READING THE METER

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

ALLIANCE FOR AUTOMOTIVE INNOVATION

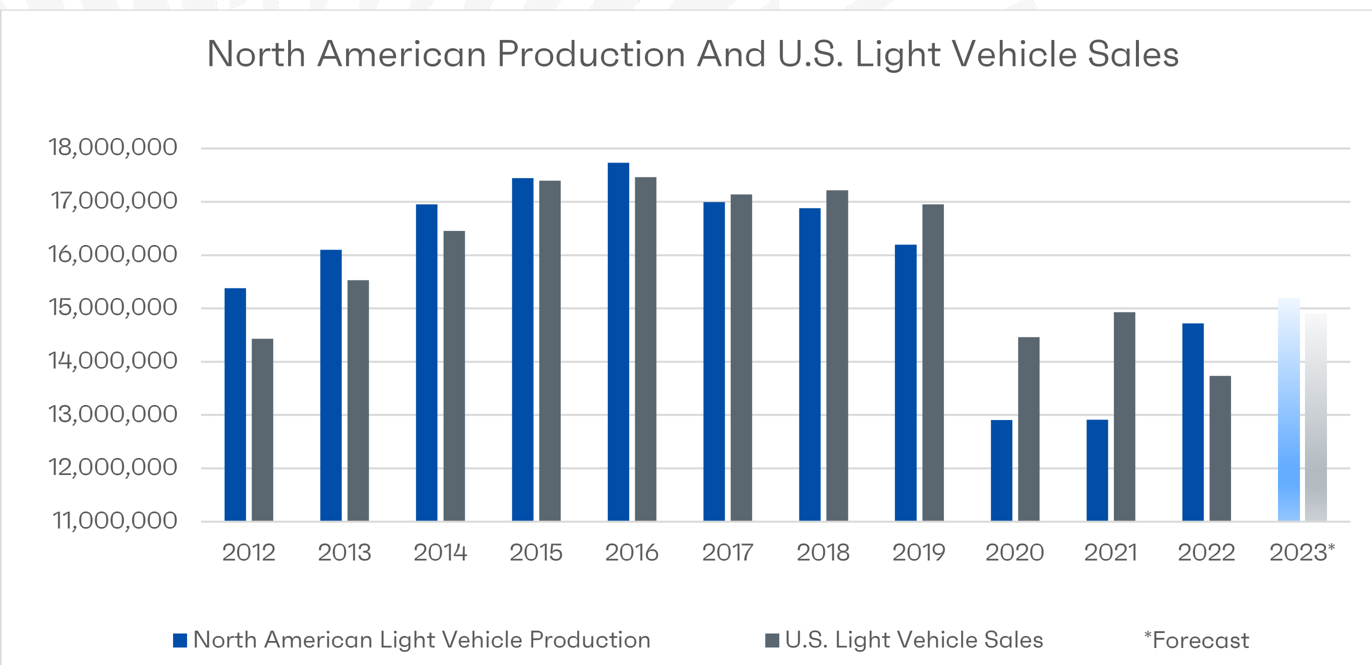
Contents – March 23, 2023

Cleaner. Safer. Smarter.

Forecast Meter

Sales & Production Summary and Forecast (Updated 3/23)

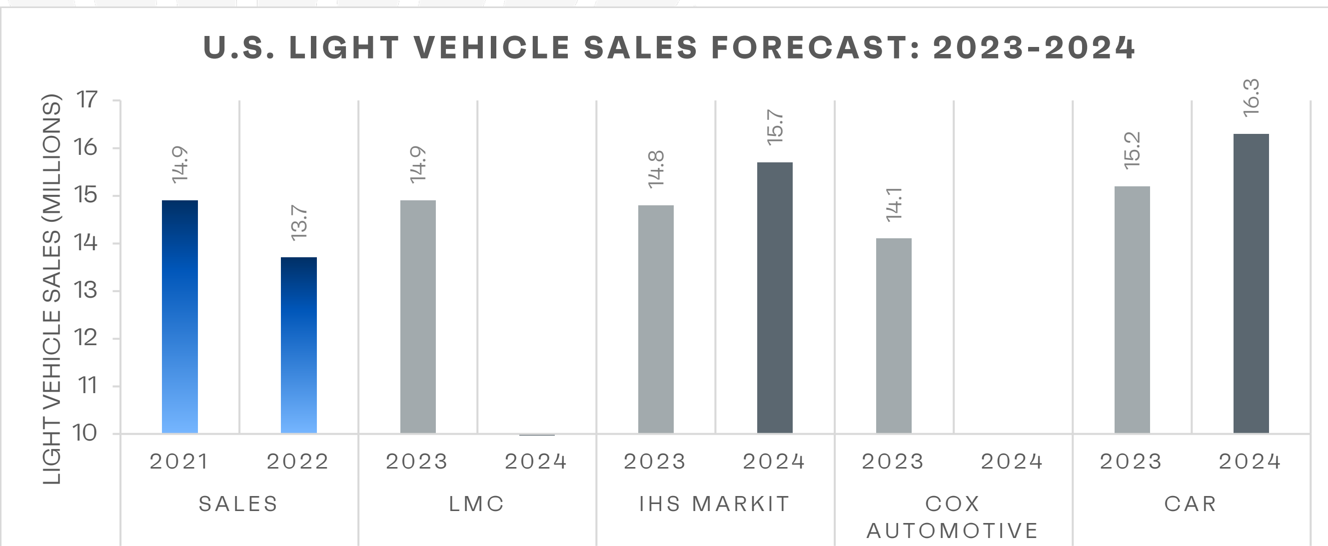
2021-2022 Sales,[1] Extended Sales Forecast[2] and Production Forecasts[3]		
	U.S. Sales & Forecasts	**North American Production**
January '22	991,156 (-10% YoY)	1,111,390 (-4% YoY)
February '22	1,052,524 (-11.8% YoY)	1,112,429 (-1% YoY)
March '22	1,246,336 (-22% YoY)	1,350,102 (-.1% YoY)
April '22	1,226,950 (-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)
2022 Full Year	13.7 million units (WardsIntelligence)	14,721,053 (+9.8% YoY) (U.S. 10,019,791)



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

Wards Intelligence Outlook (3/3) [4]: "Initial modeling pegs March sales at a 14.2 million seasonally adjusted rate on volume of roughly 1.3 million units. However, if manufacturers continue to raise incentives at a pace similar to the past three months, there is more upside risk than downside to that outlook. Although average transaction prices continue to rise, incentive spending has turned up significantly in the past four months. Based on data from TrueCar, the trend started with a 1.1% month-to-month gain in November, then accelerated over the next three months, including a 9% increase in February. As total inventory increases, availability of more affordable vehicles is rising. Inventory, however, remains skewed toward higher price vehicles."

"First-quarter 2023 sales are tracking to a 14.9 million-unit SAAR, up from the prior quarter's 14.3 million and January-March 2022's 14.0 million. However, if enough of the upside risk to March kicks in, Q1 sales will reach a 15 million-unit SAAR, the first time any quarter hit that level since Q2-2021's 16.7 million."



North American Production & Inventory Outlook (Updated 3/23)

Wards Intelligence Production Outlook (3/23) [5]: "Although supply-chain disruptions still plague the industry, and some slowdowns for inventory control popped up, vehicle production in North America outdid expectations in February and Q1 is tracking to a bigger gain compared with month-ago's outlook for the period.

Production for light vehicles and medium-/heavy-duty trucks rose in February for the 13th consecutive month, increasing 14.7% above like-2022 to 1.299 million units. The total was the highest for February since 2020's 1.454 million units, one month before the Covid-19 pandemic decimated production by causing widespread shutdowns starting in mid-March and shutting nearly every factory in the region for all of April.

“Despite nagging supply issues and inventory-related closures, February’s output was 53,800 units above month-ago’s expectations for the period. Supply constraints and some known adjustments for inventory control lowered the outlook for March some 22,000 units to 1.390 million. In total, first-quarter 2023 is tracking to 3.929 million units, an increase of 30,800 from month-ago’s projection for the period and 8.2% above year-ago’s 3.630 million. Excluding medium-/heavy-duty trucks, light vehicles are tracking to a Q1 total of 3.793 million units, up 8.3% year-over-year.

“Excluding medium-/heavy-duty trucks, Q2 light-vehicle output is pegged at 3.884 million units, 9.8% above same-period 2022’s 3.538 million. Supply-chain disruptions, especially the chip shortage, are improving for North America manufacturers, even though still capping production capacity below the full capability of several vehicle assembly plants. Wards Intelligence partner LMC Automotive estimates North America light-vehicle production in 2023 will be negatively impacted by 957,000 units due to supply disruptions, still a significant amount but a sharp downturn from the 1.928 million units lost in 2022.”

S&P Global Mobility Outlook (3/23)[6]: “The outlook for North America light vehicle production was reduced by 7,000 units and by 68,000 units for 2023 and 2024, respectively (and reduced by 15,000 units for 2025). While the region transitions from supply chain concerns to questions around demand dynamics amid recessionary fears, the outlook for 2023 remains largely unchanged, with production revised downward only modestly to total 15.08 million units. With production in the region projected to increase 5.5% in 2023, 70% of the growth is expected to come from 10 of the 102 plants in the region. Half of those plants are ramping up all-new or redesigned vehicles with the other half expected to experience strong recovery following supply chain reduced levels in 2022. Of note, the inventory rebuild process is already well underway and is projected to improve vehicle availability by mid-2023. Greatly improved availability may in turn stimulate demand as incentive levels are expected to increase. This situation will vary markedly by manufacturer with GM, Ford and Stellantis already largely at normalized inventory levels while their Asian counterparts continue to struggle to restock depleted inventories. Despite the expectation for ongoing improvements to the global supply chain, the outlook for 2024 was revised down 0.4% to total 15.79 million units with production in 2025 revised down a marginal 0.1% reaching 16.46 million units.”

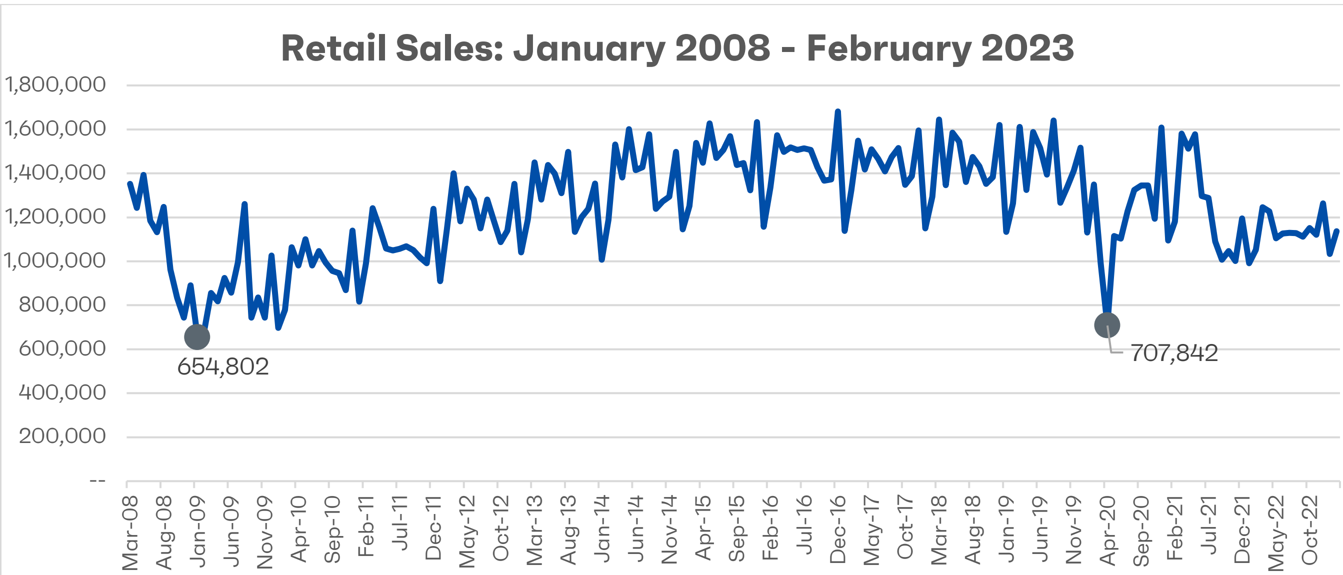
“**Wards Intelligence Inventory Outlook (3/23)[7]:** “Based on March’s initial sales forecast, inventory is expected to rise 8.5% to 1.885 million units, which would be 53% above the year-ago month and highest for any month since 1.973 million in April 2021.”

Market Meter

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

Monthly Sales (Updated 3/3)

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



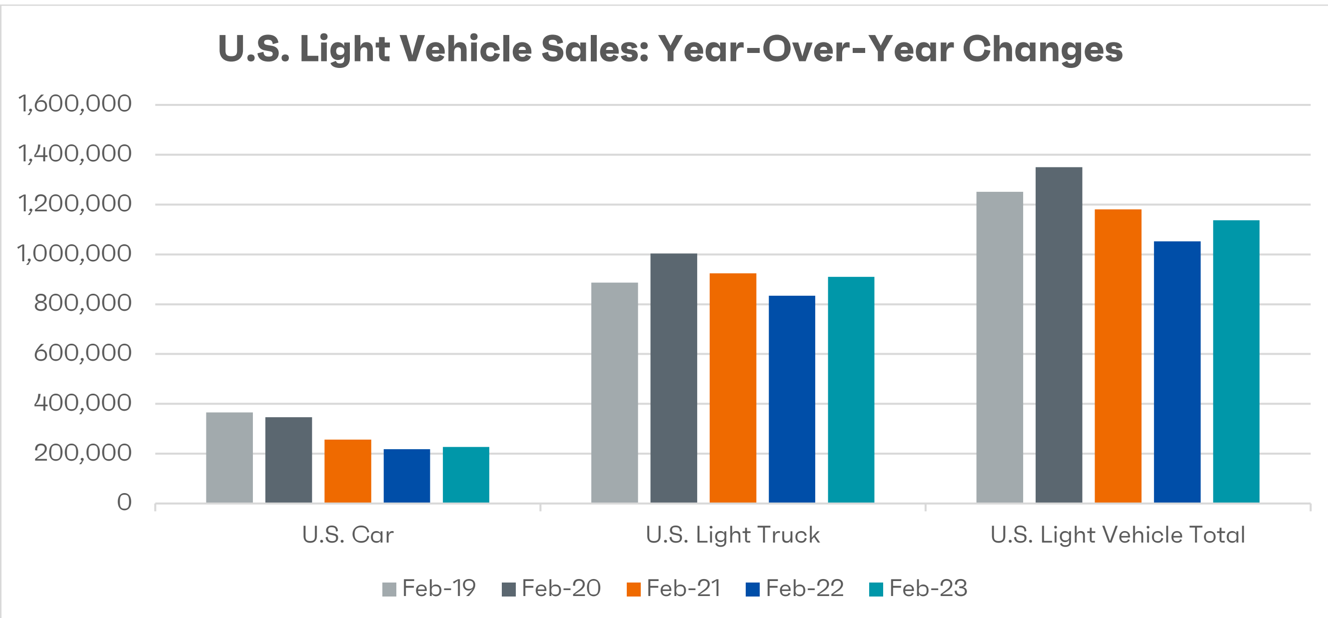
February Sales (Updated 3/3)

WardsIntelligence [8]**:** "U.S. light-vehicle sales showed more strength than expected in February as increased incentive spending helped push sales slightly above expectations to a 14.9 million-unit seasonally adjusted annual rate, about 300,000 above forecast, well above like-2022's 13.7 million and the seventh straight month with year-over-year growth.

"Raw volume totaled 1.136 million units, up 8.7% from February 2022's 1.046 million. February's daily selling rate of 47,347 was an increase on same-month 2022's 43,568 – 24 selling days both periods. Based on DSRs, February marked the sixth straight year-over-year increase and was the highest since 47,437 in July 2021. Rising inventory is the primary driver for the year-over-year gains, but higher incentive spending likely boosted demand further in February, as well as in the prior two months.

"While incentives spurred retail volume an estimated year-over-year 4.0% increase, and accounted for roughly 85% of sales, fleet volume also played a major role, rising an estimated 39% from like-2022."

"Light trucks increased 9.7% year-over-year in February, while cars increased 4.6%. By segment, CUV, Van and Luxury Car posted double-digit gains over the same year-ago month. Small Car, down 2.7%, was the only segment to record a decline. Drilling down further, combined sales of luxury-priced CUVs and SUVs increased 16.8% year-over-year. Including luxury cars, luxury light vehicles recorded a 14.9% increase, as market penetration rose to 17.2% from like-2022's 16.3%. Sales of fullsize trucks, including luxury fullsize CUVs and SUVs, increased 15.4% year-over-year and penetration rose to 28.2% from like-2022's 26.5%."



Fleet Sales (Updated 3/3)

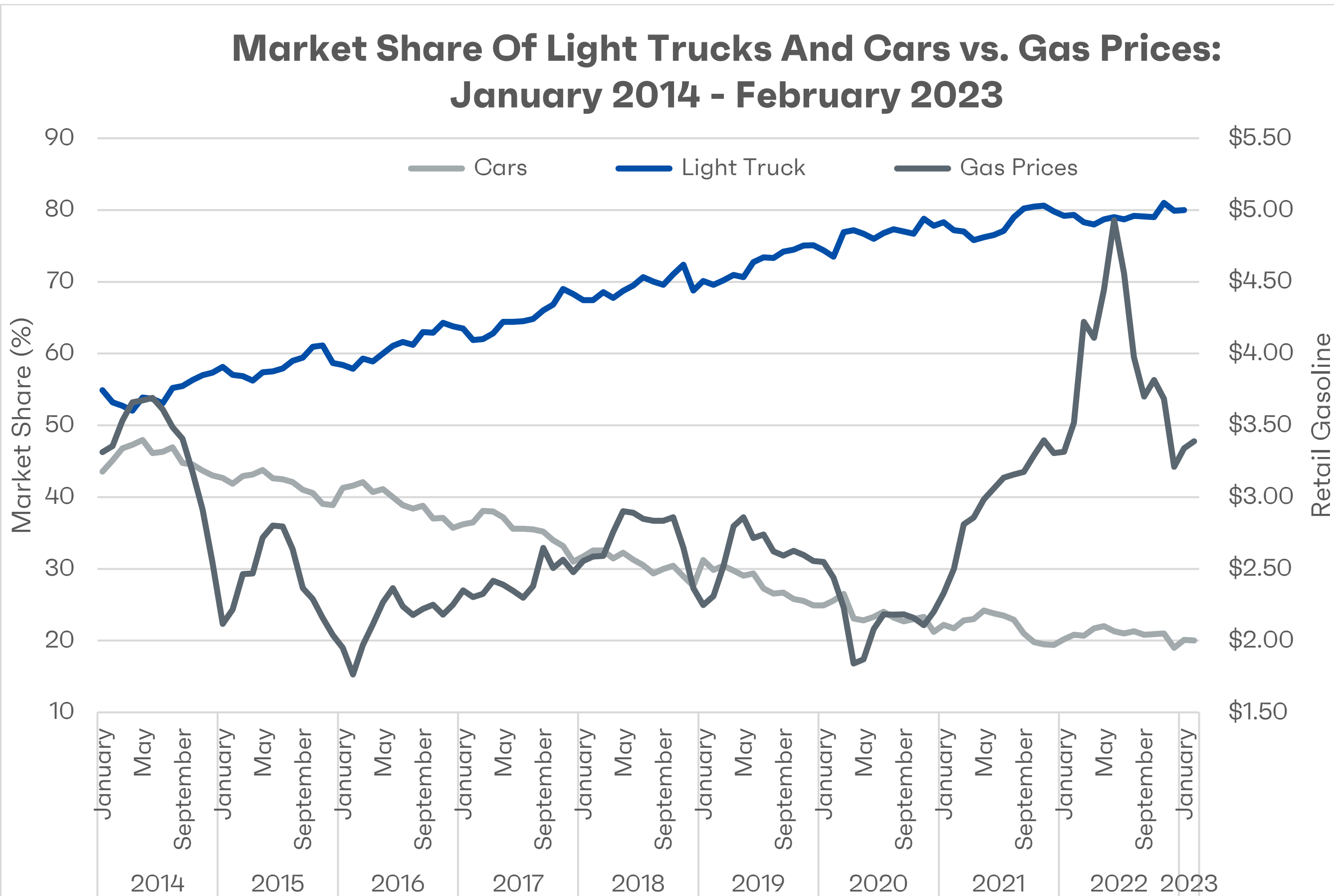
TrueCar [9]: "Fleet sales for February 2023 are expected to be up 33% from a year ago and up 16% from January 2023 when adjusted for the same number of selling days."

J.D. Power [10]: "Fleet sales are expected to total 209,200 units in February, up 54.2% from February 2022 on a selling day adjusted basis. Fleet volume is expected to account for 19% of total light-vehicle sales, up from 13% a year ago."

Segments vs. Gas Prices (Updated 3/3)

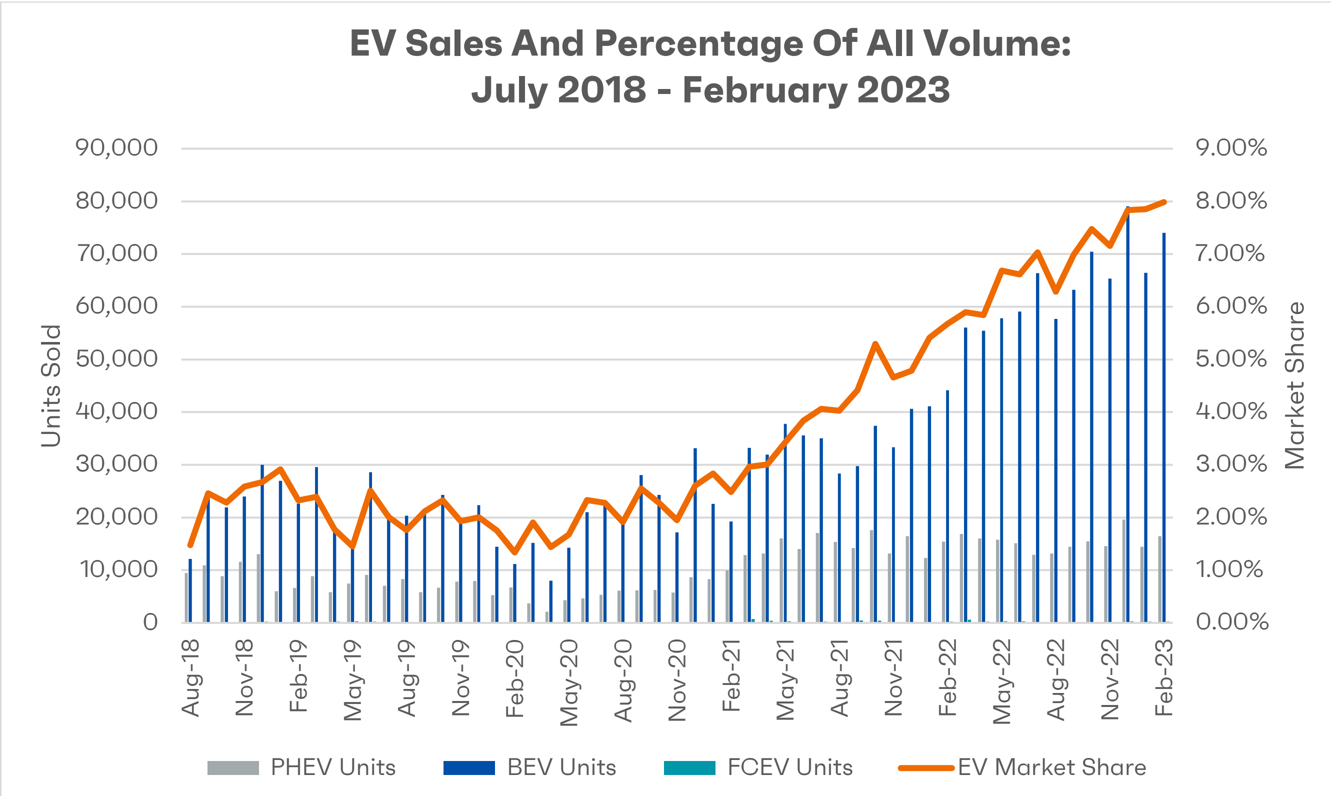
Monthly Sales For January: Light trucks accounted for 80 percent of sales in February, a .8 pp increase in market share from a year ago. Compared to the same period in 2022, sales of cars are up 8,600, and down more than 138,000 from February 2019, when cars comprised 29% of the market as opposed to the 20% of the market passenger cars have now.

Historic Perspective: The upward trend in the popularity of light trucks over cars has been steady since 2013, when only 2% of annual market share separated the two segments [11] and gas was over $3.00 [12] a gallon. As fuel prices dropped below the $3.00 mark in mid-September 2014, light truck sales began to take off. Gas prices since have averaged only $2.83 a gallon (through December 2022) and when combined with increased fuel economy for light trucks, an increase of 4 mpg since 2013, the perfect conditions existed to continue fueling light truck market growth. [13]



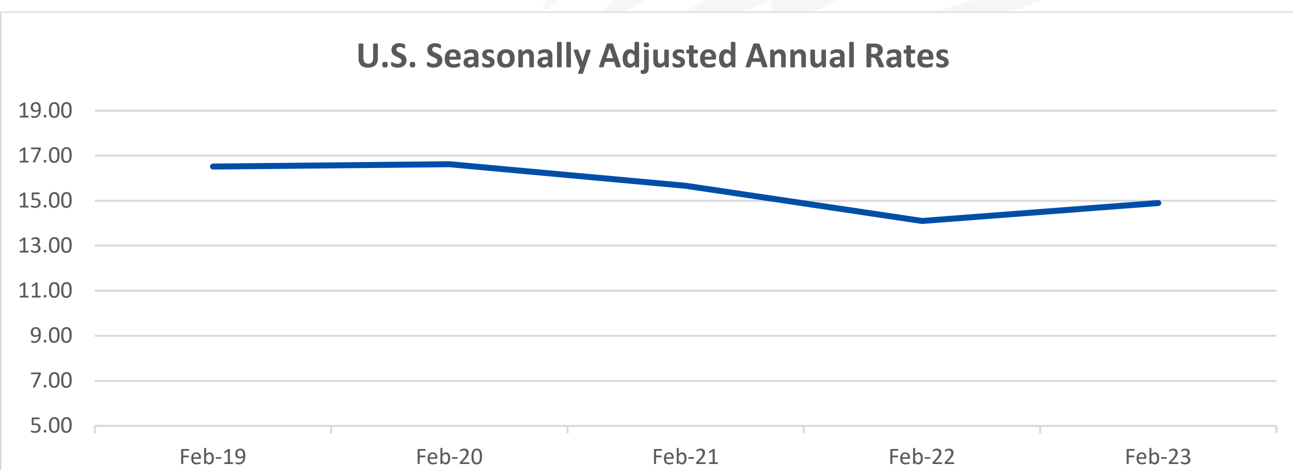
EV Powertrain Sales (Updated 3/3)

Sales of electric vehicles (BEV, PHEV, & Fuel Cell) accounted for 7.99% of total vehicle sales in February 2023 (90,756) – the highest market share to date, according to Wards Intelligence data. February's EV market share is up 2.3 pp from a year ago and up 0.14 pp from January 2023. Sales of battery electric vehicles led the way for ZEVs, accounting for 6.5% of total sales, up 2.3 pp from February 2022. Plug-in hybrids accounted for 1.45%, down 0.01 pp from the same time last year. [14]



Seasonally Adjusted Annual Rates (Updated 3/3)

WardsIntelligence[15]: “U.S. light-vehicle sales showed more strength than expected in February as increased incentive spending helped push sales slightly above expectations to a 14.9 million-unit seasonally adjusted annual rate, about 300,000 above forecast, well above like-2022’s 13.7 million and the seventh straight month with year-over-year growth.”



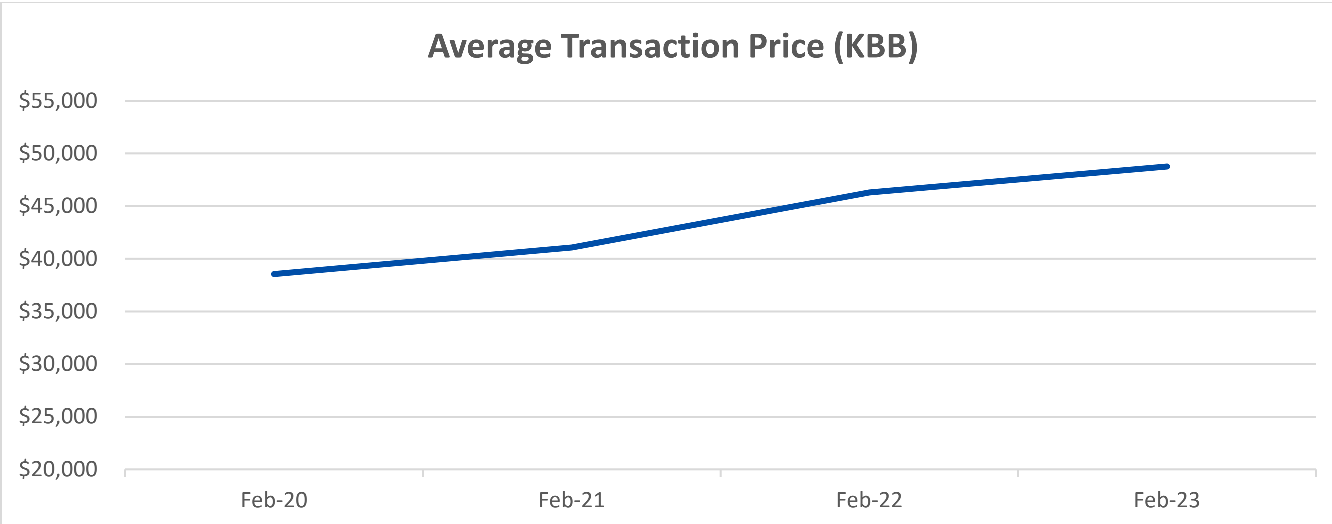
Average Transaction Price (Updated 3/23)

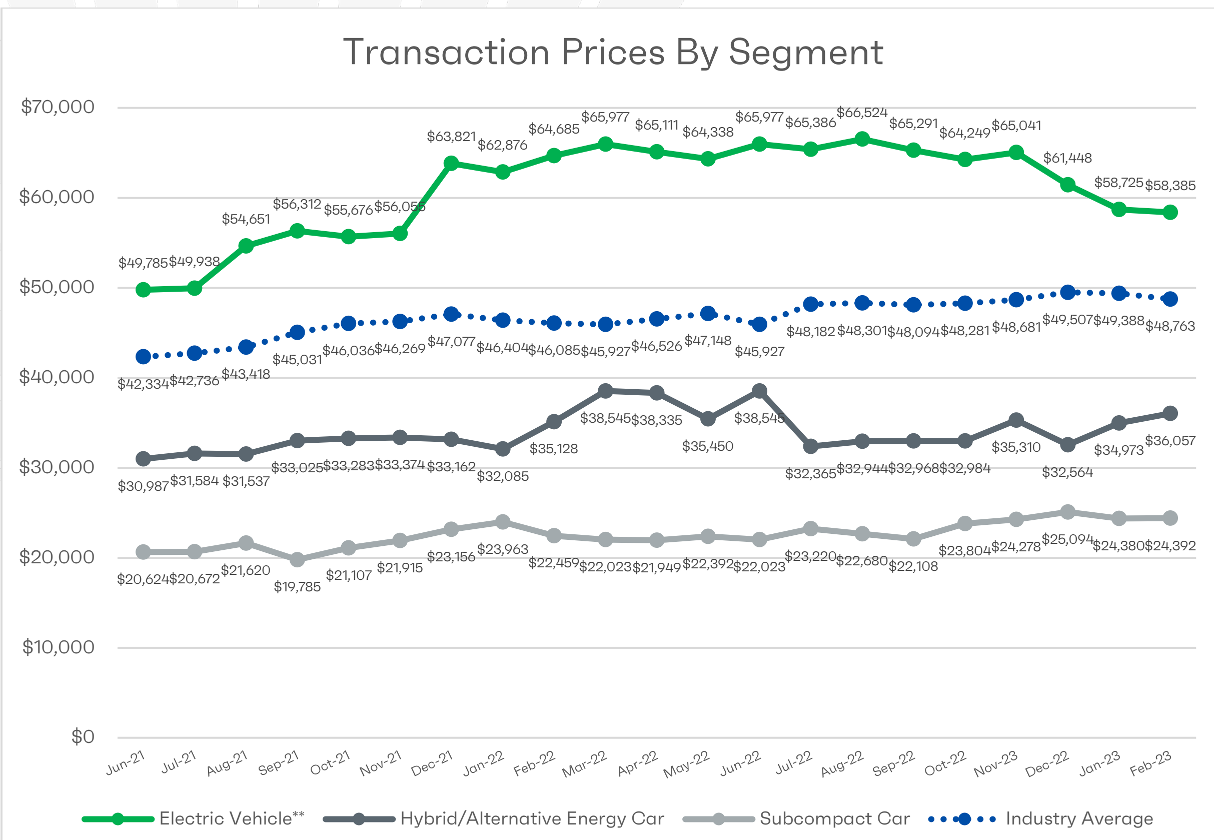
Kelley Blue Book (February) (Updated 3/23) [16]**:** "The average transaction price (ATPs) of a new vehicle in the United States declined in February 2023 to $48,763, a decrease of 1.4% ($705) from an upwardly revised January reading of $49,468. Transaction prices last month were up 5.3% ($2,466) from year-ago levels, according to data released today by Kelley Blue Book, a Cox Automotive company. Meanwhile, incentive spend rose to 3.0%, averaging $1,474, a level not seen since March 2022.

"The average price paid for a new EV decreased by $1,050 (down 1.8%) in February 2023 compared to January. The average new EV sold for $58,385, according to Kelley Blue Book estimates, which is still well above the industry average. The drop in pricing was driven by significant price cuts from Tesla, which commands roughly two-thirds of the EV market. Tesla's average transaction prices decreased by $977, down 1.6% month over month and down 5.9% year over year."

J.D. Power (Updated 3/3) [17]**:** "New-vehicle transaction prices continue to rise, with the average price reaching a February record of $46,229, a 4.8% increase from a year ago. The record transaction prices means that consumers are on track to spend nearly $42.0 billion on new vehicles this month—the most ever for the month of February and an increase of 5.0% from February 2022.

"Manufacturer discounts are up slightly from a month ago, but they remain historically low. The average incentive spend per vehicle is tracking toward $1,335, a 4.7% increase from a year ago. Incentive spending per vehicle expressed as a percentage of the average vehicle MSRP is trending at 2.8%, down 0.1 percentage points from February 2022. One of the factors contributing to the low level of spending is the absence of discounts on vehicles that are leased. This month, leasing is accounting for just 18% of retail sales. In February 2019, leases accounted for 31% of all new-vehicle retail sales."



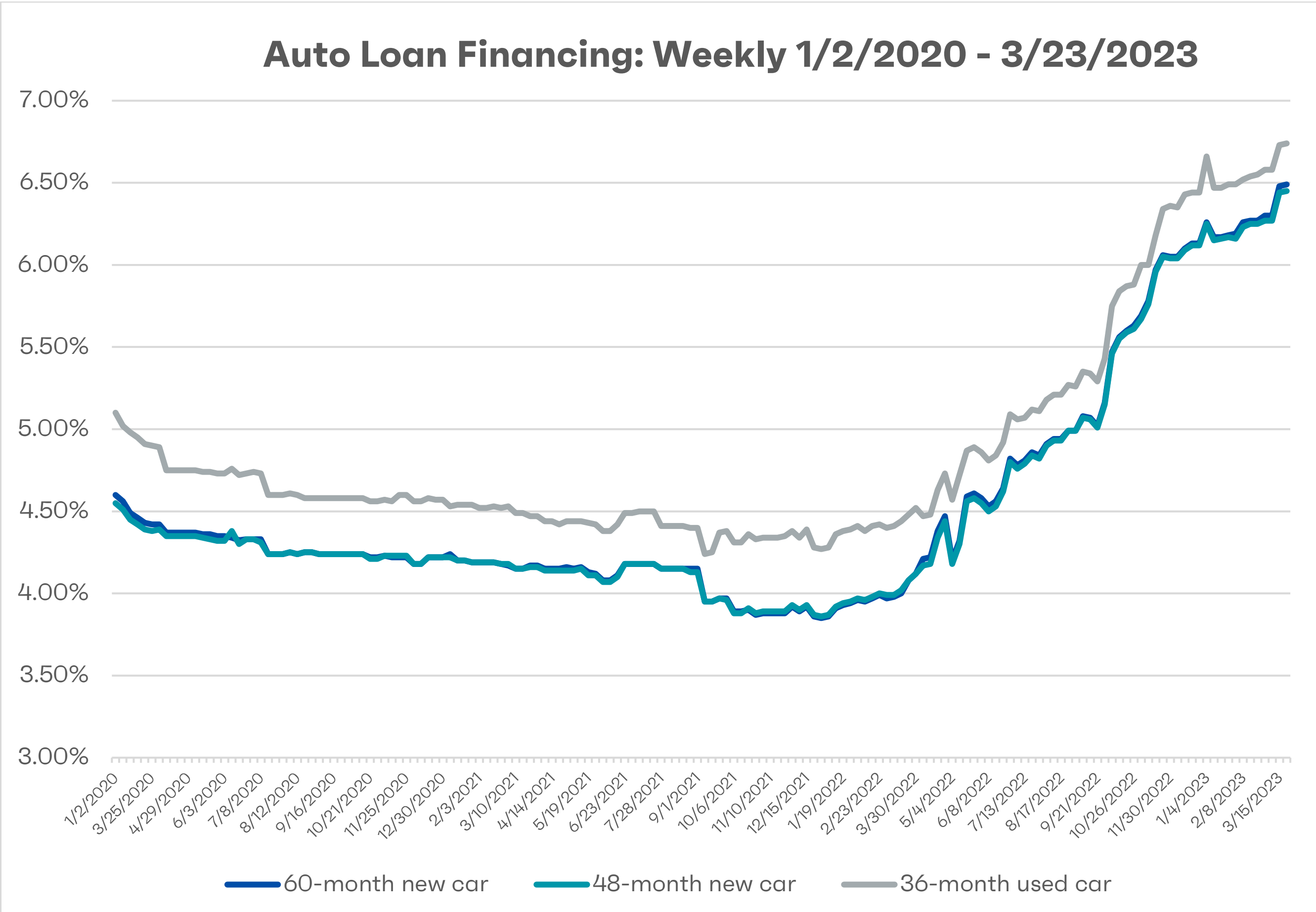


Auto Loan Financing (Updated 3/3)

JD Power (3/3)[18]: "Elevated pricing coupled with repeated interest rate increases continue to inflate monthly loan payments. After breaking the $700 level for the first time ever in July 2022, the average monthly finance payment in February is on pace to be $722, up $59 from February 2022. That translates to an 8.9% increase in monthly payments from a year ago. The average interest rate for new-vehicle loans is expected to be 6.8%, an increase of 252 basis points from a year ago."

Interest Rates (updated 3/23): Interest rates continue their upward climb for the 60-month, 48-month and 36-month used car loans. Rates now stand at 6.49%, 6.45%, and 6.74%, respectively. Since the beginning of 2020, 60-month rates are up 1.89 pp, and are up 2.41 pp since the same time a year ago.[19]

Dates	60-month new car	48-month new car	36-month used car
1/2/2020	4.60%	4.55%	5.10%
3/23/2022	4.08%	4.08%	4.48%
3/15/2023	6.48%	6.44%	6.73%
3/22/2023	6.49%	6.45%	6.74%
One Week Change	0.01%	0.01%	0.01%
Two Week Change	0.19%	0.18%	0.16%
Change since 1/3/20	1.89%	1.90%	1.64%
One Year Change	2.41%	2.37%	2.26%

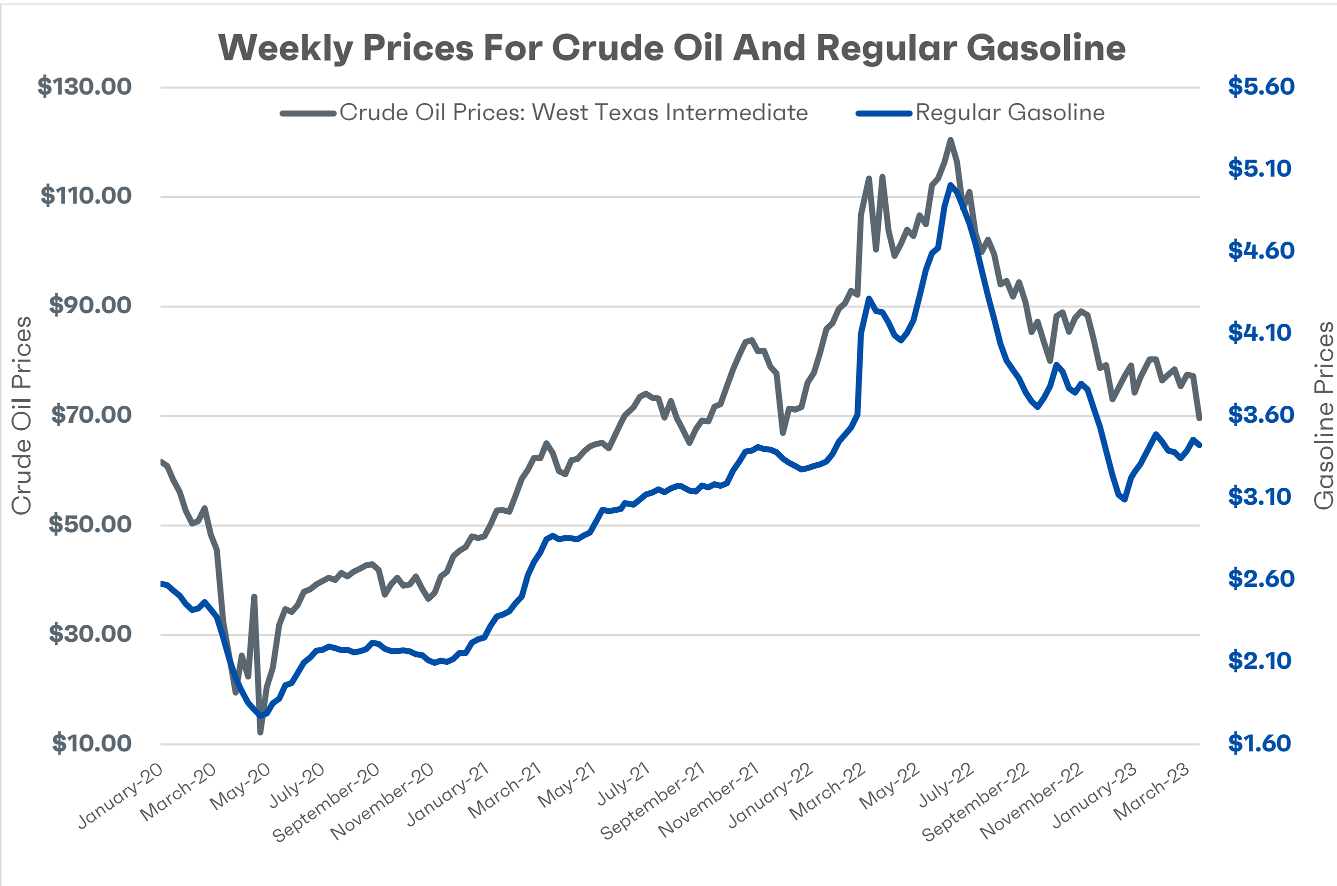


Crude Oil and Gas Prices (Updated 3/23)

EIA Outlook For Gasoline (3/23) [20]**:** "We expect that rising gasoline inventories, along with falling crude oil prices, will gradually decrease gasoline prices throughout the forecast period. We forecast retail gasoline prices to average near $3.20/gal in the fourth quarter of 2023 (4Q23), down more than 30 cents/gal from 4Q22, and to decrease further to an average of about $3.10/gal in 2024."

EIA Outlook For Oil (3/23) [21]**:** "We expect that the Brent crude oil spot price will fall from an average of $84/b in the second quarter of 2023 (2Q23) to $81/b in 4Q23 and then average $78/b in 2024. Although we expect global oil inventories will build throughout the forecast period, we expect that high demand for crude oil from refineries because of elevated refining margins will limit downward pressure on crude oil prices through 2Q23 as refiners maintain high levels of crude oil inputs to maximize distillate fuel production. Russia was a key supplier of distillate fuel to Europe, and changes in distillate trade flows as Europe reduced imports of distillate from Russia in recent months have kept distillate fuel margins well-above five-year averages. However, we forecast that increasing global oil inventories will contribute to falling crude oil prices beginning in 3Q23."

Gas And Oil Holding Mostly Steady (3/23): Oil prices, as benchmarked at West Texas Intermediate, dipped slightly to $69.60 in mid-March. Since election day 2020, oil prices are $33 a barrel higher. Gas prices decreased $0.04 to $3.42. Gas is 33% higher than the beginning of 2020. [22]

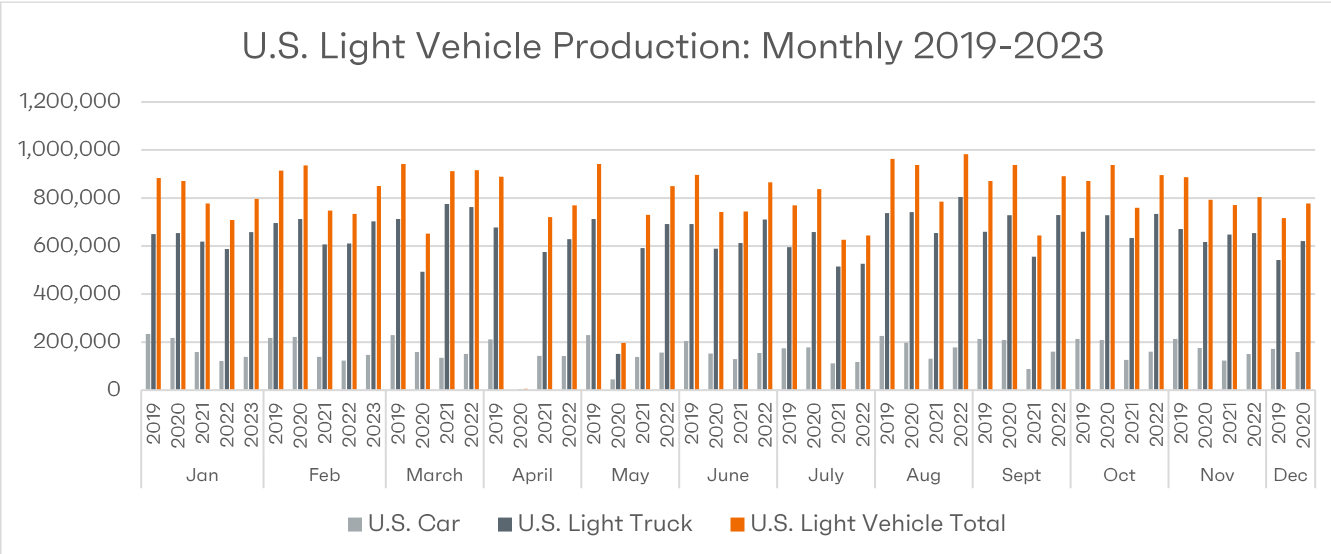


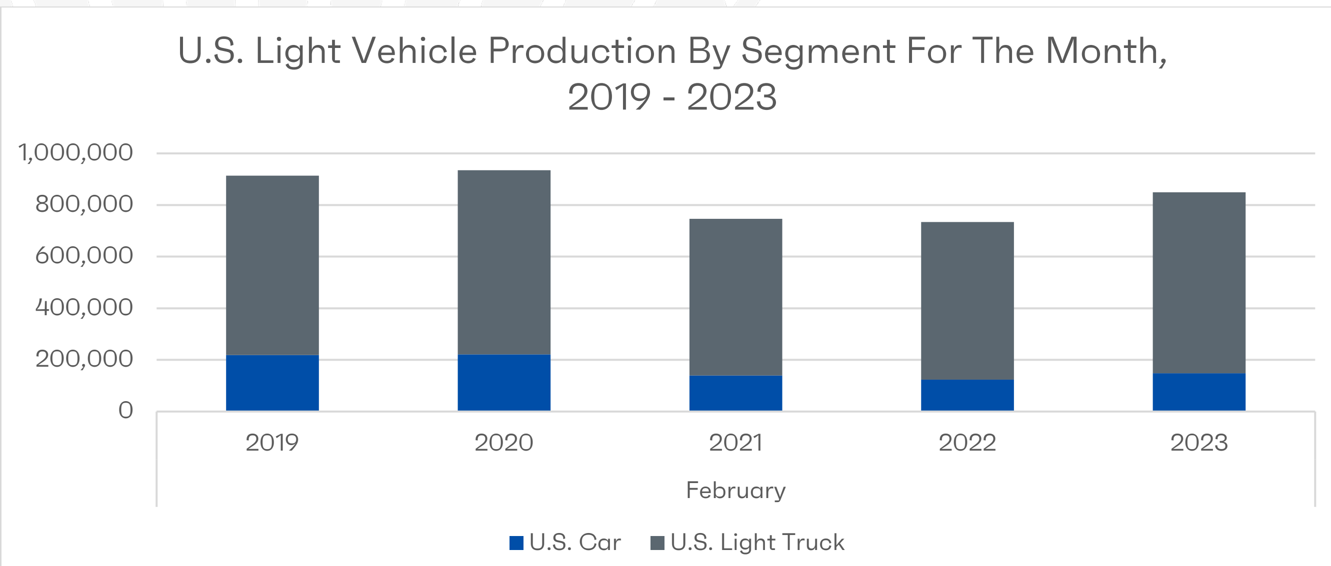
Production Meter

U.S. Light Vehicle Production (Updated 3/23)

Monthly Production (Upodated 3/23)

U.S. Light vehicle production for February 2023 increased month-over-month by 6 percent, totaling 873,247 vehicles (147,870 cars, 701,972 light trucks), year-over-year, production is up 17 percent from 2022. [23]





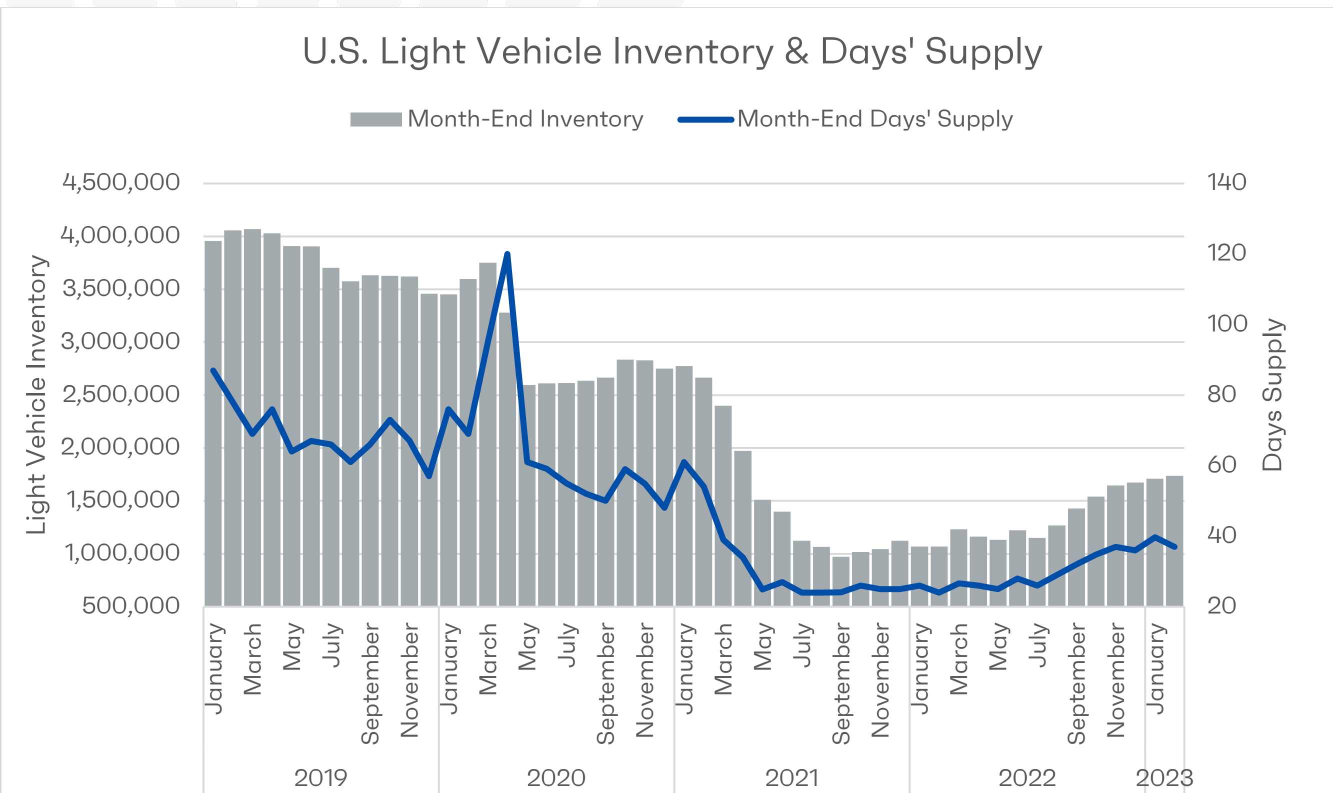
U.S. Light Vehicle Inventory and Days' Supply (Updated 3/3)

WardsIntelligence Inventory Update (3/3) [24]: "U.S. light-vehicle inventory increased 1.7% at the end of February from January, the seventh straight sequential gain, but with expectations for even stronger growth in March. Still at historically low levels for a relatively healthy market, inventory is creeping up since it tanked in mid-2021 from supply-chain disruptions, with semiconductor shortages the primary culprit in slashing production and, subsequently, vehicle availability for the U.S. market.

“Feb. 28 inventory totaled 1.737 million units, a slight increase from January’s 1.708 million, but 62.9% above same-month 2022’s 1.066 million.

“As total inventory increases, availability of more affordable vehicles is rising. Inventory, however, remains skewed toward higher price vehicles. The mix of inventory from luxury-priced cars, CUVs and SUVs, plus non-luxury fullsize trucks – high-priced, as well as the least fuel efficient among major segment groups – was 50.1% at the end of February. The inventory share of that grouping typically ran between 35% and 40% prior to the pandemic….

“Inventory-share of all fullsize trucks – including luxury-segment CUVs and SUVs - was 38.0% at the end of February, up from like-2022’s 34.2%. Roughly two-thirds of fullsize-truck inventory consists of pickups. The share of luxury light vehicles, less fullsize-truck versions, was 12.1% on Feb. 28, down from 15.4% in like-2022. Putting a more straight-forward comparison to it, fullsize-truck inventory was up 81% year-over-year in February. Excluding those vehicles, the rest of the industry was up a much lesser 54%.

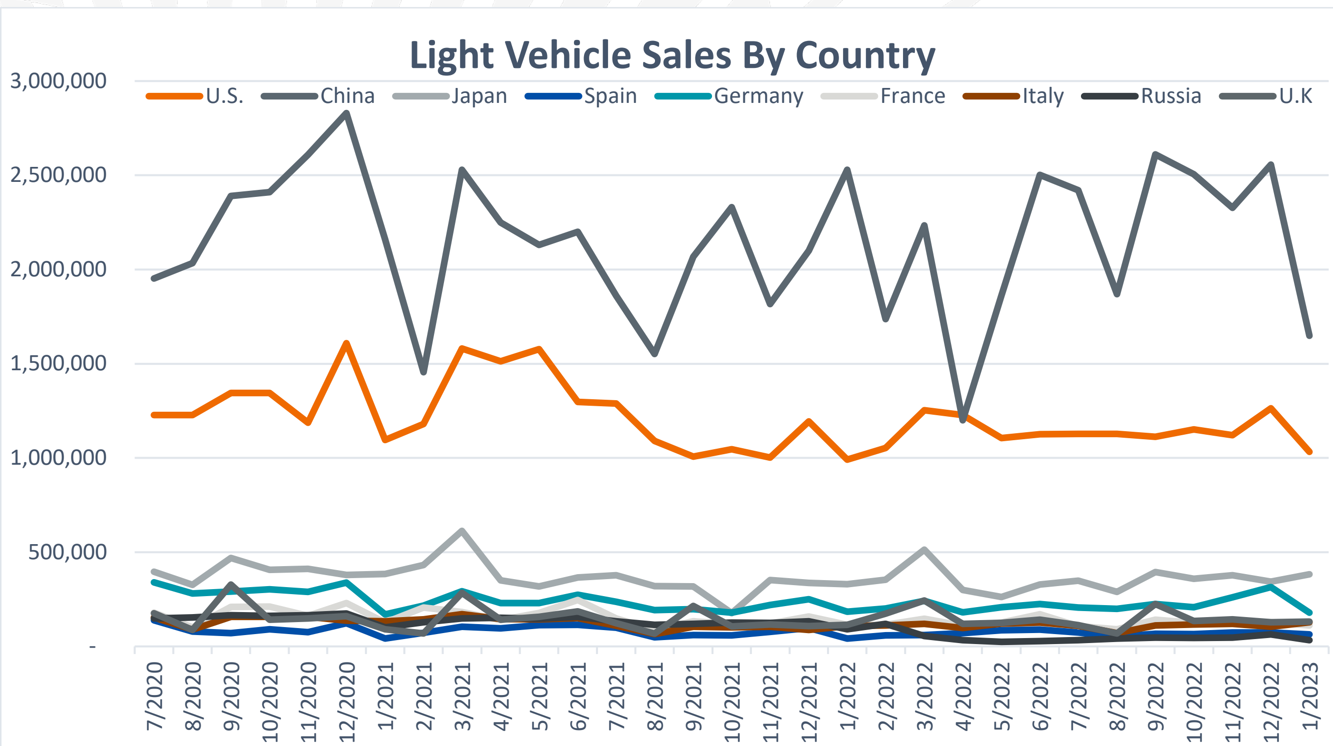


Global Meter

Global Light Vehicle Sales (Updated 3/3)

Wards Intelligence [25]**:** "Global sales declined year-over-year for the second straight month in January, as demand in China fell an estimated 9.8%. However, the circumstances that caused a decline in the largest market – China – are gone or lessening and year-over-year global growth likely resumed in February. January's global volume, which includes light vehicles and medium-/heavy-duty trucks, and estimates for some countries, totaled 6.19 million units, down 9.5% from like-2022's 6.84 million. Light vehicles totaled 5.80 million units in January, down 11.8% year-over-year.

"Excluding China, volume in the rest of the world increased 7.6% year-over-year, with every region except the Asia-Pacific recording a gain. But less China, AP sales were up 9.7% from January 2022. Hurting January sales in China was a continuation of the surge in Covid-19 cases that started at the end of last year when the government lifted most pandemic-related restrictions, and that the week-long Chinese New Year celebration occurred entirely during the month, whereas last year it spilled over into February, lessening the negative impact of consumers being pre-occupied in the previous month. With the celebration over, and the economy also opening up more as Covid cases ease, sales in China are expected to return to year-over-year increases in February, which should push global volume back to growth. Until China's Covid surge, which was the primary reason global sales declined 0.4% year-over-year, demand had grown five straight months."



Global Light Vehicle Production (Updated 3/23)

S&P Global Mobility Forecast (3/23) [26]**:** “While the global auto industry has not yet fully received the “all clear” from a supply chain disruption perspective, many markets are clearly transitioning to a focus on the state of consumer demand versus supply constraints. Demand destruction remains a concern with macroeconomic conditions and lofty vehicle pricing in some markets being critical factors. However, these dynamics are mitigated in some areas by the fact that vehicle sales have been running at or near recessionary levels for several years. Vehicle electrification remains a key theme for major markets with new model launches forthcoming and government intervention playing an increasingly consequential role to support deployment and consumer adoption. The March 2023 forecast update reflects a mix of upgrades and downgrades, albeit mostly modest in nature, yet net to the upside, as the industry transitions from supply chain issues to supporting nascent demand recovery in select markets. The latest forecast update reflects near-term upgrades for Europe, Japan/Korea and Greater China on demand recovery and inventory restocking in some cases. The upward revisions are only partially offset by fairly modest downward adjustments for South Asia, South America and North America on region-specific dynamics, launch timing shifts and other fine-tuning effects. 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 58,000 units for 2023 and 2024, respectively (and reduced by 68,000 units for 2025). As fears of production disruption related to energy inputs remain somewhat in check, the supply of semiconductors continues to show marked improvement and is a factor in the near-term production upgrade. We remain focused on the state of demand and consumer conditions in the market. As inventories reach equilibrium in the near-term, more traditional demand fundamentals will take over and govern production activity through the near-to-intermediate term. We remain fairly tempered in our outlook for H2-2023, projecting only roughly 1% year-over-year growth. As the macro outlook becomes more positive, the 2024 forecast is also slightly improved. From 2025 onwards, we expect a stabilization of volumes in alignment with demand prospects which results in a mild downgrade of the forecast. Sourcing shifts including for Stellantis from Turkey to Morocco accentuate the downgrade.

“Greater China: The outlook for Greater China light vehicle production was increased by 29,000 units for 2023 and by 43,000 for 2024 (and was increased by 36,000 units for 2025). The Chinese auto market continues to be impacted by the nationwide COVID outbreak after the relaxation of a strict Zero-COVID policy since early December 2022. After experiencing the seasonal effect of the Chinese New Year holidays and the auto industry shutdown in January, activity in February remained fairly weak with vehicle production managing a rather modest 10% increase relative to an extremely low base for 2022. Passenger vehicle inventory has risen with a current index of 1.93, relative to a 1.80 reading for January with the mix biased toward internal combustion engine (ICE) vehicles. To ease growing stocks, automakers are implementing price reductions across a number of models, particularly ICE offerings. In addition, regional/local governments are providing subsidies to retail buyers to stimulate domestic consumption. While this can drive activity in the extreme near-term, we remain watchful for any sort of pay-back effect if there isn’t broader economic strengthening to support demand growth. Given the expectations for continued macroeconomic recovery, the outlook for 2024 has been upgraded and now reflects 5.7% growth for the region.

"Japan/Korea: Full-year 2023 Japan production was increased by 34,000 units. We see positive momentum with Suzuki which has been recovering from semiconductor shortage issues as smaller, lesser contented cars tend to require fewer semiconductors per vehicle. The longer-term forecast was upgraded by around 1% per year. We added new BEVs such as the C-Hatch EV as the successor to the Mazda 3 and the B-Hatch EV which is a successor to the Mazda 2. This results in a positive impact on Mazda's overall domestic production outlook. Full-year 2023 South Korea production was not significantly changed except for a 5,000 unit increase due to stronger February production results. Production in 2024 and 2025 was rebalanced by increasing 101,000 units and 51,000 units, respectively as South Korea production continues a favorable recovery due to improved semiconductor supplies. In addition, an expected improvement in the macroeconomic environment post-2023 provides further support. In the longer-term, as Hyundai's BEV sourcing such as the Kia EV4 and Genesis GV80 shifts to North America and with the discontinuation of the Kia K5, production decreased by about 130,000 units per year on average. Meanwhile, the ramp-up curve of vehicles to be released in 2026 and 2027 including the Hyundai Tucson, Ioniq 5, Ioniq 3, Kia Carnival and EV6 was revised up.

"North America: The outlook for North America light vehicle production was reduced by 7,000 units and by 68,000 units for 2023 and 2024, respectively (and reduced by 15,000 units for 2025). While the region transitions from supply chain concerns to questions around demand dynamics amid recessionary fears, the outlook for 2023 remains largely unchanged, with production revised downward only modestly to total 15.08 million units. With production in the region projected to increase 5.5% in 2023, 70% of the growth is expected to come from 10 of the 102 plants in the region. Half of those plants are ramping up all-new or redesigned vehicles with the other half expected to experience strong recovery following supply chain reduced levels in 2022. Of note, the inventory rebuild process is already well underway and is projected to improve vehicle availability by mid-2023. Greatly improved availability may in turn stimulate demand as incentive levels are expected to increase. This situation will vary markedly by manufacturer with GM, Ford and Stellantis already largely at normalized inventory levels while their Asian counterparts continue to struggle to restock depleted inventories. Despite the expectation for ongoing improvements to the global supply chain, the outlook for 2024 was revised down 0.4% to total 15.79 million units with production in 2025 revised down a marginal 0.1% reaching 16.46 million units.

"South America: The outlook for South America light vehicle production was reduced by 19,000 units and by 47,000 units for 2023 and 2024, respectively (and reduced by 48,000 units for 2025). The near-term outlook was reduced modestly, primarily focused on Brazil to account for downward revisions in demand for the domestic Brazil market as well as Chile and Colombia. Of note, Argentina continues to exhibit relative strength but not enough to offset the revisions for surrounding markets. The production adjustments for 2024 and 2025 similarly reflect downgraded demand expectations for Brazil, Colombia and Chile amid a dynamic market environment and macroeconomic challenges.

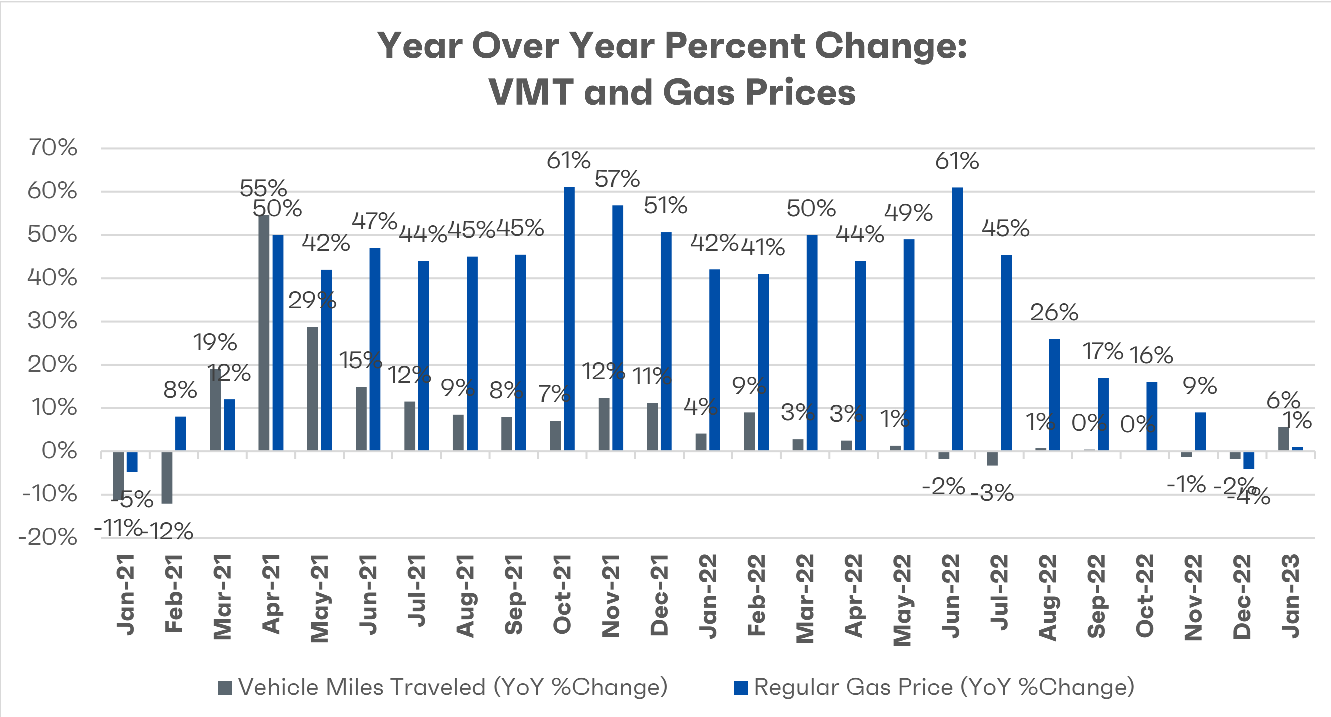
"South Asia: The outlook for South Asia light vehicle production was reduced by 22,000 units and by 50,000 units for 2023 and 2024, respectively (and was reduced by 47,000 units for 2025). Continued strength in production for India and an improved near-term outlook for the ASEAN market was more than offset by a fairly material downgrade for Pakistan as political instability and the removal of Prime Minister Imran Khan from office bring critical challenges for the country. Further, automakers in the country face challenges with component import restrictions and exchange rate volatility resulting in sporadic plant shutdowns. The forecast through the intermediate term remains impacted by the aforementioned headwinds with Pakistan which are expected to result in a more subdued recovery for the country and modestly influences the growth trajectory for the broader region."

Recovery Meter

Roadway Travel (Updated 3/23)

According to the U.S. Department of Transportation, seasonally-adjusted vehicle miles traveled in January increase 4.5 percent from the same time a year ago. The cumulative travel estimate for 2022 is 247.3 billion vehicle miles. [27]

- "Travel on all roads and streets changed by +5.6% (+13.2 billion vehicle miles) for January 2023 as compared with January 2022. Travel for the month is estimated to be 247.3 billion vehicle miles.
- "The seasonally adjusted vehicle miles traveled for January 2023 is 272.5 billion miles, a 4.5% (11.6 billion vehicle miles) change over January 2022. It also represents a 3.1% change (8.1 billion vehicle miles) compared with December 2022.
- "Cumulative Travel for 2023 changed by +5.6% (+13.2 billion vehicle miles). The cumulative estimate for the year is 247.3 billion vehicle miles of travel."



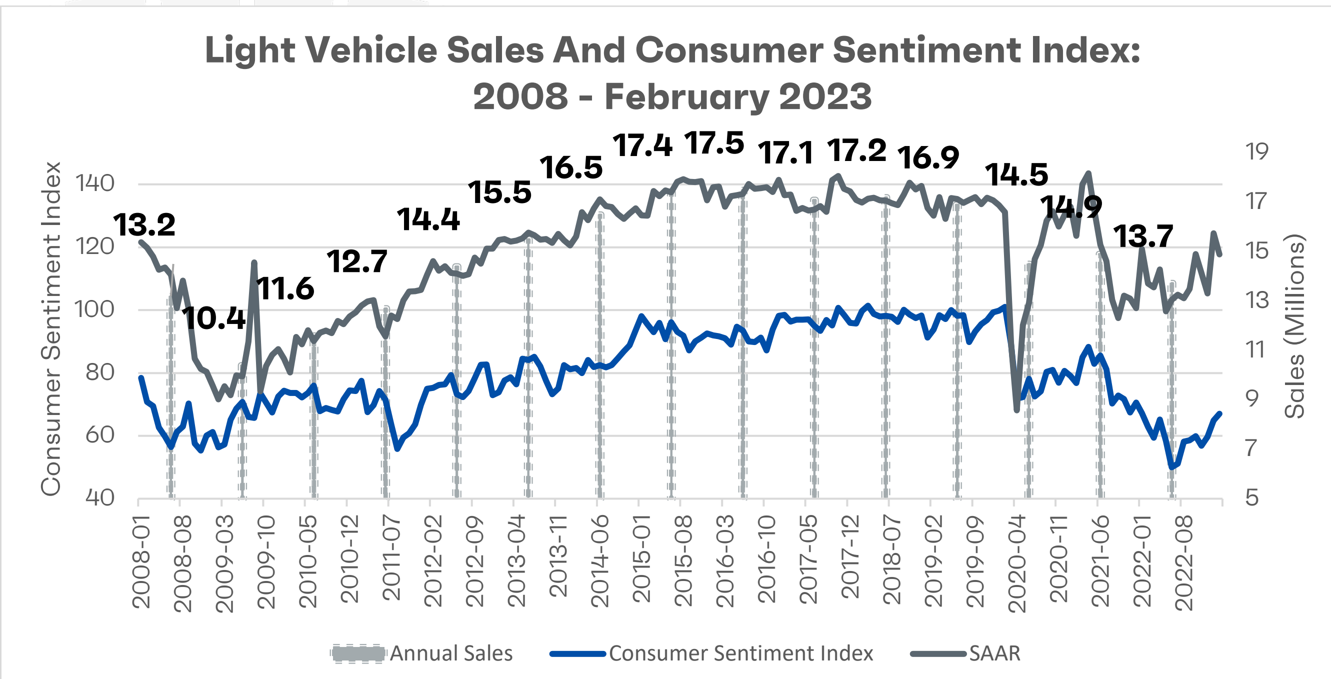
Economic News (Updated 3/23)

Manufacturing Lost 4,000 Jobs in February, While Motor Vehicles And Parts Gained 200.[28]
"Manufacturing lost 4,000 jobs last month, the Bureau of Labor Statistics said today. Durable goods employment was little changed while non-durable goods absorbed the bulk of the job loss, according to a breakdown by sector issued by the bureau. Job gainers included transportation equipment, up 1,300 jobs. That included a gain of 200 jobs in motor vehicles and parts."

The ISM Index Remains Below 50, The Third Straight Month Of Manufacturing Contraction.
"Manufacturing in February improved while staying in economic contraction, the Institute for Supply Management said today. The Tempe, Ariz.-based group's manufacturing index, known as the PMI, rose to 47.7 percent last month up from 47.4 percent in January. An index reading above 50 percent indicates economic growth while below that mark shows economic contraction. February was the fourth consecutive month the PMI was in negative territory. Still, it was the first time the index showed improvement from a previous month since August 2022."[29]

Consumer Confidence and Sales (Updated 3/23)

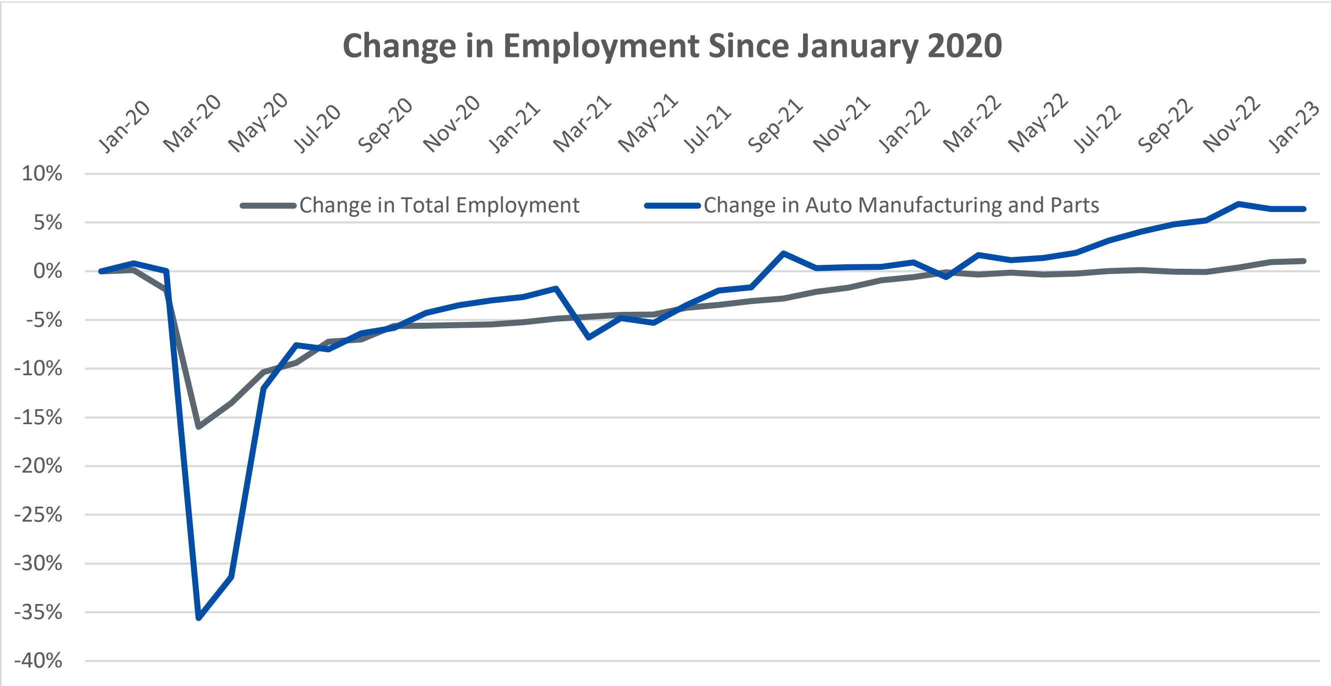
Surveys of Consumers Director Joanne Hsu[30]: "Consumer sentiment fell for the first time in four months, sitting about 5% below February but remaining 7% above a year ago. This month's decrease was already fully realized prior to the failure of Silicon Valley Bank, at which time about 85% of our interviews for this preliminary release had been completed. Sentiment declines were concentrated among lower-income, less-educated, and younger consumers, as well as consumers with the top tercile of stock holdings. Overall, all components of the index worsened relatively evenly, primarily on the basis of persistently high prices, creating downward momentum for sentiment leading into the financial turmoil that began last week. Year-ahead inflation expectations receded from 4.1% in February to 3.8%, the lowest reading since April 2021, but remain well above the 2.3-3.0% range seen in the two years prior to the pandemic. Long-run inflation expectations edged down to 2.8%, falling below the narrow 2.9-3.1% range for only the second time in the last 20 months. Long-run inflation expectations remain elevated relative to the 2.2-2.6% range seen in the two years pre-pandemic. With ongoing turbulence in the financial sector and uncertainty over the Fed's possible policy response, inflation expectations are likely to be volatile in the months ahead."



Employment (Updated 3/23)

Motor Vehicle And Parts Manufacturing Gained 200 Jobs In February.[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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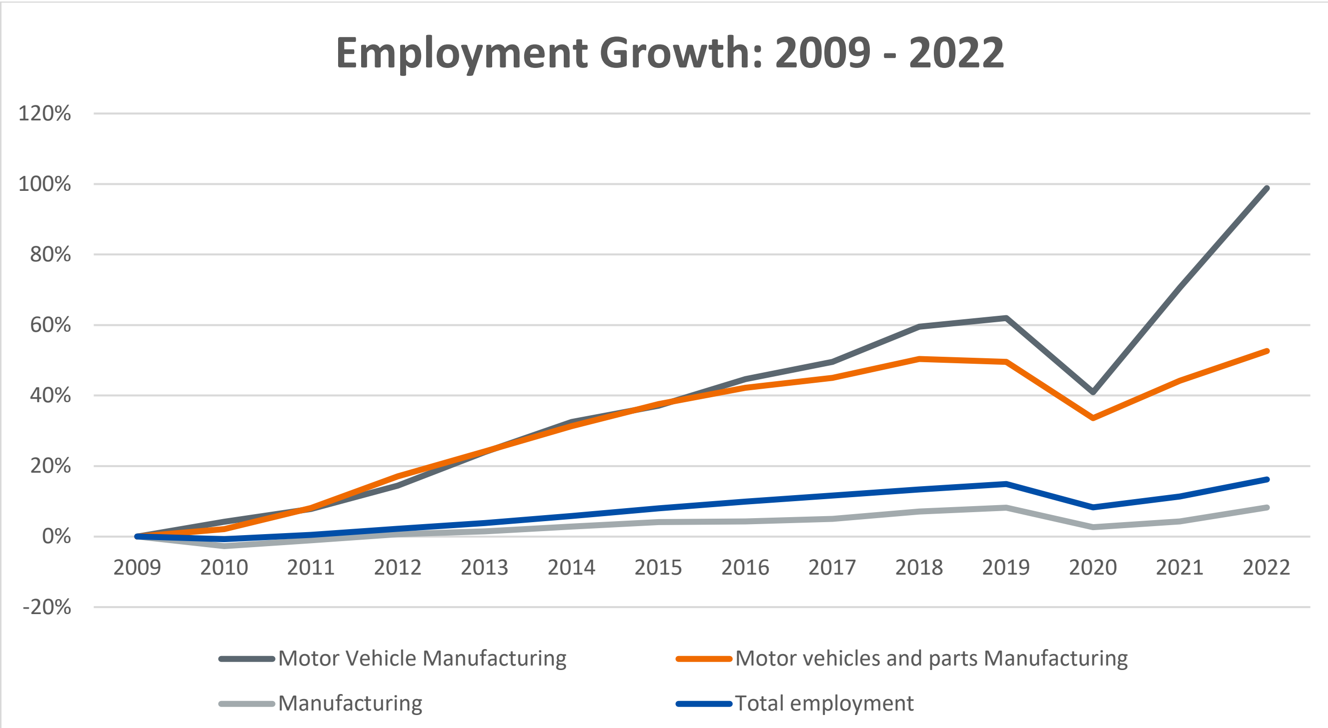

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