READING THE METER

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

ALLIANCE FOR AUTOMOTIVE INNOVATION

Contents – April 20, 2023

ALLIANCE FOR AUTOMOTIVE INNOVATION

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Forecast Meter

Sales & Production Summary and Forecast (Updated 4/20)

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)
2022 Full Year	13.7 million units (WardsIntelligence)	14,721,053 (+9.8% YoY) (U.S. 10,019,791)

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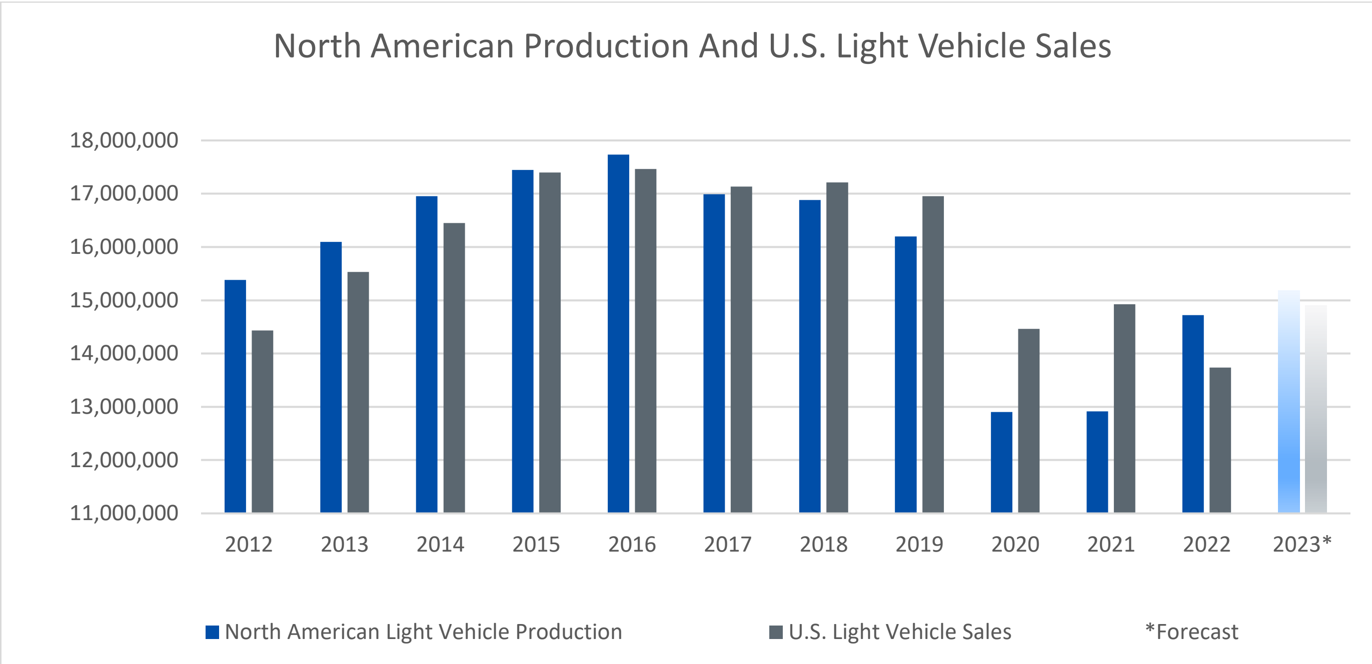
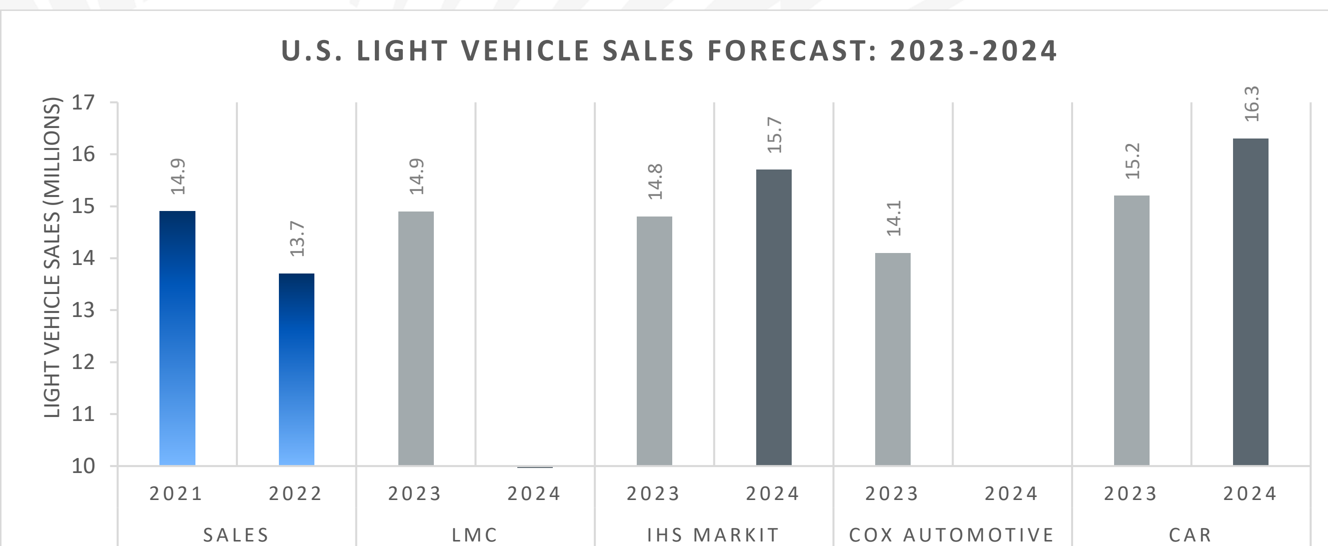


U.S. Light Vehicle Sales Outlook (Updated 4/5)

Wards Intelligence Outlook (4/5)[4]: "Initial modeling for Q2 shows sales rising 9.4% year-over-year, although the seasonally adjusted annual rate falls to 14.5 million units from Q1's 15.2 million. There is more upside to the outlook as long as economic headlines or some other shock does not scare consumers away from dealer lots. Rising interest rates remain a huge potential headwind to Q2 sales."



North American Production & Inventory Outlook (Updated 4/5)

"**Wards Intelligence Inventory Outlook (4/5)** [5]**:** "Due to typical seasonal trends related to production and sales volumes, inventory likely will fall in April from March, before resuming month-to-month growth in May and June."

Wards Intelligence Production Outlook (3/23) [6]**:** "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."

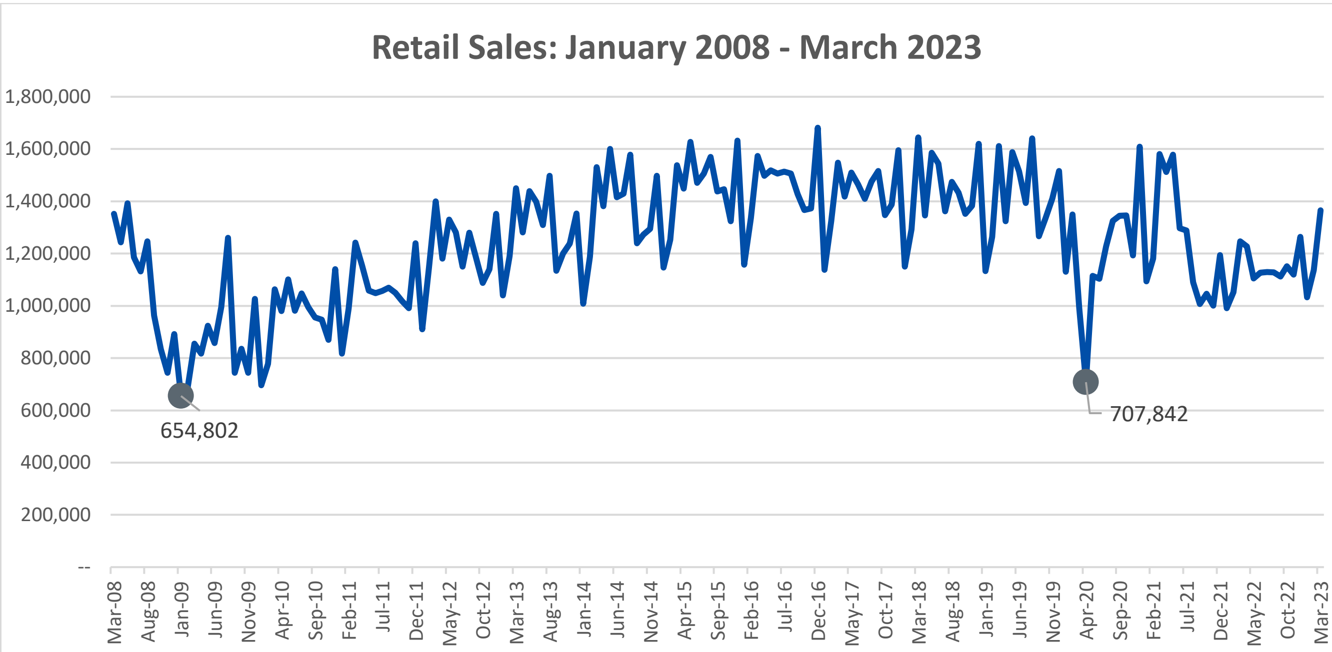
S&P Global Mobility Outlook (3/23)[7]**:** "The outlook for North America light vehicle production was reduced by 7,000 units and by 68,000 units for 2023 and 2024, respectively (and reduced by 15,000 units for 2025). While the region transitions from supply chain concerns to questions around demand 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."

Market Meter

U.S. Light Vehicle Sales (Updated 4/5)

Monthly Sales (Updated 4/5)

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.



March Sales (Updated 4/5)

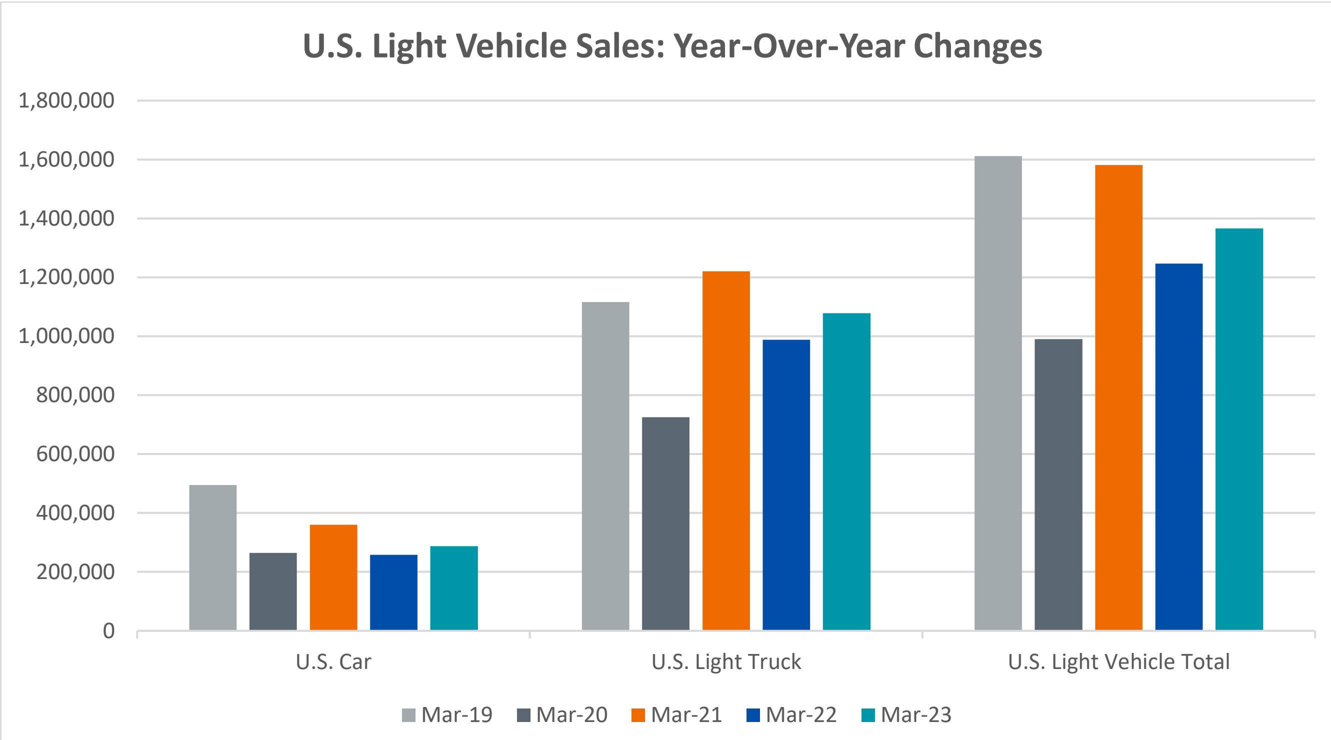
WardsIntelligence [8]: "For the third straight month, U.S. light-vehicle sales showed slightly stronger growth than expected as March's seasonally adjusted annual rate totaled 14.8 million units, vs. the forecasted 14.4 million.

"March's SAAR was well above like-2022's 13.6 million and capped off Q1 which ended at 15.2 million, well above year-ago's 14.0 million and Q4-2022's 14.3 million. The Q1 SAAR was the highest for any quarter since Q2-2021's 16.7 million.

"Raw volume in March of 1.366 million units was 8.6% above like-2022's 1.258 million and the highest level for any month since 1.570 million in May 2021. The first quarter totaled 3.56 million units, up 8.1% from same-period 2022's 3.30 million. Rising inventory and increased incentives are acting as offsets to market headwinds, such as inflation, rising interest rates, bank insolvencies and geopolitics.

"With inventory entering March at a 22-month high of 1.74 million units, and expected to continue rising during the month, greater availability in general on dealer lots helped boost deliveries. Furthermore, higher inventory is creating some price relief for consumers after the cost to buy a vehicle soared when the global chip shortage led to a huge drain on inventory beginning in mid-2021.

"Higher inventory for retail customers also let automakers increase fleet shipments, a sector with huge pent-up demand built up over the past three years. Fleet volume in March is estimated to have increased 17% year-over-year, with penetration pegged at 16%, up from like-2022's 12%. Retail volume was up 7% year-over-year, with penetration at 84%, vs. the year-ago total of 88%."



Fleet Sales (Updated 4/5)

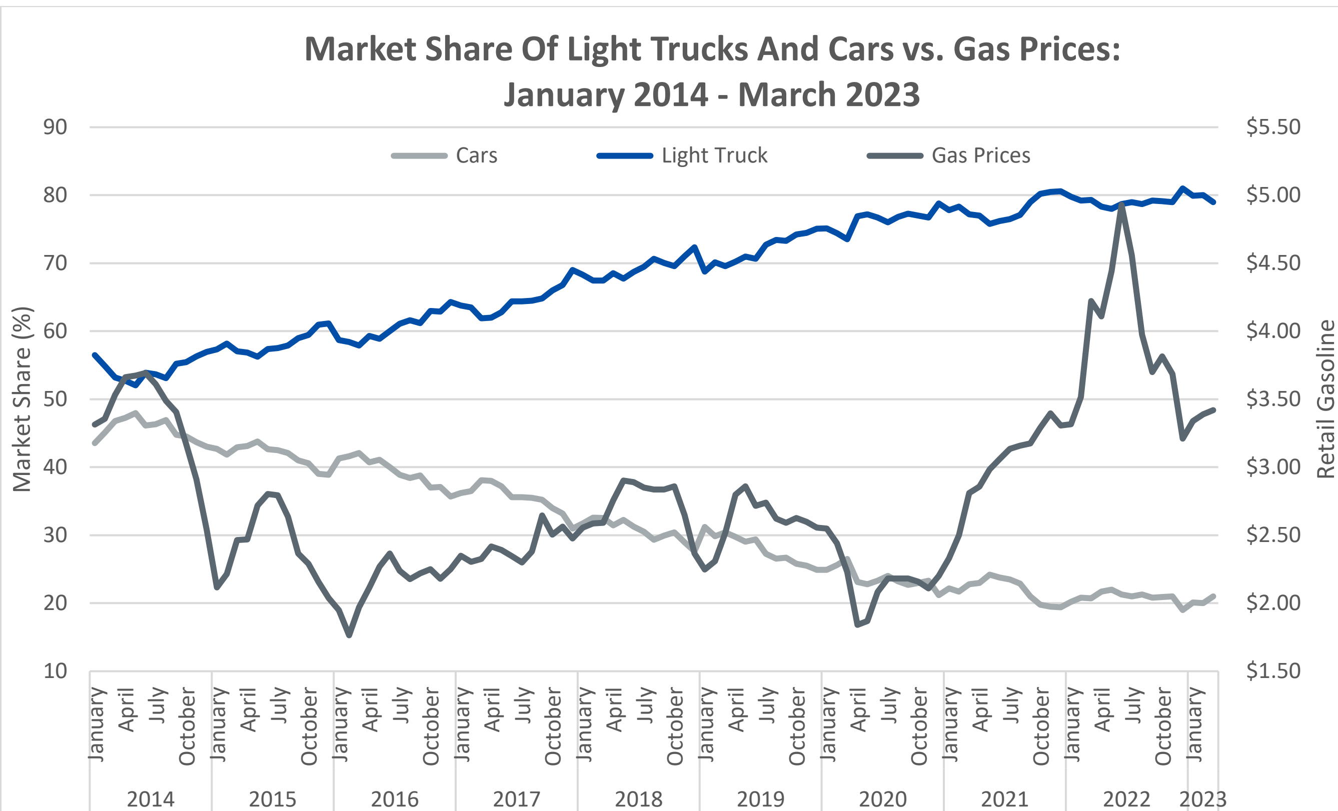
TrueCar[9]: "Fleet sales for March 2023 are expected to be up 31% from a year ago and up 13.5% from February 2023 when adjusted for the same number of selling days."

J.D. Power[10]: "Fleet sales are expected to total 240,200 units in March, up 31.4% from March 2022 on a selling day adjusted basis. Fleet volume is expected to account for 19% of total light-vehicle sales, up from 15% a year ago."

Segments vs. Gas Prices (Updated 4/5)

Monthly Sales For March: Light trucks accounted for 79 percent of sales in March, flat with the market share a year ago. Compared to the same period in 2022, sales of cars are up 29,334, and down more than 207,000 from March 2019, when cars comprised 31% of the market as opposed to the 21% 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 4/5)

Sales of electric vehicles (BEV, PHEV, & Fuel Cell) accounted for 7.38% of total vehicle sales in March 2023 (100,834) – the highest monthly volume to date, but a decrease of .6 percentage ponts from February 2023 according to Wards Intelligence data. March's EV market share is up 1.5 pp from a year ago and down .6 pp from February 2023. Sales of battery electric vehicles led the way for ZEVs, accounting for 6% of total sales, up 1.5 pp from March 2022. Plug-in hybrids accounted for 1.41%, up 0.06 pp from the same time last year.[14]

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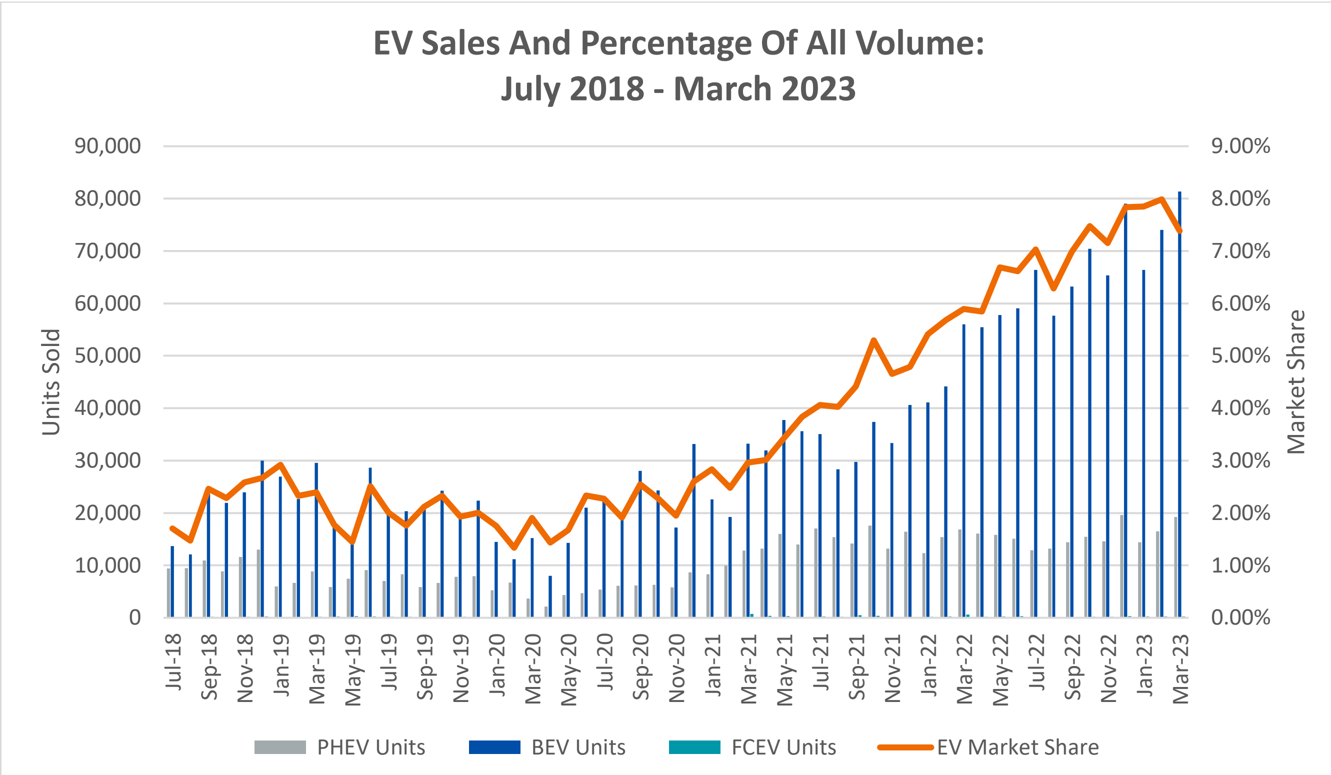
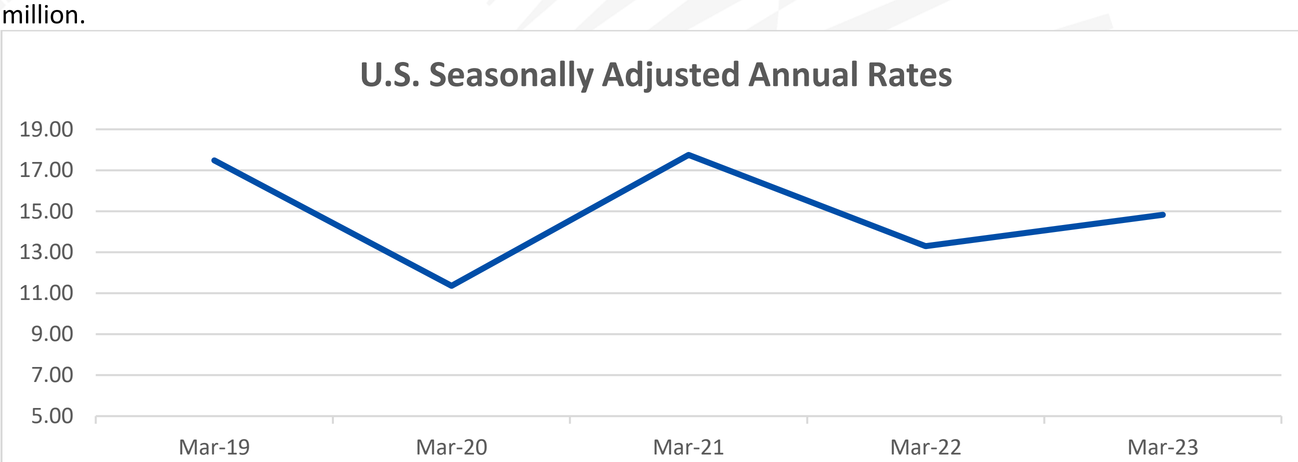


Seasonally Adjusted Annual Rates (Updated 4/5)

WardsIntelligence[15]: "For the third straight month, U.S. light-vehicle sales showed slightly stronger growth than expected as March's seasonally adjusted annual rate totaled 14.8 million units, vs. the forecasted 14.4 million. March's SAAR was well above like-2022's 13.6 million and capped off Q1 which ended at 15.2 million, well above year-ago's 14.0 million and Q4-2022's 14.3 million. The Q1 SAAR was the highest for any quarter since Q2-2021's 16.7 million.



Average Transaction Price (Updated 4/20)

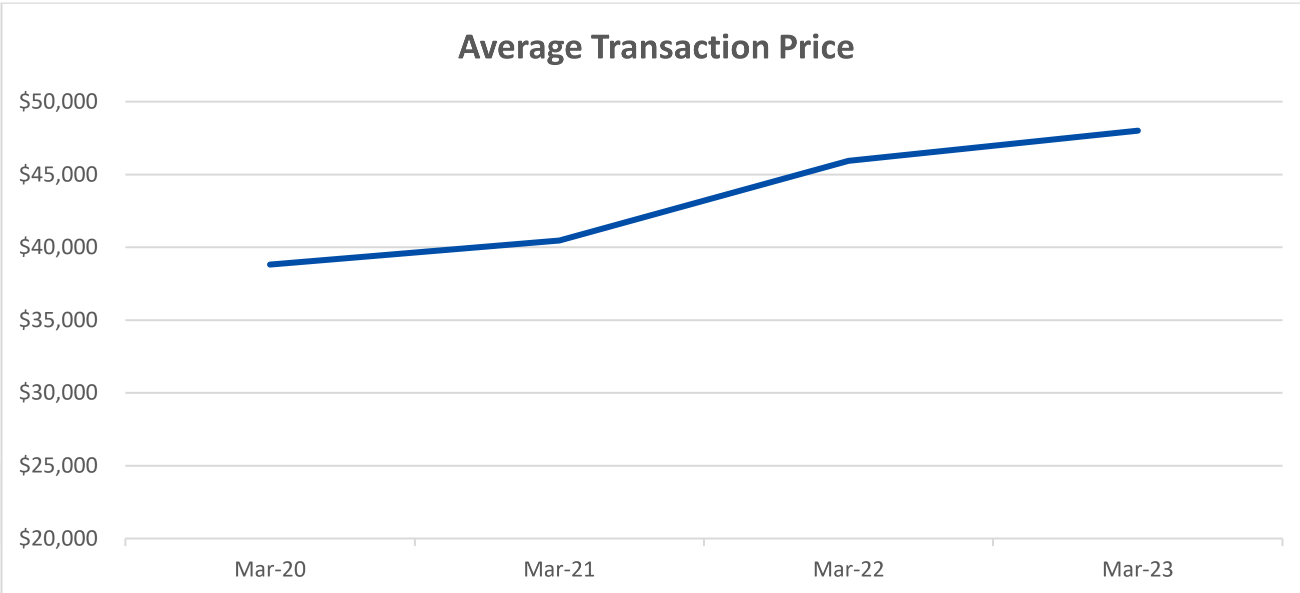
Kelley Blue Book (February) (Updated 4/20) [16]**:** "A nearly two-year trend was broken in March 2023 when the average price Americans paid for a new vehicle fell below the manufacturer's suggested retail price (MSRP) for the first time in 20 months, according to data released today by Kelley Blue Book, a Cox Automotive company. The average transaction price (ATP) of a new vehicle in the United States declined in March 2023 to $48,008, a month-over-month decrease of 1.1% ($550) from a downwardly revised February reading of $48,558. March 2023 transaction prices remained up 3.8% ($1,784) compared to year-ago levels. Meanwhile, auto manufacturer's incentive spend rose to the highest level in 12 months at 3.2% of the ATP in March 2023, averaging $1,516."

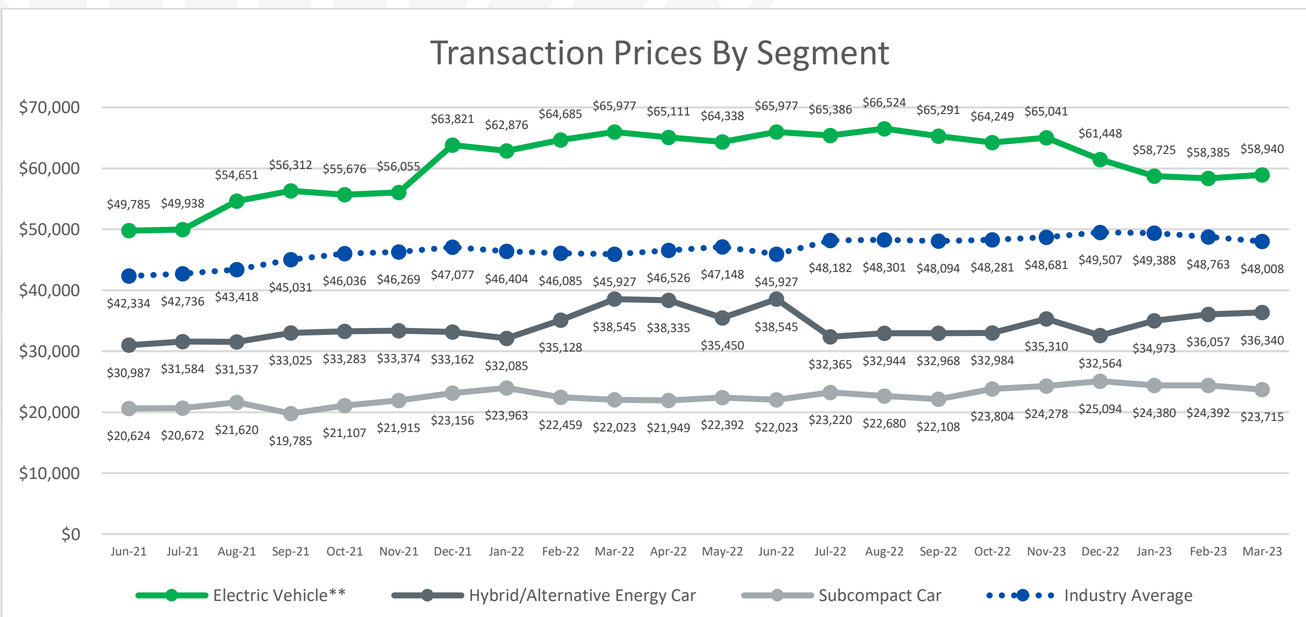
"The average price paid for a new EV increased by $313 (up 0.5%) in March 2023 compared to February 2023. The average new EV sold for $58,940 in March, according to Kelley Blue Book estimates, which still is well above the industry average. New EV pricing peaked in 2022, coming Down steadily since Q3 of last year.

"Still, March's upward movement of EV ATP was a bit of a surprise, since Tesla, the automaker with the largest share of EV sales, has cut prices three times in recent months. However, EV sales from Mercedes, Rivian, Lucid and other brands have increased at the same time, offsetting lower-priced Tesla products."

J.D. Power (Updated 4/5) [17]**:** "New-vehicle transaction prices continue to rise, with the average price reaching a March record of $45,818. This is a 3.5% increase from a year ago. The record transaction prices means that consumers are on track to spend nearly $50.0 billion on new vehicles this month—the second-highest for the month of March and an increase of 5.5% from March 2022. For the first quarter of 2023, consumers spent more than $132 billion on new vehicles, the highest on record for any quarter and 4.4% higher than Q1 2022.

"Manufacturer discounts are up slightly from a month ago and up significantly from a year ago, but they remain historically low. The average incentive spend per vehicle is tracking toward $1,558, a 45.2% increase from a year ago. Incentive spending per vehicle expressed as a percentage of the average vehicle MSRP is trending at 3.3%, down 0.9 percentage points from March 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 accounts for just 20% of retail sales. In March 2019, leases accounted for 31% of all new-vehicle retail sales."



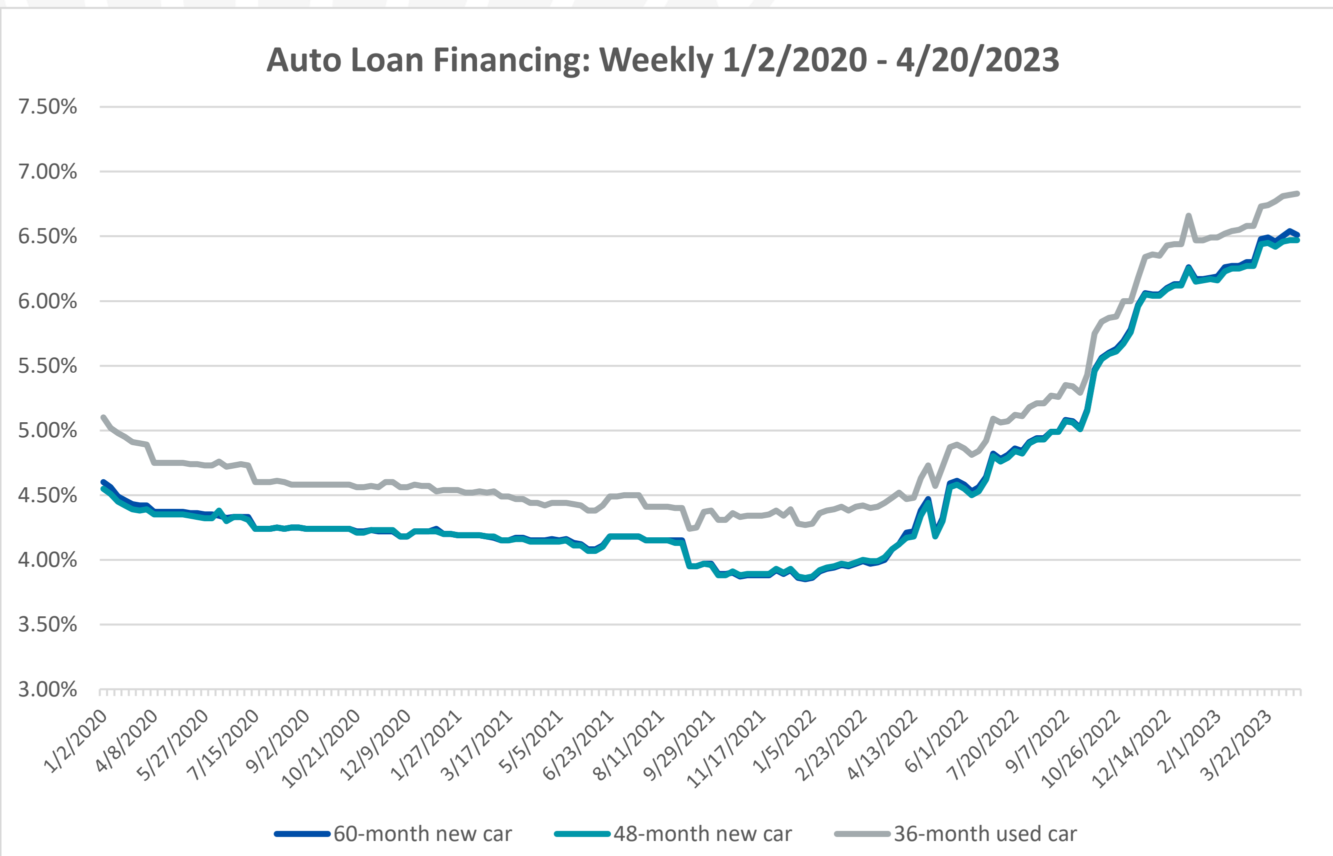


Auto Loan Financing (Updated 4/20)

Interest Rates (updated 4/20): Interest rates were mostly flat for the 60-month, 48-month and 36-month used car loans. Rates now stand at 6.51%, 6.47%, and 6.83%, respectively. Since the beginning of 2020, 60-month rates are up 1.91 pp, and are up 2.13 pp since the same time a year ago.[18]

JD Power (4/5)[19]: "Elevated pricing coupled with 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 March is on pace to be $711, up $46 from March 2022. That translates to a 6.8% increase in monthly payments from a year ago. The average interest rate for new-vehicle loans is expected to be 6.7%, an increase of 228 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%
4/20/2022	4.38%	4.34%	4.63%
4/12/2023	6.54%	6.47%	6.82%
4/19/2023	6.51%	6.47%	6.83%
One Week Change	-0.03%	0.00%	0.01%
Two Week Change	0.01%	0.01%	0.02%
Change since 1/3/20	1.91%	1.92%	1.73%
One Year Change	2.13%	2.13%	2.20%

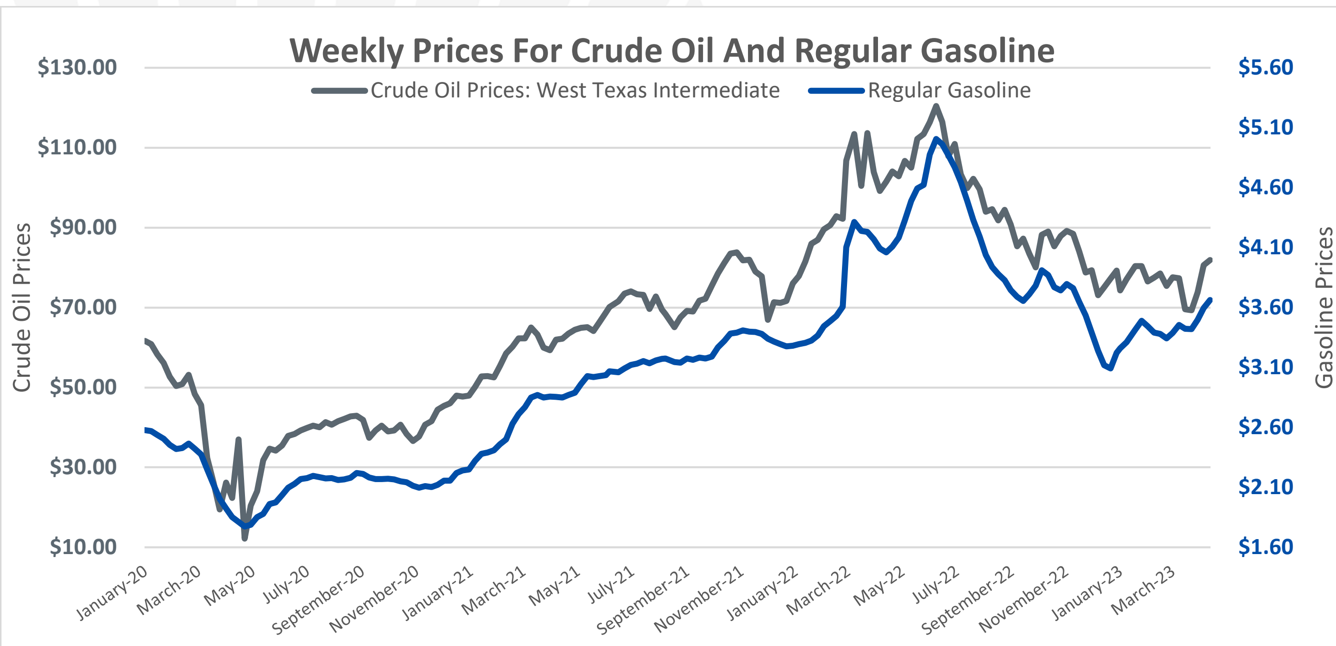


Crude Oil and Gas Prices (Updated 4/20)

EIA Outlook For Gasoline (4/20)[20]**:** "We forecast retail gasoline prices will peak between $3.50 per gallon (gal) and $3.60/gal in June and average about $3.50/gal throughout the summer season (April through September). This month we will release our inaugural Perspectives supplement, which discusses alternative scenarios for summer gasoline prices and how they affect our estimates of consumer spending."

EIA Outlook For Oil (4/20)[21]**:** "Crude oil prices. The Brent crude oil spot price in our forecast averages $85 per barrel (b) in 2023, up $2/b from last month's forecast. The higher price forecast reflects a forecast for less global production in 2023 and a relatively unchanged outlook for global oil consumption. Despite our higher price forecast, recent issues in the banking sector raise the potential that economic and oil demand growth will be lower than our forecast, which has the potential to result in lower oil prices."

Gas And Oil Holding Mostly Steady (4/20): Oil prices, as benchmarked at West Texas Intermediate, climbed to $81.87, an uptick of $8 in the last two weeks. Since election day 2020, oil prices are $45 a barrel higher. Gas prices increased $0.07 to $3.66. Gas is 42% higher than the beginning of 2020.[22]



Production Meter

U.S. Light Vehicle Production (Updated 4/20)

<u>Monthly Production</u> (Upodated 4/20)

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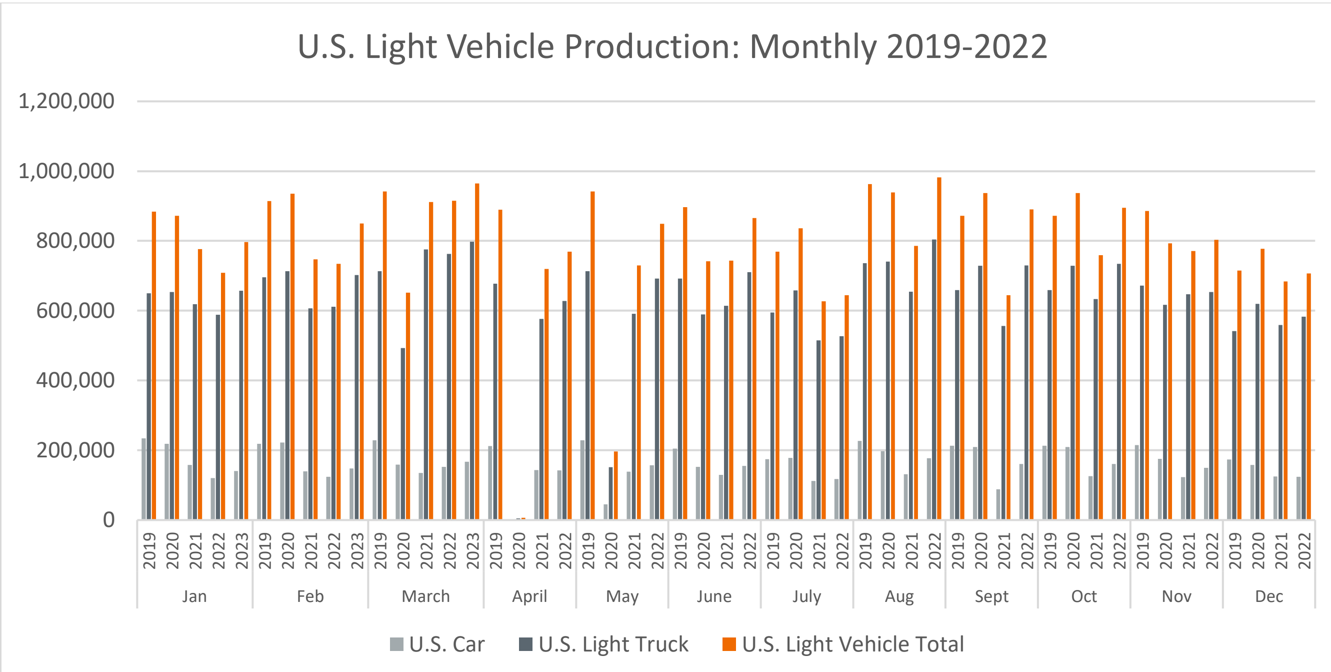
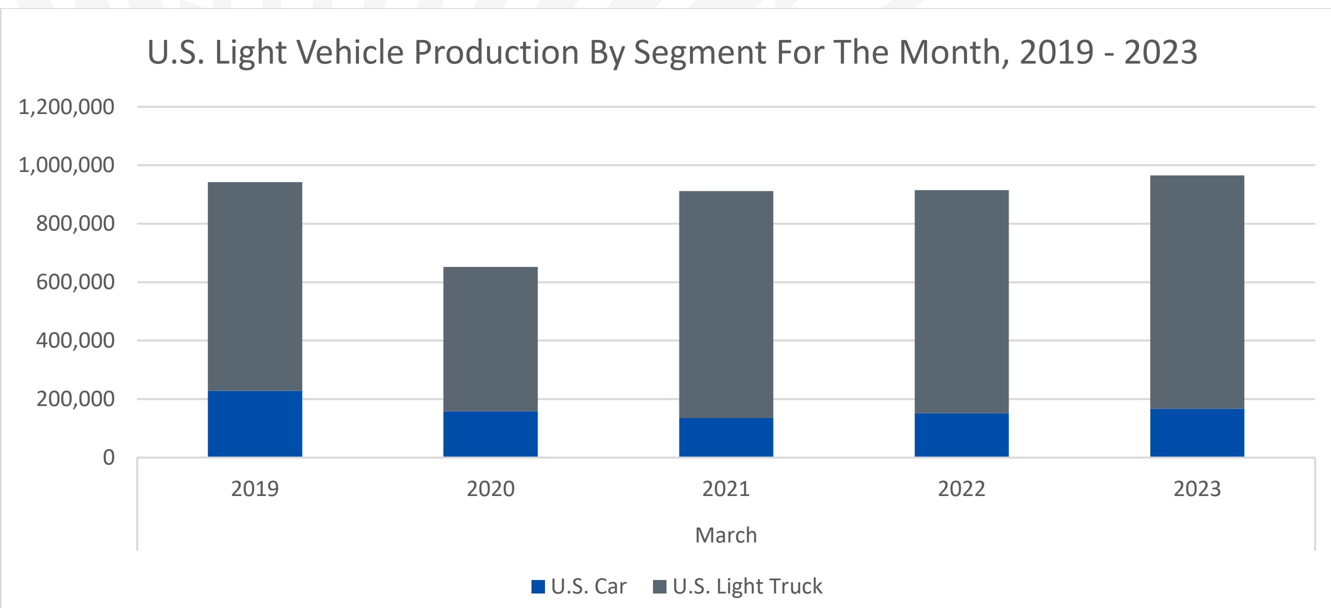
U.S. Light vehicle production for March 2023 increased month-over-month by 13 percent, totaling 965,108 vehicles (167,252 cars, 797,856 light trucks), year-over-year, production is up 5 percent from 2022. [23]





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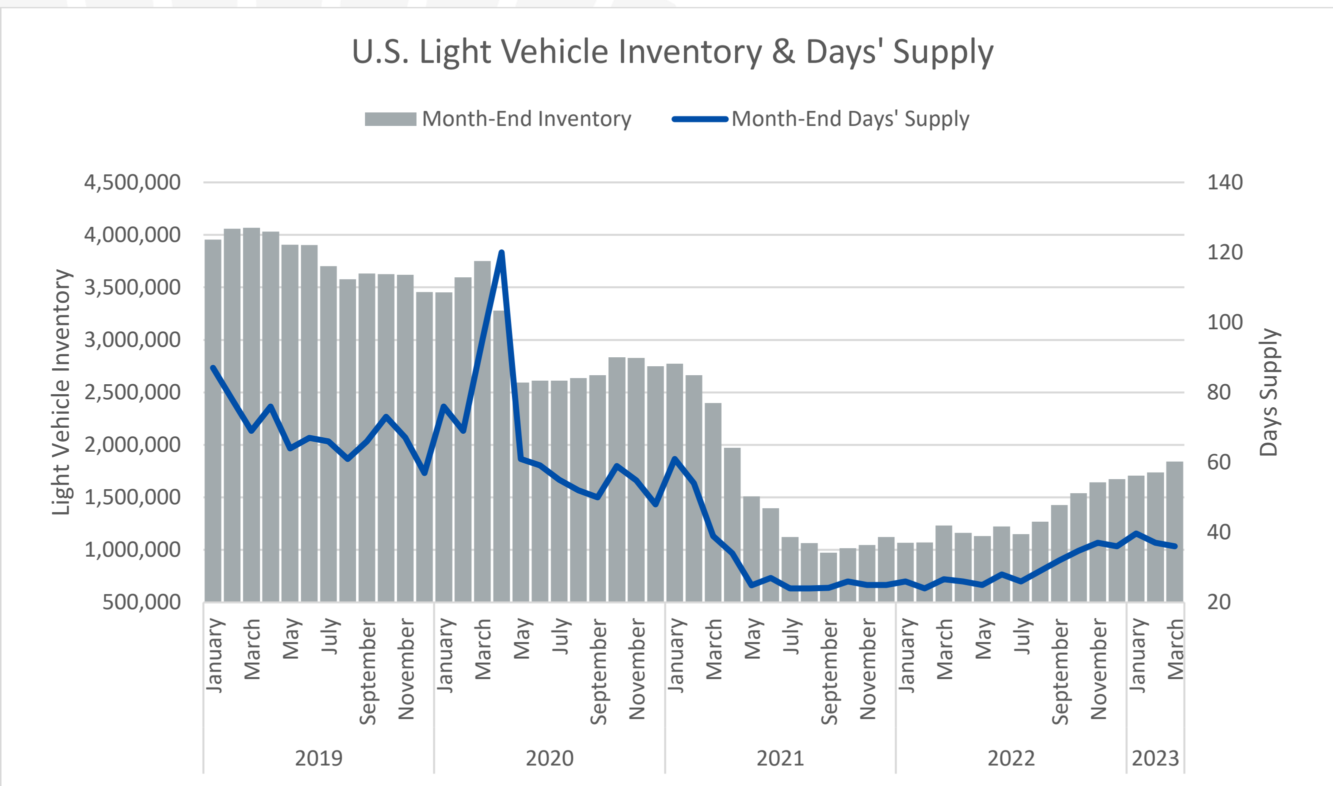
U.S. Light Vehicle Inventory and Days' Supply (Updated 4/5)

WardsIntelligence Inventory Update (4/5)[24]**:** "U.S. light-vehicle inventory continued edging upward in March, finishing the month at 1.84 million units, up 5.9% from the prior month and 49.5% above the same year-ago period.

"March 31 days' supply was 36, flat with the prior month, but above like-2022's 26. The total is still well below the pre-pandemic, or pre-2020, March normal of roughly 65 days.

"As borne out by the sales mix in Q1, inventory continues to favor bigger and more expensive vehicles. Combined inventory of fullsize pickups and vans, plus luxury-priced cars, CUVs and SUVs, ended the month at 938,000 units, or 50.9% of total light-vehicle inventory. That was up from the prior month's 50.0% and March 2022's 49.1%. It also was a year-over-year increase of 55%. In Q1, the light-vehicle share of inventory for fullsize trucks and luxury vehicles combined increased to 43.0% from like-2022's 40.5%. Pre-pandemic, that grouping averaged Q1 market share of 35% and typically accounted for 40% of inventory."



Global Meter

Global Light Vehicle Sales (Updated 4/5)

Wards Intelligence[25]: "Global vehicle sales resumed year-over-year growth in February after two months of decline caused by a temporary slump in the world's largest market.

"February's combined deliveries of light vehicles and medium-/heavy-duty trucks totaled 6.64 million units, a 9.4% increase from like-2022's 6.07 million. The results also were 6.0% above January's 6.26 million, a deviation from historical trends as volume usually declines in February from the prior month.

"However, the cause of the deviation was due to a sudden drop in demand in China at the end of last year into January when a lifting of government-required lockdown measures in relation to the Covid-19 pandemic led to a surge in cases in the country, dragging down retail activity.

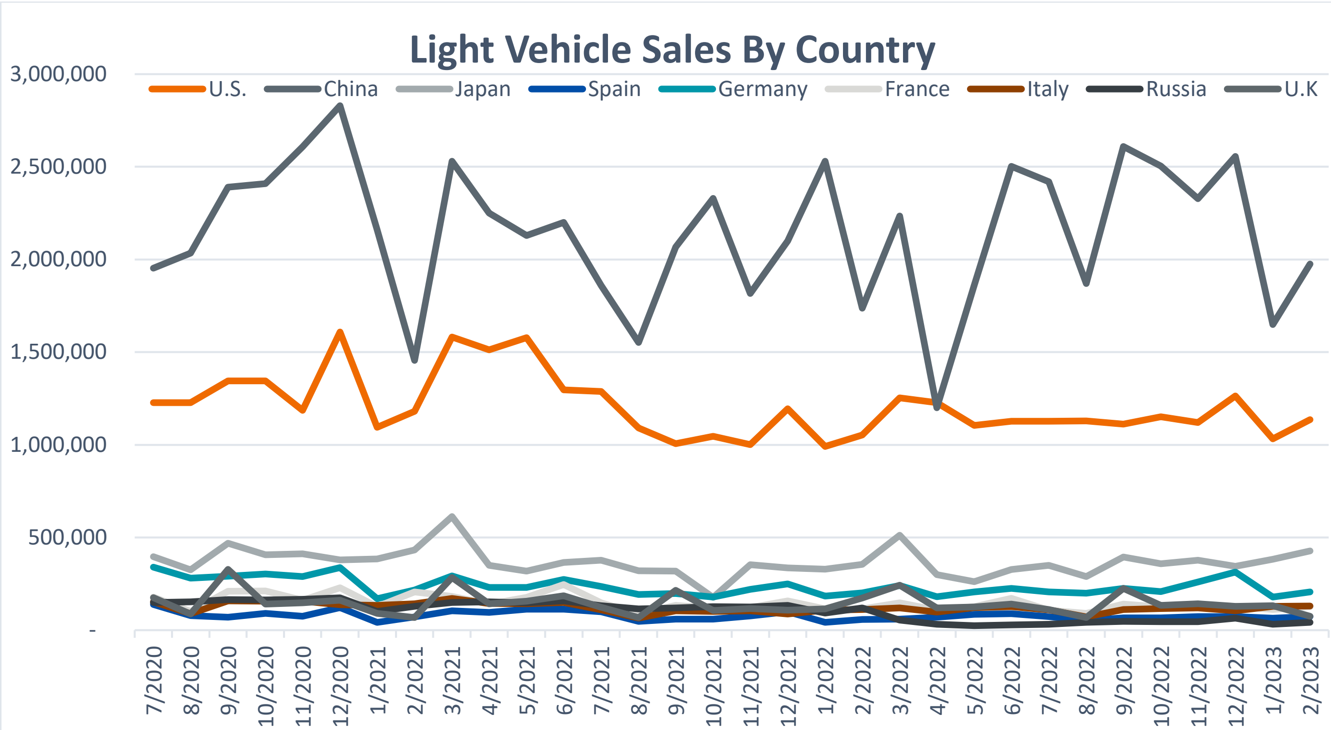
"Demand in China recorded double-digit gains over the summer in 2022 before slowing in the fourth quarter, including downturns in November and December. Further tamped down due to the timing this year of the Chinese New Year celebration – the weeklong holiday being entirely in January, whereas a year ago it carried into February - the year-over-year losses culminated with a 34.9% decline in January.

"With the number of infections receding, and the New Year festivities ended, February sales in China grew 16.0% year-over-year and global market share rose to 29.8% from January's 27.2% and same-month 2022's 29.5%.

"Growth in February also was strong in North America and the rest of Asia, but gains were slower in Europe and volume in South America fell from the same year-ago period.

"Global volume year-to-date through February totaled 12.90 million units, flat with January-February 2022's total. Excluding medium- and heavy-duty trucks, February light-vehicle sales totaled 6.13 million units, up 5.1% from like-2022's 5.83 million and 1.5% above the prior month's 6.04 million.

"Wards Intelligence partner LMC Automotive forecasts global light-vehicle sales to total 86.0 million units in 2023, up 6.0% from 2022's 81.1 million. All regions are expected to record year-over-year gains in 2023."



Global Light Vehicle Production (Updated 4/20)

S&P Global Mobility Forecast (4/20) [26]**:** "The global auto industry continues to balance recovering demand in key markets impacted by COVID, supply chain issues and Russia/Ukraine impacts with challenging macroeconomic headwinds and still lingering, if not more sporadic, component disruption. There remains a keen focus on the state of consumer demand and underlying conditions to support the release of pent-up demand. Elevated vehicle pricing in some markets and more recently deteriorating credit conditions remain critical considerations. Yet, in some markets, vehicle sales have been running at or near recessionary levels for several years. Relatively weak recent sales performance in Greater China will be important to monitor should that weakness extend deeper into the year. The April 2023 forecast update reflects a mix of upgrades and downgrades, albeit mostly modest in nature, yet net to the upside in the immediate near-term, as the industry continues to recover from supply chain issues and supports nascent demand recovery in select markets. The latest forecast update reflects material near-term upgrades for Europe and Japan/Korea on demand recovery and inventory restocking in some cases. The upward revisions are only partially offset by a consequential downward adjustment for Greater China on recent demand weakness. The more noteworthy regional adjustments with the latest forecast update are detailed below:

"Europe: The outlook for Europe light vehicle production was increased by 307,000 units and by 106,000 units for 2023 and 2024, respectively (and reduced by 95,000 units for 2025). As fears of production disruption related to energy inputs remain in check, the supply of semiconductors continues to show marked improvement and is a factor in the near-term production upgrade supporting stronger actualized production for Q1-2023. The production forecast upgrades for 2023 are particularly focused on the German automakers. We remain cautious on the state of demand and consumer conditions in the market. As a result of the production strength in Q1, Europe seasonality is back to a traditional pattern while it was slightly "back-loaded" in previous forecasts. As the macro outlook gradually improves, the 2024 forecast is also modestly bolstered. From 2025 onwards, we expect a stabilization of volumes in alignment with demand prospects which results in a rather mild downgrade of the forecast. The longer-term forecast was increased due to an overall upgrade of the Tesla Gen-3 offerings and given the addition of BYD and Rivian production in Europe.

“Greater China: The outlook for Greater China light vehicle production was reduced by 269,000 units for 2023 and by 203,000 for 2024 (and reduced by 113,000 units for 2025). After experiencing a production downturn in January amid a COVID outbreak and February during the Lunar New Year holidays, Chinese light vehicle production rebounded in March with over 2.2 million units produced supporting growth of 4% over the prior year. Export activity was also a major contributor to production strength in March. SAIC, BYD and Tesla were the top exporters with their main products all being New Energy Vehicles (NEVs) targeting mature markets such as Europe. The domestic market is being impacted by rather significant price cut activity. According to media reports, over 20 manufacturers have joined in on the price actions. This has helped internal combustion engine (ICE) automakers destock CN6a emission models which need to transition to the CN6b standard starting in July. Nevertheless, the market remains vulnerable to demand conditions impacted by a pay-back from purchase tax cuts which extended through last year contributing to strong sales through the end of the year. The influences of the pay-back effect have resulted in reduced demand and production expectations in the near-term. Reflecting potential economic headwinds, the outlook for 2024 and 2025 have been reduced and now reflect growth rates of 6% and 5%, respectively, for the region.

“Japan/Korea: Full-year 2023 Japan production was increased by 216,000 units. Contributing to the overall upward revision was stronger actualized first quarter production by around 60,000 units as the China supply chain disruption recovered faster than expected. Improving semiconductor supplies provide further support. We expect automakers to continue to benefit from these improvements as the year progresses. The upward revisions continue through the short-term forecast horizon as Japanese OEMs continue to benefit from better supply chain conditions offering the opportunity to recover some of the previously lost volume. In the longer-term, battery electric vehicle (BEV) volumes for Toyota and Mazda were revised downward as we expect delays in BEV development leading to lost sales opportunities in the global market. Full-year 2023 South Korea production was increased by 80,000 units relative to the previous forecast, reflecting steady production recovery without disruptions in the supply chain and given continued export growth. Production in 2024 and 2025 was rebalanced by increasing 70,000 units and 62,000 units, respectively as South Korea’s production continues its favorable recovery due to improved semiconductor supplies. In the longer-term, other than adjusting the timing of select programs, including the Hyundai Ioniq 3, Ioniq 4, the Kia Morning and Ray, there were no significant changes.

“North America: The outlook for North America light vehicle production was reduced by 44,000 units and by 231,000 units for 2023 and 2024, respectively (and reduced by 41,000 units for 2025). While the adjustment for 2023 appears muted, deeper actions were incorporated into the outlook. Japanese manufacturers have made significant production strides in recent months with the latest forecast reducing the impact factor of the semiconductor supply chain thereby supporting more normalized production levels. Amid the recovery of Japanese manufacturer output, production results for March 2023 are estimated to total 1.45 million units translating into 15.82 million units produced on a seasonally adjusted annual rate (SAAR) basis, the highest level in 30 months. Amid ongoing recessionary fears and rapidly increasing inventory levels, most notably among the US manufacturers, the forecast for second half 2023 was revised noticeably lower. Production in Q3-2023 remains mostly flat, down a marginal 0.2% totaling 3.75 million units while production in Q4-2023 was revised down a steeper 5.7% to total 3.49 million units. Despite the expectation for ongoing improvements to the global supply chain, the outlook for 2024 was revised down 1.5% to total 15.56 million units on macro concerns and the resulting demand impacts, while production in 2025 was revised down only marginally to total 16.42 million units.

"South America: The outlook for South America light vehicle production was reduced by 22,000 units and by 6,000 units for 2023 and 2024, respectively (and increased by 5,000 units for 2025). The near-term outlook was reduced rather modestly, primarily focused on Brazil to account for reduced demand expectations for the domestic Brazil market as well as Colombia. Of note, Argentina continues to exhibit near-term strength but not enough to offset the revisions for surrounding markets. The production adjustments for 2024 and 2025 were relatively minor and follow the demand expectations for the region, particularly the two main markets (Brazil and Argentina) amid a dynamic market environment and macroeconomic factors.

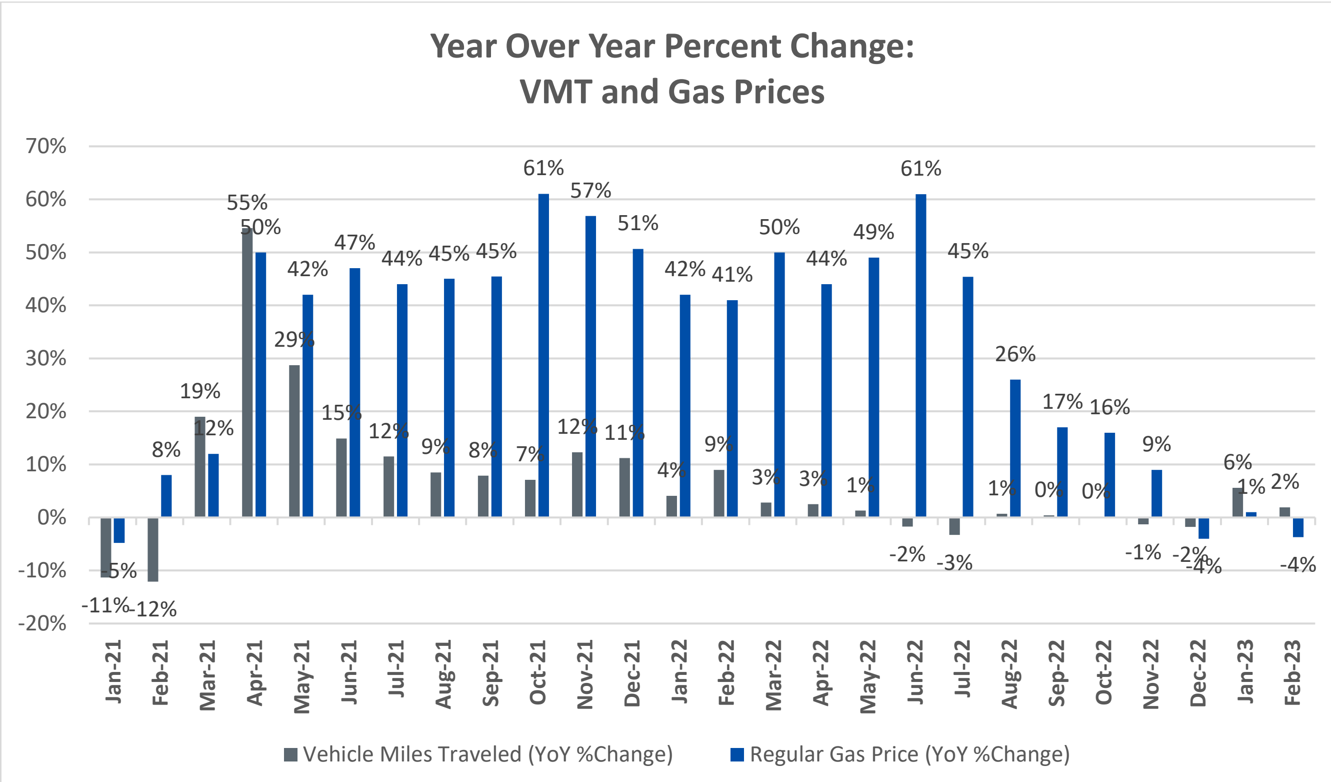
"South Asia: The outlook for South Asia light vehicle production was increased by 14,000 units for 2023 and largely unchanged for 2024 (and increased by 35,000 units for 2025). Strength in production for the ASEAN market, particularly Indonesia and Malaysia, was only modestly offset of by ongoing production challenges in Pakistan, resulting in the rather mild upgrade for the April forecast update. The political instability and resulting deteriorating conditions in Pakistan have been well-documented as manufacturers struggle with component import restrictions and exchange rate volatility resulting in sporadic plant shutdowns. Nevertheless, the overall production reductions for the country were a bit more muted this month after more sizeable revisions in prior months. Forecast revisions through the intermediate term were influenced by robust activity and a return to a more emerging market-oriented growth profile in countries such as India and Indonesia, among others."

Recovery Meter

Roadway Travel (Updated 4/20)

According to the U.S. Department of Transportation, seasonally-adjusted vehicle miles traveled in February increase 1.5 percent from the same time a year ago. The cumulative travel estimate for 2022 is 481.1 billion vehicle miles. [27]

- Travel on all roads and streets changed by +1.9% (+4.5 billion vehicle miles) for February 2023 as compared with February 2022. Travel for the month is estimated to be 233.7 billion vehicle miles.
- The seasonally adjusted vehicle miles traveled for February 2023 is 270.5 billion miles, a 1.50% (4.1 billion vehicle miles) change over February 2022. It also represents a -0.6% change (-1.6 billion vehicle miles) compared with January 2023.
- Cumulative Travel for 2023 changed by +3.8% (+17.8 billion vehicle miles). The cumulative estimate for the year is 481.1 billion vehicle miles of travel.



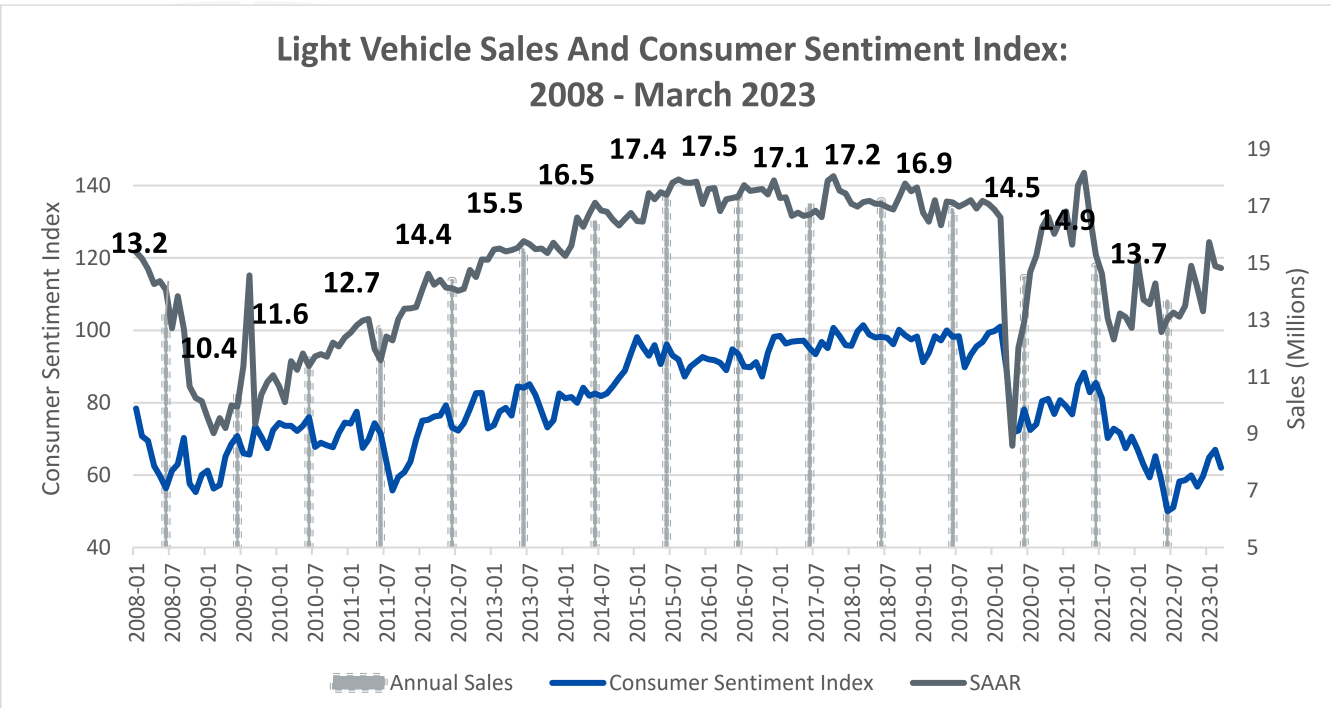
Economic News (Updated 4/20)

Manufacturing Was Mostly Unchanged in March, While Motor Vehicles And Parts Gained 3,700.[28] “Manufacturing employment barely changed in March, according to data released April 7. Durable goods added 1,000 jobs last month, the Bureau of Labor Statistics said. That was offset by a loss of 2,000 jobs in non-durable goods for an overall manufacturing loss of 1,000 jobs. Within durable goods, transportation equipment posted a gain of 6,400 jobs. That included an increase of 3,700 jobs in motor vehicles and parts. Automakers, including General Motors Co., posted higher U.S. vehicle sales in the first quarter as supplies of cars and trucks improved. The industry has been dealing with a shortage of semiconductors.”

The ISM Index Remains Below 50 And The Lowest Point In The Past 12 Months. “Contraction in the U.S. manufacturing economy deepened in March, the Institute for Supply Management said today. The Tempe, Ariz.-based group’s manufacturing index, known as the PMI, fell to 46.3% in March. That was down from 47.7% in February. A PMI below 50% indicates economic contraction. The March index was the fifth consecutive month in negative territory. The PMI is considered a leading economic indicator, a barometer of where manufacturing is heading. March’s PMI was the lowest in the past 12 months. The index has averaged 50.9% during that period.”[29]

Consumer Confidence and Sales (Updated 4/20)

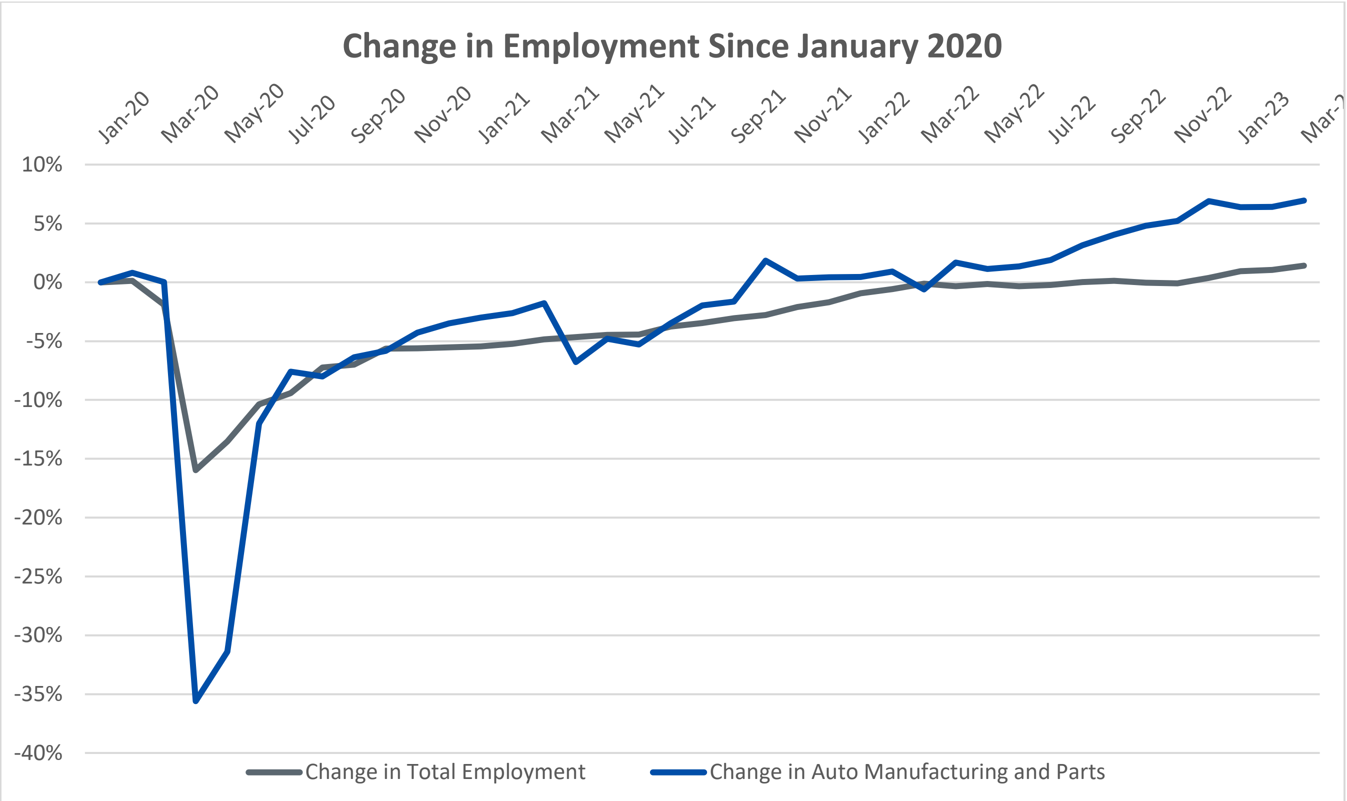
Surveys of Consumers Director Joanne Hsu[30]: "Consumer sentiment was essentially unchanged this month, inching up less than two index points from March. Sentiment is now about 3% below a year ago but 27% above the all-time low from last June. Rising sentiment for lower-income consumers was offset by declines among those with higher incomes. While consumers have noted the easing of inflation among durable goods and cars, they still expect high inflation to persist, at least in the short run. On net, consumers did not perceive material changes in the economic environment in April. Year-ahead inflation expectations rose from 3.6% in March to 4.6% in April. These expectations have been seesawing for four consecutive months, alternating between increases and decreases. Uncertainty over short-run inflation expectations continues to be notably elevated, indicating that the recent volatility in expected year-ahead inflation is likely to continue. The bumpiness in inflation expectations is limited to the short run as long-run inflation expectations remained remarkably stable. They came in at 2.9% for the fifth consecutive month and have stayed within the narrow 2.9-3.1% range for 20 of the last 21 months."



Employment (Updated 4/20)

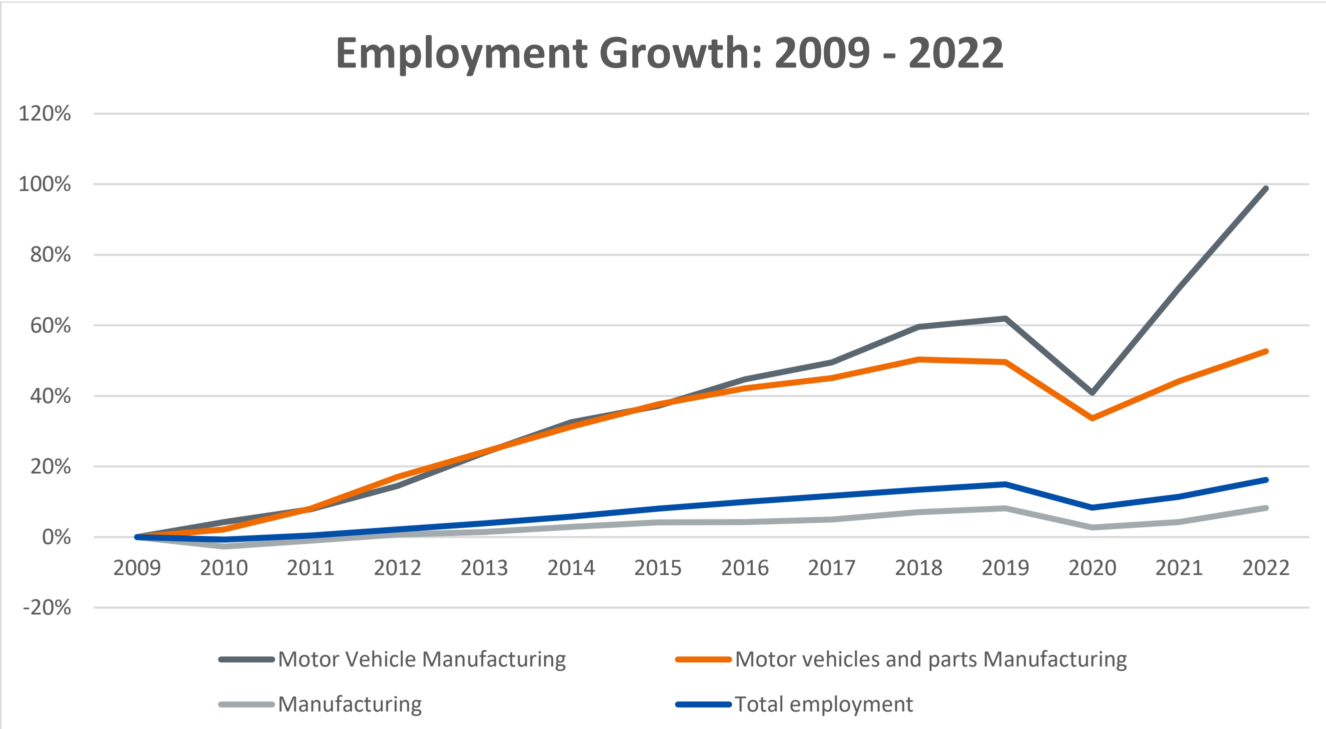
Motor Vehicle And Parts Manufacturing Gained 3,700 Jobs In March.[31]

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.

Cleaner. Safer. Smarter.



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