READING THE METER

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

ALLIANCE FOR AUTOMOTIVE INNOVATION

Contents – February 24, 2022

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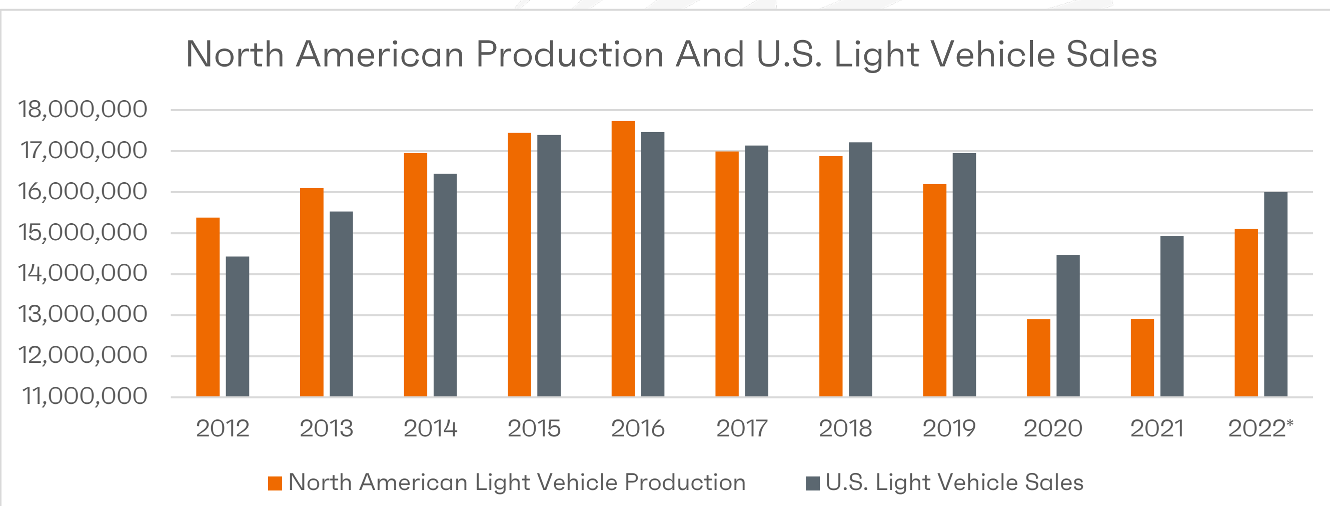
Cleaner. Safer. Smarter.

Forecast Meter

Sales & Production Summary and Forecast (Updated 2/24)

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) (forecast)
1st Quarter '22	14.8 million-unit SAAR (forecast)	3,584,445 (-0.4% YoY) (forecast)
2nd Quarter '22		
3rd Quarter '22		
4th Quarter '22		
2021 Full Year		
2022 Full Year Estimate	16 million units (+7% YoY)	15,107,419 (+17% YoY)



U.S. Light Vehicle Sales Outlook (Updated 2/24)

Wards Intelligence February Outlook (2/24)[4]: "February U.S. light-vehicle sales will weaken on a seasonally adjusted basis from January's 7-month high, but volume will increase from last month and the results won't stall the long-term trend of sequential growth after demand bottomed out in Q4-2021.

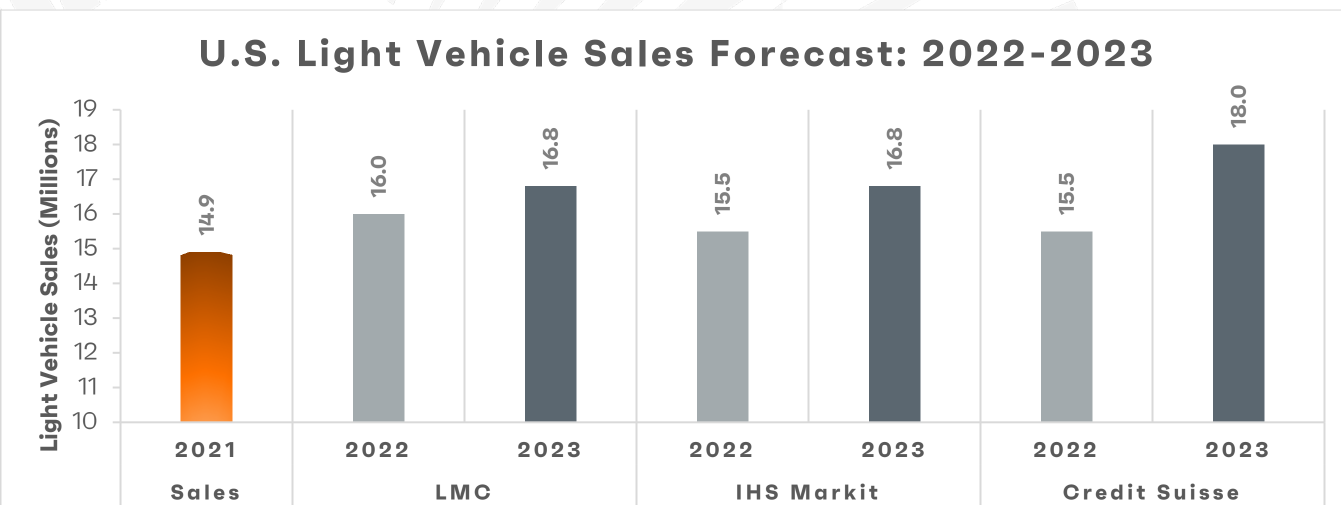
"Sales are forecast to total a 14.2 million-unit seasonally adjusted annual rate in February, down from January's 15.0 million and like-2021's 15.9 million. Except for last month, it is the highest SAAR since July's 14.7 million units. The first quarter is pegged at a 14.8 million-unit SAAR, well above Q4-2021's 12.8 million but below year-ago's 16.8 million.

"There is more upside than downside to February's outlook, with one aspect being anecdotal evidence fleet penetration might be picking up, though the prospects for a big rebound in the sector this year remain slim.

"February's volume is forecast at 1.06 million units, for a daily selling rate over the month's 24 selling days of 44.313. That's 10.9% below like-2021's DSR of 49,741 – 24 selling days. February's DSR, which typically increases in the double digits from January, is forecast to rise 7.3% from last month.

"The light-vehicle sales forecast for 2022 has been revised to 16.0 million units, followed by 16.9 million in 2023."

JD Power Outlook (1/26)[5]: "New-vehicle retail sales for January 2022 are expected to decline when compared with January 2021, according to a joint forecast from J.D. Power and LMC Automotive. Retail sales of new vehicles this month are expected to reach 828,900 units, an 8.3% decrease compared with January 2021."



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North American Production & Inventory Outlook (Updated 2/24)

Wards Intelligence Inventory Outlook (2/24)[6]: "Feb. 28 inventory is forecast to increase slightly from January's 1.07 million units to 1.11 million, with days' supply – if the sales and inventory outlooks hold relatively firm – set to decline to 25 from January's 26 and like-2021's 54. The forecast inventory is 58.3% below February 2021's 2.67 million units, which was a 10-year low for the month.

IHS Markit North American Outlook 2022 (2/24) [7]: "The outlook for North America light vehicle production was increased by 26,000 units and by 34,000 units for 2022 and 2023, respectively (and increased by 23,000 units for 2024). The February 2022 forecast update for North America reflects increased volatility in the very near-term. The recent Canadian trucker blockade at the US/Canada border has created additional headwinds. As a result of recent events and ongoing supply chain pressures, we have reduced Q1-2022 production by 87,000 units, yet we also expect to make-up that lost production through the balance of the year, resulting in the overall modest upgrade for full year volumes. A scenarios-based approach is recommended to help guide the assessment of upside potential and downside risk, particularly in the extreme near-term. Production in 2023 was revised modestly higher by 0.2% to total 17.2 million units as the industry is expected to start the process of moving beyond the current limitations and shift towards restocking heavily depleted inventory levels."

Wards Intelligence Production Outlook (1/20)[8]: "Higher-than-expected output in December, plus upward revisions to previously estimated data in October and November, led Q4-2021 North America vehicle production to end 38,600 units above month-ago's projections. Additionally, the Q1-2022 outlook has been raised.

"More good news for manufacturers is production in Q1-2022 is tracking to a total of 3.725 million units, a slight increase from Q1-2021's 3.718 million. With two months remaining in the quarter there is a significant level of uncertainty whether Q1 ends a few thousand units above (or below) the year-ago total. But the outlook shows production is coming back after being pummeled by parts and materials shortages – mostly caused by the semiconductor shortage – as well as other pandemic-related issues, in 2021.

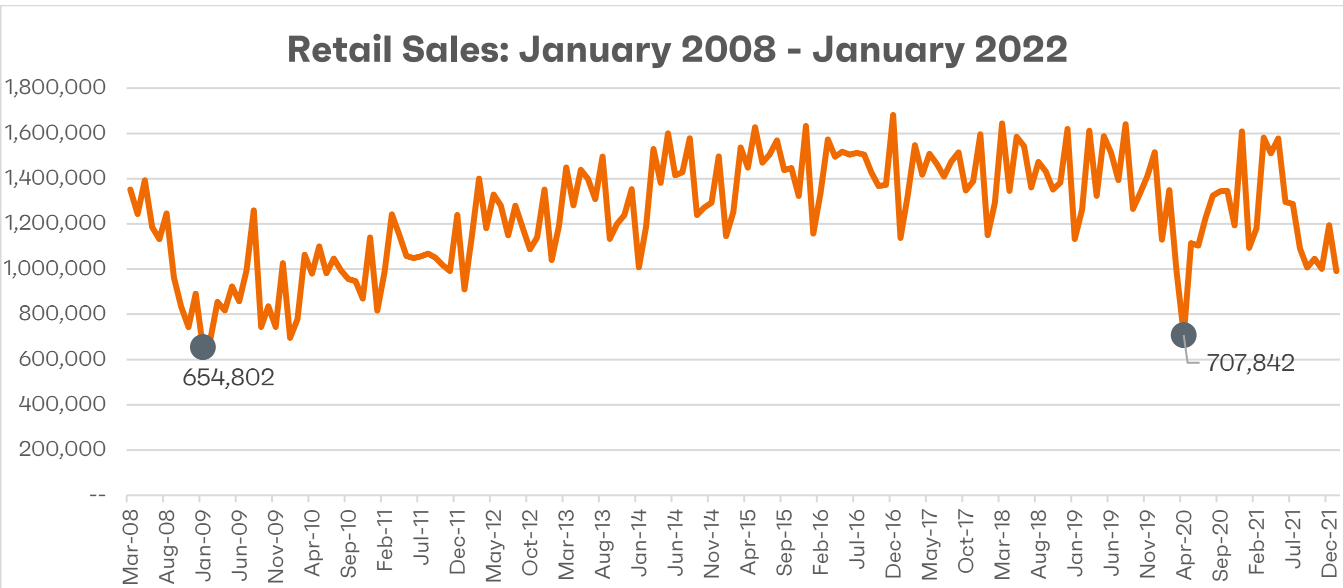
"Although it began in other regions in the end of 2020, the year-ago quarter is when the semiconductor shortage forcibly began impacting production in North America, getting worse in Q2 and Q3. The resurgence of infections due to the Omicron variant of the Covid-19 virus is increasing the downside risk to the Q1 outlook, but January-March should be the foundation for a positive trajectory during 2022, with strong year-over-year gains in the final three quarters.

"First-quarter 2022 light-vehicle output is pegged at 3.60 million units, flat with January-March 2021."

U.S. Light Vehicle Sales (Updated 2/3)

Monthly Sales (Updated 2/3)

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.



January Sales (Updated 2/3)

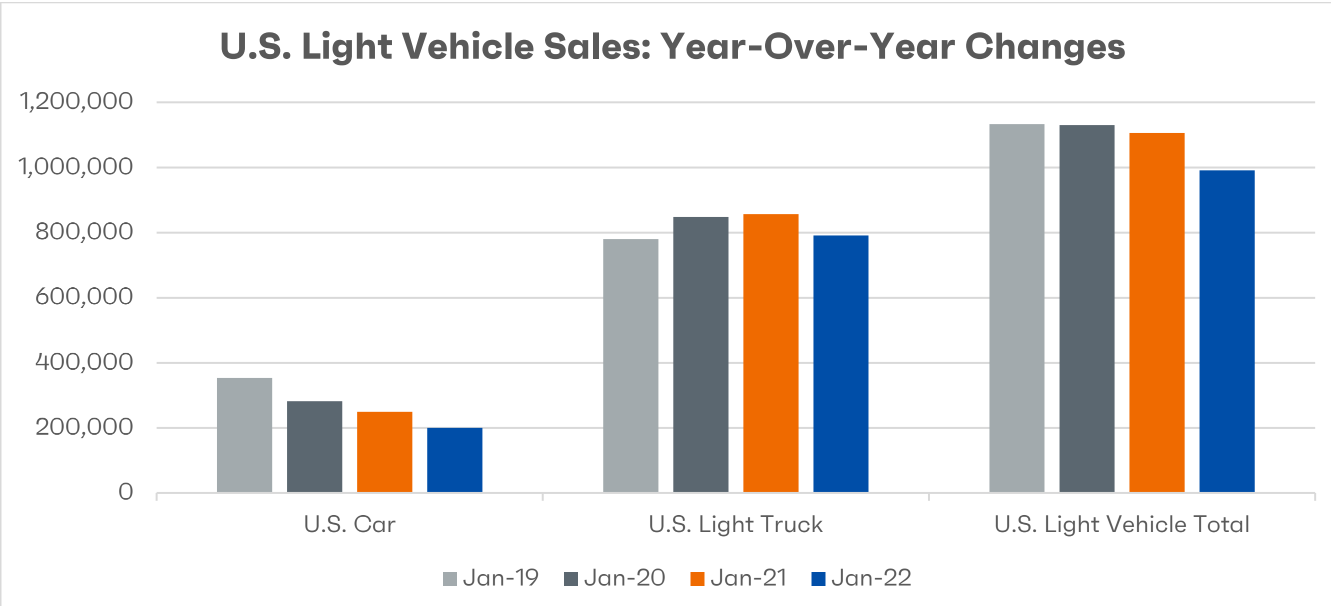
WardsIntelligence[9]: “Despite severe winter storms in the Northeast at the end of the month that certainly delayed some purchases until later in Q1, U.S. light-vehicle sales in January still finished close to expectations by recording a 7-month high annualized rate.

“Final volume, which includes estimates for some European brands, Mitsubishi and Tesla, totaled 991,156 units, and equated to a 15.0 million-unit seasonally adjusted annual rate. The SAAR was well below like-2021’s 16.8 million units, but a big increase from December’s 12.5 million and an any-month high since June’s 15.5 million.

“January’s raw volume was the lowest for any month since the pandemic-smacked total of 715,322 units in April 2020, but the low total does not mean sales are weakening from the end of last year. January typically is the lowest volume month in most years and always records heavy declines from

December. In fact, compared to typical declines of 20% to 25%, January's daily selling rate of 41,298 over its 24 selling days was just 7.4% below December's 44,952 – 27 selling days.

"However, that is not saying sales are strong. They are still weak, and inventory, though improving and why deliveries should rise over the rest of the year, still is drastically low. Nevertheless, the SAAR increase over December can mainly be traced to rising inventory, which is expected to increase again from the prior month when it is reported later this week."



Fleet Sales (Updated 2/3)

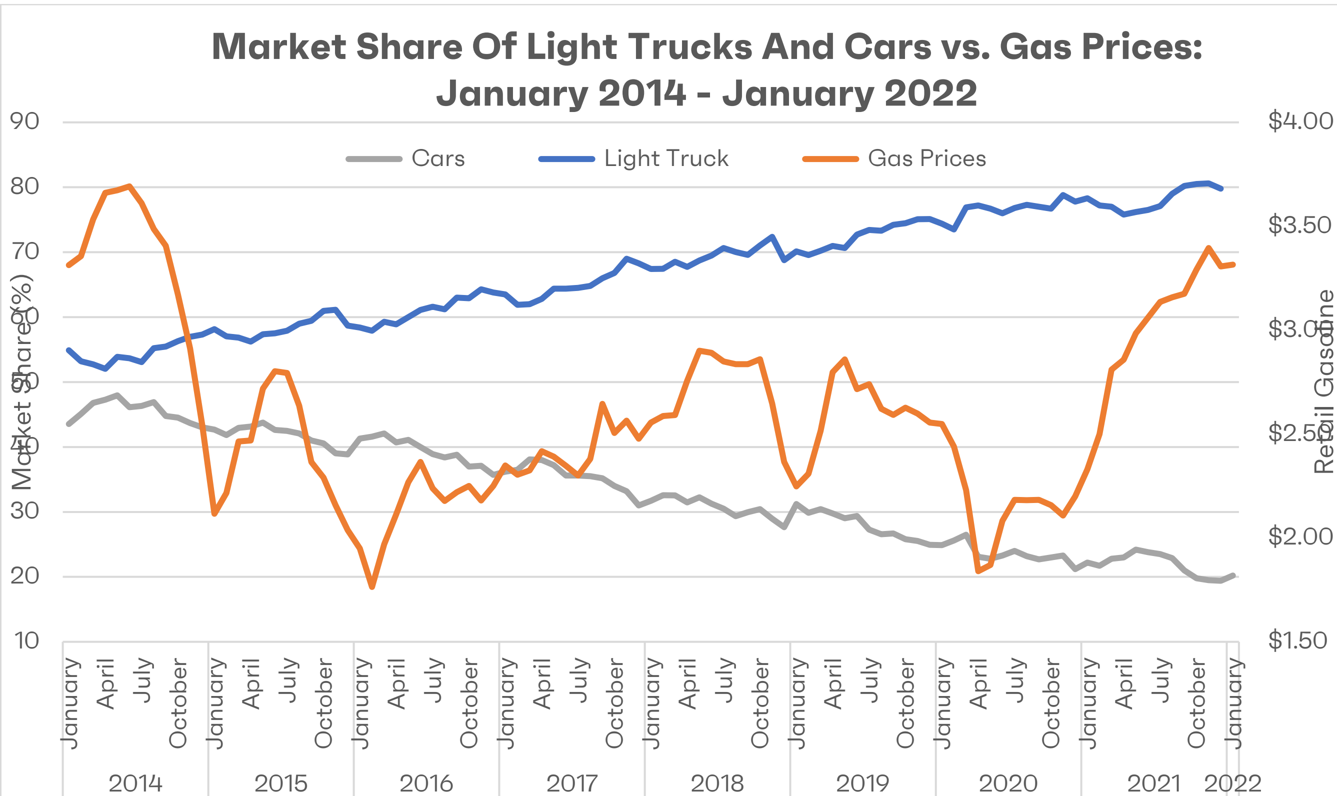
TrueCar[10]: "Fleet sales for January 2022 are expected to be down 5% from a year ago and on par with December 2021 when adjusted for the same number of selling days."

J.D. Power[11]: "Fleet sales are expected to total 103,200 units in January, down 48.6% from January 2021 on a selling day adjusted basis. Fleet volume is expected to account for 11% of total light-vehicle sales, down from 18% a year ago."

Segments vs. Gas Prices (Updated 2/3)

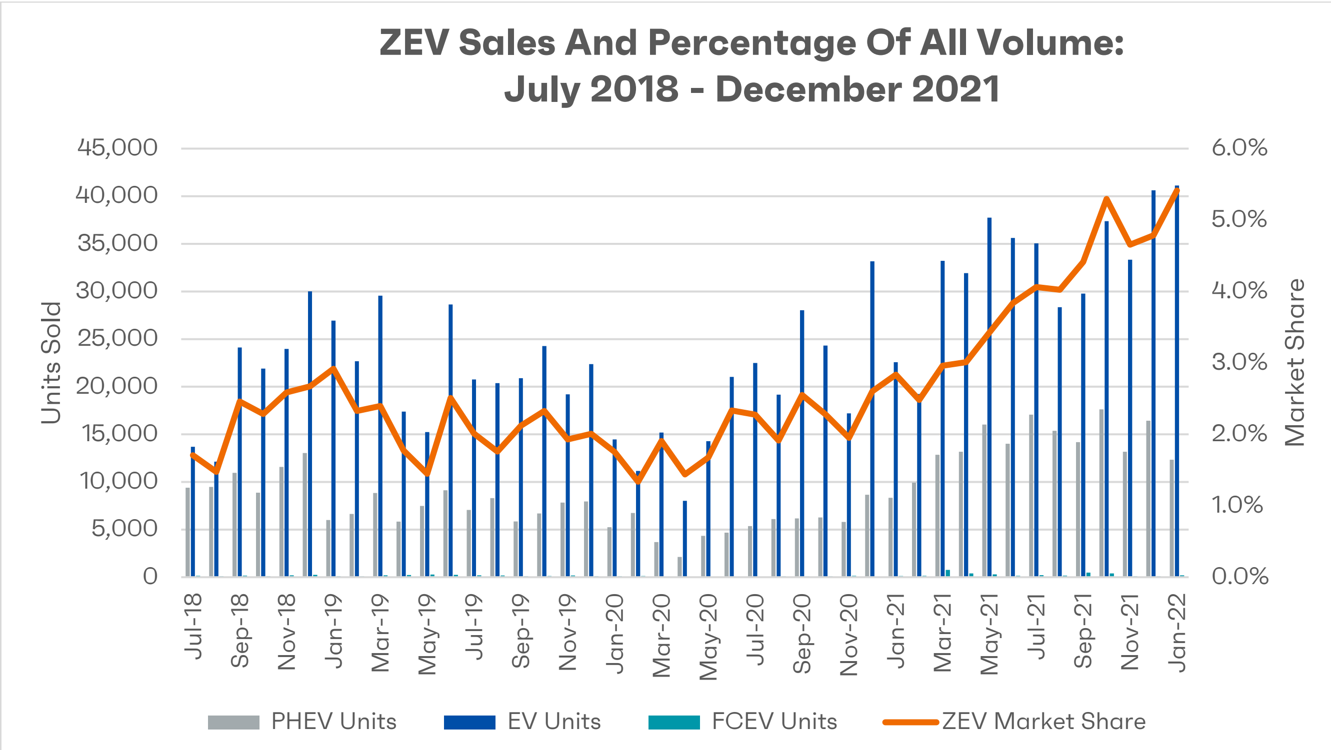
Monthly Sales For September: Light trucks accounted for 79.8% of sales in January, a 0.8 pp decrease in market share from a year ago. Compared to the same period in 2021, sales of cars are down nearly 50,000, and down more than 150,000 from January 2019, when cars comprised 31% of the market as opposed to the 20.2% 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[12] and gas was over $3.00[13] 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 $2.61 a gallon (through January 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.[14]



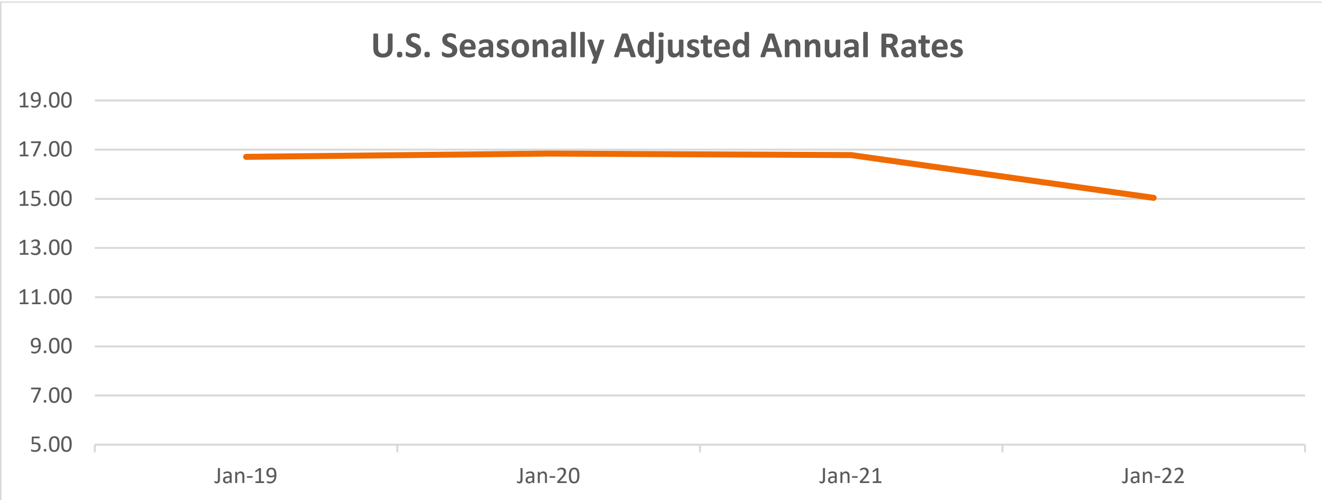
ZEV Powertrain Sales (Updated 2/3)

Sales of zero emission vehicles (BEV, PHEV, & Fuel Cell) accounted for 5.4% of total vehicle sales in January 2022, up 2.6 pp from a year ago and up 0.6 pp from December 2021. Sales of battery electric vehicles led the way for ZEVs, accounting for 4.15% of total sales, up 2.09 pp from January 2021. Plug-in hybrids accounted for 1.25%, 0.5 pp higher than the same time last year.[15]



Seasonally Adjusted Annual Rates (Updated 2/3)

WardsIntelligence: “Despite severe winter storms in the Northeast at the end of the month that certainly delayed some purchases until later in Q1, U.S. light-vehicle sales in January still finished close to expectations by recording a 7-month high annualized rate. Final volume, which includes estimates for some European brands, Mitsubishi and Tesla, totaled 991,156 units, and equated to a 15.0 million-unit seasonally adjusted annual rate. The SAAR was well below like-2021’s 16.8 million units, but a big increase from December’s 12.5 million and an any-month high since June’s 15.5 million.”[16]

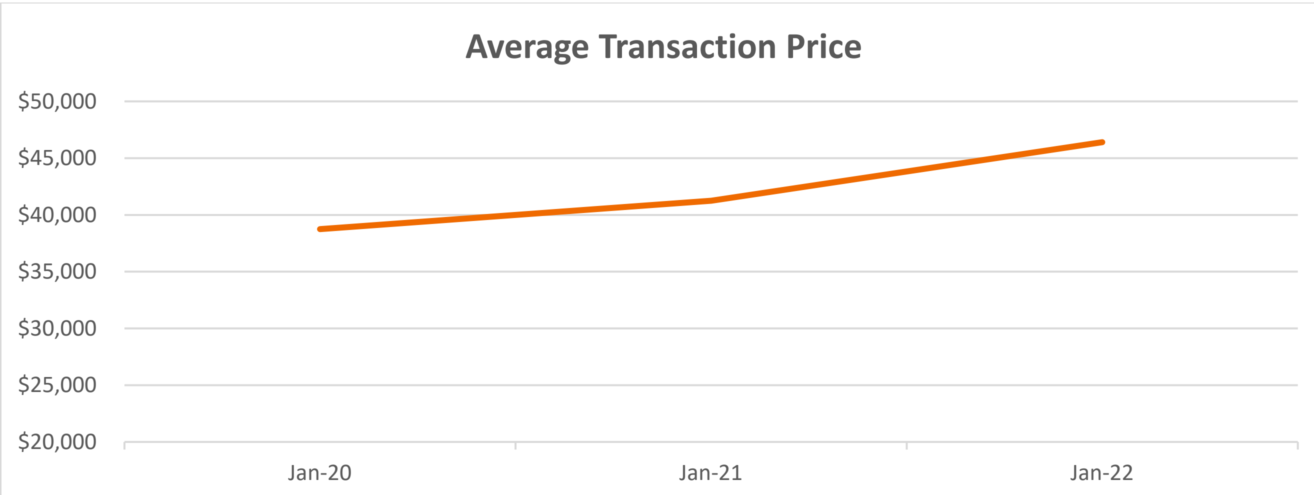


Average Transaction Price (Updated 2/9)

Wards Intelligence (2/3): "Caused by the ongoing inventory shortage, and further juiced by rising pent-up demand, average transaction prices as tracked by TrueCar increased 16.3% year-over-year in January to $43,954. It was the highest year-over-gain in the 11 years Wards Intelligence has tracked the data. Average incentives declined 18.6% to $1,479, the largest decrease on record. Exacerbating the rise in prices is that a high mix of January's sales were due to a combination of luxury vehicles and non-luxury fullsize trucks. In total, the grouping of higher-priced vehicles equaled 40.4% of the mix compared to 40.1% in January 2021. However, considering inventory of the same group of vehicles came into the month at 48% of the mix vs. 35% in the year-ago period, it was not much of an increase in share. It could mean there is some pushback from inflationary-like pricing in that overall group, or pent-up demand for retail versions of those vehicles lightening up compared to more affordable vehicles, or both."

J.D. Power[17]: "Average transaction prices are expected to reach a January record of $44,905. Inventory shortages are resulting in even fewer incentive offers from manufacturers. The average manufacturer incentive spend per vehicle is on pace to be $1,319, a decrease of $2,163 from a year ago. Expressed as a percentage of the average vehicle MSRP, incentives for January are trending toward a record low of 2.9%, down nearly 5.2 percentage points from a year ago and the first time below 3.0%.

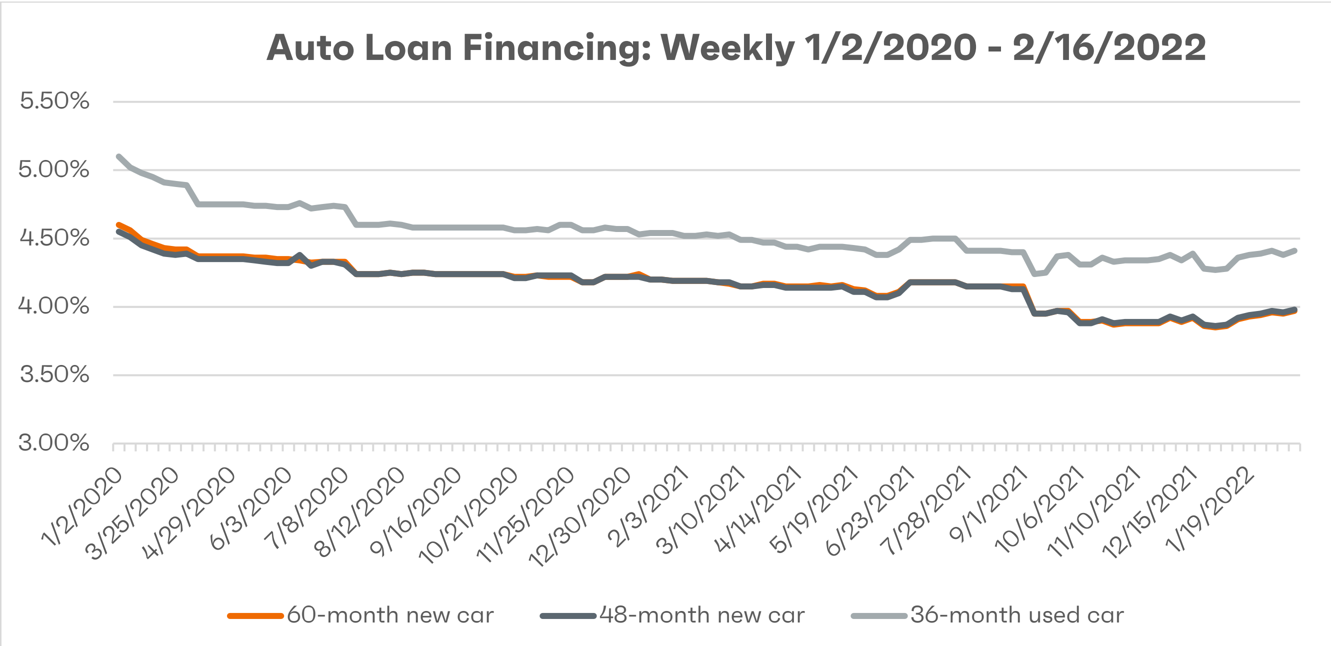
Kelley Blue Book (January): "New-vehicle average transaction prices (ATPs) decreased to $46,404 in January 2022, according to new data released today by Kelley Blue Book, after reaching a record high in December 2021. Prices fell 1.8% ($839) month over month mostly due to fewer luxury vehicles being sold in January, but prices remain elevated compared to one year ago, up 12.5% ($5,155) from January 2021. With new-vehicle supply holding steady at the same level since Thanksgiving and customer demand remaining strong, dealers continue to hold prices at or above the manufacturer's suggested retail price (MSRP)."[18]



Auto Loan Financing (Updated 2/24)

Interest Rates Rise Slightly: Interest rates for new cars rose 0.02 pp and now stand at 3.97%. Rates also rose .03 pp on the 36-month used car loan and now stand at 4.41%. Since the beginning of 2020, rates are down 0.63 pp, and down 0.22 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%
2/17/2021	4.19%	4.19%	4.53%
2/9/2022	3.95%	3.96%	4.38%
2/16/2022	3.97%	3.98%	4.41%
One Week Change	0.02%	0.02%	0.03%
Two Week Change	0.01%	0.01%	0.00%
Change since 1/3/20	-0.63%	-0.57%	-0.69%
One Year Change	-0.22%	-0.21%	-0.12%

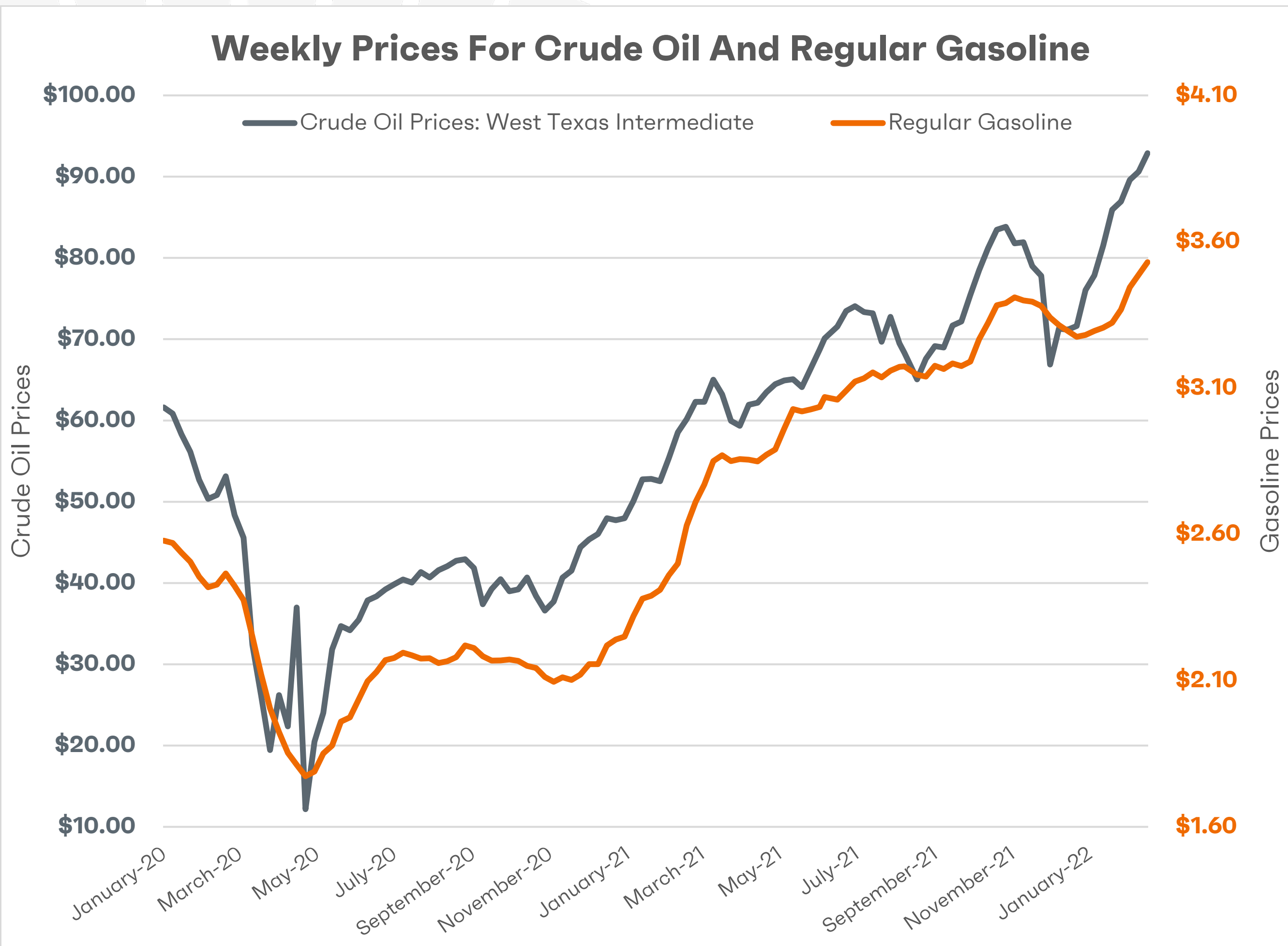


Crude Oil and Gas Prices (Updated 2/24)

EIA Outlook For Gasoline (2/9)[20]**:** "U.S. regular gasoline retail prices averaged $3.31 per gallon (gal) in January, unchanged from December 2021 and up 98 cents/gal from January 2021. Retail diesel prices averaged $3.72/gal in January, up 8 cents/gal from December and up $1.04/gal from last January. Product prices have risen compared with year-ago levels because of rising crude oil prices and high refining margins. We expect diesel prices will average $3.49/gal from 2Q22 through 4Q22. The forecast decline in prices reflects our expectation of falling crude oil prices, particularly in the second half of 2022 (2H22), as well as lower refining margins as refineries increase throughputs in the coming months."

EIA Outlook For Oil (2/9)[21]**:** "Brent crude oil spot prices averaged $87 per barrel (b) in January, a $12/b increase from December 2021. Crude oil prices have risen steadily since mid-2020 as result of consistent draws on global oil inventories, which averaged 1.8 million barrels per day (b/d) from the third quarter of 2020 (3Q20) through the end of 2021. We estimate that global oil inventories fell further in January—compared with our expectation of an increase in last month's STEO—and that commercial inventories in the OECD ended the month at 2.68 billion barrels, which is the lowest level since mid-2014. Oil prices have also risen as result of heightened market concerns about the possibility of oil supply disruptions, notably related to tensions regarding Ukraine, paired with receding market concerns that the Omicron variant of COVID-19 will have widespread effects on oil consumption. We expect Brent prices will average $90/b in February as continuing draws in global oil inventories in our forecast keep crude oil prices near current levels in the coming months. However, we expect downward price pressures will emerge in the middle of the year as growth in oil production from OPEC+, the United States, and other non-OPEC countries outpaces slowing growth in global oil consumption. This dynamic leads to rising global oil inventories from 2Q22 through the end of 2023, and we forecast the Brent spot price will fall to an average of $87/b in 2Q22 and $75/b in 4Q22. We expect the Brent price will average $68/b for all of 2023. However, low inventory levels create an environment for potentially heightened crude oil price volatility and potential risk for prices to rise significantly if supply growth does not keep pace with demand growth. Global supply chain disruptions have also likely exacerbated inflationary price effects across all sectors in recent months. How central banks respond to inflation may affect economic growth and oil prices during the forecast period."

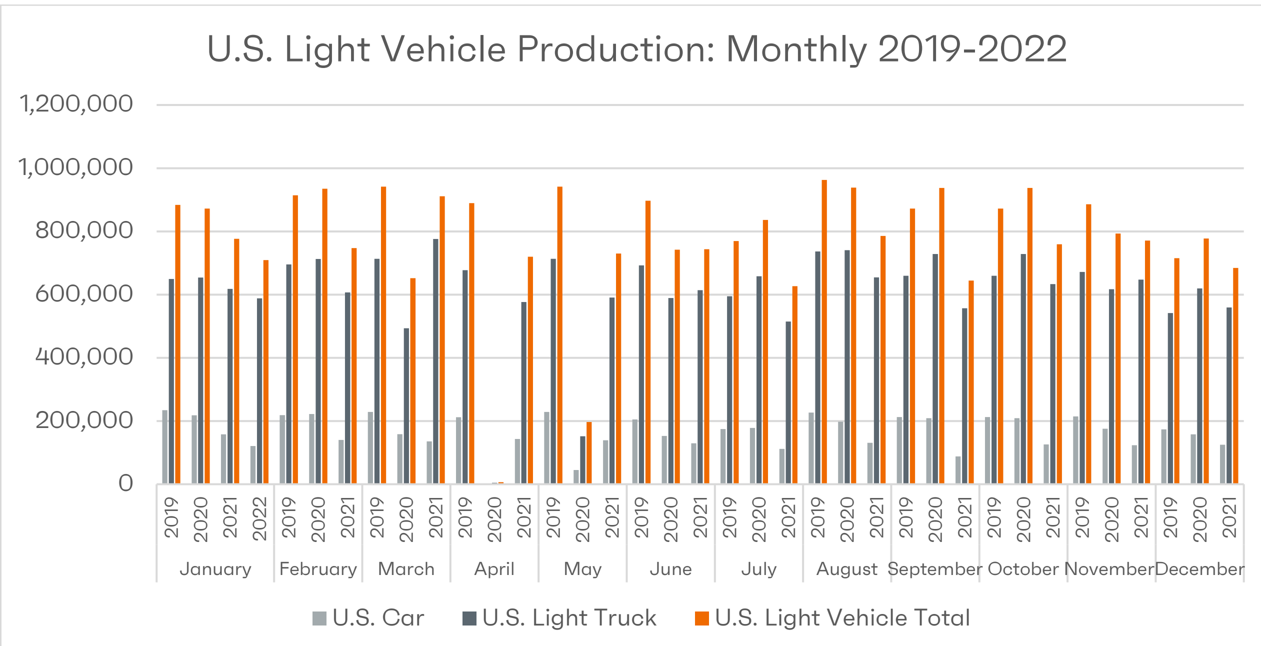
Oil and Gas Continue To Rise: Oil prices, as benchmarked at West Texas Intermediate, rose $2.28 to $92.89 a barrel. Since election day 2020, oil prices have climbed $56 a barrel. Gas prices rose $0.04 to $3.53, the highest level since October 2014. Gas is 33% higher than the beginning of 2020.[22]



Production Meter

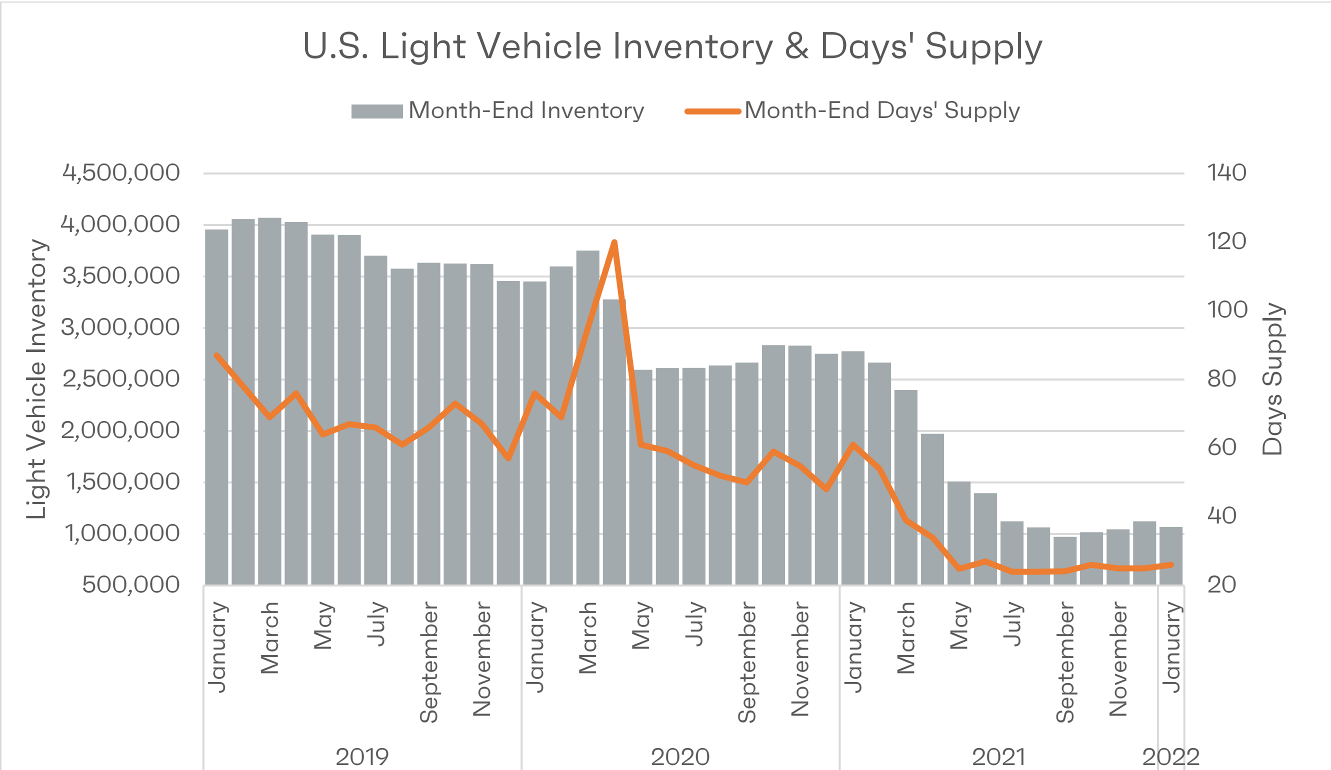
U.S. Light Vehicle Production (Updated 2/24)

U.S. Light vehicle production for January 2022 increased month-over-month by 3.6 percent, totaling 708,976 (120,779 cars, 588,197 light trucks), year-over-year, production is down 8.9% from 2021. [23]



U.S. Light Vehicle Inventory and Days' Supply (Updated 2/3)

WardsIntelligence Inventory Update (2/3)[24]: "Jan. 31 inventory totaled 1.07 million units, 4.9% below December's 1.12 million units, and a whopping 61.5% below January 2021's 2.77 million units, which was a 9-year low for the period due to production slowdowns in 2020 caused by the onset of the Covid-19 pandemic. The dearth of inventory still means sales will remain well below demand well into the second half of the year, if not the entire year. . . . January's days' supply totaled 26, a slight increase from December's 25, but below like-2021's 60. In the five years through 2019 – the last year before the pandemic overwhelmed the market – January's days' supply averaged 83."



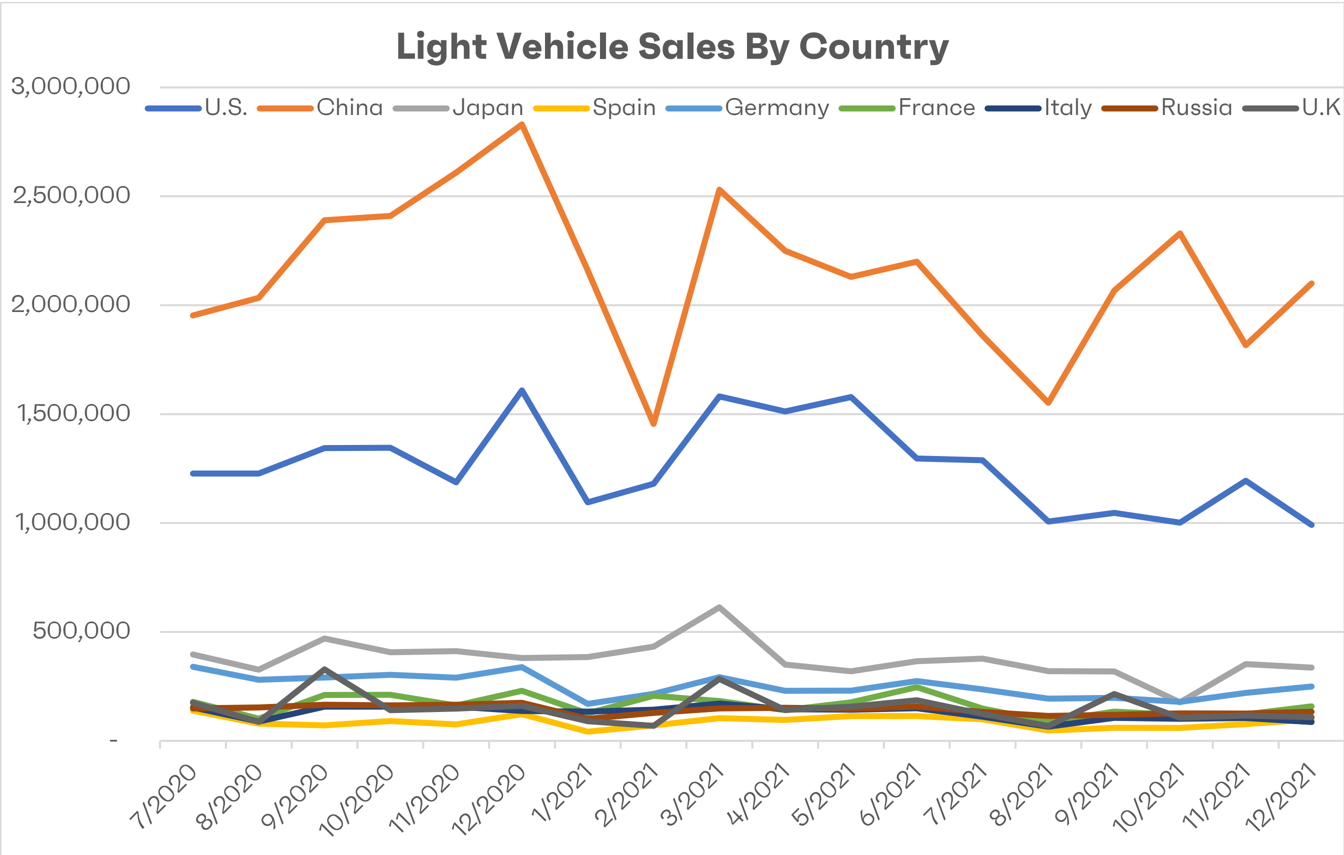
Global Meter

Global Light Vehicle Sales (Updated 2/3)

Wards Intelligence Outlook[25]: "World vehicle sales totaled 7.59 million deliveries in December, falling 10.4% below year-ago's 8.49 million. The year ended with 84.37 million units sold, growing 5.2% over 2020's 80.20 million. Monthly sales were up in the first half of the year but started to decline as the pandemic and the global microchip shortage negatively impacted the auto industry.

"Demand was high in Q2 as regional restrictions began to lift due to COVID-19 vaccination rollouts, and the global monthly sales volume peaked in March at 8.75 million. At the end of June sales rose 29.6% year-over-year, then July marked the first month of declines. By the end of Q3 all regions had experienced monthly drops in vehicle sales.

"All regions reported losses in December, with North America facing the biggest drop at 22.0% to 1.46 million, compared to 2020's 1.87 million. The region's market share fell to 19.2% for the month from year-ago's 22.1%.



Global Light Vehicle Production (Updated 2/24)

Wards Intelligence Outlook (1/12)[26]: “The Omicron variant of the Covid-19 virus potentially could put a damper on prospects, but it appears the impact on global light-vehicle production from the semiconductor shortage has peaked, with the outlook for 2022 improving since November’s forecast. Wards Intelligence partner LMC Automotive is forecasting global light-vehicle output of 85.8 million units in 2022, 12.5% above 2021’s anemic 76.2 million and even higher than 2020’s 74.6 million, the year the pandemic first hit in full force.Although still including some year-end estimates, the 2021 total is an increase from 75.8 million units forecast for the period in the prior update and reflects a cut in estimated production losses caused by the semiconductor shortage of 600,000 units to 9.4 million. The 2021 total is just 2.2% above 2020.

“The 2022 forecast also is an improvement from the 84.9 million units expected for 2022 in the prior revision and accounts for an estimated loss of 4.0 million units due to the lack of semiconductors. “Global output is forecast to rise 8.9% in 2023 to 93.4 million units, followed by a 6.3% increase to 99.3 million in 2024, which also will beat the all-time high set in 2017 of 95.1 million.”

IHS Markit Forecast (2/24): "The global auto industry continues to manage through supply chain challenges and evolving COVID-19 case counts. While semiconductor supply remains a lingering constraint for many automakers, the latest COVID-19 Omicron wave appears to be plateauing in several markets. As a result, recovery signals remain somewhat mixed, yet there has been some recent bias toward the upside in several markets. We continue to monitor conditions for signs of more holistic resurgence in supply chain activity and resulting vehicle production. The February 2022 forecast update reflects noteworthy increases across markets, to varying degrees, as the industry navigates COVID-19 infection rates and supply chain challenges. In the extreme near-term, upgrades are particularly focused on Greater China and Europe, among other regions. Given the ongoing uncertainties on the ground and assorted variables involved, a scenarios-based approach to planning is advised to help navigate dynamic market conditions. The more noteworthy regional adjustments with the latest forecast update are detailed below:

"Europe: The outlook for Europe light vehicle production was increased by 210,000 units and reduced by 1,000 units for 2022 and 2023, respectively (and reduced by 4,000 units for 2024). Europe production has demonstrated recent relative resilience as late 2021 actual results came in ahead of expectations and that pace has carried into early 2022 as the availability of semiconductors has improved in the near-term. As a result, we have increased Q1-2022 production by around 48,000 units, reflecting continued sequential improvement over Q4-2021. Further, as chip availability improves in the second half of the year, we have boosted our H2-2022 outlook by 151,000 units. We continue to monitor the state of the supply chain, particularly for semiconductors, for signs that conditions are improving (or deteriorating). The outlook for Europe production in the mid-term remained largely unchanged with the February forecast update.

"Greater China: The outlook for Greater China light vehicle production was increased by 491,000 units and by 48,000 units for 2022 and 2023, respectively (and reduced by 66,000 units for 2024). After a strong performance in November, mainland China light vehicle production outperformed our expectations in December, totaling 2.85 million units with year-over-year growth of 6.6%. Neither semiconductor shortages nor electric power outages had much impact on recent performance. In addition, production at the close of 2021 was further supported by the completion of partially-built vehicles from earlier periods due to component shortages. Total light vehicle production in mainland China for 2021 climbed 5.3% relative to 2020, achieving 24.6 million units. Coming off a strong showing in 2021, the New Energy Vehicle market is expected to retain its momentum given policy incentives and solid demand fundamentals. Nevertheless, when considering the industry in total, semiconductor capacity remains a bottleneck, particularly for NEV and intelligent vehicle offerings. Also, stagnated domestic consumption and potential risks in the financial sector raise more uncertainties for the market. Notwithstanding those challenges, overall light vehicle production for Greater China in 2022 is expected to total 25.2 million units, reflecting a year-on-year increase of 1.5%, an improvement relative to our January forecast.

"Japan/Korea: Full-year 2022 Japan production volume was increased by 96,000 units relative to the January forecast. While Q1-2022 production was reduced sharply due primarily to COVID and semiconductor shortage impacts, particularly at Toyota, the second half of the year was upgraded more substantially on expected improved availability of semiconductors in the global market. As a result, total 2022 production was incrementally upgraded by 1.2% relative to the prior forecast. Japan production volumes in the 2023-2025 timeframe were upgraded by 0.5% per year as we expect to see more stable recovery trends after the semiconductor shortage situation is resolved. Full-year 2022 South Korea production was increased by 90,000 units relative to the previous forecast as lead time for semiconductors, especially MCUs, is expected to improve in the near-term due to better allocation for automotive and some increase in available capacity. However, the positive effect will be finite as the demand for chips per vehicle continues to rise, so significant changes were not made in 2023 and 2024. In the long term, there were no significant changes relative to the previous forecast other than minor timing change effects.

“**North America:** The outlook for North America light vehicle production was increased by 26,000 units and by 34,000 units for 2022 and 2023, respectively (and increased by 23,000 units for 2024). The February 2022 forecast update for North America reflects increased volatility in the very near-term. The recent Canadian trucker blockade at the US/Canada border has created additional headwinds. As a result of recent events and ongoing supply chain pressures, we have reduced Q1-2022 production by 87,000 units, yet we also expect to make-up that lost production through the balance of the year, resulting in the overall modest upgrade for full year volumes. A scenarios-based approach is recommended to help guide the assessment of upside potential and downside risk, particularly in the extreme near-term. Production in 2023 was revised modestly higher by 0.2% to total 17.2 million units as the industry is expected to start the process of moving beyond the current limitations and shift towards restocking heavily depleted inventory levels.

“**South America:** The outlook for South America light vehicle production was increased by 32,000 units and by 40,000 units for 2022 and 2023, respectively (and increased by 42,000 units for 2024). The upgrade in production for 2022 was driven by an improved outlook for Argentina as the country continues to be less affected (relative to Brazil) by semiconductor shortages. Further, signs of improved semiconductor availability, particularly in the second half of 2022, have contributed to automakers bolstering their production plans. The outlook for 2023 and 2024 was upgraded rather modestly and was similarly the result of improved expectations around production performance in Argentina, particularly regarding stronger prospects for Toyota in the country.

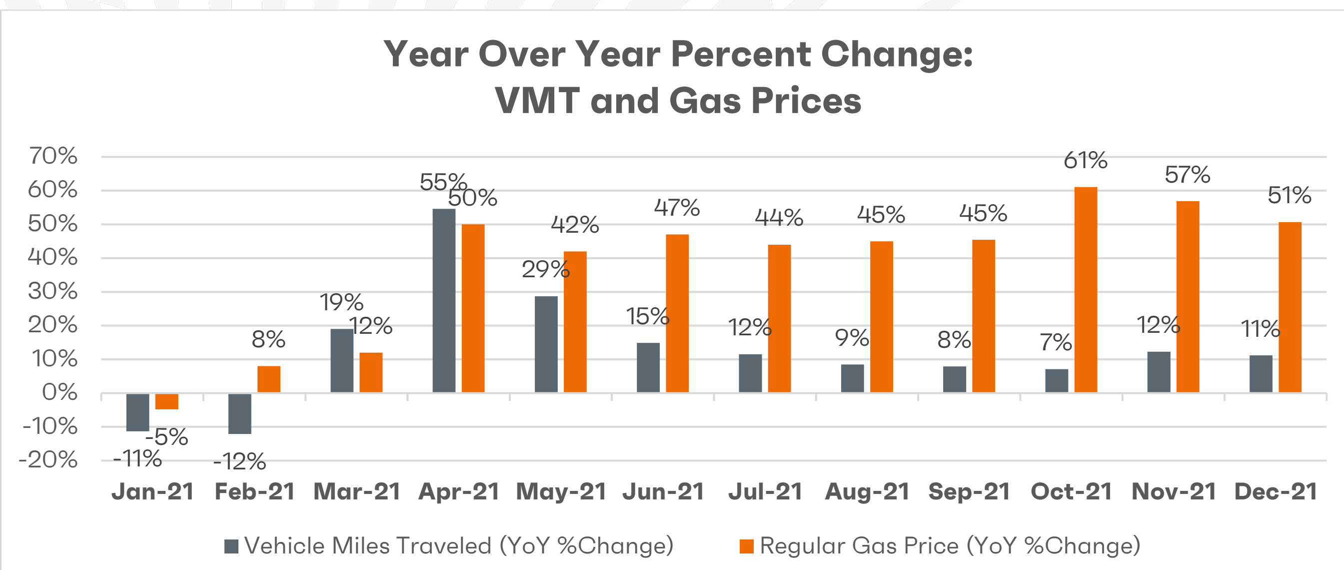
“**South Asia:** The outlook for South Asia light vehicle production was increased by 175,000 units and by 2,000 units for 2022 and 2023, respectively (and reduced by 69,000 units for 2024). The near-term outlook for the region was upgraded due primarily to additional relief regarding the semiconductor situation in India. Further, automakers in the country have de-contented vehicles in order to reduce semiconductor reliance. Notwithstanding recent chip supply improvements in India, the industry remains vulnerable to lingering supply chain uncertainties. The near-term production outlook for the ASEAN market was upgraded for 2022 due to stronger production support in the first quarter as chip manufacturer’s back-end processes in Malaysia have improved since late 2021. However, the outlook for the remaining quarters of 2022 was largely maintained given ongoing constrained chip supply and robust global requirements. Across the market, efforts are being made to ramp-up production where possible to compensate for prior production losses due to component shortages and COVID-19 restrictions. However, these efforts will continue to be governed by the ongoing status of supply chain challenges as well as COVID conditions throughout the region.

Recovery Meter

Roadway Travel (Updated 2/24)

According to the U.S. Department of Transportation, seasonally-adjusted vehicle miles traveled in December rose 10.7% from the same time a year ago. The cumulative travel estimate for 2021 is 3,228.8 billion vehicle miles.[27]

- Travel on all roads and streets changed by +11.2% (+26.9 billion vehicle miles) for December 2021 as compared with December 2020. Travel for the month is estimated to be 268.4 billion vehicle miles.
- The seasonally adjusted vehicle miles traveled for December 2021 is 278.3 billion miles, a 10.7% (26.9 billion vehicle miles) change over December 2020. It also represents a -0.4% change (-1.1 billion vehicle miles) compared with November 2021
- Cumulative Travel for 2021 changed by +11.2% (+325.2 billion vehicle miles). The cumulative estimate for the year is 3,228.8 billion vehicle miles of travel.



Economic News (Updated 2/9)

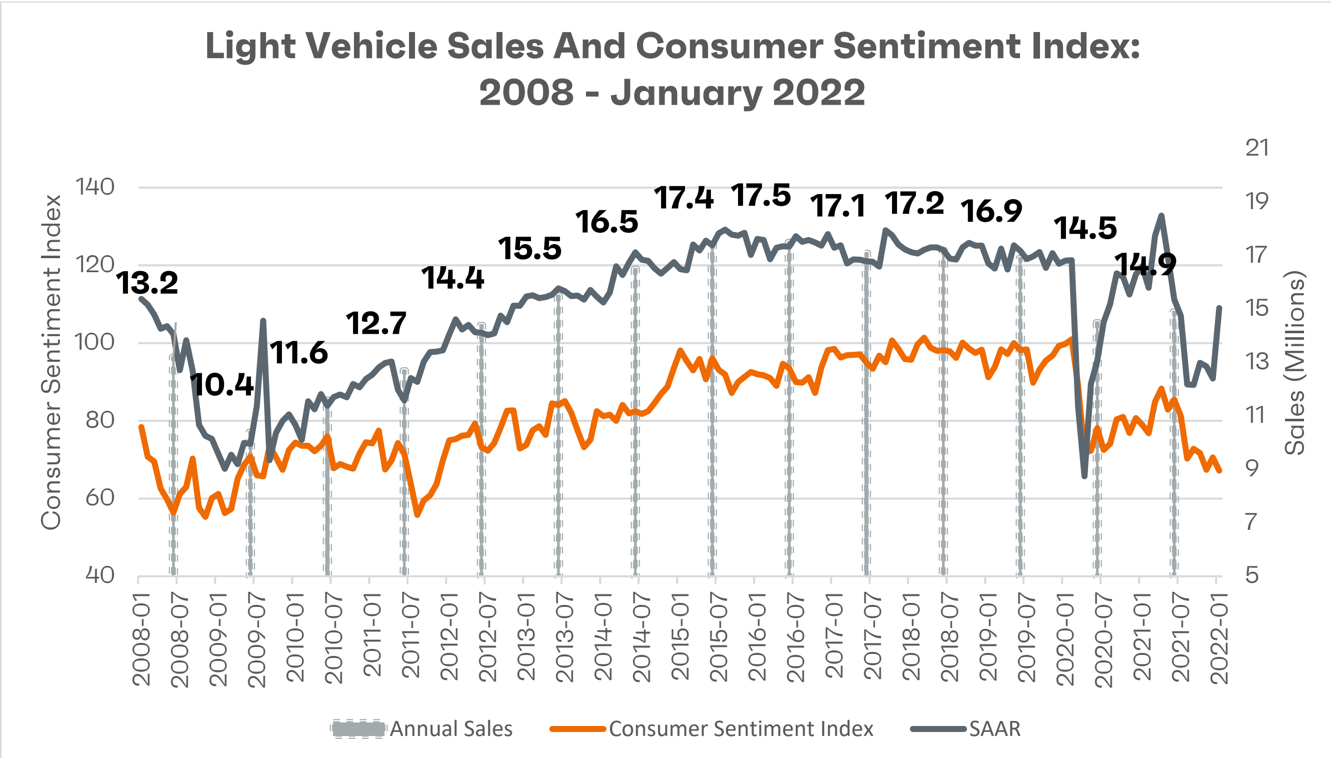
Manufacturing Gained 13,000 Jobs In January, While Motor Vehicles And Parts Manufacturing Lost 4,900. "Preliminary labor data for January indicated that the manufacturing industry added only 13,000 new jobs last month, less than half the amount it gained in December. In its February 4 report, the Bureau of Labor Statistics revised up its employment figures for December 2021. According to the Bureau, private nonfarm companies hired 510,000 people in December while manufacturers hired 32,000—both substantial improvements over the previously-published figures of 199,000 and 26,000 new jobs, respectively. Jobs growth in durable goods production was hamstrung by significant cuts at transportation equipment manufacturers. Companies making durable goods added a net 8,000 new jobs, hampered significantly by the 9,500-job loss in transportation equipment. About half of the losses in that sector were in motor vehicles and parts production."[28]

The ISM Index Fell To 57.6 In January, The Lowest Reading Since November 2020. "Manufacturing expansion eased in January paced by new orders and production, the Institute for Supply Management said today. The Tempe, Ariz.-based group's manufacturing index, known as the PMI, reached 57.6 percent last month, a dip from 58.8 percent in December. January was the third consecutive month where the PMI dropped. The January index reading was the lowest since November 2020 when it registered at 57.3 percent."[29]

Consumer Confidence and Sales (Updated 2/24)

Surveys of Consumers chief economist, Richard Curtin: "Sentiment continued its downward descent, reaching its worst level in a decade, falling a stunning 8.2% from last month and 19.7% from last February. The recent declines have been driven by weakening personal financial prospects, largely due to rising inflation, less confidence in the government's economic policies, and the least favorable long term economic outlook in a decade. Importantly, the entire February decline was among households with incomes of $100,000 or more; their Sentiment Index fell by 16.1% from last month, and 27.5% from last year. The impact of higher inflation on personal finances was spontaneously cited by one-third of all consumers, with nearly half of all consumers expecting declines in their inflation adjusted incomes during the year ahead. In addition, fewer households cited rising net household wealth since the pandemic low in May 2020, largely due to the falling likelihood of stock price increases in 2022.

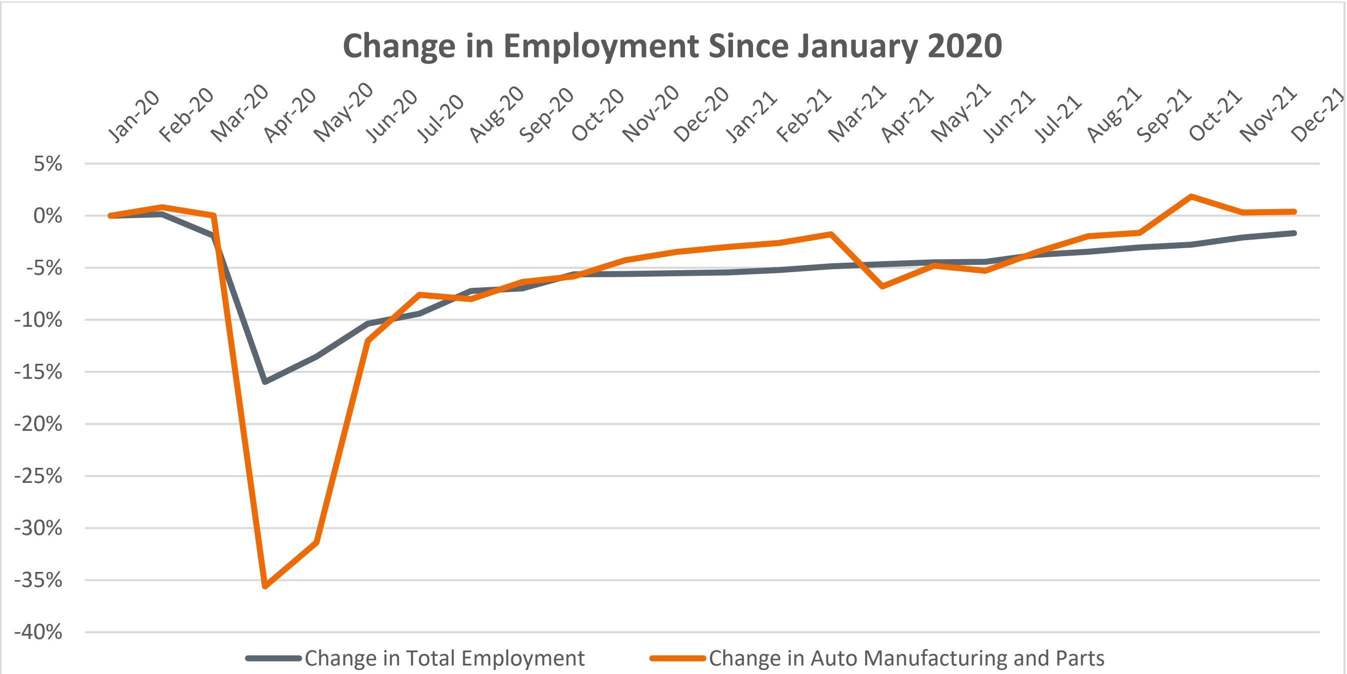
The recent declines have meant that the Sentiment Index now signals the onset of a sustained downturn in consumer spending (see the chart). The depth of the slump, however, is subject to several caveats that have not been present in prior downturns: the impact of unspent stimulus funds, the partisan distortion of expectations, and the pandemic's disruption of spending and work patterns. Households have amassed substantial savings and reserve funds from the stimmies as well as due to more limited consumption choices, especially services. There may be a lessened need for additional precautionary savings and a greater desire to engage in discretionary spending."[30]



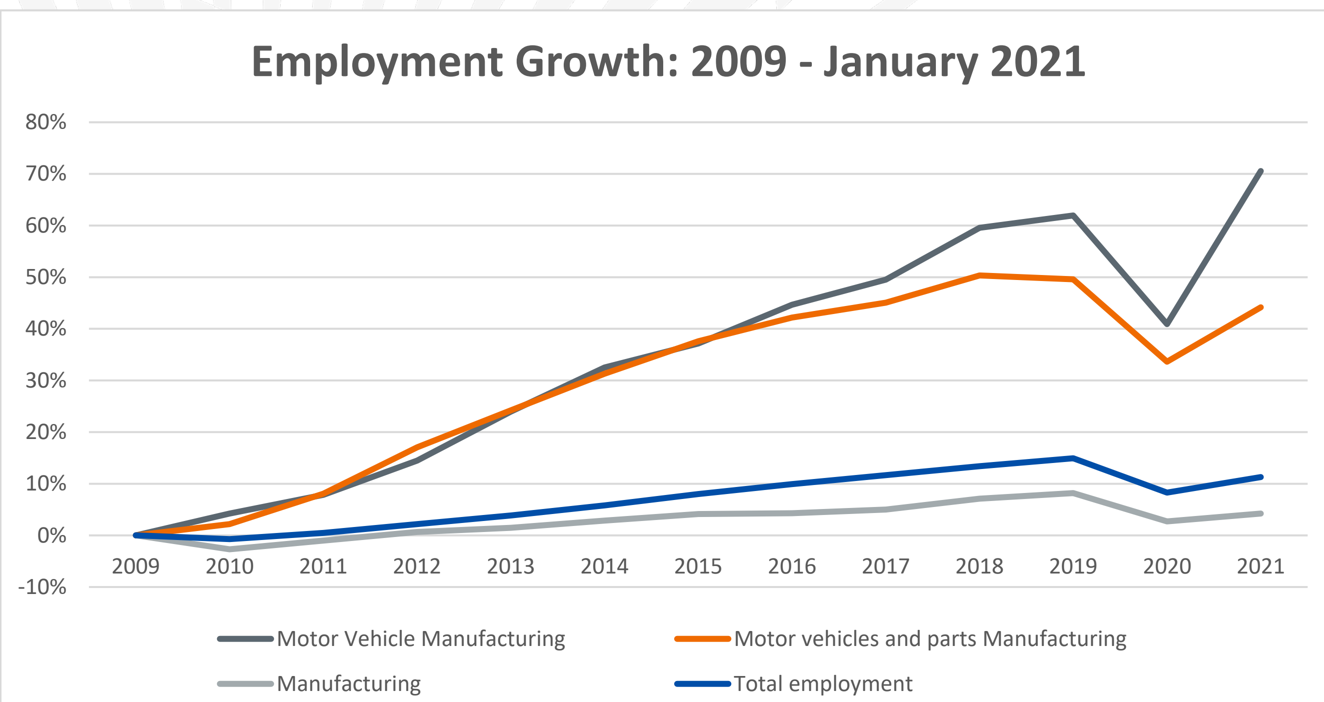
Employment (Updated 2/9)

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.[31]

- **Motor Vehicle And Parts Manufacturing Lost 4,900 Jobs In January.**[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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