. For 2025 and especially 2026, production volumes were revised down due primarily to the impact of delayed launches for potentially strong selling models (such as the Chevrolet B-CUV and VW compact pickup). This particularly impacts Brazil where these models will be localized. The addition of another BYD model at its Brazilian plant (starting in December 2024) only partially offsets this impact.

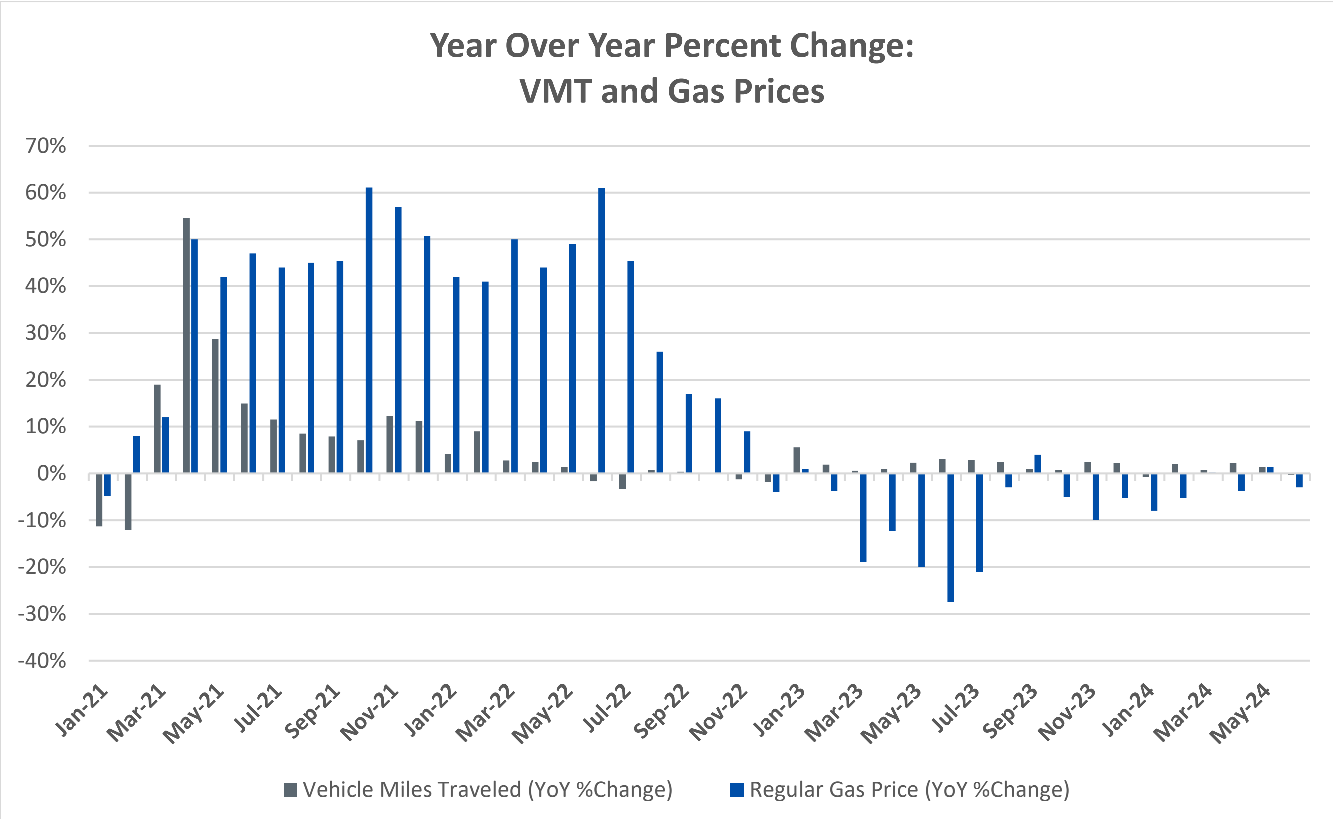
"South Asia: The outlook for South Asia light vehicle production was reduced by 11,000 units and by 56,000 units for 2024 and 2025, respectively (and reduced by 54,000 units for 2026). South Asia's light vehicle production forecast for 2024 was largely unchanged with the August update, with only a minor downward adjustment for the ASEAN market due to stricter auto loan approvals amidst a challenging market environment. The weakness in ASEAN continues to be primarily focused on Thailand and Indonesia. Thailand's auto market has been significantly impacted by stricter auto loan policies, exacerbating the challenges posed by ongoing economic headwinds. Meanwhile, Indonesia's auto production sector has been adversely affected by weaker household spending, elevated interest rates and a slowdown in exports. Regarding the India market, production was largely unchanged for 2024 and revised down by 39,000 units and 42,000 units for 2025 and 2026, respectively. In the near-to-intermediate term, we expect the weaker rupee and elevated interest rates coupled with lingering high inventory levels and uncertainties associated with a possible alliance government to impact the Indian market somewhat negatively.

Recovery Meter

Roadway Travel (Updated 8/22)

According to the U.S. Department of Transportation, seasonally-adjusted vehicle miles traveled in June increased 1 percent from the same time a year ago. The cumulative travel estimate for 2024 is 1,604.6 billion vehicle miles.[28]

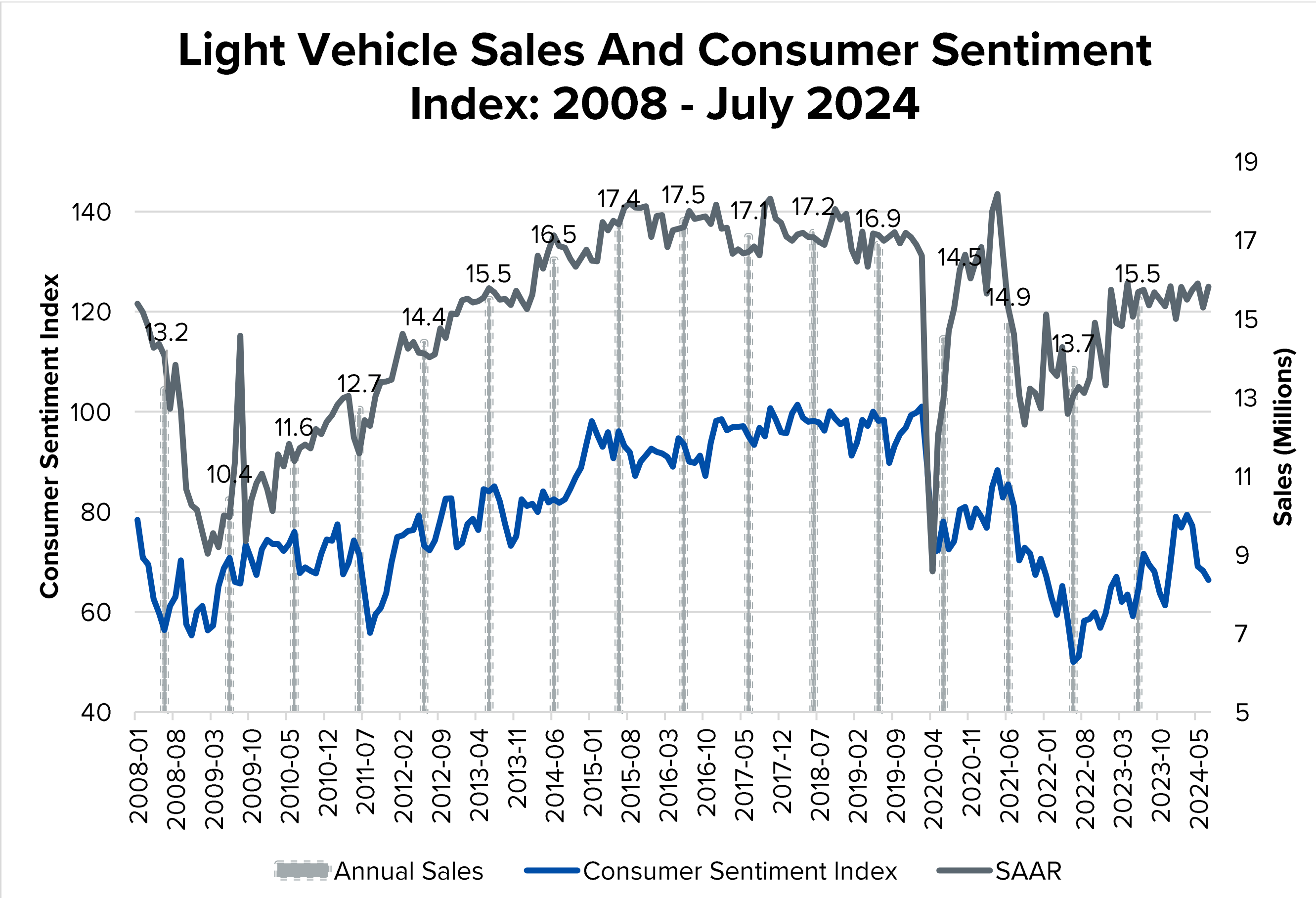
- Travel on all roads and streets changed by -0.4% (-1.1 billion vehicle miles) for June 2024 as compared with June 2023. Travel for the month is estimated to be 284.5 billion vehicle miles.
- The seasonally adjusted vehicle miles traveled for June 2024 is 274.2 billion miles, a +1.0% (+2.7 billion vehicle miles) change over June 2023. It also represents a -0.1% change (-0.01 billion vehicle miles) compared with May 2024.
- Cumulative Travel for 2024 changed by +0.8% (+13.1 billion vehicle miles). The cumulative estimate for the year is 1,604.6 billion vehicle miles of travel.



Consumer Confidence and Sales (Updated 8/7)

Surveys of Consumers Director Joanne Hsu[29]: "Consumer sentiment has remained virtually unchanged in the last three months. July's reading was a statistically insignificant 1.8 index points below June, well under the margin of error. Sentiment has lifted 33% above the June 2022 historic low, but it remains guarded as high prices continue to drag down attitudes, particularly for those with lower incomes. Labor market expectations remain relatively stable, providing continued support to consumer spending. However, continued election uncertainty is likely to generate volatility in economic attitudes in the months ahead.

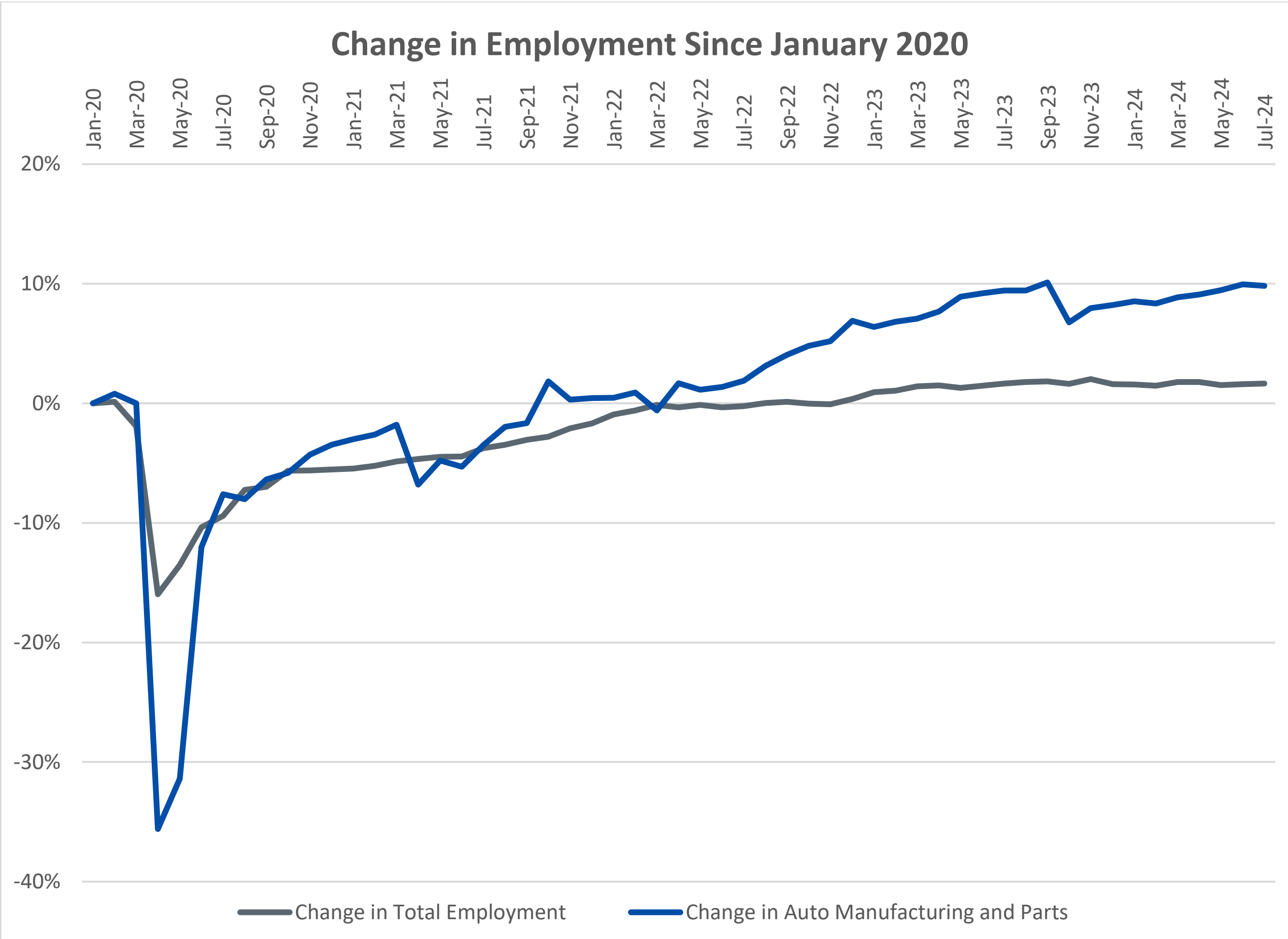
"Year-ahead inflation expectations fell for the second straight month, reaching 2.9%. In comparison, these expectations ranged between 2.3 to 3.0% in the two years prior to the pandemic. Long-run inflation expectations came in at 3.0%, unchanged from last month and remaining remarkably stable over the last three years. These expectations remain somewhat elevated relative to the 2.2-2.6% range seen in the two years pre-pandemic.



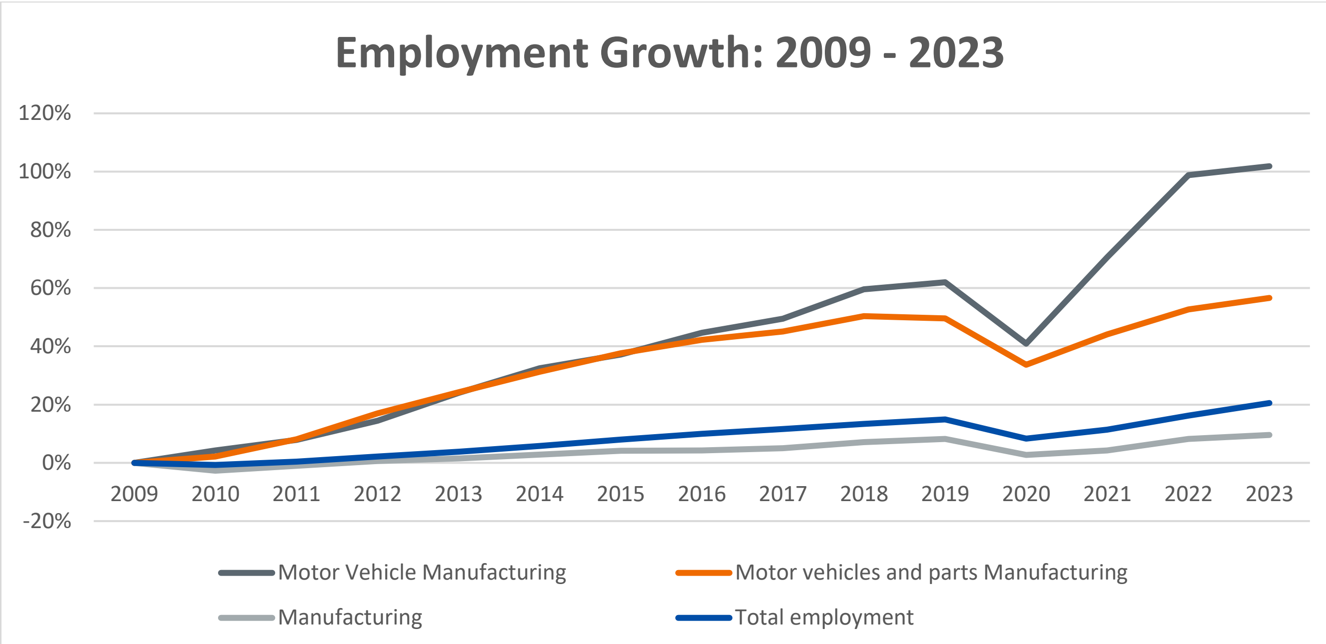
Employment (Updated 8/7)

Motor Vehicle And Parts Manufacturing Lost 1,300 Jobs in July.

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.[30]



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.[31] 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.



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