

READING THE METER

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



ALLIANCE FOR AUTOMOTIVE INNOVATION

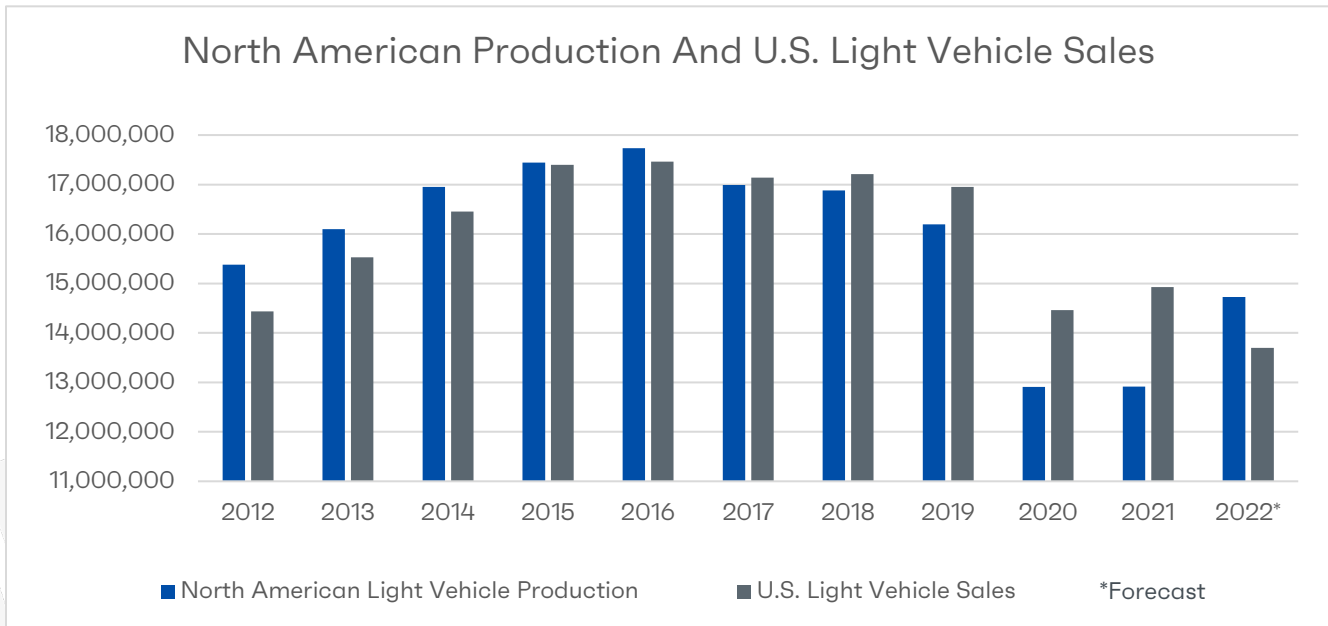
Contents – January 5, 2023

Forecast Meter.....	2
Sales & Production Summary and Forecast (Updated 1/5).....	2
U.S. Light Vehicle Sales Outlook (Updated 1/5).....	3
North American Production & Inventory Outlook (Updated 1/5).....	4
Market Meter	5
U.S. Light Vehicle Sales (Updated 1/5).....	5
Segments vs. Gas Prices (Updated 1/5).....	7
EV Powertrain Sales (Updated 1/5).....	8
Seasonally Adjusted Annual Rates (Updated 1/5).....	8
Average Transaction Price (Updated 1/5).....	9
Auto Loan Financing (Updated 1/5).....	11
Crude Oil and Gas Prices (Updated 1/5).....	12
Production Meter	13
U.S. Light Vehicle Production (Updated 1/5).....	13
U.S. Light Vehicle Inventory and Days' Supply (Updated 1/5).....	14
Global Meter.....	15
Global Light Vehicle Sales (Updated 1/5).....	15
Global Light Vehicle Production (Updated 1/5).....	16
Recovery Meter.....	19
Roadway Travel (Updated 1/5).....	19
Economic News (Updated 1/5).....	20
Consumer Confidence and Sales (Updated 1/5).....	20
Employment (Updated 1/5).....	21
Sources.....	23

Forecast Meter

Sales & Production Summary and Forecast (Updated 1/5)

2021-2022 Sales, ¹ Extended Sales Forecast ² and Production Forecasts ³		
	U.S. Sales & Forecasts	North American Production
January '21	1,094,689 (-3.6% YoY)	1,175,940 (-14.0% YoY)
February '21	1,180,506 (-5.3% YoY)	1,120,200 (-22.9% YoY)
March '21	1,581,067 (+59.7% YoY)	1,376,904 (31% YoY)
April '21	1,512,186 (+111.4 YoY)	1,094,891 (-21% YoY)
May '21	1,577,941 (+41% YoY)	729,879 (+271% YoY)
June '21	1,296,517 (+17% YoY)	1,107,958 (-1.9% YoY)
July '21	1,288,494 (-7.9% YoY)	926,035 (3% YoY)
August '21	1,090,446 (-11% YoY)	1,113,327 (-19% YoY)
September '21	1,006,875 (-25% YoY)	907,470 (-33.4% YoY)
October '21	1,046,282 (-20% YoY)	1,140,383 (-22.1% YoY)
November '21	1,001,351, (-20% YoY)	1,168,245 (-9% YoY)
December '21	1,194,313 (-22.9% YoY)	1,029,501 (-13.8% YoY)
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)	
1st Quarter '22	14.01 million-unit SAAR	3,458,480 (-1.4% YoY)
2nd Quarter '22	13.4 million-unit SAAR	3,584,093 (+13.2% YoY)
3rd Quarter '22	3,358,116 (-.9% YoY)	3,636,418 (+24.6% YoY)
2021 Full Year	14,926,933 (+3.1% YoY)	12,919,000 (+4% YoY) (U.S. 8,871,661)
2022 Full Year Estimate	13.7 million units (WardsIntelligence)	14,724,900 (+14% YoY)

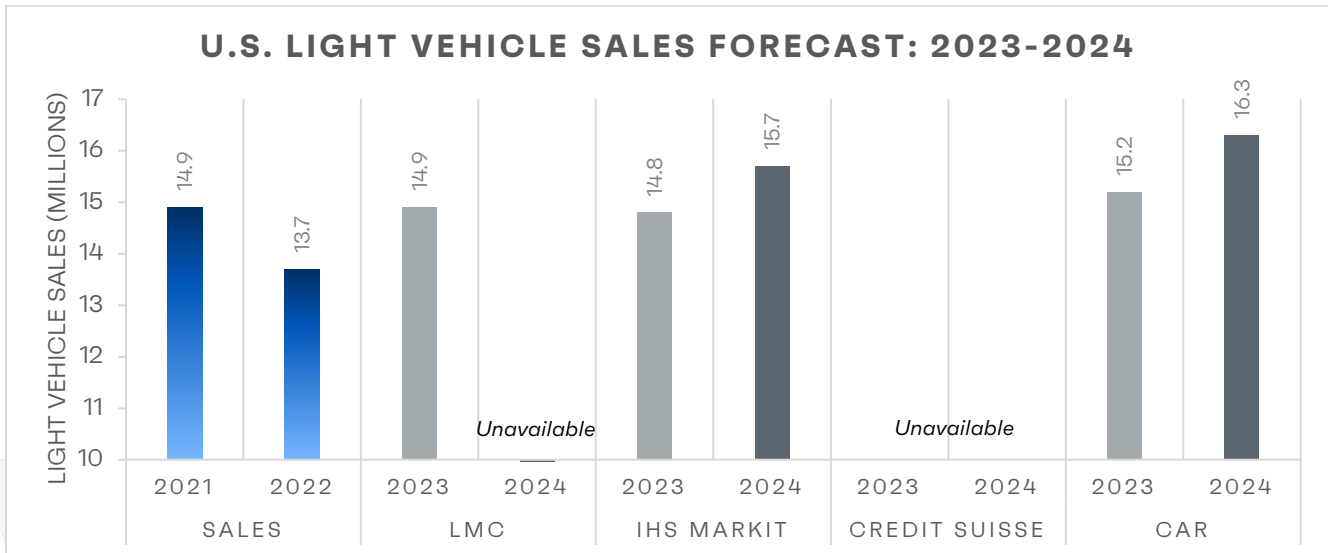


U.S. Light Vehicle Sales Outlook (Updated 1/5)

Wards Intelligence Outlook (1/5) 4: “Despite rising inventory and a huge amount of pent-up demand built up over nearly three years, sales are not gaining much traction.

“The Q4-2022 seasonally adjusted annual rate of 14.2 million units was the highest for any quarter last year, but after October started the period with a long-time high 15.1 million annualized rate, demand weakened in November and December to SAARs of 14.2 million and 13.3 million, respectively.

“Wards Intelligence partner LMC Automotive forecasts 2023 sales to total 14.9 million units, breaking out to a Q1 SAAR of 14.6 million, Q2 at 14.5 million, Q3 at 15.4 million and the final quarter at 15.8 million. Economic weakness in 2023, including possible recession, is expected to have its greatest impact in the middle of the year.



North American Production & Inventory Outlook (Updated 1/5)

“Wards Intelligence Inventory Outlook (1/5)⁵: “Although there will remain challenges with the semiconductor shortage, and other supply-chain issues, which are not expected to be entirely resolved until 2024, the problem is easing. Thus, inventory is expected to generally continue rising throughout 2023 as automakers increase their plant capacity utilization. . . . If there is, as expected, a mild recession, the actual timing of it could significantly throw off the forecasted cadence of sales in 2023. However, based on the current outlook, and forecast production for the U.S. market, WI projects inventory will be near 2 million units by March 31, total 2.1 million at the end of Q2, remain roughly flat entering October and end the year at 2.45 million units – about two-thirds of its typical pre-pandemic December level.”

Wards Intelligence Production Outlook (1/5)⁶: “Production for entire-2022 is expected to total 14.725 million units, 9.8% above 2021, and highest since 2019’s 16.802 million. Light-vehicle production is tracking to 14.186 million units in 2022, up the same percentage as total output. By vehicle type, car output will rise 4.5% year-over-year in 2022 and trucks will increase 11.1% - light trucks up a similar 11.1%; medium/heavy up 10.4%. Production in Q1-2023 is expected to continue growing year-over-year. North America production of all vehicles is tracking to a total of 3.984 million units in January-March 2023, 9.7% above the year-ago period, but 8.8% below like-2019 – production is not expected to return to 2019 levels until the end of 2023.”

S&P Global Mobility Outlook⁷: “North America: The outlook for North America light vehicle production was increased by 43,000 units for 2022 and largely unchanged for 2023 and 2024. Despite a resurgence of short-lead downtime, the outlook for North America light vehicle production for 2022 was revised higher by 0.3% to 14.32 million units on stronger production results that offset ongoing supply chain, labor, and logistic issues that continue to hinder production. Semiconductor and other

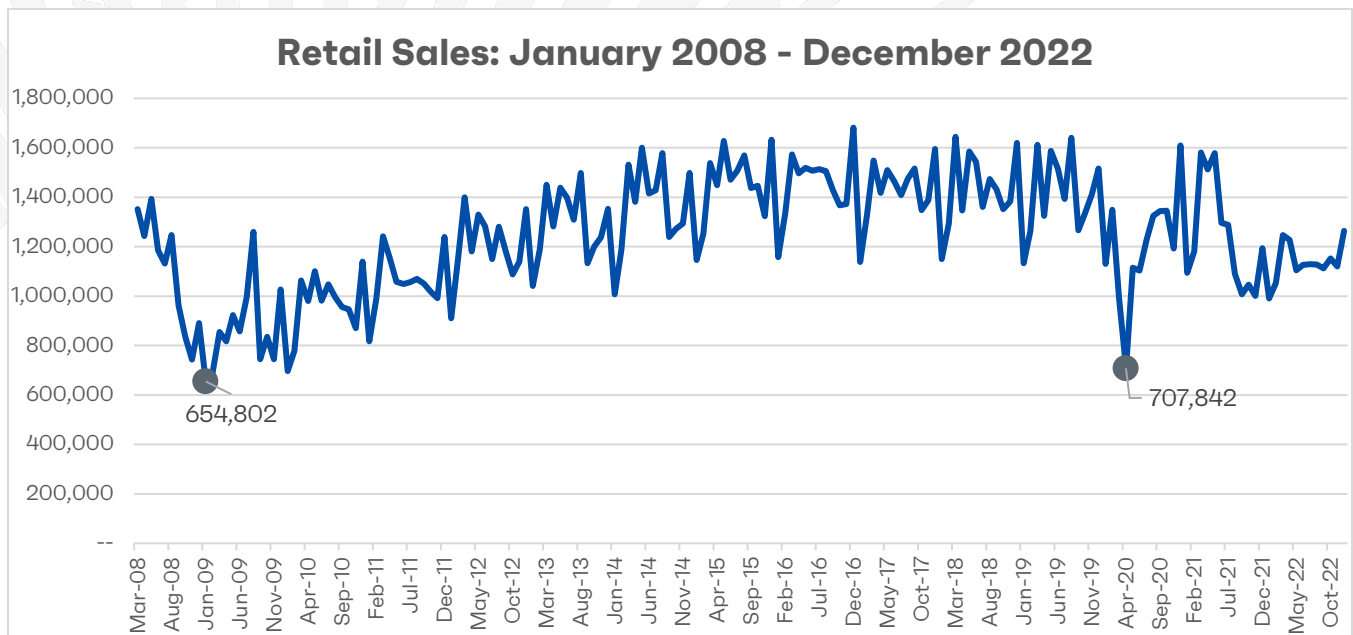
related production losses in the fourth quarter are on pace for the highest level since fourth quarter 2021 totaling 248,000 units. Notwithstanding concerns surrounding the ongoing volatility of the supply chain, most notably for semiconductors, and demand destruction amid recessionary fears, the outlook for 2023 and 2024 were essentially unchanged having integrated sweeping reductions last month. While demand destruction concerns remain pervasive, the inventory rebuilding process that is projected to rapidly improve vehicle availability by mid-2023, may further stimulate demand as incentive levels are expected to increase. This situation will vary markedly by manufacturer with GM, Ford and Stellantis facing normalized inventory levels sooner while their Asian counterparts that continue to struggle to restock depleted inventories are afforded a somewhat longer period for stronger pricing power. Inventory and incentive activity will be key barometers to gauge potential demand destruction.

Market Meter

U.S. Light Vehicle Sales (Updated 1/5)

Monthly Sales (Updated 1/5)

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.

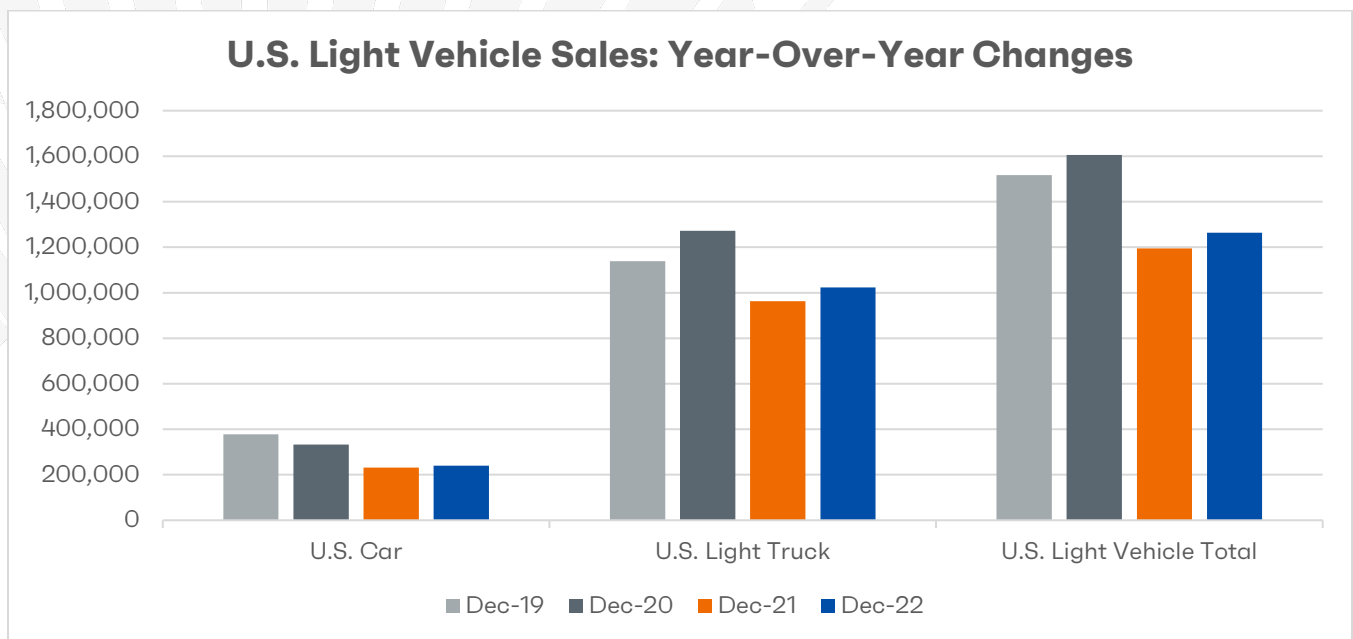


December Sales (Updated 1/5)

WardsIntelligence⁸: “Although finishing higher than forecast U.S. light-vehicle sales in December fell month-to-month for the second straight time, based on seasonally adjusted annual rates. After posting a 9-month high SAAR in October of 15.1 million units, sales fell to 14.1 million in November and to 13.3 million in December. The fourth quarter totaled a 14.2 million-unit SAAR, highest quarterly total since Q2-2021’s 16.7 million, and above like-2021’s 13.0 million.

“Raw volume in December was 1.26 million units, up 4.9% from like-2021. The month’s daily selling rate was 46,788, up from December 2021’s 44,592 – 27 selling days both periods - and the fourth straight month the DSR increased over the same year-ago period. Despite year-over-year gains over the last four months of the year, December’s tally means total sales in 2022 were 13.73 million units, down from 2021’s 14.95 million and lowest for any year since 12.74 million in 2011.

“Wards Intelligence partner LMC Automotive is forecasting demand in 2023 will rise to 14.94 million units, with sales on both a seasonally adjusted and volume basis heavily tilted toward the second half. Despite representing strong year-over-year growth, the 2023 forecast remains well below the pre-pandemic norm of 17-million-plus.



Fleet Sales (Updated 1/5)

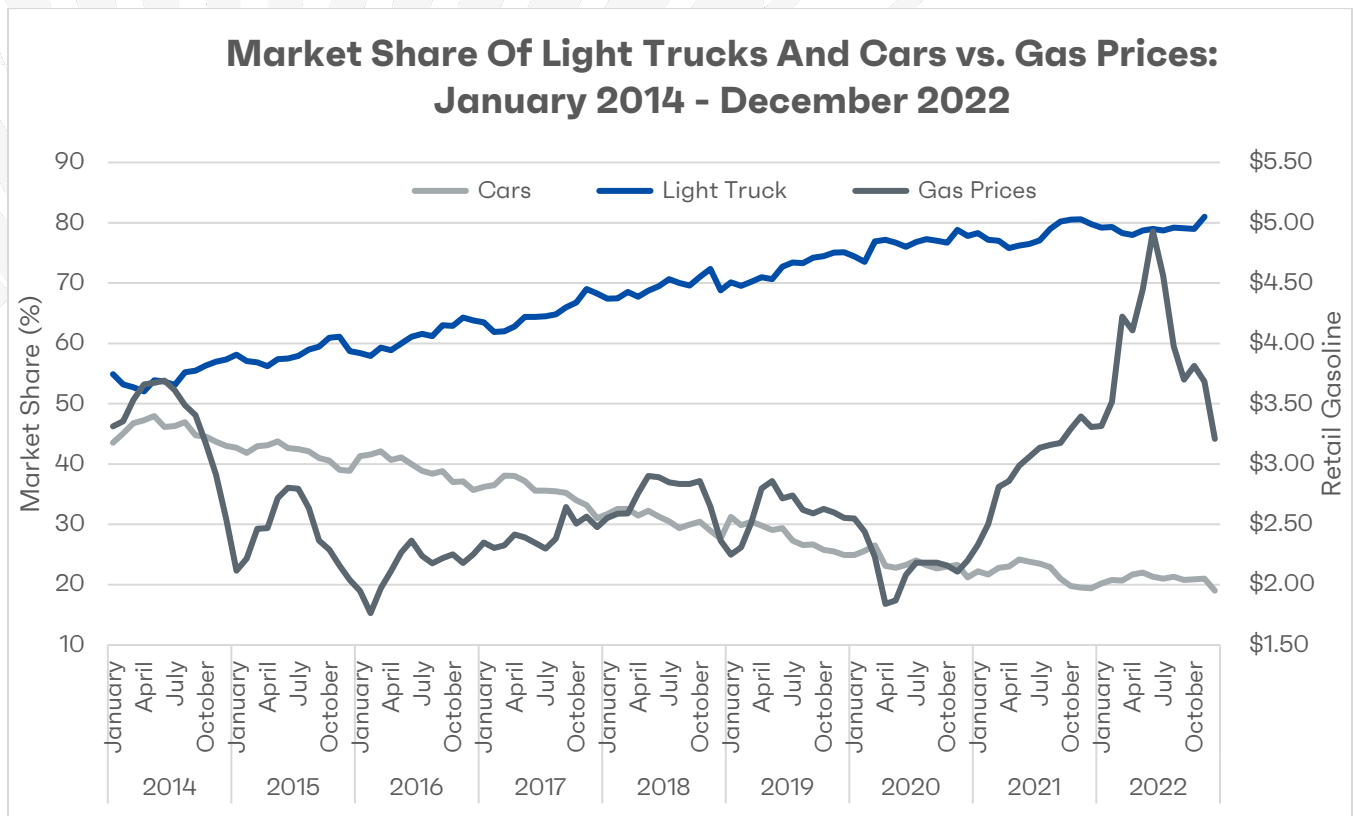
TrueCar⁹: “Fleet sales for December 2022 are expected to be up 46% from a year ago and up 8% from November 2022 when adjusted for the same number of selling days.”

J.D. Power¹⁰: “Fleet sales are expected to total 215,500 units in December, up 76.0% from December 2021 on a selling day adjusted basis. Fleet volume is expected to account for 17% of total light-vehicle sales, up from 10% a year ago.”

Segments vs. Gas Prices (Updated 1/5)

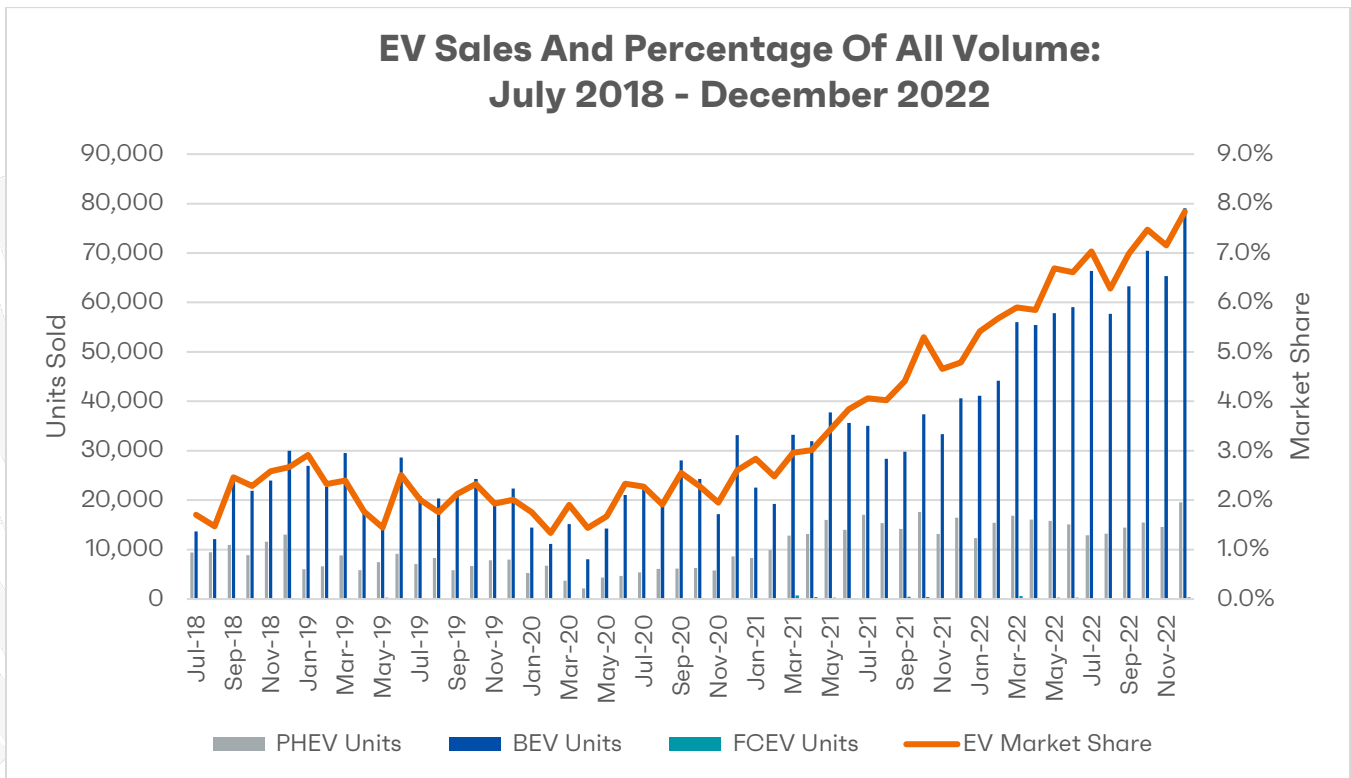
Monthly Sales For November: Light trucks accounted for 81 percent of sales in December, a .8 pp increase in market share from a year ago, and the highest share on record. Compared to the same period in 2021, sales of cars are up nearly 8,500, and down more than 137,000 from December 2019, when cars comprised 25% of the market as opposed to the 19% 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 segments¹¹ and gas was over \$3.00¹² a gallon. As fuel prices dropped below the \$3.00 mark in mid-September 2014, light truck sales began to take off. Gas prices since have averaged only \$2.83 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



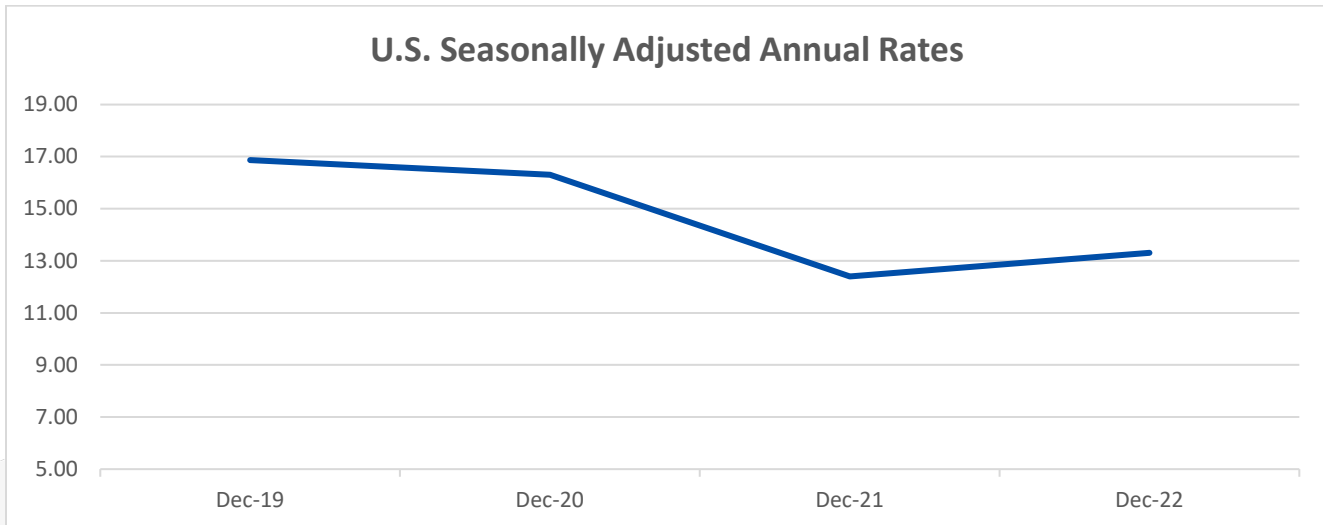
EV Powertrain Sales (Updated 1/5)

Sales of electric vehicles (BEV, PHEV, & Fuel Cell) accounted for 7.8% of total vehicle sales in December 2022 (98,984 units) – the highest on record for both market share and volume. December’s EV market share is up 3 pp from a year ago and up 0.6 pp from November 2022. Sales of battery electric vehicles led the way for ZEVs, accounting for 6.3% of total sales, up 2.1 pp from December 2021. Plug-in hybrids accounted for 1.5%, up 0.2 pp from the same time last year. ¹⁴



Seasonally Adjusted Annual Rates (Updated 1/5)

WardsIntelligence: “After posting a 9-month high SAAR in October of 15.1 million units, sales fell to 14.1 million in November and to 13.3 million in December. The fourth quarter totaled a 14.2 million-unit SAAR, highest quarterly total since Q2-2021’s 16.7 million, and above like-2021’s 13.0 million.”

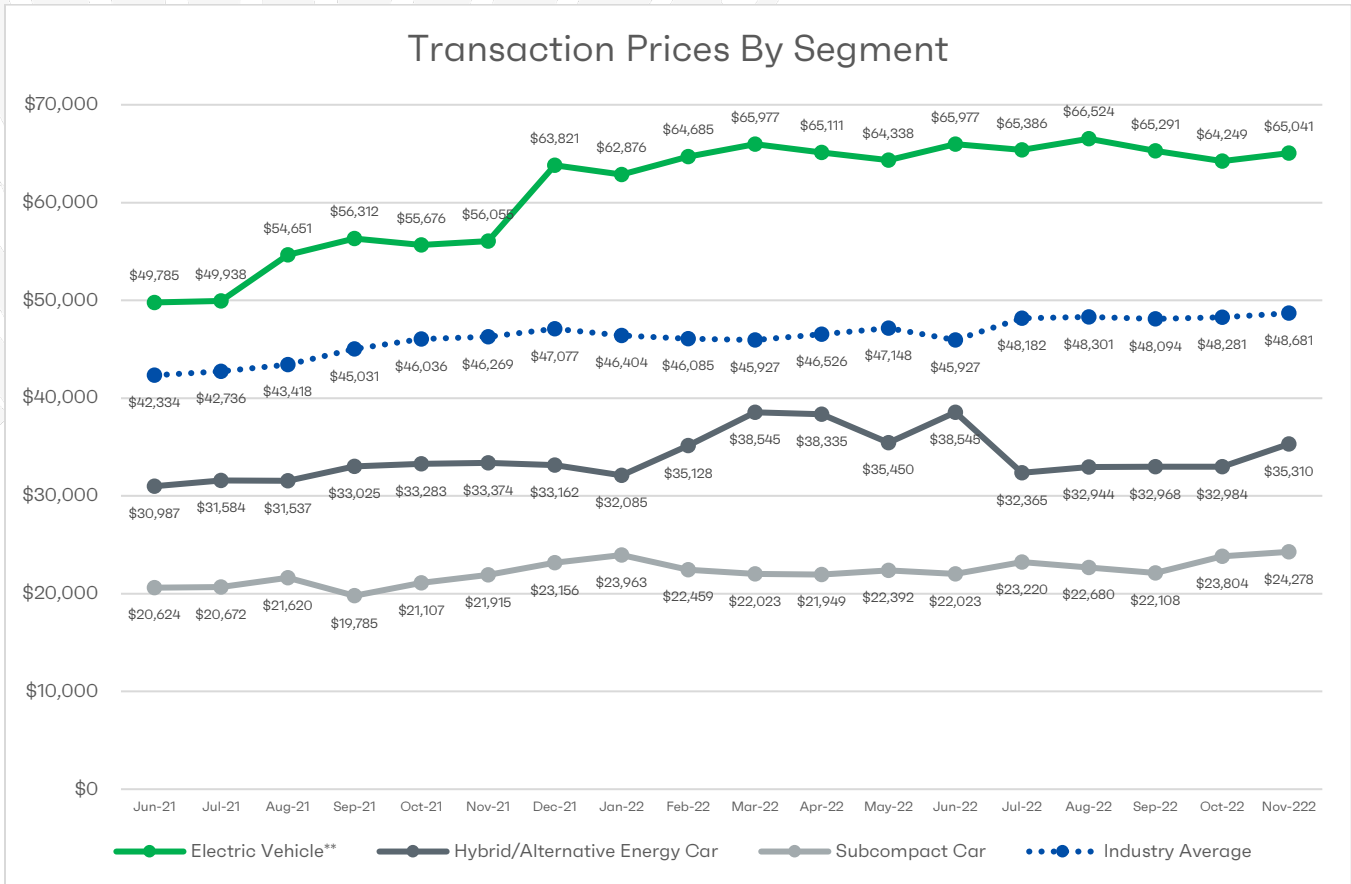
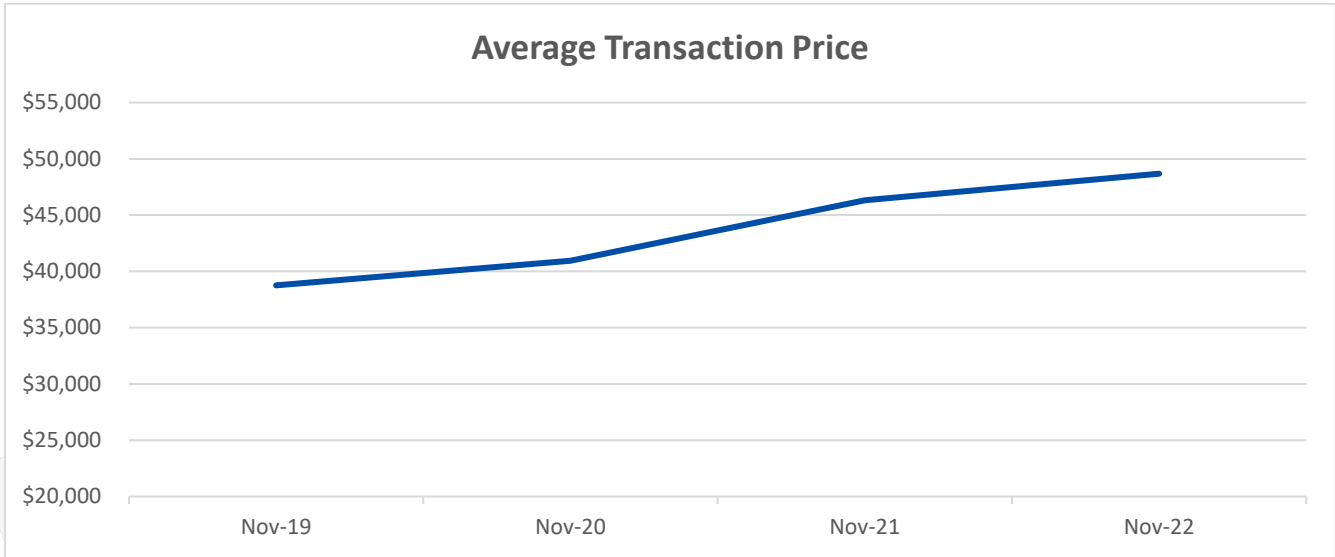


Average Transaction Price (Updated 1/5)

J.D. Power (Updated 1/5)¹⁵: “New-vehicle transaction prices continue to rise—albeit at a slower pace than earlier this year. The average price in December will set a record of \$46,382, an increase of 2.5% from a year ago. The record transaction prices means that buyers are on track to spend nearly \$48.2 billion on new vehicles this month—the third highest level ever for the month of December and a slight 0.3% decrease from December 2021.”

Kelley Blue Book (November) (Updated 1/5)¹⁶: “New-vehicle inventory levels are improving, but prices remain elevated. According to data released today by Kelley Blue Book, a Cox Automotive company, the average transaction price (ATP) for a new vehicle in the United States in November 2022 hit a new record high of \$48,681. November prices rose 0.9% (\$422) month over month from October 2022 and were up 4.4% (\$2,250) from year-earlier levels. According to Kelley Blue Book calculations, new-vehicle ATPs have been higher than the average manufacturer's suggested retail price (MSRP), also known as the sticker price, since July 2021.

“The average price paid for a new EV increased in November by \$1,172 (up 2%) compared to October and was up by 9% compared to a year ago in November 2021. The average new EV price was \$65,041, according to Kelley Blue Book estimates, well above the industry average and aligning more with luxury prices versus mainstream prices.”

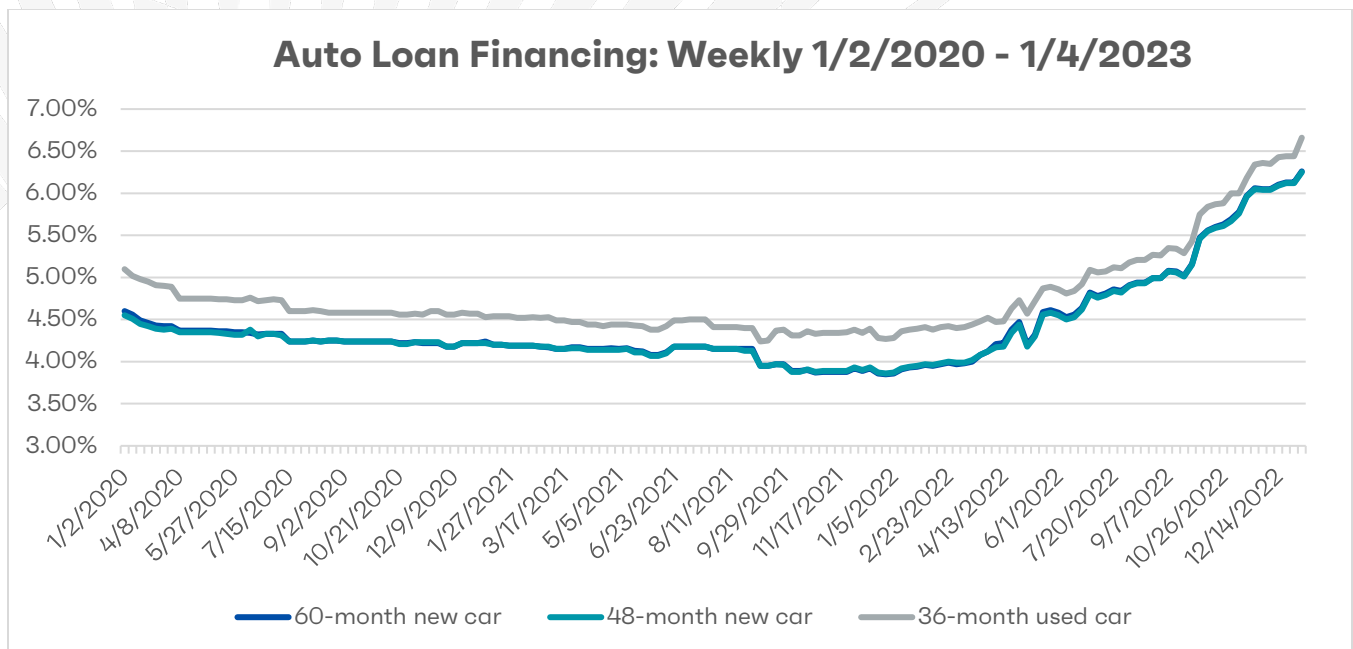


Auto Loan Financing (Updated 1/5)

JD Power (1/5)¹⁷: “After breaking the \$700 level for the first time on record in July, the average monthly finance payment in December is on pace to be \$718, up \$47 from December 2021. 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 increase 247 basis points from a year ago to 6.4%.

Interest Rates (updated 1/5): Interest rates continue to increase for the 60-month (+0.13), 48-month (+0.13), and 36-month (+0.22) used car loans. Rates now stand at 6.26%, 6.25%, and 6.66%, respectively. Since the beginning of 2020, 60-month rates are up 1.66 pp, and are up 2.40 pp since the same time a year ago.¹⁸

Dates	60-month new car	48-month new car	36-month used car
1/2/2020	4.60%	4.55%	5.10%
1/5/2022	3.86%	3.87%	4.28%
12/28/2022	6.13%	6.12%	6.44%
1/4/2023	6.26%	6.25%	6.66%
One Week Change	0.13%	0.13%	0.22%
Two Week Change	0.13%	0.13%	0.22%
Change since 1/3/20	1.66%	1.70%	1.56%
One Year Change	2.40%	2.38%	2.38%

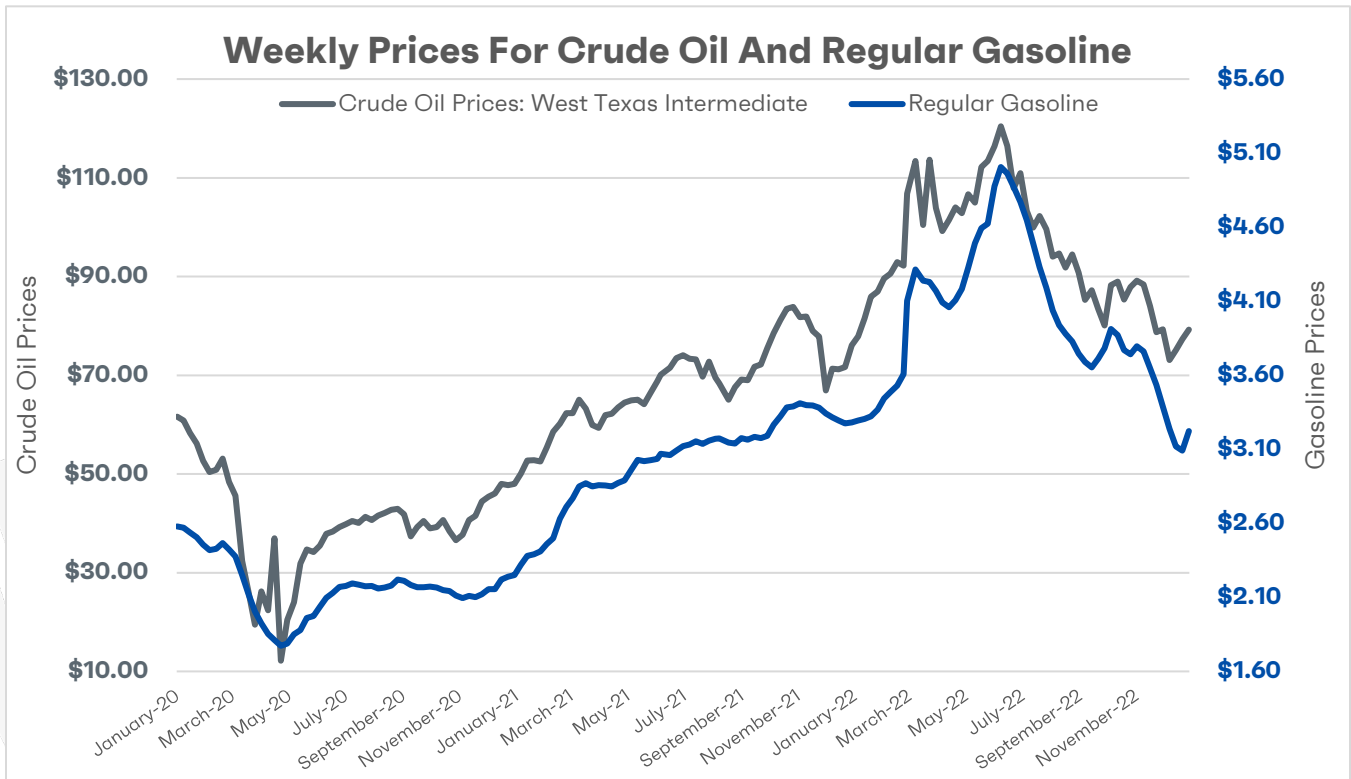


Crude Oil and Gas Prices (Updated 1/5)

EIA Outlook For Gasoline (1/5)¹⁹: “We forecast U.S. retail gasoline prices will average about \$3.50/gal in 2023. U.S. retail gasoline prices finished November at their lowest price since February 2022, as high refinery utilization and falling demand contributed to rising gasoline inventories, which facilitated November’s price decreases. As refiners maintain high utilization in response to high distillate margins, we expect this trend to continue and for gasoline inventories to reach five-year average levels in 2023, limiting upward pressure on gasoline prices. We expect high blend rates of fuel ethanol through 2023 as the petroleum component of gasoline remains relatively expensive compared with the price of ethanol, continuing the trend that started this summer.”

EIA Outlook For Oil (1/5)²⁰: “Crude oil prices: The spot price of Brent crude oil averaged \$91 per barrel (b) in November. Although the average November Brent price was slightly lower than in October, daily spot prices reached almost \$100/b on November 7, before ending the month at \$86/b. The price declines were largely the result of market concerns about global economic growth, as well as COVID-related lockdowns in China that have reduced China’s oil demand. Brent crude oil spot prices are on pace to average \$101/b in 2022. Despite the recent drop in crude oil prices, we still expect that falling global inventories of oil in early 2023 will push Brent prices back above \$90/b by the beginning of the second quarter of 2023 (2Q23). Although we expect some downward oil price pressure could emerge in the second half of 2023 (2H23) based on our forecast of rising oil inventories, that pressure will likely be balanced by the ongoing possibility of supply disruptions or production growth that is slower than our forecast. We forecast the Brent crude oil spot price will average \$92/b for all of 2023.”

Gas And Oil Continue To Fluctuate: Oil prices, as benchmarked at West Texas Intermediate, increased \$1.95 to \$79.23 at the beginning of January. Since election day 2020, oil prices are \$43 a barrel higher. Gas prices increased \$0.13 to \$3.22. Gas is 25% higher than the beginning of 2020.²¹



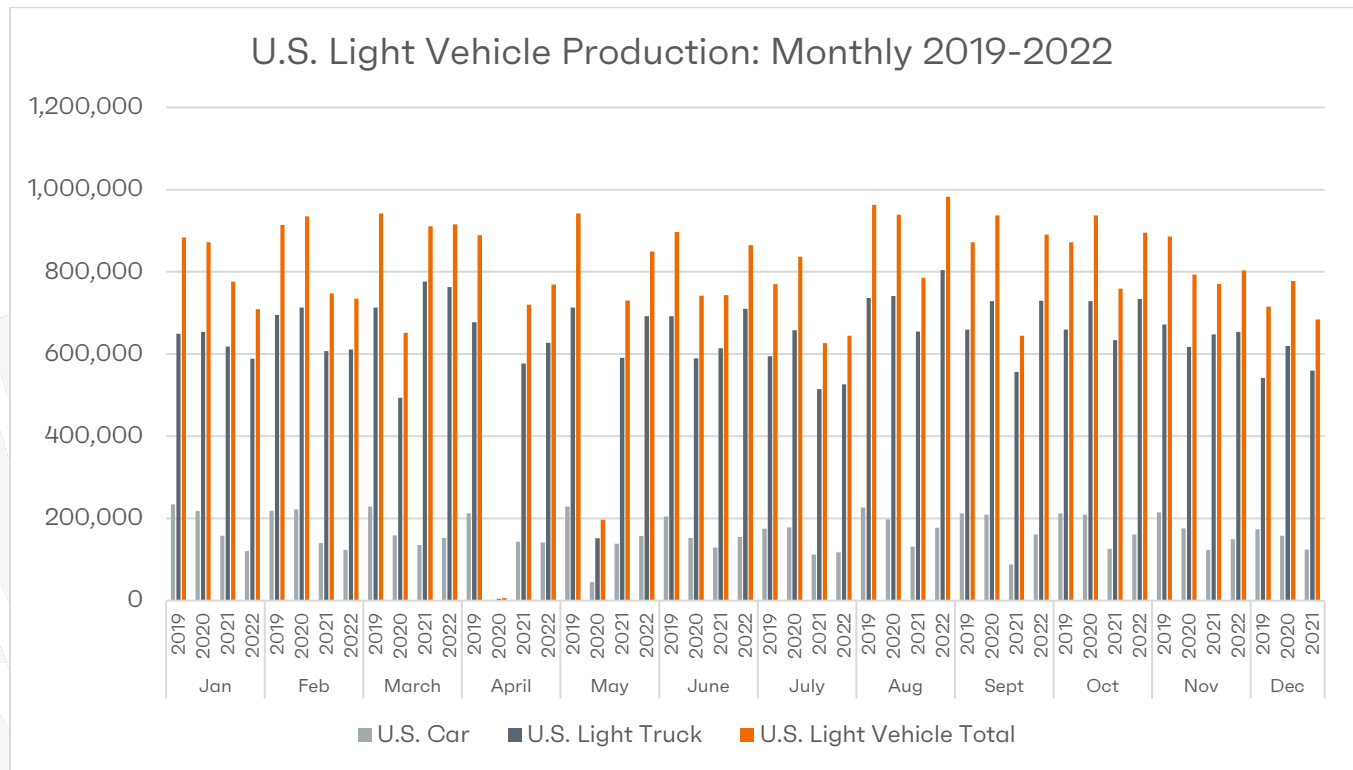
Production Meter

U.S. Light Vehicle Production (Updated 1/5)

WardsIntelligence (Updated 1/5)²²: “Even as production in November grew year-over-year for the 10th straight month, disruptions still are creating some volatility, which led to a cut in the fourth-quarter outlook for automakers in North America. Combined production of light vehicles and medium-/heavy-duty trucks totaled 1.246 million units in November, 5.6% above like-2021’s 1.180 million. Excluding the big trucks, light vehicles totaled 1.200 million units, 5.5% above the year-ago total of 1.138 million. Total-vehicle production in Q4 is tracking to 3.642 million units, 7.9% above October-December 2021’s 3.375 million. The total is 45,000 units below month-ago’s outlook for the period. However, supply-chain disruptions – besides creating volatility to scheduling – are still capping overall available capacity, and Q4-2022 production is 6.5% below like-2019, the last year prior to the onset of the pandemic in North America.”

Monthly Production (Updated 1/5)

U.S. Light vehicle production for November 2022 decreased month-over-month by 10 percent, totaling 803,346 vehicles (149,741 cars, 653,605 light trucks), year-over-year, production is up 3 percent from 2021. ²³



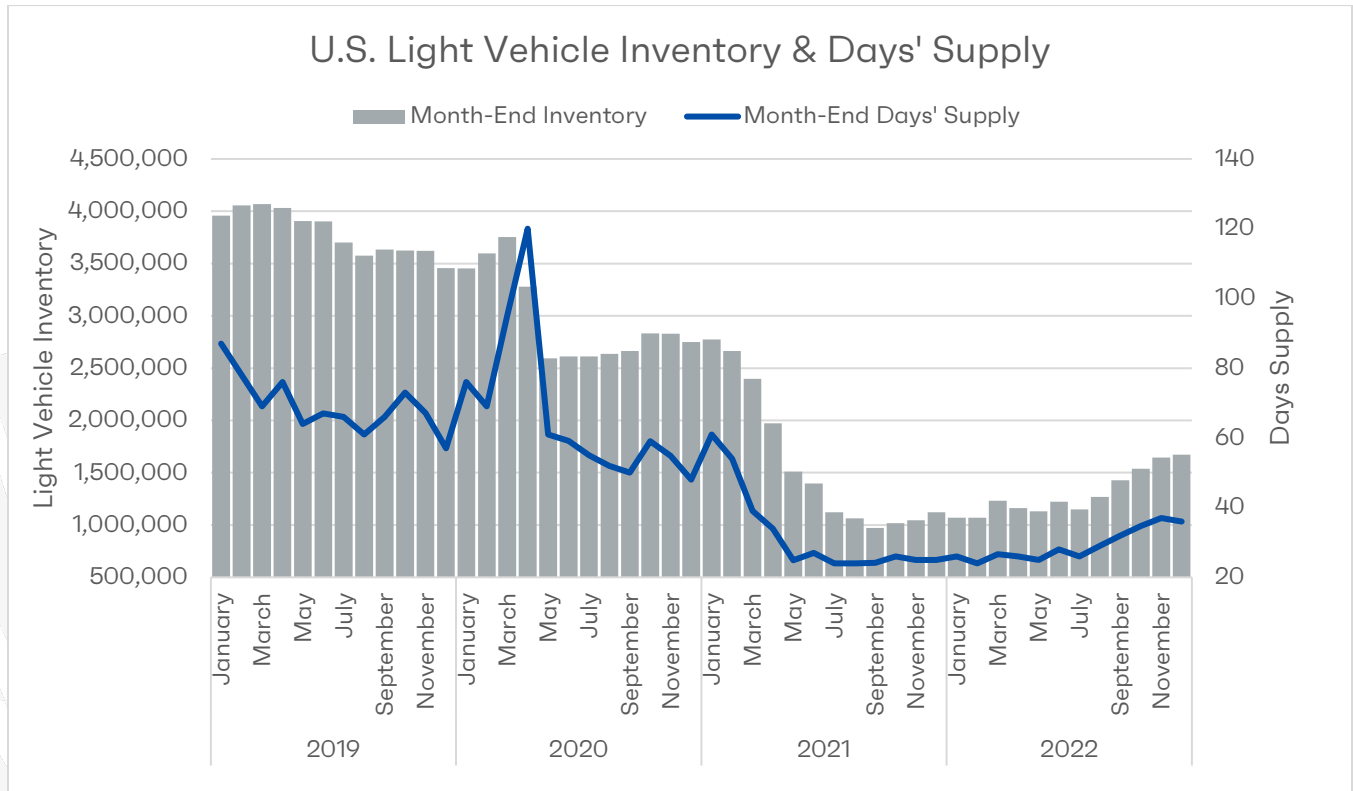
U.S. Light Vehicle Inventory and Days' Supply (Updated 1/5)

WardsIntelligence Inventory Update (1/5) ²⁴: “U.S. light-vehicle inventory increased slightly in December, rising to 1.67 million units from November’s 1.64 million. The month-to-month gain was the fifth straight and 48.8% above like-2021’s 1.12 million units. December’s 36 days’ supply was down from November’s 37, but above same-month 2021’s 25.

“Although there will remain challenges with the semiconductor shortage, and other supply-chain issues, which are not expected to be entirely resolved until 2024, the problem is easing. Thus, inventory is expected to generally continue rising throughout 2023 as automakers increase their plant capacity utilization.

“If there is, as expected, a mild recession, the actual timing of it could significantly throw off the forecasted cadence of sales in 2023. However, based on the current outlook, and forecast production for the U.S. market, WI projects inventory will be near 2 million units by March 31, total 2.1 million at the

end of Q2, remain roughly flat entering October and end the year at 2.45 million units – about two-thirds of its typical pre-pandemic December level.”



Global Meter

Global Light Vehicle Sales (Updated 1/5)

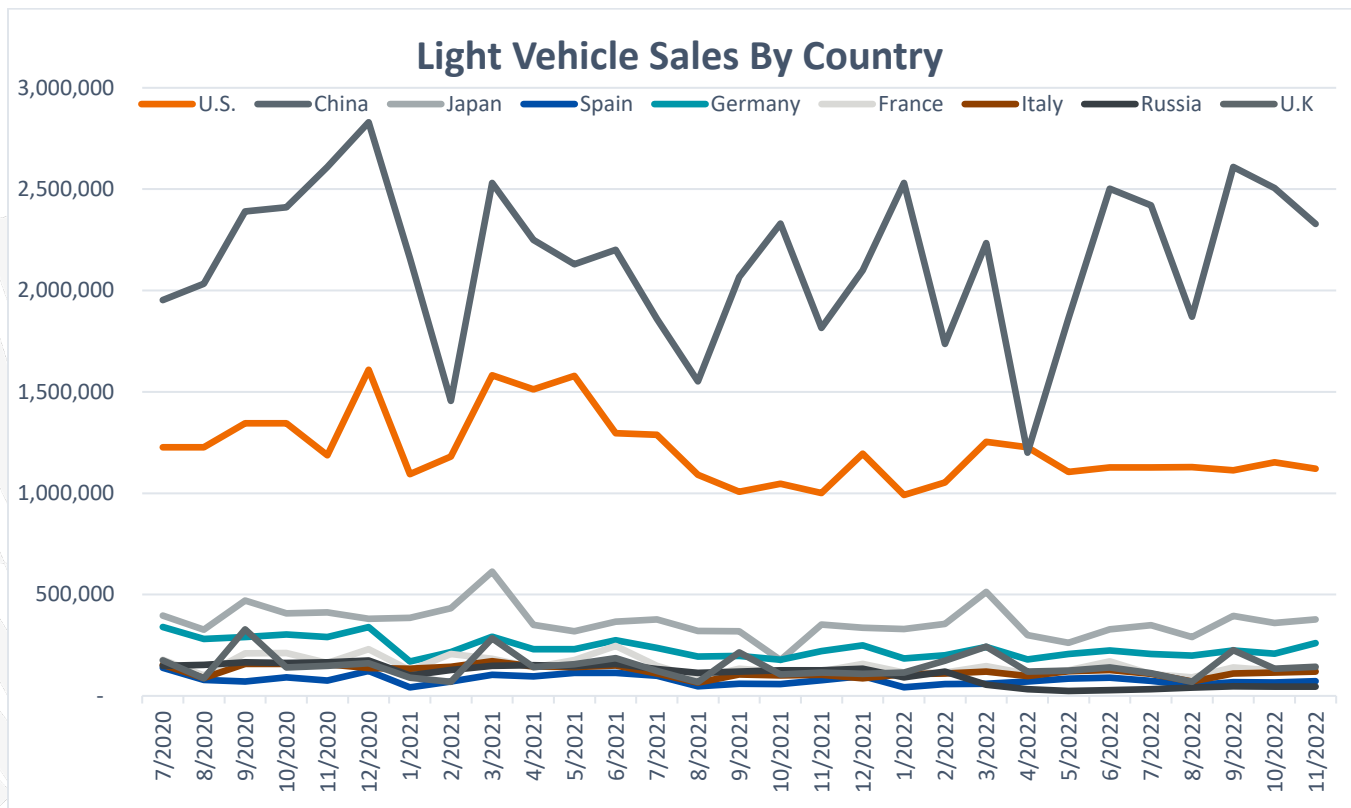
Wards Intelligence ²⁵: “A downturn in the biggest market, China, nearly stalled global sales growth in November, but volume eked out a fifth straight year-over-year gain.

“Including some initial estimates, November’s sales of light vehicles and medium-/heavy-duty trucks totaled 7.14 million units, up 2.7% from like-2021’s 6.96 million. The total was 0.7% below the prior month’s 7.19 million. Historically, volume usually rises from October. However, with a rise in Covid-19 cases, and its subsequent negative impact on economic activity, China’s downturn from the year-ago period was not unexpected, and the main reason global volume fell from the prior month.

“The year-over-year decline in China was its first since May and ended a 5-month stretch with average increases of 22.5%. Prior to November’s weaker gain, sales globally increased year-over-year on

average of 10.9% from June through October. All other major regions posted increases in November over the same year-ago month, including a 10.8% gain in North America, 10.2% in South America and 5.2% in Europe. The Asia-Pacific region less China was up 10.5% year-over-year.

With the Covid impact worsening in China in December, global volume in the final month of the year could decline from the year-ago period.



Global Light Vehicle Production (Updated 1/5)

S&P Global Mobility Forecast (1/5)²⁶: “As 2022 draws to a close, the auto industry continues to navigate supply chain challenges as well as the transition to demand constraints in several markets due to deteriorating economic conditions. As the industry approaches two full years of semiconductor disruption, it is clear that there are still difficulties in getting the “right part” at the “right time”. This is expected to continue well into 2023. In addition, recurring COVID lockdowns in Greater China have increased production volatility in the extreme near-term. Further, as many markets shift to greater levels of electrification, we expect vehicle pricing to be pressured to the upside, presenting a headwind to demand in the intermediate-to-longer term. The December 2022 forecast update reflects near-term downgrades for Greater China on the recent wave of COVID-related lockdowns and Japan due to

lingering supply chain issues particularly impacting key, high volume, automakers. These downward revisions are only partially offset by continued demand and production strength in South Asia, solid performance in South Korea and more modest upward revisions for other markets. While semiconductor availability remains an important consideration and continues to impact operations, demand constraints are expected to play a more fundamental role and accelerate in 2023 and 2024 in several key markets, impacting production through the intermediate-term and influencing the magnitude/need for inventory restocking. The more noteworthy regional adjustments with the latest forecast update are detailed below:

“Europe: The outlook for Europe light vehicle production was increased by 30,000 units and by 7,000 units for 2022 and 2023, respectively (and increased by 29,000 units for 2024). The near-term outlook for Europe through 2022 continues to be influenced by supply-side challenges, particularly with semiconductor supplies which are improving, yet remain consequential in influencing production activity. Further, this is expected to remain a factor going into 2023. However, we continue to forecast sequential improvement, with volumes climbing to 4.1 million units in Q4-2022 (versus 4.0 in Q2-2022), 4.2 million units in Q1-2023 and 4.3 million units in Q2-2023. We expect the pace to slow in the second half of 2023 as the need to rebuild inventory and fulfill residual pent-up demand is offset by still challenging macroeconomic conditions that will have a lingering impact on the market. In the absence of significant changes in the underlying forecast assumptions and drivers, the overall forecast revisions in the near-term for Europe were more modest with the December 2022 update. The general theme of supply chain disruption transitioning to demand concerns remains intact.

“Greater China: The outlook for Greater China light vehicle production was reduced by 360,000 units for 2022 and was increased by 263,000 for 2023 (and was increased by 198,000 units for 2024). As COVID outbreaks and resulting lockdowns spread through major industrial areas, production momentum was interrupted in November with passenger vehicle output declining by 11% year-over-year. Under strict social constraints, the automotive supply chain in middle and south China has been heavily affected. However, the New Energy Vehicle (NEV) market continues to benefit from subsidies and robust product activity with select automakers leveraging in-house supply chains. With COVID policy relaxation starting in December and a potential change going forward to the stringent Zero-COVID policy, the Chinese economy and domestic consumption is expected to benefit in the near-term. As a result, the production outlook for 2023 was increased and now stands at 26.6 million units for the broader region. Further, the production outlook for 2024 was increased as the market continues to recover. Consequently, Greater China light vehicle production is expected to increase by 1.1% in 2023 and post a gain of 5.1% in 2024.

“Japan/Korea: Full-year 2022 Japan production was reduced by 58,000 units relative to last month. In the fourth quarter, Toyota, Honda and Nissan have struggled to maintain original production plans, primarily due to the ongoing components shortage related to semiconductors. Full-year 2023 was also reduced by 95,000 units or 1.1% relative to last month’s forecast. The near-term forecast reflects the ongoing slower recovery with Toyota production in the first quarter of 2023. In the longer term, Japan production was reduced by 1.7% per year. Given a rather cautious approach to BEV deployment,

Toyota, Honda, Subaru and Mazda are expected to consistently lose ICE production in Japan. Full-year 2022 South Korea production was increased by 56,000 units relative to the previous forecast supported by actual production results in November which were stronger than anticipated. Stable parts supply, including semiconductors, has enabled automakers to maintain relatively high production utilization, actively supporting export and domestic back orders. The upward momentum is expected to continue next year, increasing production in 2023 by 49,000 units or 1.3% up comparing to last month. On the other hand, production in 2024 was not materially changed. In the long-term, especially after 2032, production was increased by about 95,000 units or 3.0% per year, mainly due to re-sourcing of BEVs such as the Kia EV6 and the Hyundai Ioniq 5 from the US to South Korea as the Inflation Reduction Act comes to an end in 2032.

“North America: The outlook for North America light vehicle production was increased by 43,000 units for 2022 and largely unchanged for 2023 and 2024. Despite a resurgence of short-lead downtime, the outlook for North America light vehicle production for 2022 was revised higher by 0.3% to 14.32 million units on stronger production results that offset ongoing supply chain, labor, and logistic issues that continue to hinder production. Semiconductor and other related production losses in the fourth quarter are on pace for the highest level since fourth quarter 2021 totaling 248,000 units. Notwithstanding concerns surrounding the ongoing volatility of the supply chain, most notably for semiconductors, and demand destruction amid recessionary fears, the outlook for 2023 and 2024 were essentially unchanged having integrated sweeping reductions last month. While demand destruction concerns remain pervasive, the inventory rebuilding process that is projected to rapidly improve vehicle availability by mid-2023, may further stimulate demand as incentive levels are expected to increase. This situation will vary markedly by manufacturer with GM, Ford and Stellantis facing normalized inventory levels sooner while their Asian counterparts that continue to struggle to restock depleted inventories are afforded a somewhat longer period for stronger pricing power. Inventory and incentive activity will be key barometers to gauge potential demand destruction.

“South America: The outlook for South America light vehicle production was increased by 18,000 units and by 51,000 units for 2022 and 2023, respectively (and increased by 68,000 units for 2024). The outlook for 2022 was upgraded modestly based on observed strength with Argentina production as momentum has not been as impacted by the uncertain conditions influencing the broader region. The production increases for 2023 and 2024 were focused primarily on Brazil and reflect modest upgrades to the demand outlook in spite of a dynamic market environment and macroeconomic headwinds.

“South Asia: The outlook for South Asia light vehicle production was increased by 107,000 units and by 130,000 units for 2022 and 2023, respectively (and was increased by 47,000 units for 2024). The upgraded outlook for 2022 was largely driven by stronger actual production for the ASEAN market as recorded in October and November on easing supply chain pressures. Automakers in the region continue to ramp-up production in a bid to fulfill large backlogs which may extend into 2023. However, we continue to monitor the lagging demand impact of deteriorating economic fundamentals and broader geopolitical concerns. The outlook for 2023 was upgraded primarily on a stronger outlook for the India market. Automakers in India have been able to effectively navigate tight semiconductor

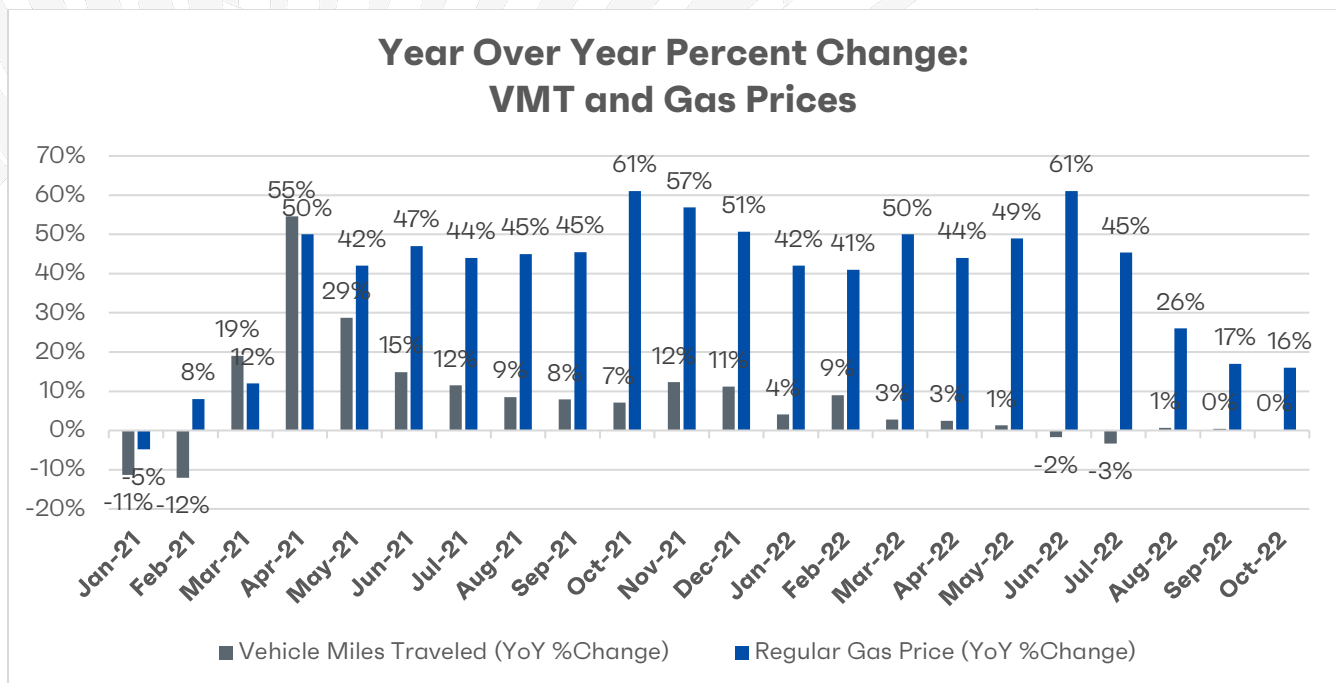
supplies, in part, through decontenting efforts. Going forward, chip supply is expected to improve, albeit gradually, further supporting the near-term production outlook. The longer-term forecast has been revised upward with expected improvement in the domestic market, increased replacement demand and increased penetration in the rural market with automakers opening new dealerships in rural India.”

Recovery Meter

Roadway Travel (Updated 1/5)

According to the U.S. Department of Transportation, seasonally-adjusted vehicle miles traveled in October increased 0.1% from the same time a year ago. The cumulative travel estimate for 2022 is 2,730 billion vehicle miles.²⁷

- Travel on all roads and streets changed by +0.1% (+0.3 billion vehicle miles) for October 2022 as compared with October 2021. Travel for the month is estimated to be 286.0 billion vehicle miles.
- The seasonally adjusted vehicle miles traveled for October 2022 is 275.6 billion miles, a 0.4% (1.2 billion vehicle miles) change over October 2021. It also represents a 0.3% change (0.8 billion vehicle miles) compared with September 2022.
- Cumulative Travel for 2022 changed by +1.5% (+39.3 billion vehicle miles). The cumulative estimate for the year is 2,730.6 billion vehicle miles of travel.



Economic News (Updated 1/5)

Manufacturing Gained 8,000 Jobs In December, With Motor Vehicles And Parts Gaining 7,400.²⁸

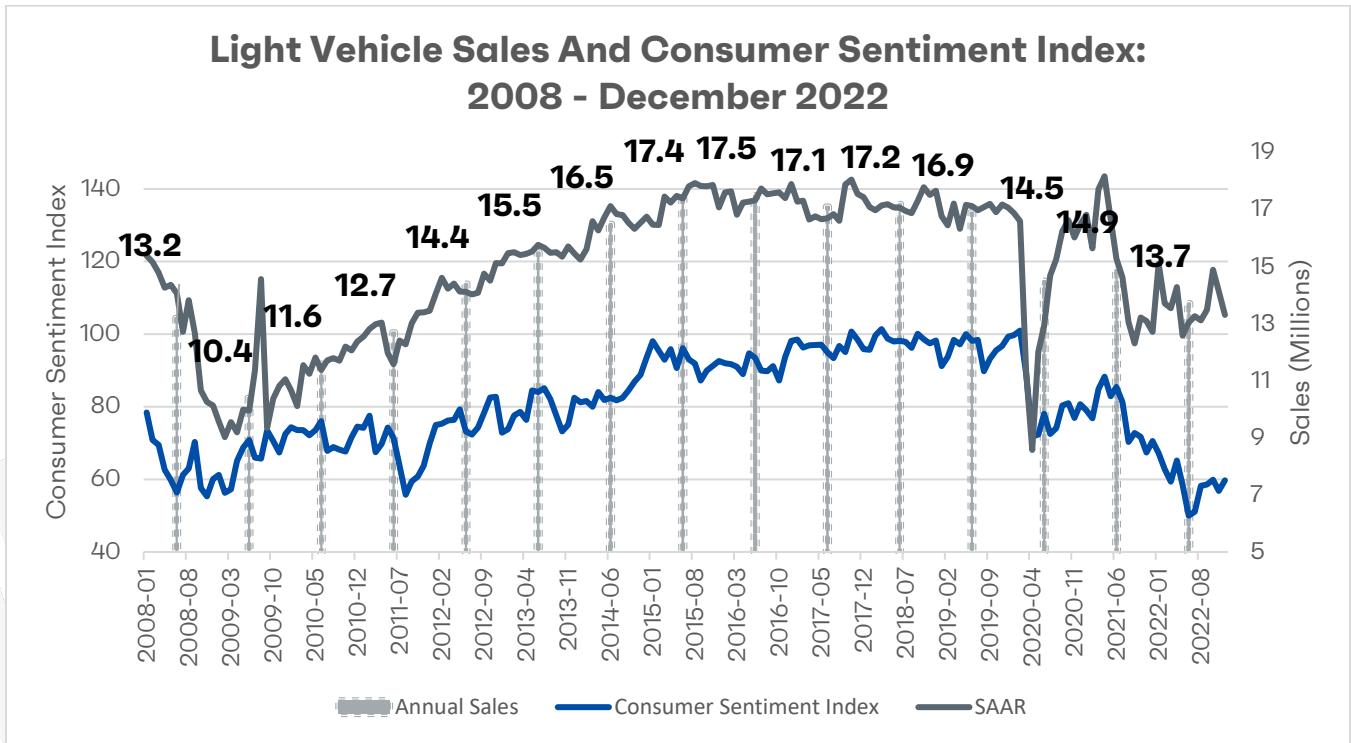
“Manufacturing employment rose by 8,000 jobs in December, with gains in durable goods but losses in non-durable goods. Durable goods industries added 24,000 jobs for the month, according to a breakdown by sector released today by the U.S. Bureau of Labor Statistics. Employment in non-durable goods slid by 16,000. Transportation equipment was the largest job gainer in durable goods, up 15,200 jobs. That included an increase of 7,400 jobs in motor vehicles and parts.”

The ISM Index Remains Below 50, The Second Straight Month Of Manufacturing Contraction.

“The U.S. manufacturing economy contracted for a second straight month, the Institute for Supply Management said today. The Tempe, Ariz.-based group said its manufacturing index, known as the PMI, registered at 48.4 percent in December. That was down from 49 percent in November. December marked the lowest index reading since manufacturing began recovering from the COVID-19 pandemic. A PMI above 50 percent indicates economic expansion, below that mark indicates contraction. The manufacturing economy dipped into contraction in November after a 29-month run of expansion. New orders for manufactured goods dropped in the second half of 2022. That began to be felt in December, ISM said.”²⁹

Consumer Confidence and Sales (Updated 1/5)

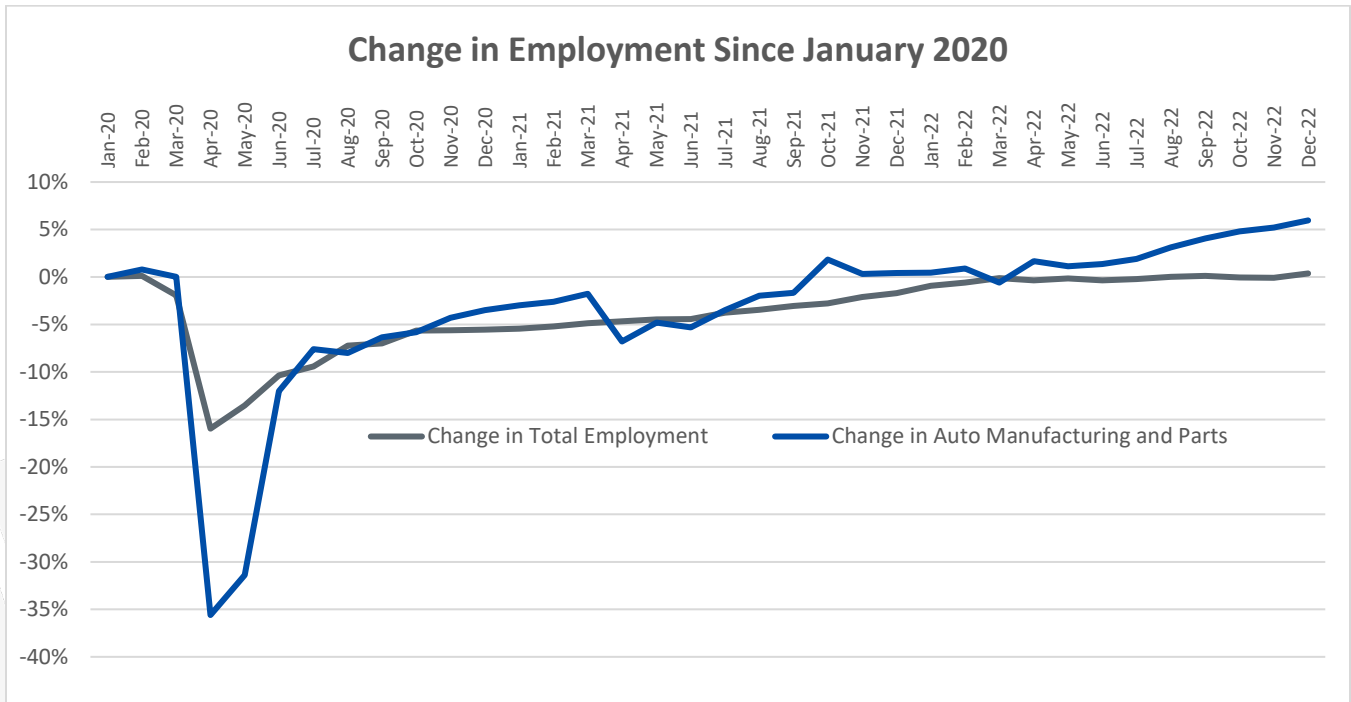
Surveys of Consumers Director Joanne Hsu³⁰: “Consumer sentiment confirmed the preliminary reading earlier this month, rising 5% above November. Sentiment remains relatively downbeat at 15% below a year ago, but consumers’ extremely negative attitudes have softened this month on the basis of easing pressures from inflation. One-year business conditions surged 25%, and the long-term outlook improved a more modest but still sizable 9%. Still, both measures are well below 2021 readings. Assessments of personal finances, both current and future, are essentially unchanged from November. Year-ahead inflation expectations improved considerably but remained elevated, falling from 4.9% in November to 4.4% in December, the lowest reading in 18 months but still well above two years ago. Declines in short-run inflation expectations were visible across the distribution of age, income, education, as well as political party identification. At 2.9%, long run inflation expectations have stayed within the narrow, albeit elevated, 2.9-3.1% range for 16 of the last 17 months. While the sizable decline in short-run inflation expectations may be welcome news, consumers continued to exhibit substantial uncertainty over the future path of prices (see chart).”



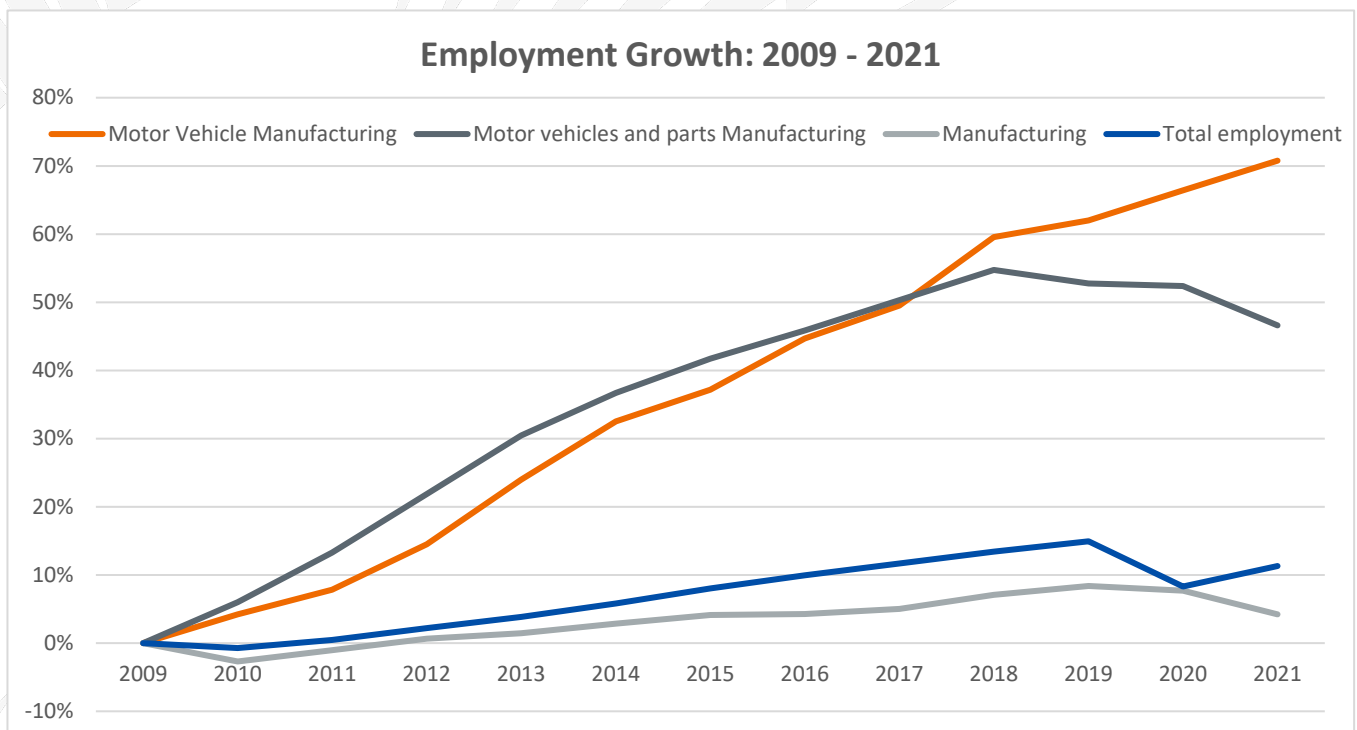
Employment (Updated 1/5)

Motor Vehicle And Parts Manufacturing Gained 7,400 Jobs In December.³¹

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.³²



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.³³ 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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