

READING THE METER

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



ALLIANCE FOR AUTOMOTIVE INNOVATION

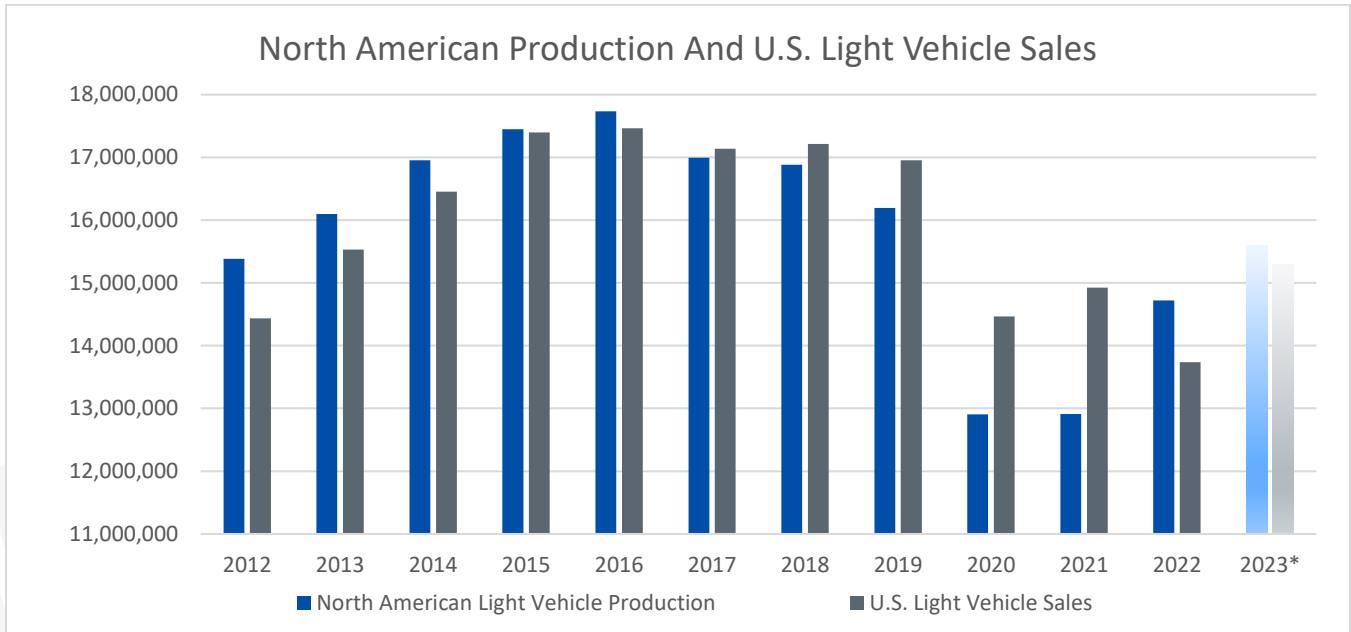
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Forecast Meter

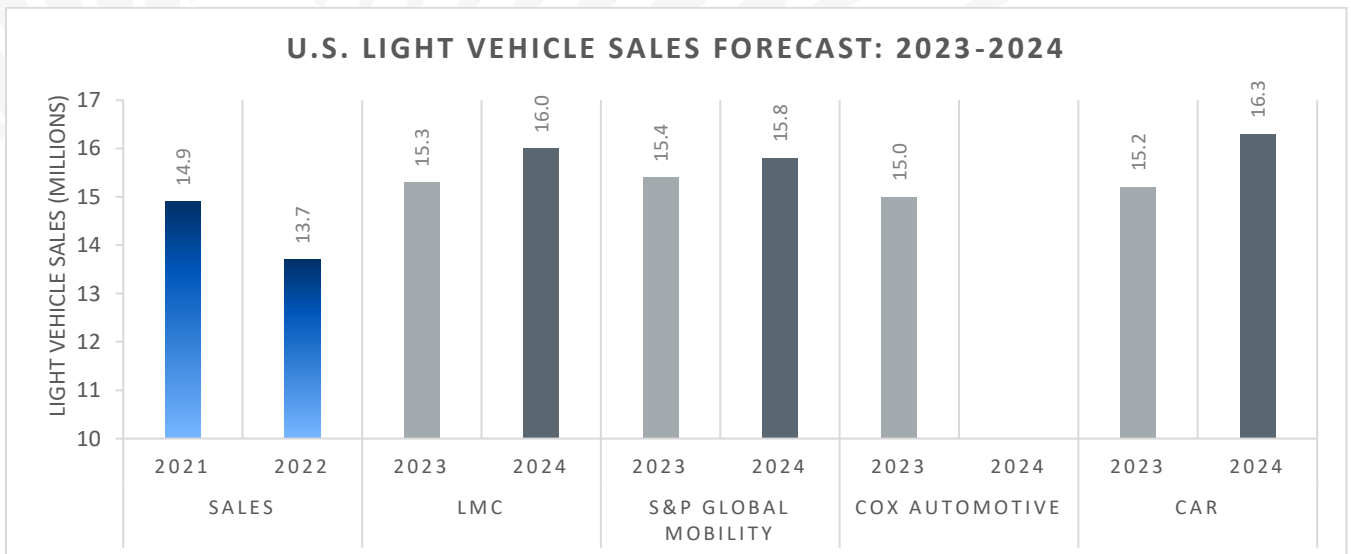
Sales & Production Summary and Forecast (Updated 10/6)

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)
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)	
2022 Full Year	13,734,203 (-8.1% YoY)	14,721,053 (+9.8% YoY) (U.S. 10,019,791)
2023 Estimate	15.3 million units (WardsIntelligence)	15.6 million units (WardsIntelligence)



U.S. Light Vehicle Sales Outlook (Updated 10/6)

Wards Intelligence Outlook (10/6)⁴: “Sales for the entire year are forecast to total 15.3 million units, which includes a strike-related adjustment that brought the outlook down from the 15.4 million expected a couple months ago. Sales in 2024 are forecast at 16.0 million units. To fit the forecast for entire-2023, Q4 will post a 15.1 million-unit seasonally adjusted annual rate, down from Q3’s 15.6 million.”



North American Production & Inventory Outlook (Updated 10/6)

Wards Intelligence Inventory Outlook (10/6)⁵: “Although the magnitude of future production losses from strikes in the U.S. creates a high level of uncertainty, inventory should continue to rise sequentially each month through the end of the year.”

Wards Intelligence Production Outlook (9/21)⁶: “With four plants down – two in Toledo covered by one union local – so far, and a fifth reportedly soon to shutter, North American manufacturers have lost an estimated 9,000 units in September due to the strikes by the United Auto Workers at Ford, General Motors and Stellantis. The losses are estimates through Sept. 19 and assume no other plants are added to the list by the end of that day. The shutdowns are expected to continue for days, and possibly weeks, with more closures likely while negotiations continue.

“Furthermore, Unifor, the union in Canada representing the same three automakers, which also is negotiating new national contracts, could call for strikes as soon as Sept. 20 - after extending its deadline one day - cutting production in that country. If Unifor sticks to just closing its chosen negotiating target, Ford, daily production losses in Canada would be an estimated 530 units. Strikes also could impact production in Mexico if shortages arise of U.S.- or Canada-sourced parts and components.

“Based on the four shuttered plants – Ford’s Michigan Assembly in Wayne, MI; Wentzville, MO, at GM; and the Toledo complex at Stellantis – estimated production losses are 3,000 units per day. GM’s Fairfax, KS, plant reportedly could close soon because of a shortage of parts sourced from the Wentzville facility. A shutdown at Fairfax adds 700 units to the daily losses.

“Including light vehicles and medium- and heavy-duty trucks, Wards Intelligence’s North America production tracker is projecting output in September of 1.351 million units. The total assumes each currently strike-impacted plant, plus Fairfax, is down for one week.

“Third-quarter production is tracking to 4.051 million units 7.1% above like-2022’s 3.706 million. Excluding medium-/heavy-duty trucks, light-vehicle output is tracking to 3.901 million units, 7.3% above Q3-2022.

“In a first look at Q4, assuming no strike losses, the outlook for October-December production is 3.885 million units, 4.8% above like-2022. The projection is also within 99% of pre-pandemic Q4-2019’s 3.897 million.”

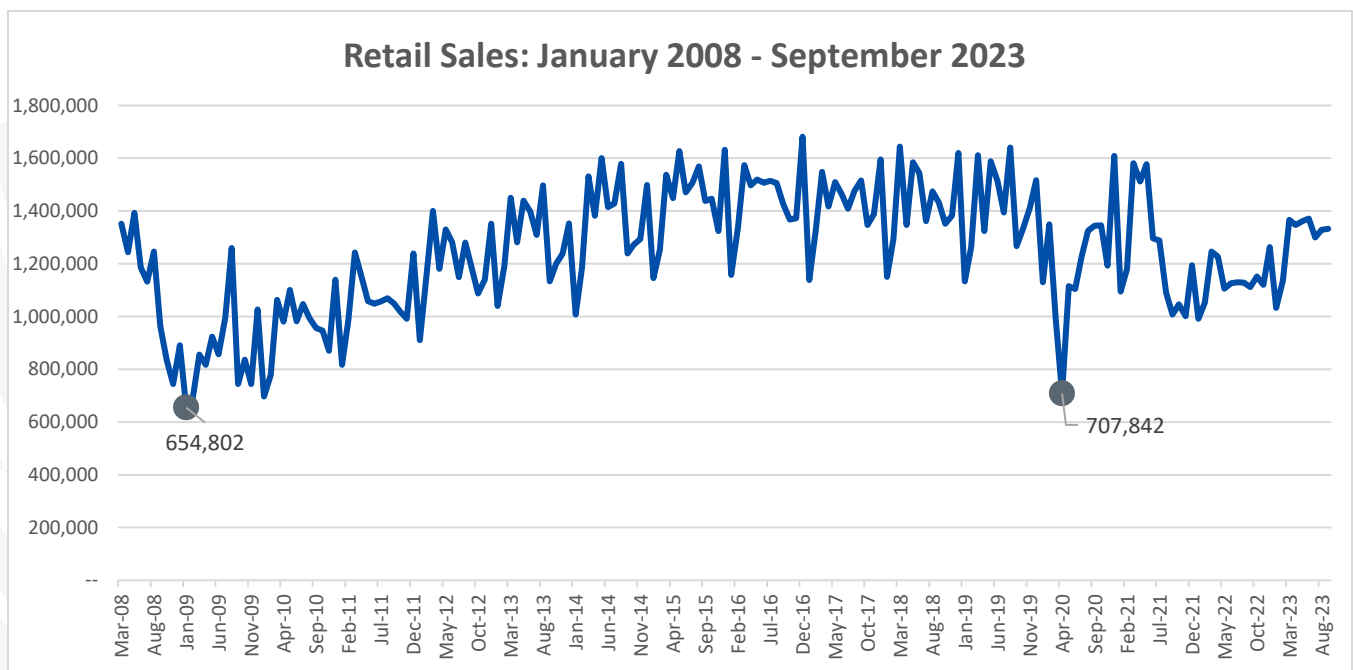
S&P Global Mobility Outlook (9/21)⁷: “North America: The outlook for North America light vehicle production was reduced by 315,000 units and increased by 468,000 units for 2023 and 2024, respectively (and reduced by 21,000 units for 2025). The UAW is making history by simultaneously striking at GM, Ford, and Stellantis for the first time. The UAW plans to use an unconventional strategy by targeting specific sites, adding new sites as time progresses. As a result, the ability to predict the volume implications in the forecast is significantly more challenging. The September 2023 forecast release reflects the initial targeted plants including GM-Wentzville, Ford-Michigan Assembly and Stellantis-Toledo Assembly. Further, the forecast reflects a staggered strike strategy impacting all three manufacturers with incremental downtime added over our initial five-week strike scenario. As a result, explicit downtime remains isolated to UAW plants in the US with factories in Canada and Mexico continuing to operate at a reduced rate to compensate for the eventual impact at those plants. This strike scenario contributes to the loss of 2.0% with the year totaling 15.15 million units. While the forecast was revised higher by 3.0% to total 16.32 million units in 2024, concern surrounds the ability of the suppliers to meet expected increases in demand from OEMs as they struggle with the effects of the strike. The Biden administration is considering aid for suppliers in the event of a protracted strike.”

Market Meter

U.S. Light Vehicle Sales (Updated 10/6)

Monthly Sales (Updated 10/6)

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.



September Sales (Updated 10/6)

WardsIntelligence⁸: “They did not come roaring back, but U.S. light-vehicle sales in September rebounded nicely from a 5-month low annualized rate in August despite the negative conditions and atmosphere created by rising interest rates, still-lean inventory, labor-related plant closures and a possible government shutdown.

“September sales totaled a 15.7 million-unit seasonally adjusted annual rate, solidly above expectations of 15.5 million, and an increase from August’s 15.3 million and like-2022’s 13.7 million. August’s total was the lowest since 14.9 million in March.

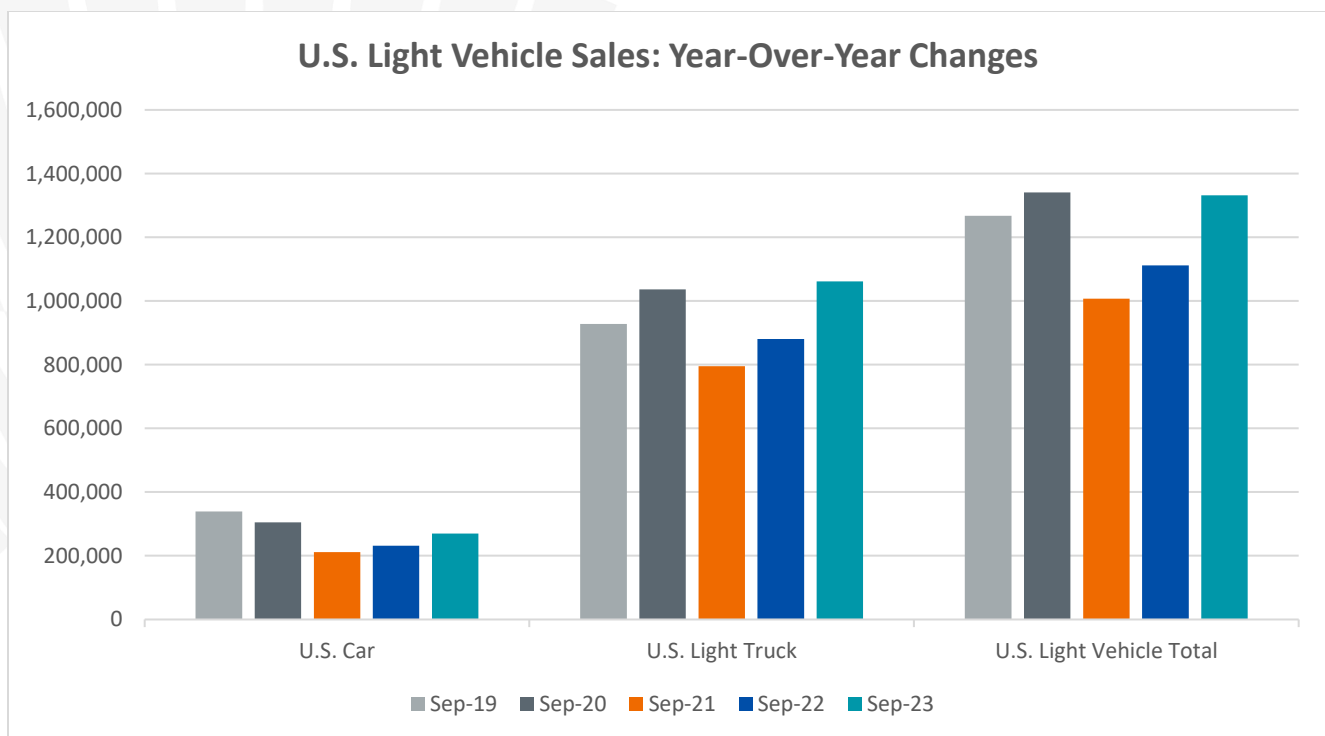
“Raw volume in September of 1.332 million units was 18.5% above same-month 2022’s 1.124 million. The daily selling rate over the month’s 27 selling days was 51,229, 13.9% above September 2022’s 44,972 – 26 selling days.

Although hard to be exact, the higher-than-expected results were somewhat hurt by lost inventory caused by production losses related to plant shutdowns as the United Auto Workers went on strike at some plants at Ford, General Motors and Stellantis.

The first shutdowns began mid-month and lost U.S. production in September is estimated at 48,400 units. Thus, though all three automakers likely lost some sales – especially Ford and GM - the impact likely was negligible and will be more strongly felt in October.

Currently, daily production losses are estimated at 5,200 units, but could grow if the UAW adds more plants to its strike list or other assembly lines close from parts shortages related to the targeted shutdowns. Through Oct. 3, when September U.S. sales were reported, the total production losses are estimated at 58,800 units. Though it varies by product, roughly 80% of U.S. production is for the U.S. market.

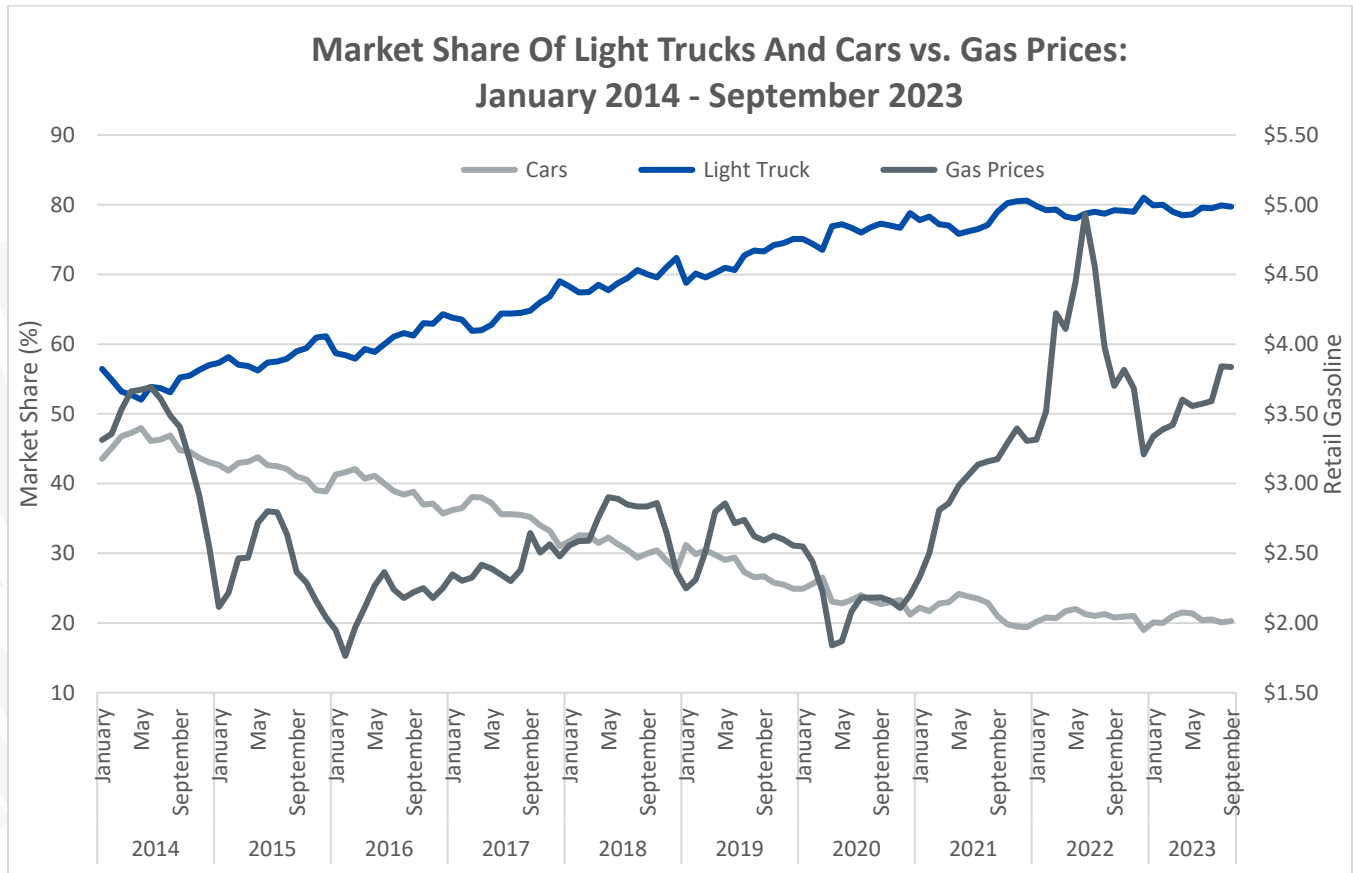
“Third-quarter volume totaled 3.953 million units, 16.8% above Q3-2022’s 3.385 million. The Q3 SAAR was 15.6 million units, down from Q2’s 15.7 million, but above like-2022’s 13.6 million.”



Segments vs. Gas Prices (Updated 10/6)

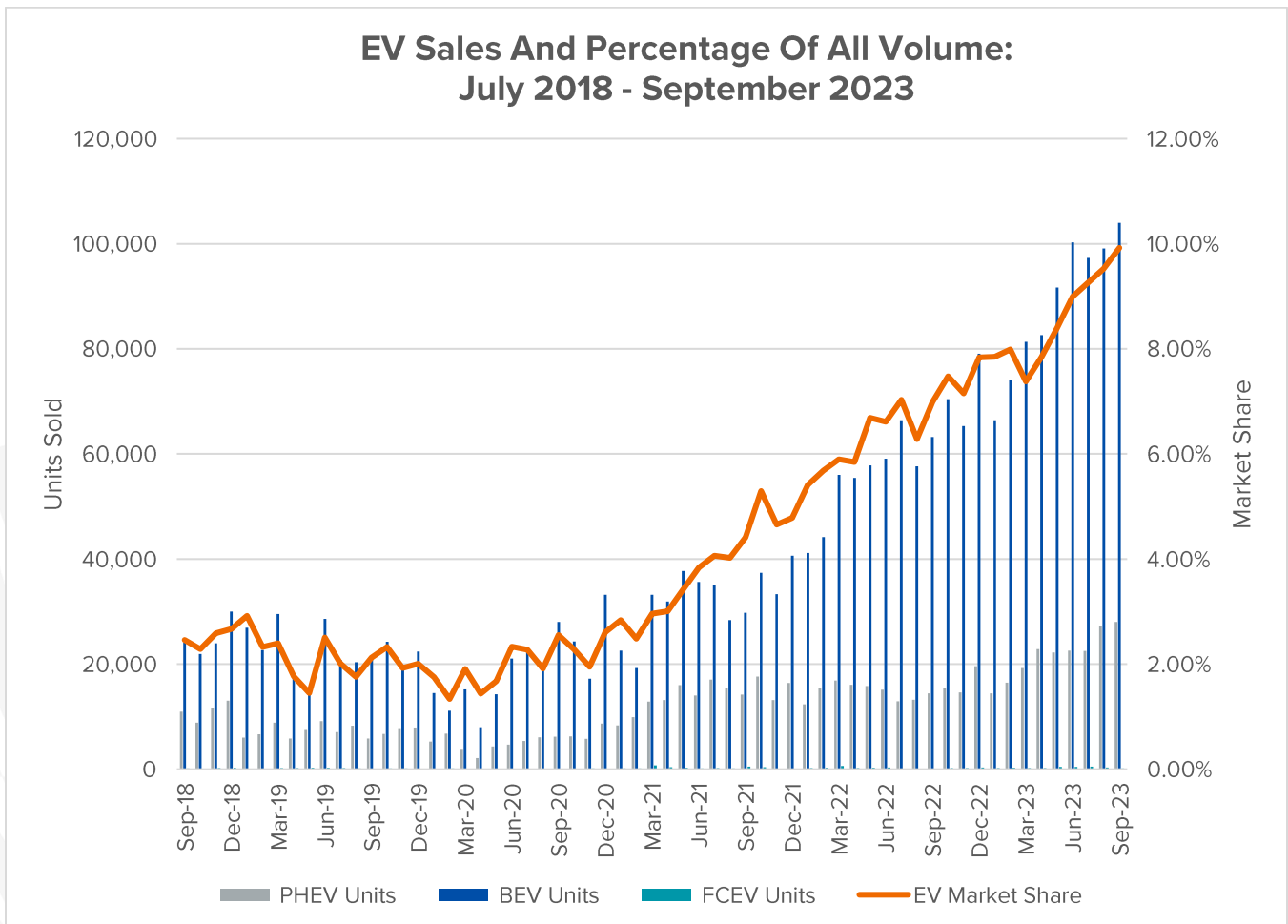
Monthly Sales For August: Light trucks accounted for 79.7 percent of sales in September, nearly flat with the market share a year ago. Compared to the same period in 2022, sales of cars are up about 38,000, and down more than 69,000 from August 2019, when cars comprised 27% of the market as opposed to the 20 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...⁹ and gas was over \$3.00...¹⁰ 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...¹¹



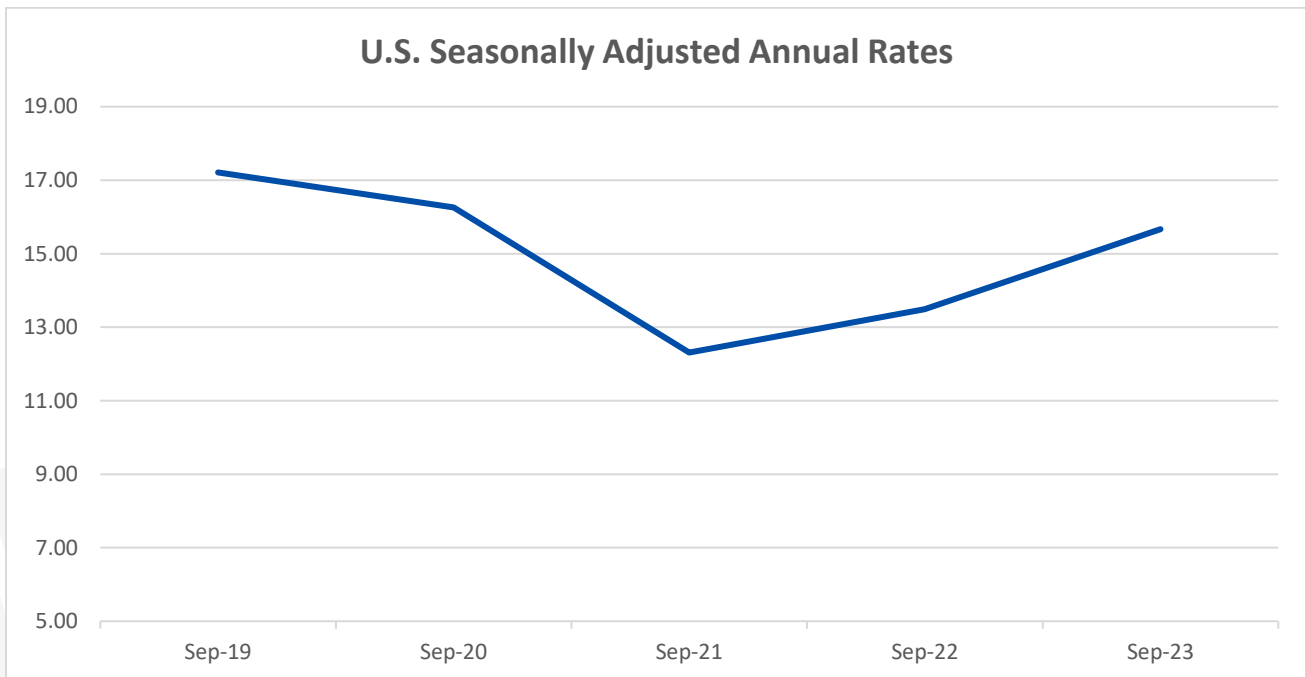
EV Powertrain Sales (Updated 10/6)

Sales of electric vehicles (BEV, PHEV, & Fuel Cell) accounted for 9.9 percent of total vehicle sales in September 2023 (132,177) – the highest monthly volume and market share to date, per Wards estimates. Market share increased 0.39 percentage points (pp) from August 2023. September’s EV market share is up 2.9 pp from a year ago. Sales of battery electric vehicles led the way for EVs, accounting for 7.8 percent of total sales, up 2.1 pp from September 2022. Plug-in hybrids accounted for 2.1 percent, up 0.8 pp from the same time last year...¹²



Seasonally Adjusted Annual Rates (Updated 10/6)

WardsIntelligence¹³: “September sales totaled a 15.7 million-unit seasonally adjusted annual rate, solidly above expectations of 15.5 million, and an increase from August’s 15.3 million and like-2022’s 13.7 million. August’s total was the lowest since 14.9 million in March.”



Average Transaction Price (Updated 10/6)

J.D. Power (Updated 10/6)¹⁴: “As sales volumes improve, the average new-vehicle retail transaction price is declining very modestly, trending down \$94 or 0.2% from September 2022, to \$45,516.”

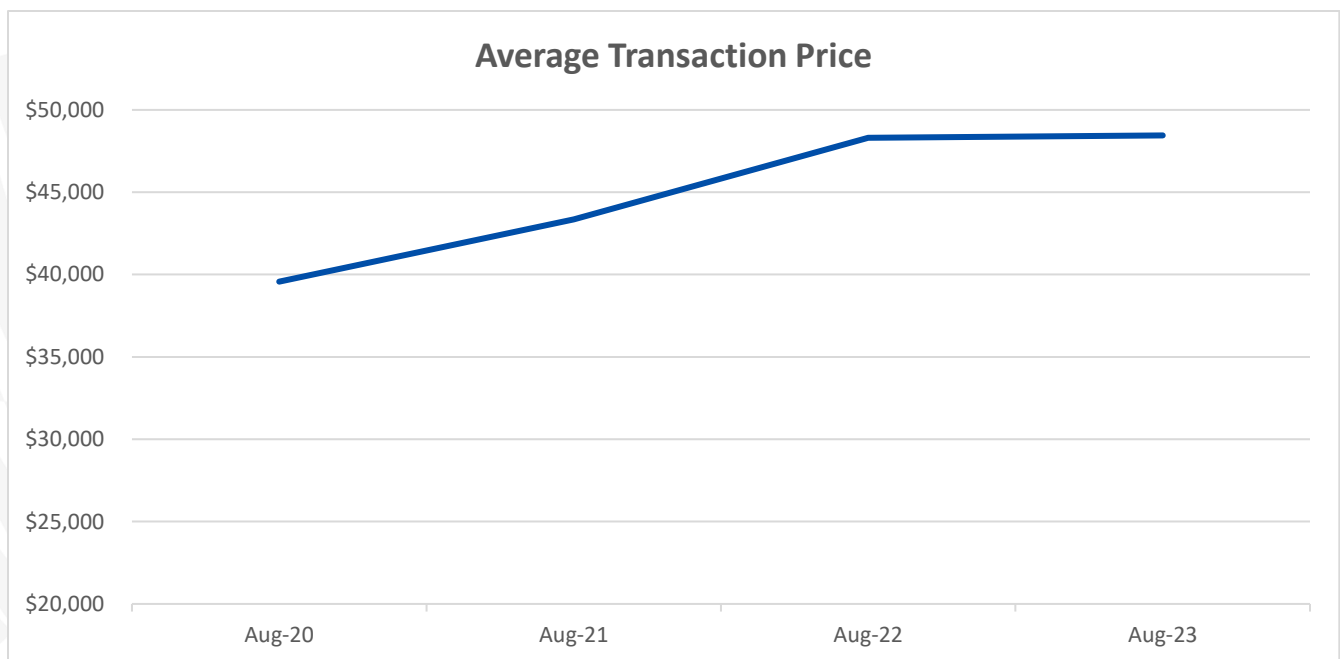
Kelley Blue Book (August) (Updated 9/21)¹⁵: “The average price Americans paid for a new vehicle in August 2023 was virtually flat compared to one year ago, as higher inventory levels and increased incentives held year-over-year price gains in check. The average transaction price of a new vehicle in August was \$48,451, up only \$42 from one year ago, according to Kelley Blue Book, a Cox Automotive company. Prices increased 0.6% (\$286) from July’s revised ATP of \$48,165. Transaction prices are now down 2.4%, or \$1,212, from the start of the year, the largest decrease in the past decade.

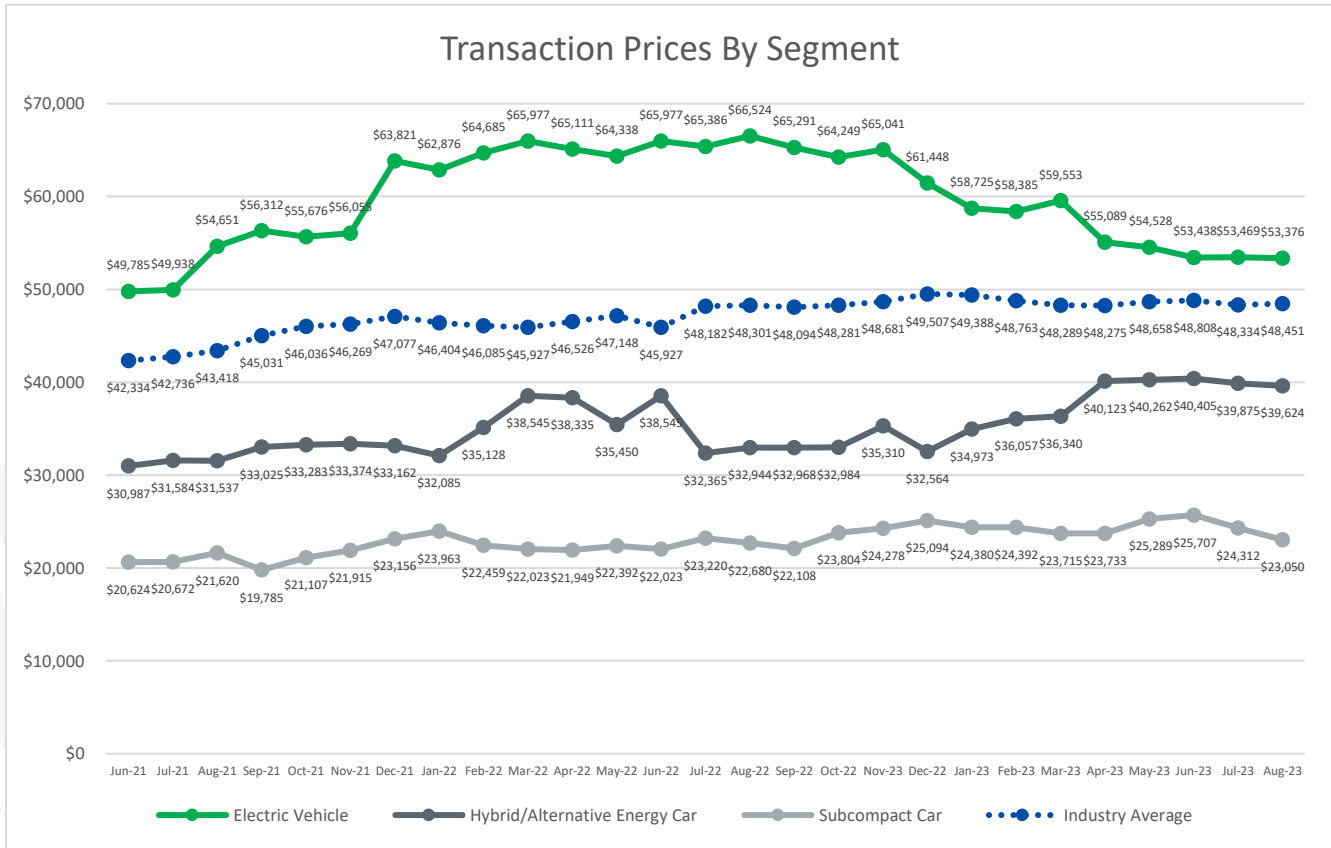
“Led mostly by aggressive price cuts from Tesla, luxury vehicle prices last month were down 3.3% year over year. Tesla ATPs have plummeted 19.5% compared to August 2022 as the brand pushes for higher volume. Tesla Model 3 prices are down more than 21% year over year. Luxury vehicle incentive levels also have significantly increased year over year, rising from an estimated 1.9% of ATP to 5.3% last month. Luxury vehicle sales in August were up 23% year over year, helping to push overall industry volume higher by more than 16%. During the same timeframe, non-luxury sales were higher by 15%.

“EV prices continue to fall, led again by market leader Tesla. In August, the average price paid for an electric vehicle was \$53,376, down from \$53,633 in July and down from more than \$65,000 one year ago. Incentives for EVs in August were 8.1% of ATP, or \$4,298. Tesla price declines are driving market prices lower. In August, Model 3 transaction prices were down 21% year over year, while Model S was down 17%, Model Y dropped 16%, and Model X was down 13%.

“At the start of September, EV availability (as measured by days' supply) was well above the industry average as product availability and EV production rapidly increases. According to the Q3 2023 Cox Automotive Dealers Sentiment Index, franchised automobile dealers have declining expectations for EV sales in the coming months.

“Cox Automotive Chief Economist Jonathan Smoke notes, ‘Dealers are realizing this is not going to be an easy road in the short term, especially for some brands. However, the pressure dealers feel is from over-supply rather than a lack of demand. I see this as a natural speed bump and an expected part of growth. The No. 1 issue for consumers is price, and that's a barrier even to considering an electric vehicle. As an economist, I can confidently predict that surplus inventory and increased competition will eventually drive down prices, which will help with EV consideration and adoption.’”



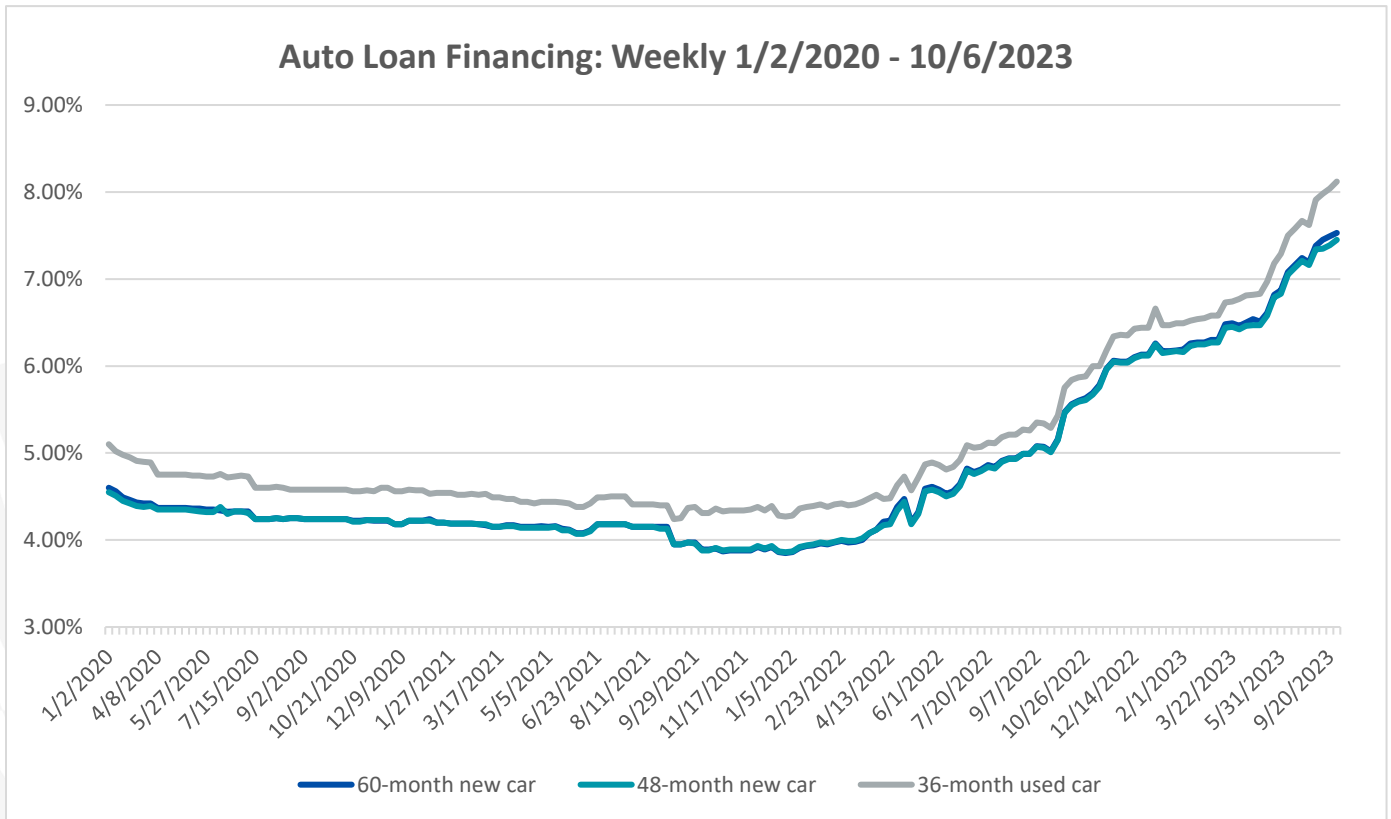


Auto Loan Financing (Updated 10/6)

Interest Rates (updated 10/6): Interest rates continued their steady increase on the 60-month, 48-month and 36-month used car loans. Rates now stand at 7.53%, 7.45%, and 8.12%, respectively. Since the beginning of 2020, 60-month rates are up 2.93 pp, and are up 2.06 pp since the same time a year ago...¹⁶

JD Power (10/6)¹⁷: “Elevated pricing coupled with interest rate increases continue to inflate monthly loan payments. The average monthly finance payment in September is on pace to be \$726, up \$15 from September 2022. That translates to a 2.1% increase in monthly payments from a year ago. The average interest rate for new-vehicle loans is expected to be 7.3%, an increase of 162 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%
10/5/2022	5.47%	5.46%	5.75%
9/20/2023	7.49%	7.39%	8.04%
10/4/2023	7.53%	7.45%	8.12%
Two Week Change	0.04%	0.06%	0.08%
Change since 1/3/20	2.93%	2.90%	3.02%
One Year Change	2.06%	1.99%	2.37%



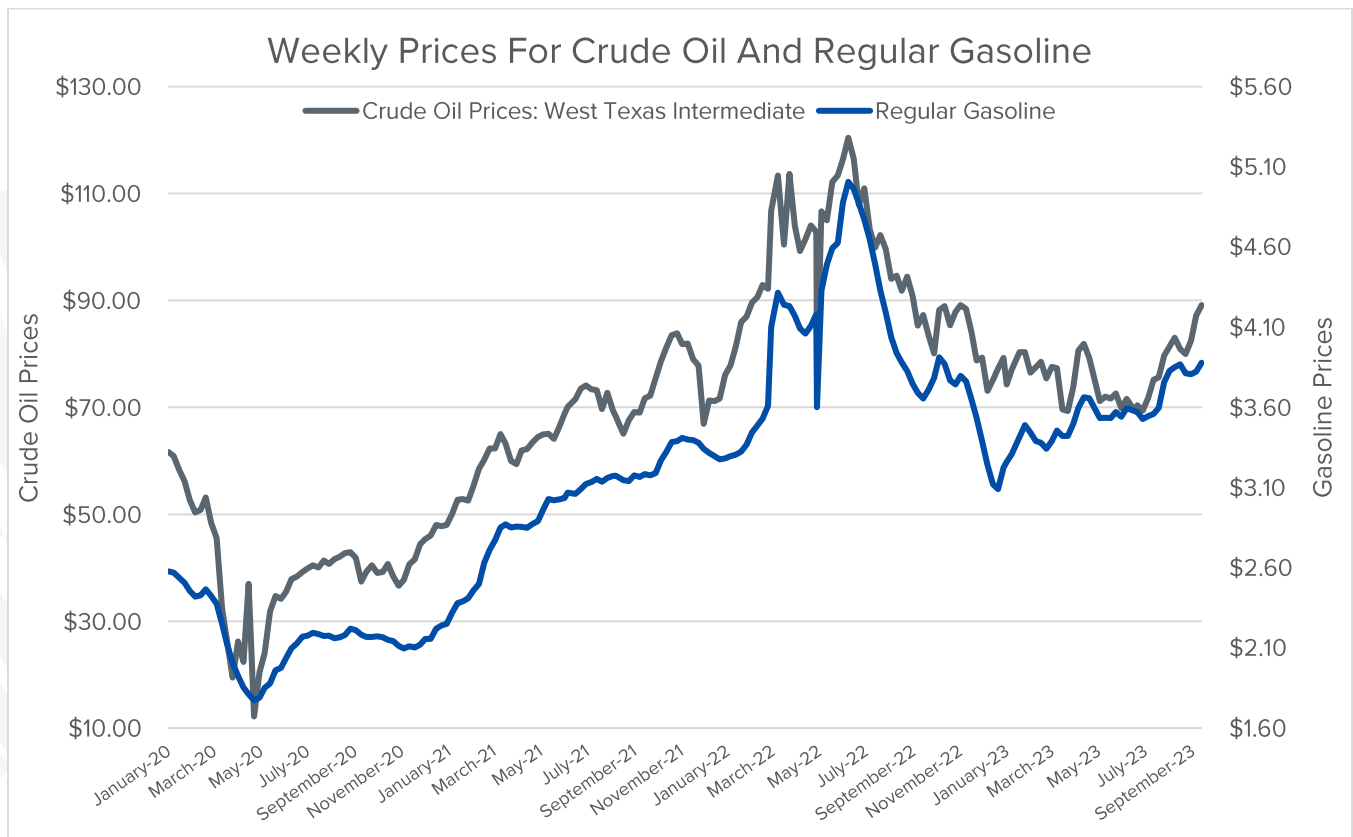
Crude Oil and Gas Prices (Updated 10/6)

EIA Outlook For Oil (9/21): Crude oil prices. We expect the Brent crude oil price to average \$93 per barrel (b) during 4Q23, up from \$86/b in August. A decline in global oil inventories in the coming months supports the Brent price in our forecast. The price eases to an average of \$87/b by the second half of 2024 because we expect global oil inventories to rise during that period.)¹⁸

EIA Outlook For Gasoline (9/21)¹⁹: “We reduced our vehicle miles traveled (VMT) forecast—which directly affects motor gasoline consumption—following the release of new population estimates from the U.S. Census Bureau. The revision increased the share of the U.S. population over 65, which reduced our forecast for VMT and gasoline consumption because it decreased our estimate of the working-age population commuters. In our September STEO forecast, the share of the U.S. population that will be over 65 is 18.2% in 2024, up from our August STEO forecast of 18.0%. This seemingly small increase adds 0.7 million individuals to the population of adults over 65. Although the total population remained unchanged, the U.S. Census Bureau revised the population under the age of 15 down by 0.5 million and the working-age population down by 0.2 million people. We define the working-age population as ages 15–64 because this group accounts for the bulk of the workforce and regular commuting.

“In our September STEO, we forecast U.S. gasoline consumption will average 8.9 million barrels per day (b/d) in 2023 and 8.7 million b/d in 2024 (down from our August STEO forecast of 8.9 million b/d in 2024). As a result of the revisions, we forecast that gasoline consumption will decline by 1.6% in 2024 compared with this year.”

Gas And Oil Remain Elevated (10/6): Oil prices, as benchmarked at West Texas Intermediate increased \$1.16 to \$91.44 a barrel. Since election day 2020, oil prices are \$55 a barrel higher. Gas prices are down \$0.04 from last week. Gas is 47% higher than the beginning of 2020.²⁰



Production Meter

U.S. Light Vehicle Inventory and Days' Supply (Updated 10/6)

WardsIntelligence Inventory Update (10/6)²¹: “U.S. light-vehicle inventory grew a surprisingly high 7.1% at the end of September from August to a total of 2.062 million units, 44.8% above like-2022.

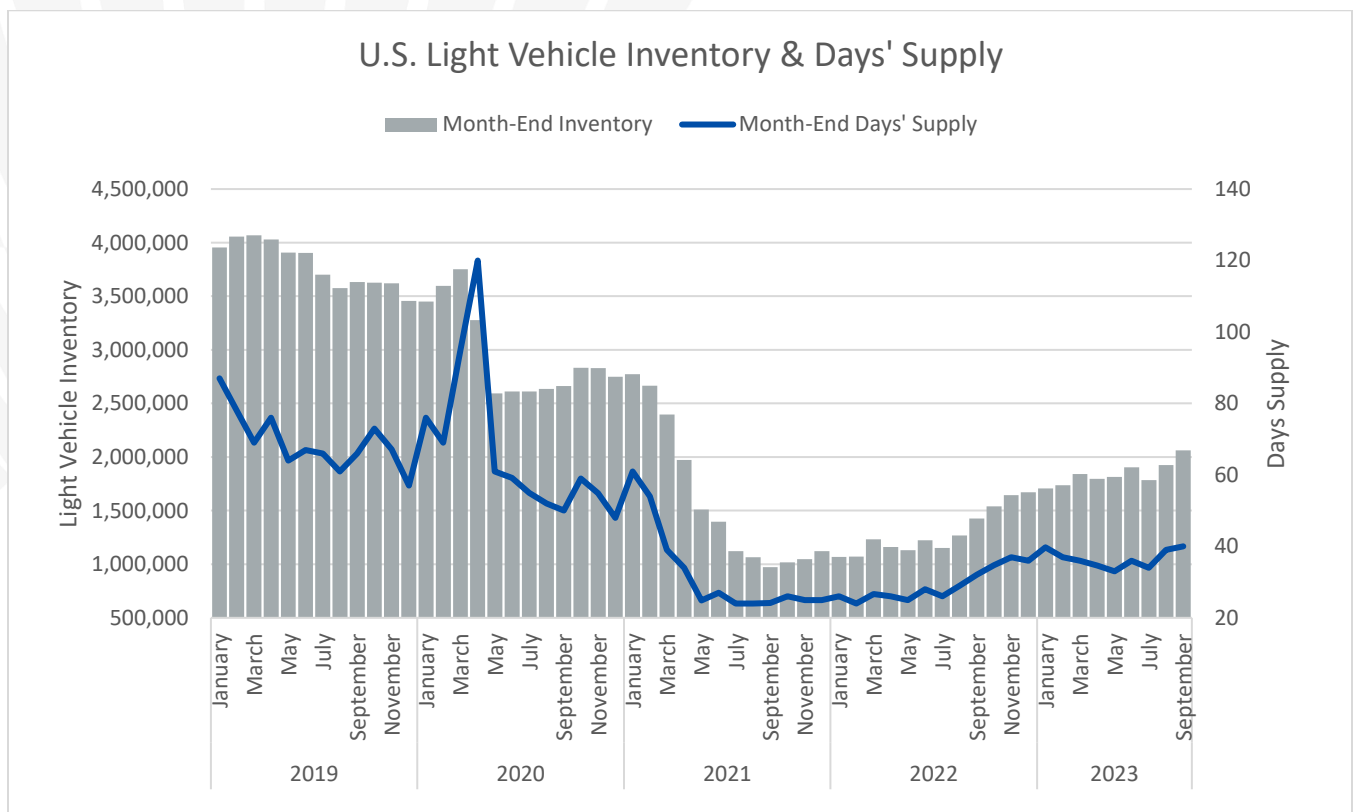
“Even without the negative impact from the smattering of U.S. plant shutdowns last month at the three automakers negotiating new national contracts with the UAW, the gain would have been stronger than expected.

“Hefty month-to-month gains at Ford, Honda, Mazda, Nissan, Subaru, Toyota and Volkswagen Group pushed inventory above the 2-million mark for the first time since 2.4 million in March 2021, when the semiconductor shortage was causing huge production cuts among North America manufacturers, slashing dealer inventory to unprecedented levels.

“If not for plant shutdowns that started Sept. 15 initially at four plants among Ford, General Motors and Stellantis, as the UAW began selective strikes after the previous national contracts with each expired, inventory would have entered October an estimated 40,000 units higher.

“With two additional plants since Sept. 15 closed by walkouts or parts shortages related to the strikes, daily production being lost currently is 5,200 units. The share varies by automaker, but roughly 85% of the current losses are of vehicles meant for the U.S. market. If negotiating teams remain far apart, more plant closures are likely.

“In September, days’ supply ended the month at 40, up from the prior month’s 29 and like-2022’s 32. It also was the highest for any month since 54 in February 2021. Pre-pandemic, a normal days’ supply for September was 63 to 65.”



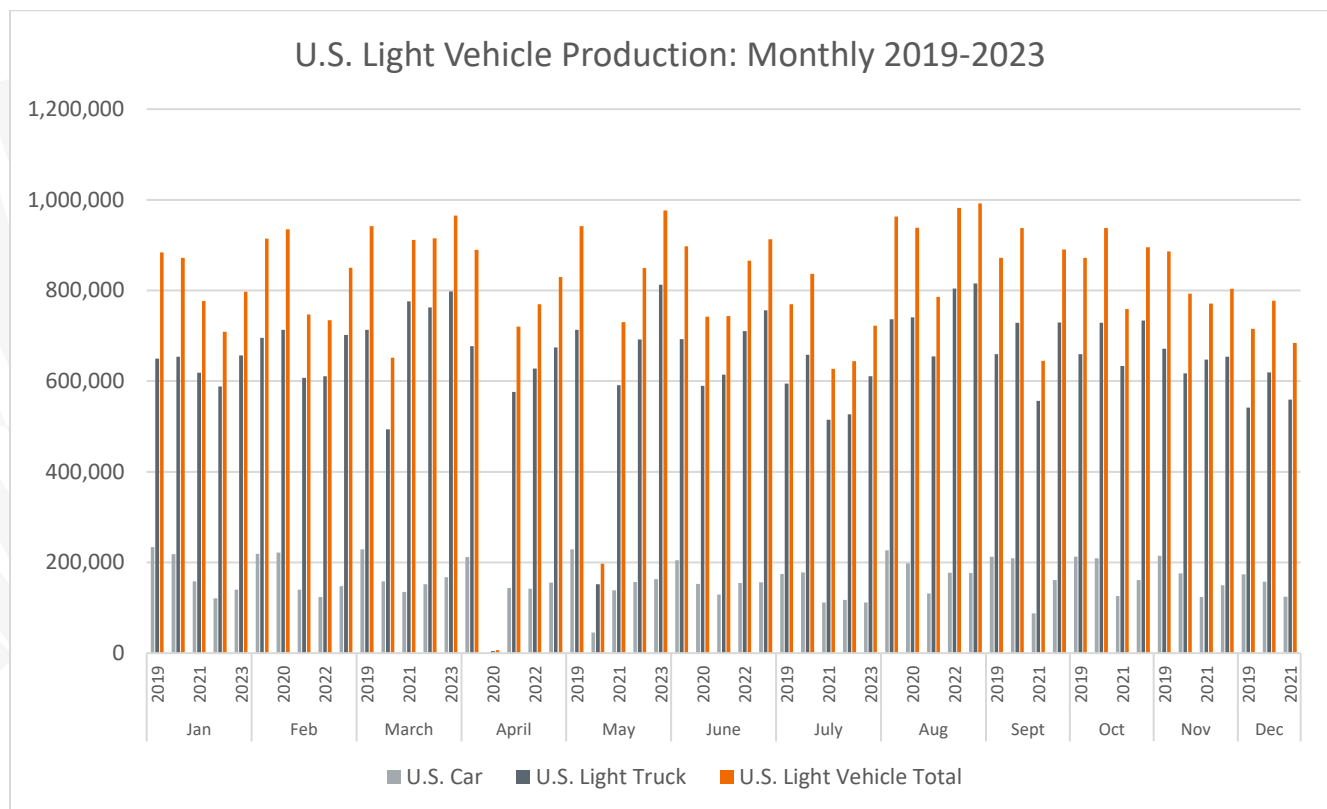
North American Production (Updated 9/21)

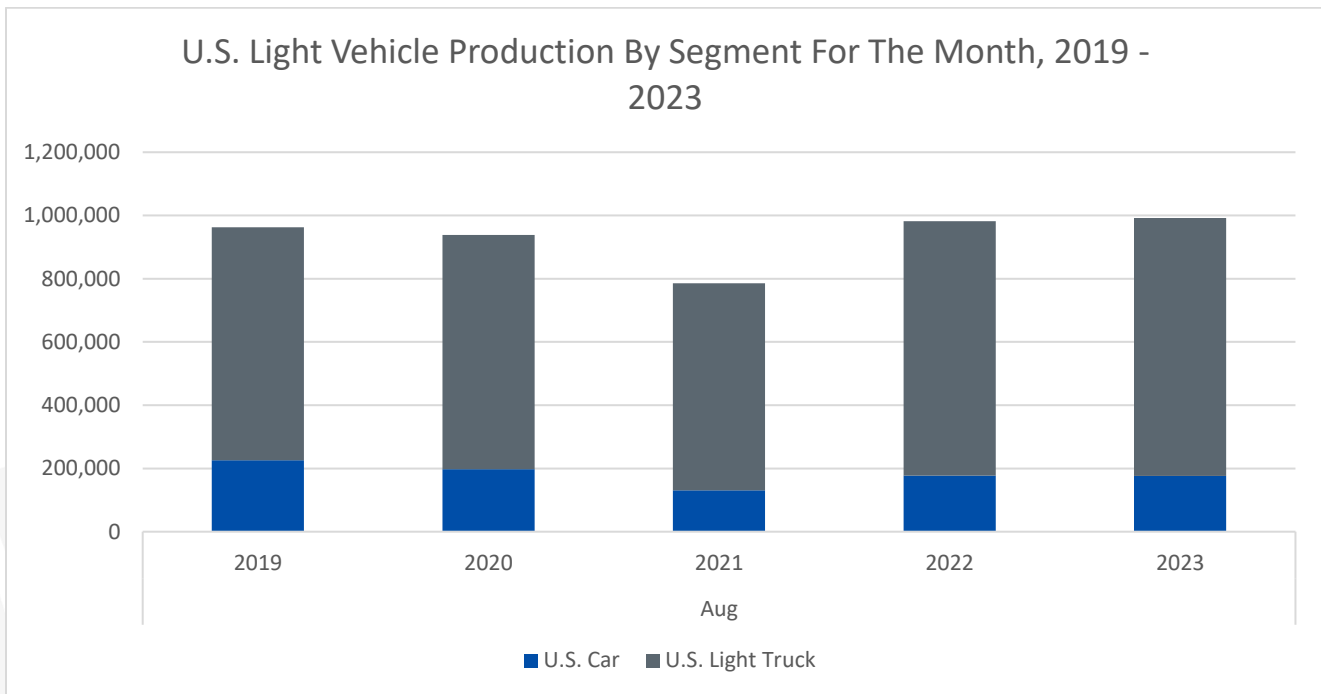
Wards Intelligence²²: “August totaled 1.526 million units, 4.9% above same-month 2022’s 1.455 million. Interestingly, GM and Ford were mostly behind the August underbuild with shortfalls of 30,500 and 29,100 units, respectively. They were partially offset by overbuilds at several manufacturers, especially at Nissan – up 15,700 - and Toyota (14,000).”

U.S. Light Vehicle Production (Updated 9/21)

Monthly Production (Updated 9/21)

U.S. Light vehicle production for August 2023 increased month-over-month by 38 percent, totaling 991,903 vehicles (176,467 cars, 815,436 light trucks), year-over-year, production is up 1.7 percent from 2022. ...²³





Global Meter

Global Light Vehicle Sales (Updated 10/6)

Wards Intelligence²⁴: “Big year-over-year increases in Europe and North America fundamentally were behind the resumption in August of monthly double-digit sales gains globally, but China’s return to growth was an underlying reason demand rose to a stronger level.

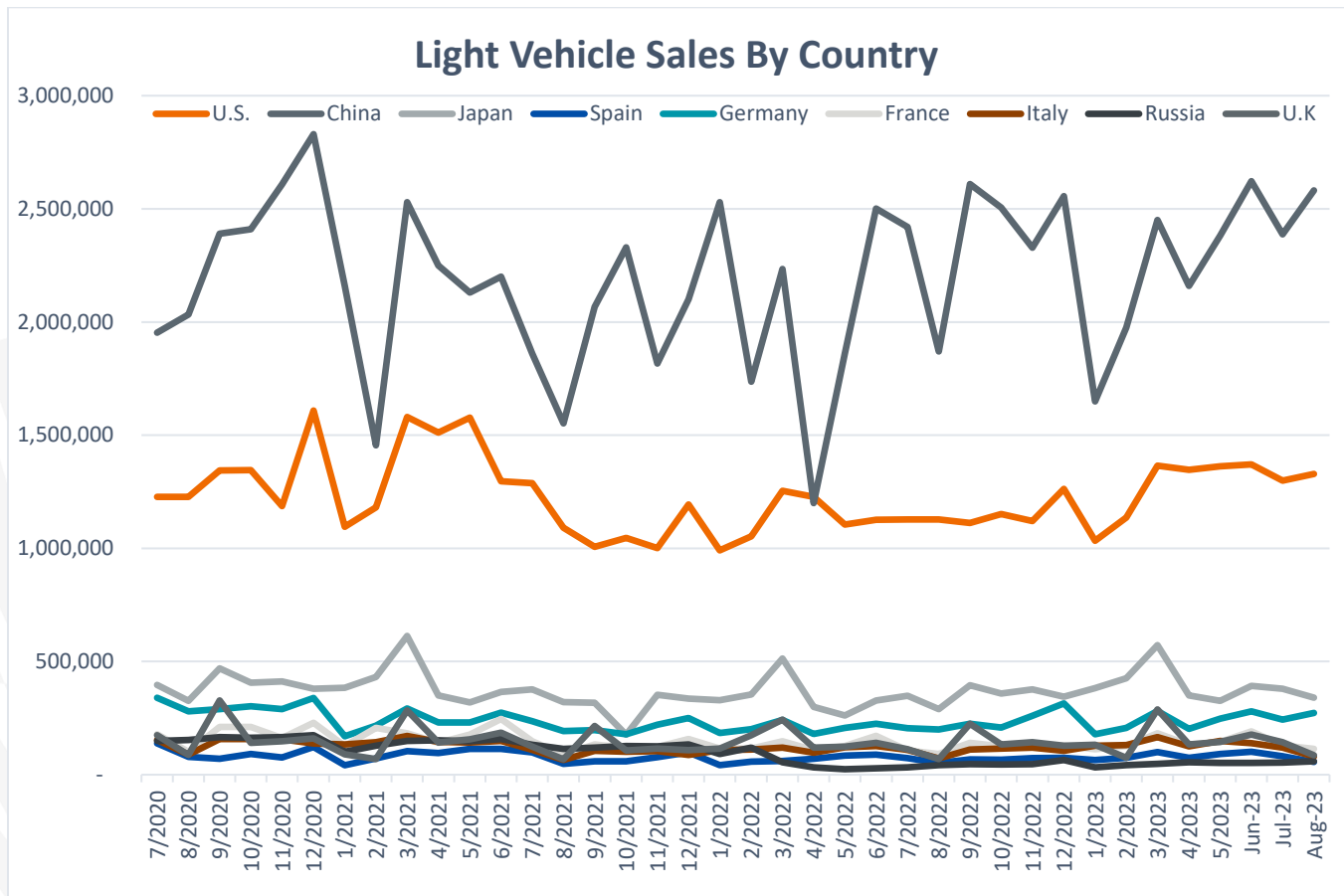
Including some initial estimates, global sales of light vehicles and medium- and heavy-duty trucks totaled 7.60 million units in August, well above like-2022’s 6.83 million.

August’s increase marked a rebound from July’s 8.0% rise, which was the worst year-over-year comparison since a 9.6% decline in January. Europe and North America, which both have been posting double-digit gains in most months this year, recorded results strong enough to lift global sales above year-ago levels.

However, China’s 7.5% increase, though lower than the global rise, reversed its 1.9% decline in July. With China accounting for roughly one-third of worldwide demand, any growth in sales there usually is enough to push global volume into positive territory.

More importantly, the return to growth in China appears reflective of renewed programs there to encourage sales of electrified vehicles, plus recent government initiatives to increase consumer sentiment and spending, which were showing red flags over the summer. That bodes well for global demand (and production) for the remainder of the year.

Sales in China in the first eight months of 2023 totaled 18.68 million units, up 7.5% from like-2022's 17.37 million.”



Global Light Vehicle Production (Updated 9/21)

S&P Global Mobility Forecast (9/21)²⁵: “Light vehicle production continues to demonstrate resiliency in the immediate near-term with output increasing in several regions contributing to inventory restocking. In addition, the release of pent-up demand continues to play a role in supporting production. The state of consumer demand remains a key consideration given elevated vehicle pricing and still challenging credit conditions; yet, consumers remain fairly well-engaged in the light vehicle market in many regions. Looking beyond 2023, we continue to see a general production outlook that is shifting toward a more traditional demand-driven model as inventory levels approach equilibrium in several markets. The September 2023 forecast update reflects some noteworthy upgrades in the near-term, particularly for Europe and Japan/Korea on continued production recovery supporting demand, as well as inventory backfill, and Greater China given ongoing strength in export activity. This was only partially offset by a fairly meaningful near-term downgrade for North America on UAW strike impacts. Regarding North America, the recent strike activity initiated by the UAW is an evolving situation with the full impact not necessarily fully reflected in a single forecast update. To that end, S&P Global Mobility will be releasing a periodic tracker to help clients navigate the ongoing impacts

of strike actions as they evolve. The more noteworthy regional adjustments with the latest forecast update are detailed below:

“Europe: The outlook for Europe light vehicle production was increased by 285,000 units and by 169,000 units for 2023 and 2024, respectively (and increased by 72,000 units for 2025). The near-term upgrade for Europe reflects both improved production actuals as well as an upgraded outlook for demand in both Western/Central Europe and Eastern Europe. While order activity for areas like Germany and France has started to improve, we continue to expect a realignment of production to support underlying demand to emerge in the next couple of quarters, yet at a somewhat stronger demand level than previously anticipated given the recent improvement in backlogs. As inventory approaches equilibrium and given the impact of a material growth in imports, production is expected to contract in 2024 relative to 2023. The region continues to adjust to the fact that it has become a net importer of vehicles after historically being a net exporter. Notwithstanding the nearly 2% reduction in volumes for 2024 relative to 2023, the outlook for 2024 has been boosted early in the year as we expect order backlogs to eventually fade by next spring. The upgrades are focused on ICE-based vehicles as automakers appear more willing to modulate BEV share before the next CO2 reduction step occurs in 2025. The positive adjustments made to the forecast beyond 2024 are centered around Russia where Chinese CKD activity continues to develop as a substitute for OEMs that left the market in 2022.

“Greater China: The outlook for Greater China light vehicle production was increased by 297,000 units and reduced by 105,000 for 2023 and 2024, respectively (and reduced by 111,000 units for 2025). Robust export activity continues to be a strong driver of light vehicle production growth in the region. In addition, further support is provided by reduced summer shutdown activity. With the ongoing strength regarding exports, we upgraded July and August by 250,000 units and 185,000 units, respectively. However, with the NEV tax reduction policy extension, Q4-2023 has been downgraded by 125,000 units. Overall Greater China light vehicle production now reflects growth of 2.0% for 2023 (1.1 percentage points higher than the August release). Given the risk of slowing economic growth, local currency depreciation and private demand destruction, the production outlook for 2024 and 2025 has been modestly downgraded, yet still represents a post-COVID rebound of 3.8% and 5.3%, respectively.

“Japan/Korea: Full-year 2023 Japan production was increased by 52,000 units. The near-term outlook was upgraded given the steady recovery pace extending through 2023. We expect internal combustion engine vehicle export volume to North America will continue to recover, particularly for Toyota, Subaru and Mazda, as we see reduced recessionary risks for the US economy. The long-term forecast was downgraded over 150,000 units per year. There are two negative factors at play. One is related to concerns that Toyota BEV volumes will have downside risks due to lagging development around a dedicated BEV platform. According to our research, overall BEV project developments are slowing. Another factor is that Subaru is expected to lose momentum in Japan as it retains BEV production in Japan rather than localizing in North America to comply with IRA program requirements. Full-year 2023 South Korea production was increased by 55,000 units relative to the previous forecast as exports continue to drive overall output supporting global demand and given stable plant operations, although domestic sales were slightly reduced relative to last year as mid-sized OEMs such as KG Mobility and Renault Korea face difficulties in the market due to the absence of new models. As demand from the United States, the largest export destination, continues to be strong, production in 2024 and 2025 has been increased by around 100,000 units respectively. Long-term output was boosted by around 130,000 units per year primarily due to a sourcing change from the US to South Korea for the Hyundai Avante, Ioniq 5 and Ioniq 6. Additionally, minor volume fluctuations reflect timing changes for some models, such as the Hyundai Tucson and the Kia Sportage.

“North America: The outlook for North America light vehicle production was reduced by 315,000 units and increased by 468,000 units for 2023 and 2024, respectively (and reduced by 21,000 units for 2025). The UAW is making history by simultaneously striking at GM, Ford, and Stellantis for the first time. The UAW plans to use an unconventional strategy by targeting specific sites, adding new sites as time progresses. As a result, the ability to predict the volume implications in the forecast is significantly more challenging. The September 2023 forecast release reflects the initial targeted plants including GM-Wentzville, Ford-Michigan Assembly and Stellantis-Toledo Assembly. Further, the forecast reflects a staggered strike strategy impacting all three manufacturers with incremental downtime added over our initial five-week strike scenario. As a result, explicit downtime remains isolated to UAW plants in the US with factories in Canada and Mexico continuing to operate at a reduced rate to compensate for the eventual impact at those plants. This strike scenario contributes to the loss of 2.0% with the year totaling 15.15 million units. While the forecast was revised higher by 3.0% to total 16.32 million units in 2024, concern surrounds the ability of the suppliers to meet expected increases in demand from OEMs as they struggle with the effects of the strike. The Biden administration is considering aid for suppliers in the event of a protracted strike.

“South America: The outlook for South America light vehicle production was increased by 67,000 units and reduced by 10,000 units for 2023 and 2024, respectively (and reduced by 28,000 units for 2025). The near-term outlook for the region was boosted based on stronger production results for Brazil and Argentina. Our general production outlook continues to reflect an earlier return to inventory normalization and consequently is more reliant on demand fundamentals going forward. The production downgrade over the 2024 through 2025 timeframe primarily reflects cuts in Brazilian output to avoid inventories getting too high in the medium term. Further, it generally mirrors previous revisions adopted on the demand side.

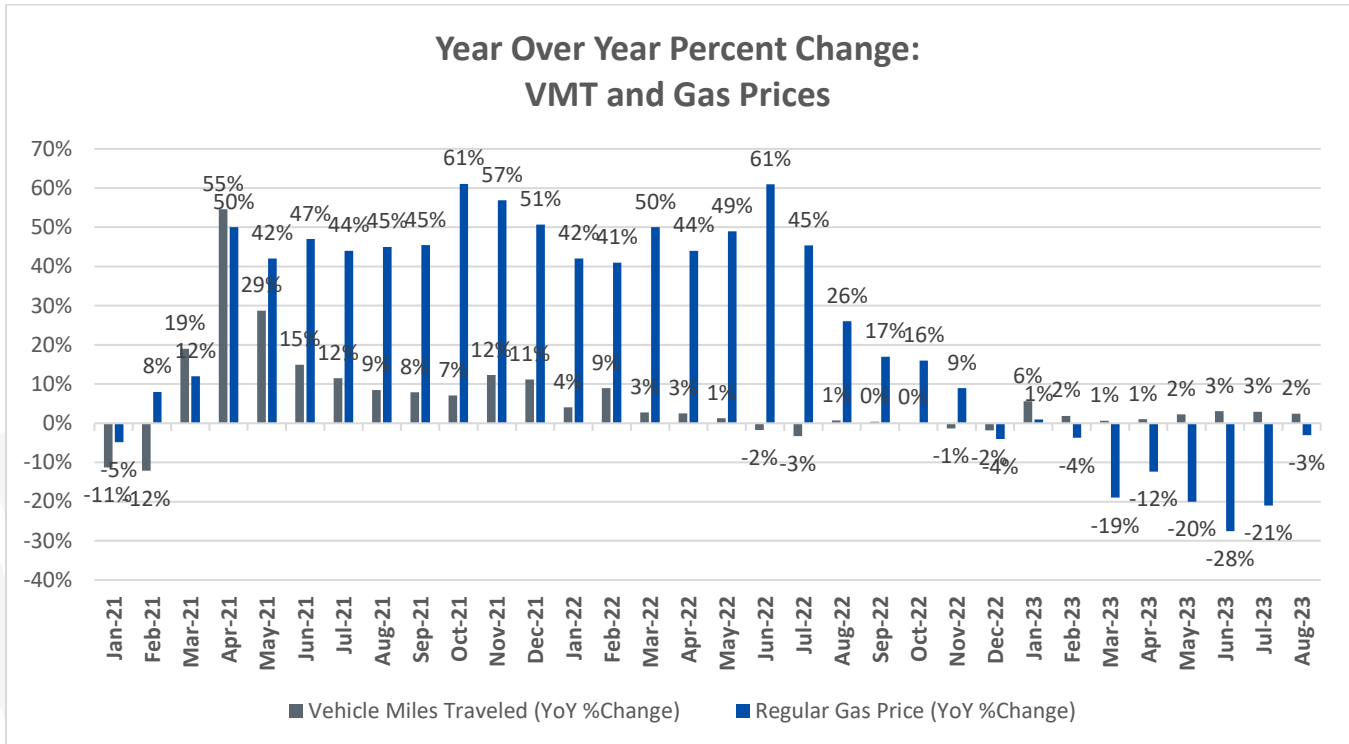
“South Asia: The outlook for South Asia light vehicle production was increased by 21,000 units and by 129,000 units for 2023 and 2024, respectively (and increased by 103,000 units for 2025). In the near-term, India subcontinent production was reduced rather modestly by 16,000 units to better align with current market conditions. Looking beyond 2023, production was boosted to reflect an improved demand outlook for the market. With regard to the ASEAN market, upgrades are focused on improved outlooks for Thailand and Indonesia, among others. Thailand production benefits particularly from increased localization efforts of several Chinese OEMs including BYD, SAIC Motor and Great Wall Motor to capitalize on the Thai government’s electric vehicle subsidy program.”

Recovery Meter

Roadway Travel (Updated 10/6)

According to the U.S. Department of Transportation, seasonally-adjusted vehicle miles traveled in July increased 2.4 percent from the same time a year ago. The cumulative travel estimate for 2023 is 2,154.6 billion vehicle miles.²⁶

- Travel on all roads and streets changed by +2.4% (+6.8 billion vehicle miles) for August 2023 as compared with August 2022. Travel for the month is estimated to be 288.4 billion vehicle miles.
- The seasonally adjusted vehicle miles traveled for August 2023 is 271.2 billion miles, a 2.40% (6.3 billion vehicle miles) change over August 2022. It also represents a 0.4% change (0.9 billion vehicle miles) compared with July 2023.
- Cumulative Travel for 2023 changed by +2.4% (+49.9 billion vehicle miles). The cumulative estimate for the year is 2,154.6 billion vehicle miles of travel.



Economic News (Updated 10/6)

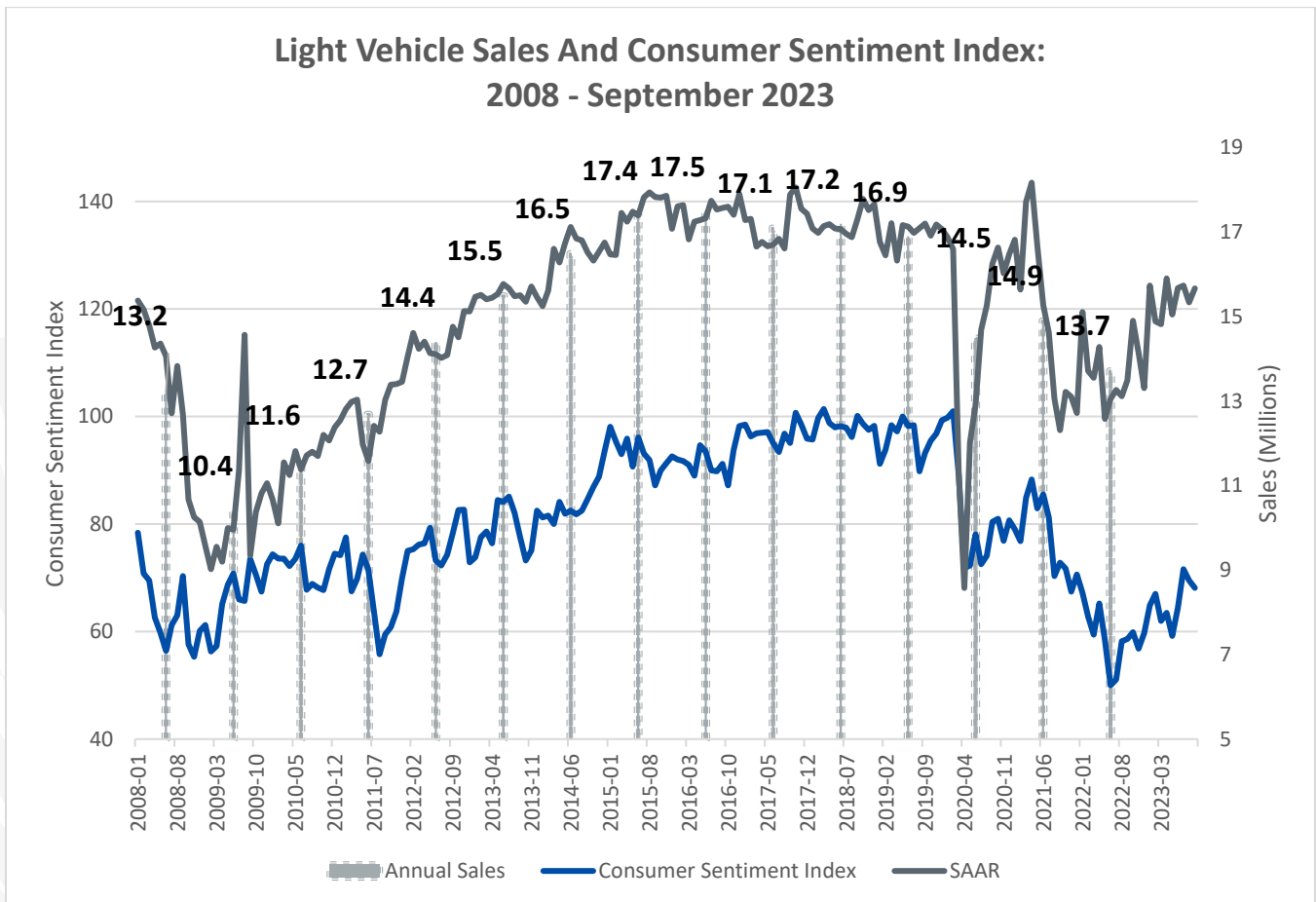
The ISM Index Hits 49 Percent in September – Eleventh Consecutive Month of Contraction. “The U.S. manufacturing sector faced its 11th consecutive month of contraction, but signs of resilience are emerging, according to the latest Manufacturing ISM Report On Business. The Manufacturing PMI registered 49% in September, up 1.4% points from August, marking its highest level since November 2022. While this extends the contraction streak, it also marks the third month of positive change.”²⁷

Consumer Confidence and Sales (Updated 10/6)

Surveys of Consumers Director Joanne Hsu²⁸: “Consumer sentiment confirmed its early-month reading and was little changed this month, slipping a mere 1.4 index points from August and remaining 16% higher than a year ago. A small decline in consumer expectations over their personal finances was offset by a modest improvement in expected business conditions. Consumers are understandably unsure about the trajectory of the economy given multiple sources of uncertainty, for example over the possible shutdown of the federal government and labor disputes in the auto industry. Until more information emerges about these developments, though, consumers have reserved judgement on whether economic conditions have materially changed from the past few months.

“Year-ahead inflation expectations moderated from 3.5% last month to 3.2% this month. The current reading is the lowest since March 2021 and is above the 2.3-3.0% range seen in the two years prior to the pandemic.

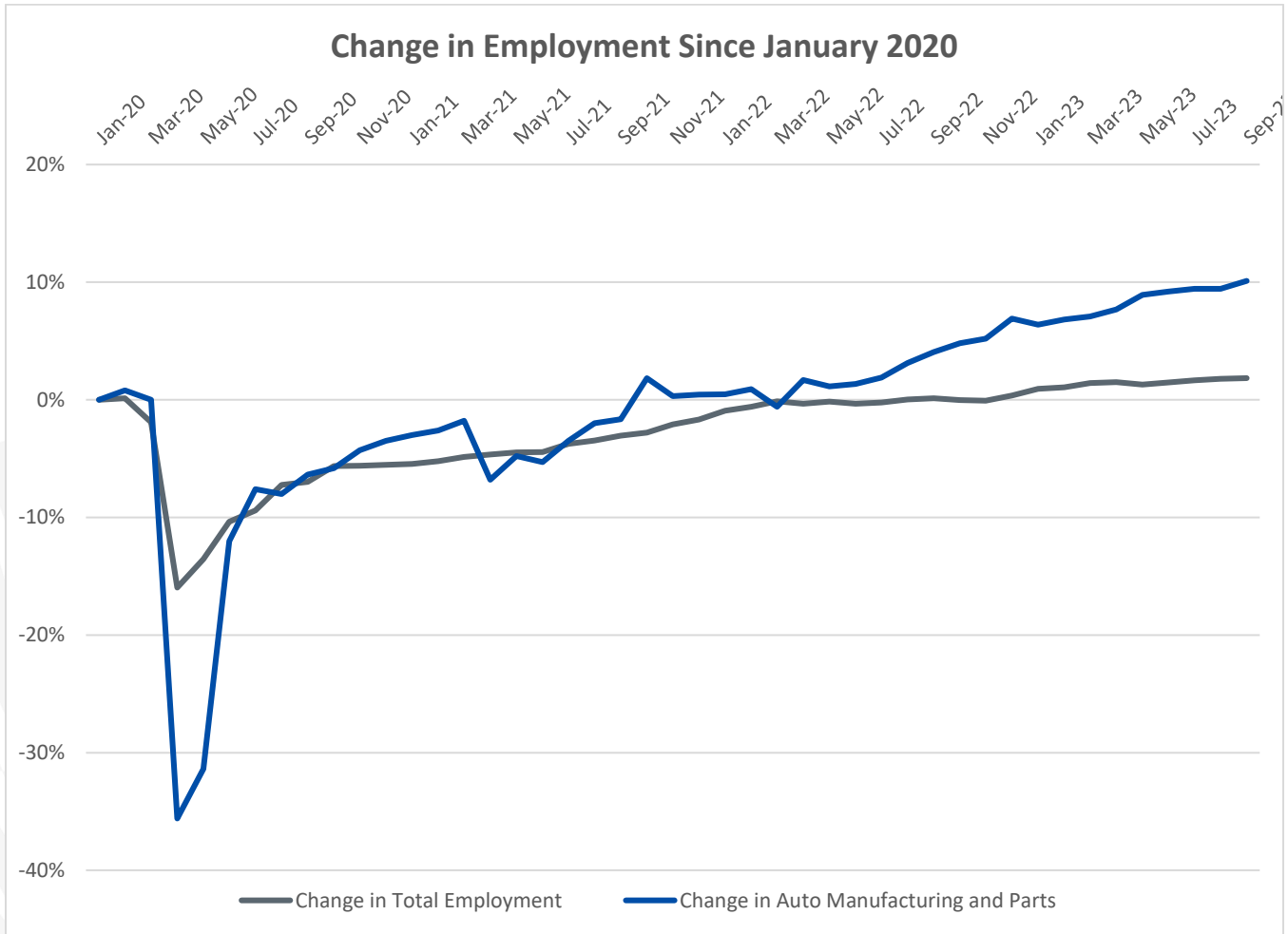
Long-run inflation expectations came in at 2.8%, falling below the narrow 2.9-3.1% range for only the second time in the last 26 months. In comparison, long-run inflation expectations ranged between 2.2 and 2.6% in the two years pre-pandemic.”



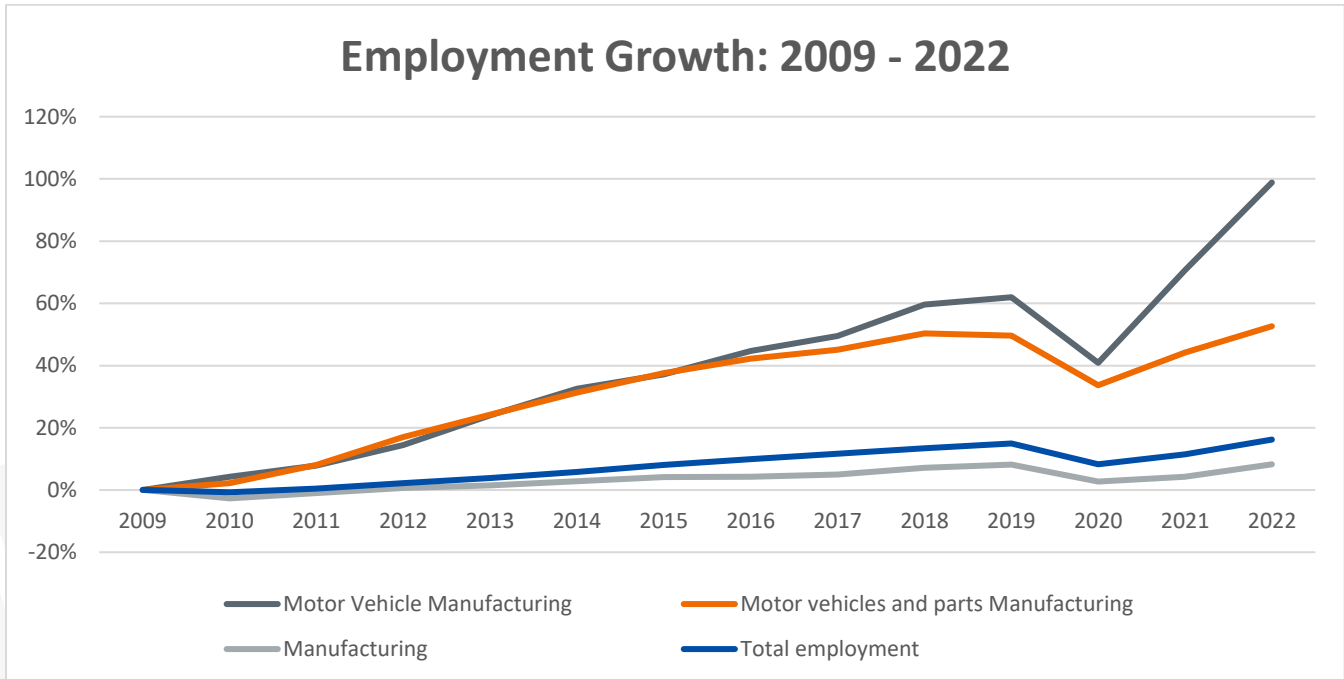
Employment (Updated 10/6)

Motor Vehicle And Parts Manufacturing Gained 890 Jobs In September.

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.²⁹



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.³⁰ 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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