

YEAR-IN-REVIEW:

2024 Automotive Industry Trends + 2025 Outlook

By Rick Wainschel • VP, Data Science & Analytics

DECEMBER 2024

- New Vehicle Inventory Marches
 Toward Pre-Pandemic Levels
- Vehicle Movement Grows at a Slower Rate
- Pricing Remains High Despite
 Turn Rate Challenges

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2024 Review

Overall, the market has gradually been returning to "normal" after several years of profound shocks to the system. However, a return to normal is not without its adversities for the industry and consumers.

A growing supply picture accompanied by relatively flat demand has increased sales pressure on OEMs (and dealers), requiring more aggressive discounting and incentives. Manufacturers are operating in an environment where turn rates are falling, and days-to-move are increasing, with both approaching levels within shouting distance of prepandemic numbers. In that era (pre-pandemic), the balance between buyers and sellers tended to favor the former—incentive levels generally exceeded 10% of a vehicle's cost, for example. Assuming current trends continue to push more inventory into the marketplace without a commensurate increase in purchases, that pressure will continue to edge the industry toward an oversupply situation that will warrant even more aggressive marketing and discounting to boost demand within this more competitive market dynamic.

Manufacturers with strong Inventory Efficiency Index scores are less subject to these pressures, though not all top brands have demonstrated that strength in the same way. Toyota Motor Company, for example, has inherently strong makes and models that appeal to consumers, and they typically sell efficiently as a result.

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But production issues and their ensuing impact on inventory levels are elevating its efficiency scores in a way that warrants attention, and addressing those issues will require monitoring to ensure that its efficiency is maintained as inventories grow. Other OEMs that are less subject to such temporary circumstances would be wise to keep a close watch on their inventory efficiency on a model-by-model and market-by-market basis, especially if supply continues to grow and demand does not keep pace.

In terms of consumers, an oversupply situation would normally lead to significantly reduced pricing, as has occurred in the past. And while there has been a shift toward more aggressive discounting, as noted, there have been longer-term structural changes in the marketplace that will keep prices higher. The elimination of a wide swath of lower-priced vehicles, coupled with a greater emphasis toward higher-end trims has kept average vehicle costs above \$50,000, mitigating the typical economic effects of supply and demand. The increased choices that are normally associated with a rise in inventory have been pushed toward an elevated end of the range, which diminishes the pricing effects that would normally occur.

Inventory and Movement • 2024

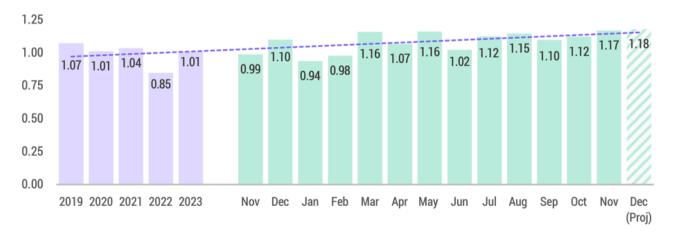
Inventory levels have been steadily increasing throughout 2024, reaching 3.23M as the year reaches its close. This is not quite back to pre-pandemic levels but is certainly heading in that direction. Market supply has almost tripled from its lowest point in 2022, when supply chain issues wreaked havoc on production and distribution.

Vehicle movement, meanwhile, has seen a steady rise over the current year, but not at the same trajectory as inventory. This metric has demonstrated remarkable resilience in the post-pandemic period, with levels falling below 1.0M per month only in the most supply-challenged year (2022). This benchmark level has been eclipsed for the last nine months of 2024, rising to its highest point in the current period (and is expected to end the year strong in December).

Average Inventory - New (MM)



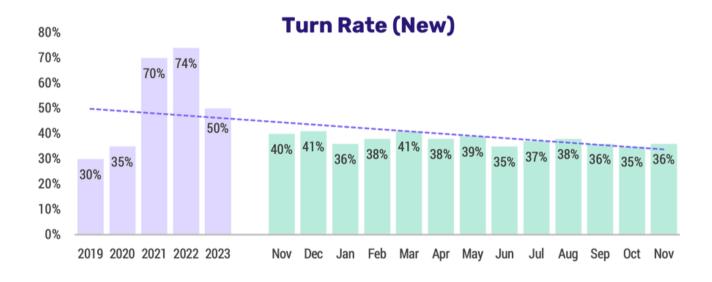
Vehicle Movement - New (MM)

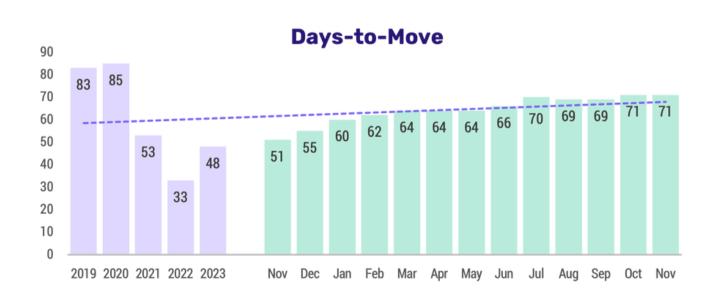


Vehicle Velocity • 2024

Turn rates have remained somewhat flat throughout 2024, starting and ending at similar levels. While not falling all the way back to pre-pandemic levels (30% in 2019), this metric has returned to more of a "normal" state compared to the last several years.

Meanwhile, the time it takes for a vehicle to sell has grown over the past year. After hitting a low of 33 days at the height of supply shortages (2022), this metric has more than doubled to 71 as the year comes to an end. While not back at the 83-day timeframe prior to the pandemic, the trajectory is moving closer to that previous scenario.





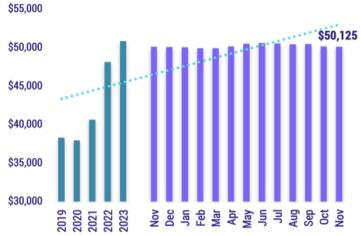
Pricing • 2024

The average marketed price of a vehicle remained generally steady throughout 2024, hitting a mark of \$50,125 as the year nears its close. Despite the shift in supply and demand in the current period, prices have remained elevated far above where they were prior to the pandemic.

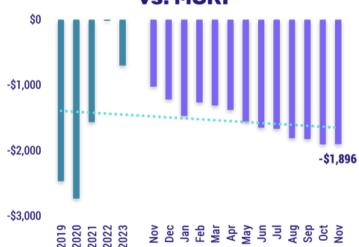
Additionally, the average market adjustment—

which measures the visible discounts and incentives that are displayed to consumers on dealers' vehicle detail pages— has steadily grown, though not to the level seen in 2019 or 2020. It is noted that this metric hit a mark of -\$15 in 2022, indicating that vehicles were being marketed without discounts from MSRP in that timeframe.

Average Price (New)



Average Market Adjustment vs. MSRP



While that is true, the pricing swings that would normally accompany a shift in the dynamics between supply and demand have not materialized. This points to other factors that are at play."

RICK WAINSCHEL · VP, DATA SCIENCE & ANALYTICS, CLOUD THEORY



THERE ARE THREE KEY FACTORS CONTRIBUTING TO THE PERPETUATION OF HIGHER PRICES DESPITE THE INCREASING SUPPLY AND FLATTER DEMAND DYNAMIC.

FACTOR #1

Discontinuation of Lower Priced Models

Starting in 2021, when parts shortages began to affect OEM production, the number of vehicles priced below \$30K dropped dramatically, leaving just 22 model choices in 2024.

Of the 72 lower-priced vehicles available in 2019, more than half had been discontinued by 2024; 20 of those vehicles were hatchbacks and small sedans.

Number of Models with Average Marketed Price Below \$30K



Total # of 2019
Models Priced Below
\$30K — no longer
available in 2024

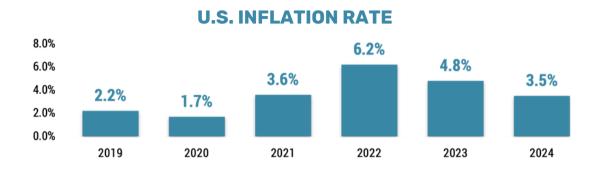
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# of Discontinued Models by Segment					
Hatchback	12	Coupe	2		
Small Sedan	8	Luxury Sm. Sedan	1		
Small SUV	5	Convertible	1		
Midsize Sedan	5	Full Size SUV 1			
Van/Minivan	3				

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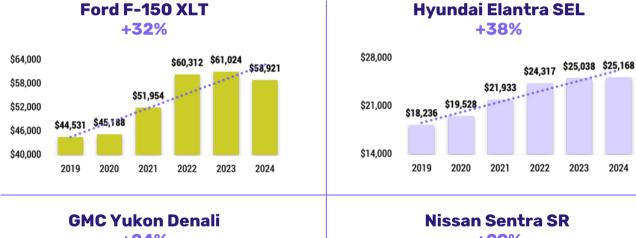
FACTOR #2 Inflationary Pressure

In general, prices for a wide variety of products and services experienced inflationary pressure, starting in 2021 when supply chain disruptions began to take hold.



The auto industry was not immune to this general inflationary pressure, and the increased cost of production was passed along to consumers in the form of higher prices.

CONSIDER THESE FOUR MODEL/TRIM COMBINATION EXAMPLES BELOW AND THE AVERAGE MARKETED PRICES OF EACH OVER THE PAST FIVE YEARS:



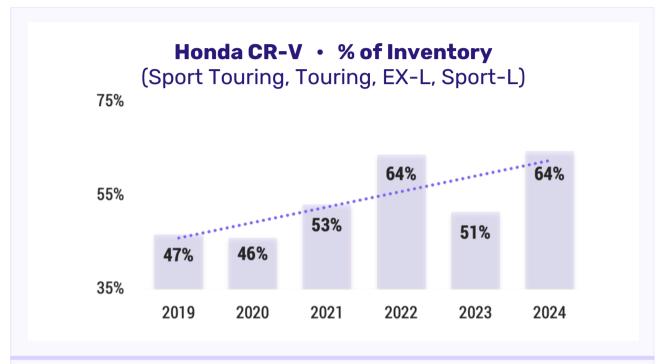


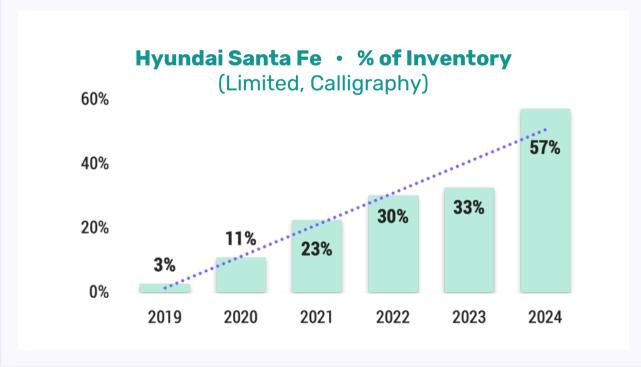


These price increases are not at all atypical and represent a wide array of other model/trim combinations that experienced significant price increases for consumers.

FACTOR #3 OEM Emphasis on Higher-End Trims

In addition to price increases within a particular model/trim, OEMs also put greater emphasis on higher-end trims to maximize the value of parts that were in short supply. **To illustrate this shift, consider the following examples:**





Overall Effects

In addition to the above-mentioned three factors, the rise in interest rates over time has added to the effects of increased costs to consumers.

New Vehicle Auto Loan Interest Rate Trend



As an example of how these factors play out, a consumer who bought a \$19,550 Ford Focus SE in 2019 would have had loan payments of \$367 per month (using reasonable down payment and fee assumptions). If they looked to replace that car with a similar model (since the Focus is no longer available), the monthly payment would jump to \$555, an increase of 51%. Overall, the average monthly payment for a new vehicle in 2024 now sits at \$760, up from \$535 five years prior.

At the lower end of the range—for vehicles that appeal to first-time buyers or lower-income families—a payment difference of almost \$200 a month can delay a purchase or keep buyers out of the market altogether. At the higher end of the price range, the monthly payment increase over that timeframe can stretch to hundreds of dollars more.

Monthly Payment Example • 2019 vs. 2024						
		2019 Ford Focus SE	2024 Toyota Corolla SE			
6 - \$	Vehicle Cost	\$19,550	\$27,700			
C\$ 3	Down Payment	\$2,000	\$2,750			
(E) (E)	Interest Rate	4.75%	7.5%			
\$	Monthly Payment	\$367	\$555			

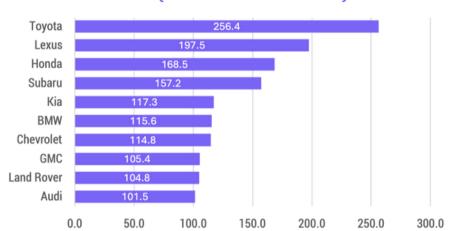
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Inventory Efficiency Index • 2024

With supplies growing and discounts/incentives rising, it is important to view Cloud Theory's Inventory Efficiency Index **through the lens of in-stock vehicles**—those that are currently on dealer lots—to determine the OEMs that are getting at or above their fair market share given their relative inventory in the marketplace. In doing so, it points to manufacturers that are either short on supply or successfully generating demand (or both). In each of those cases, OEMs can be more focused in their incentive and discounting strategies.

2024 INVENTORY EFFICIENCY INDEX

• TOP 10 (IN-STOCK VEHICLES) •



Toyota Motor
Company brands led
the way on Inventory
Efficiency Index
scores in the current
year as production
and distribution
issues have elevated
its already strong
historical
performance on
this metric

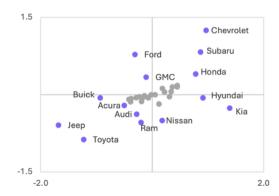
ON A YEAR-OVER-YEAR BASIS...

- Chevrolet, Honda, and Subaru grew inventory share and market share, while Acura, Audi, Buick, Jeep, Ram, and Toyota declined on both
- Ford and GMC gained in market share despite a drop in inventory share, indicating an increase in inventory efficiency
- Hyundai, Kia, and Nissan dropped in market share despite a gain in inventory share, indicating a decline in inventory efficiency

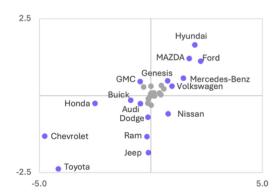
COMPARED TO FIVE YEARS AGO...

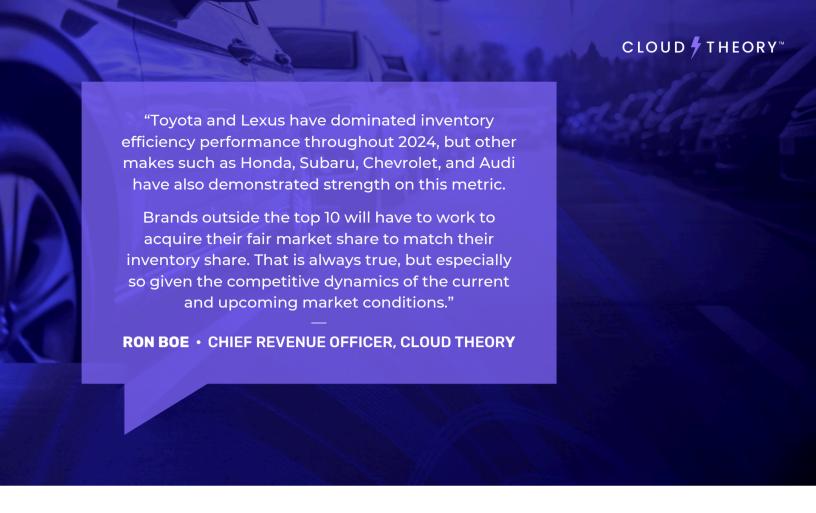
- Ford, Genesis, Hyundai, Mazda, Mercedes-Benz, and Volkswagen grew inventory share and market share, while Audi, Buick, Chevrolet, Dodge, Honda, Jeep, Ram, and Toyota declined on both
- GMC gained in market share despite a drop in inventory share, indicating an increase in inventory efficiency
- Nissan dropped in market share despite a gain in inventory share, indicating a decline in inventory efficiency

NOTABLE SHARE MOVERS 2024 VS. 2023



NOTABLE SHARE MOVERS 2024 VS. 2019





2025 Outlook

Without the benefit of a crystal ball that reveals what will happen in 2025, we can foresee the implications of what is likely to happen as the calendar page turns.

• The new administration coming into power early in the year is likely to roil the industry waters through the implementation (or at least the threat of) tariffs on fully produced vehicles as well as parts coming in from other countries. This has the potential to increase prices further as the cost of those tariffs are passed along to consumers in the form of elevated prices. A recent <u>AP article</u> stated that "much of the tariffs would get passed along to consumers" and that OEMs such as Volkswagen, Stellantis, General Motors, and Ford would get hit hard due to high production levels in Canada and Mexico. Additionally, manufacturers that rely on European or Japanese production are also subject to the implementation of tariffs. With vehicle prices already high, this has the potential to keep them elevated or even go higher.

With inventories already surging and vehicle sales growth and turn rates lagging, higher costs will put further pressure on manufacturers at a time when they are starting to become more reliant on discounts and incentives to move inventory. At some point, OEMs will have to balance those competitive pressures with profitability, and it may be inevitable that they will have to cut into their bottom lines to stay competitive.

2025 Outlook continued...

The new administration has also signaled a significant shift in electric vehicle policy, including eliminating the federal tax subsidy, and discontinuing of state policies to replace them. A recent <u>Reuters article</u> referred to a plan by incoming President Donald Trump's team "to kill the \$7,500 consumer tax credit". That same article referenced Elon Musk's sentiment that "killing the subsidy might slightly hurt Tesla sales but would be 'devastating' to its U.S. EV competitors."

In the short-term, non-Tesla EV vehicle movement has jumped (up 23% since the election compared to the prior period) as consumers are anticipating the tax credit elimination. While the investments in production facilities, battery technology, and charging infrastructure will continue, This tax credit cut will represent a significant obstacle to selling EVs that were already struggling to keep up with supply increases in 2024. This will significantly disrupt and delay the transition to an EV- oriented future but will also help (more profitable) non-EV vehicles such as trucks and SUVs in the interim.

- While auto loan interest rates are expected to fall in 2025, many of the predictions
 point to a relatively slow and steady set of declines that will carry over into 2026. This
 will add to the consumer pressure noted above, as monthly payment relief from
 reduced rates will not come fast enough to overcome higher costs from other
 quarters. One shift that may result from these dynamics is a reversion back to lowerpriced and lower-contented trims that consumers can better afford.
- In terms of Inventory Efficiency, Toyota Motor Company is likely to overcome its production challenges and reestablish its inventory positions. In doing so, its efficiency will likely come down a bit, but the inherent appeal of its brands will keep them high on our leadership list. With the challenges noted above, all OEMs will be wise to closely monitor their supply and demand positions nationally, regionally, and locally in order to support models and markets that need the most help in maintaining or achieving a fair market share, given their inventory share in the marketplace.

At a time when signals are trending toward a more challenging competitive environment on number of fronts, ensuring that inefficiencies are addressed will be more important than ever.

Inventory Efficiency Index

About Cloud Theory's Inventory Efficiency Index

Cloud Theory's patent-pending Inventory Efficiency Index provides a previously unavailable real-time view of market-relevant supply and demand for all makes and models and across all geographies. Key decision makers can use the IEI to confidently allocate valuable marketing and incentive dollars to locations requiring a boost in demand or reallocate vehicles to areas that are moving inventory more efficiently.

Cloud Theory's Inventory Efficiency Index determines scores for vehicle makes or models based on relative inventory and movement data compared to competitors.

- Ascore of 100 means that an OEM's demand is in balance with its relative supply in the marketplace.
- A score above 100 indicates that a make or model is selling its inventory more efficiently than average.
- A score below 100 means that there are opportunities to bring demand into better alignment with supply (or vice versa).

About Cloud Theory

Cloud Theory is more than a concept. It is the eye of the storm, where cutting-edge data, software, and artificial intelligence meet deep industry knowledge and experience. Built for automotive manufacturers, agencies, and affiliates, Cloud Theory enables our customers to understand – in real time – the complex competitive world in which they do business and to make bold decisions that drive them forward. The combination of billions of data points, interactive tools, and expert consulting gives our clients the ability to weather any storm and find their way to clear blue skies.

Learn more at cloudtheory.ai.

Contact

■ hello@cloudtheory.ai

Cloud Theory 99 Monroe Ave. NW Suite 200 Grand Rapids, MI 49503

