AUGUST 2024

Morningstar Industry Landscape

US Auto Dealers

A highly fragmented sector means a long growth runway for the largest players via organic growth, acquisitions, and expansion into new verticals.

Table of Contents

Morningstar Equity Research

David Whiston, CFA, CPA, CFE
US Autos Equity Strategist

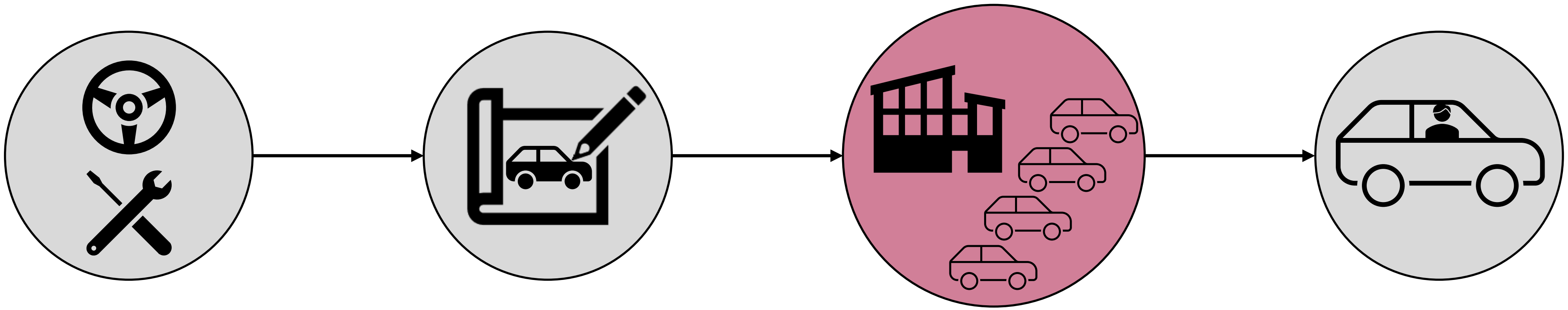
Executive Summary

A fragmented and moaty sector continues to slowly consolidate.

Industry Map

Dealers are the distributors between the automakers and the end users of the vehicle (consumers and fleet customers). Selling new vehicles is the genesis of everything else that happens at the store. A new-vehicle customer may trade in a used vehicle, which the dealer can then retail, gets a loan and other protection for the new vehicle, and brings the vehicle for service while it is under warranty and perhaps beyond. Some fleet business is done at the dealer level, but large fleet orders, such as from rental car firms, can bypass the dealer.

Dealers Are the Last Step for the End User of the Vehicle

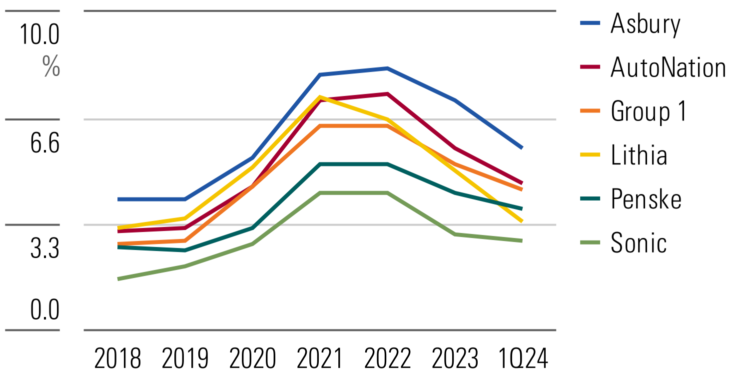


Source: Morningstar.

Key Industry Themes

Profits Coming Down From Chip Shortage Highs

Adjusted Operating Margin Including Floorplan Interest



Before 2020, a strong operating margin level, including floorplan interest (interest cost to buy inventory), was around 4%. Covid-19 and the chip shortage decimated new-vehicle inventory and gave dealers a surge in new-vehicle pricing power through 2022, sending margins to levels that would have been absurd to model before 2020 (7%-8% EBIT). US new light-vehicle inventory is below prepandemic levels of 3.5 million-4 million units. The pricing power surge is over, but operating margins may stay higher than prepandemic levels, especially with dealers making permanent headcount reductions in 2020.

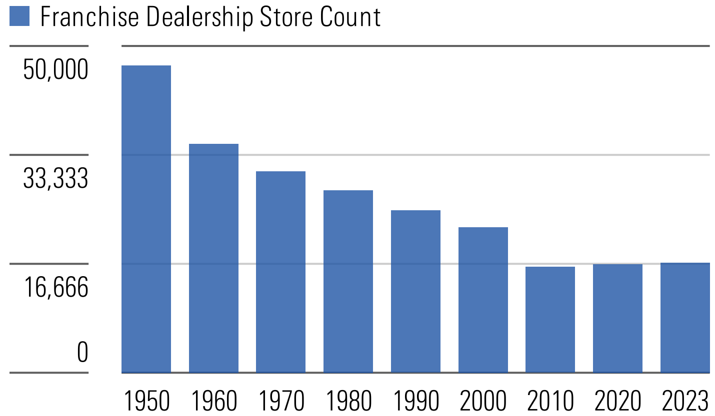
Not as Cyclical as You May Think

2023 Gross Margin by Segment (Franchise Light Vehicle Stores)

Segment	Asbury	AutoNation	Group 1	Lithia	Penske	Sonic
New	9.2%	8.3%	8.7%	9.2%	11.0%	8.3%
Used	6.0%	6.2%	5.3%	7.5%	4.8%	5.3%
Service	55.3%	47.2%	54.6%	54.8%	58.7%	49.7%
F&I	94.4%	100%	100%	100%	100%	100%
Total	**18.6%**	**19.0%**	**16.9%**	**16.8%**	**16.7%**	**15.7%**

Dealers do more than sell new vehicles, though new vehicles are the foundation for other segments. They sell used vehicles of any brand, not just for their new-vehicle franchise brand. A new-vehicle customer may have a trade-in that the dealer can then sell as a used vehicle. Normally, used vehicles bring higher gross margins than new vehicles, but for now that has reversed, with the chip shortage elevating used-vehicle procurement costs. A buyer must have a new vehicle serviced at the dealer for warranty work, which along with finance and insurance products at the point of sale brings lucrative profits.

Sector Consolidating Over Time



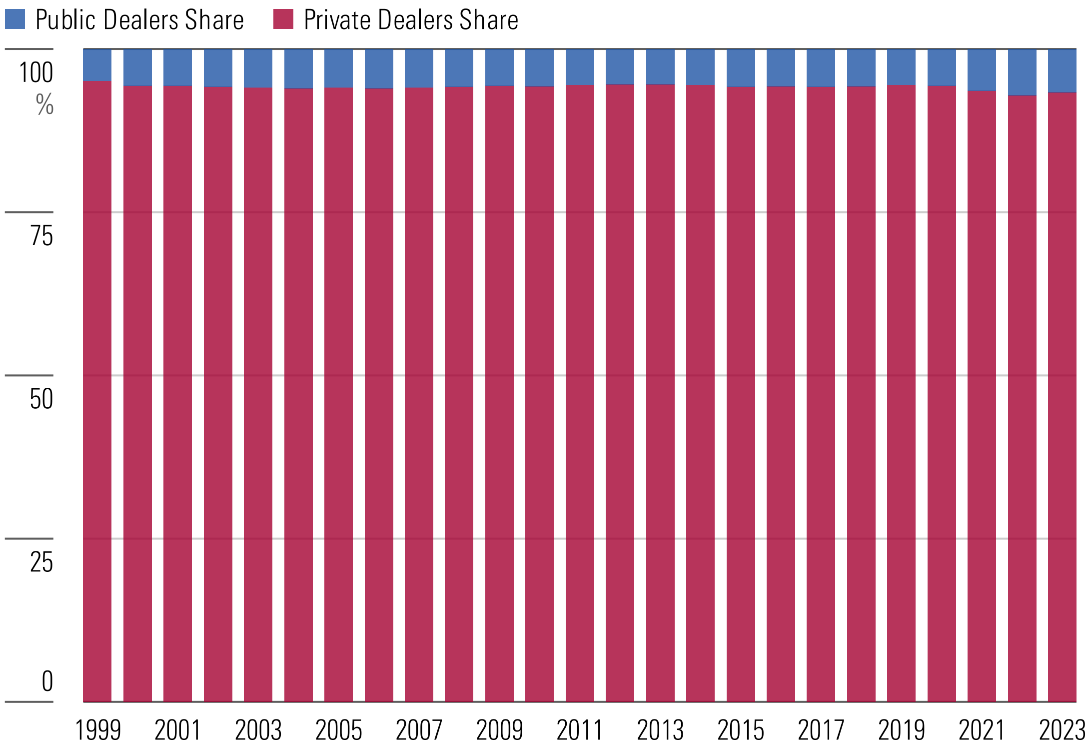
As the US urbanized and the Detroit Three lost their dominance, larger dealers serving more people has become necessary for them to do well. The sector has consolidated over decades. Some have exited the industry due to insufficient throughput (volume per store), expensive store imaging requirements, and automaker bonus payouts that can be too hard to reach. The sector has seen a two-thirds reduction since 1950, but the biggest dealers are well set up to keep consolidating via acquisitions while receiving new franchises (called open points). California, Texas, and Florida have 21% of stores.

Source: Morningstar valuation models and company filings (left), Morningstar valuation models (middle), National Automobile Dealers Association (right). Asbury F&I not 100% due to deferred revenue from its Total Care Auto insurance product.

US Auto Dealers' Market Share and Concentration

Although we cover all six publicly traded new-vehicle franchise dealers, they sell only about 6% of annual US new light vehicles. The sector remains primarily one of entrepreneurs rather than large corporations. The public dealers have seen a boost in share since 2020, while the top 10 firms' share now exceeds 8% from about 6%-7% at the turn of the century. We expect continued gradual consolidation via acquisitions and from open points awarded to the largest firms because they can best fund automakers' store imaging requirements.

Annual Share of US New Light-Vehicle Sales



Percentage of Dealer Owners by Number of Dealerships Owned

# Dealerships	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
1-5	95.8%	95.5%	95.0%	94.8%	94.4%	94.2%	93.9%	93.8%	93.5%	93.0%	92.4%	91.6%
6-10	2.9%	3.2%	3.4%	3.8%	3.8%	4.0%	4.1%	4.2%	4.3%	4.5%	4.9%	5.3%
11-25	1.0%	1.1%	1.4%	1.5%	1.5%	1.6%	1.6%	1.7%	1.7%	2.0%	2.2%	2.5%
26-50	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%	0.3%	0.3%	0.3%	0.4%	0.5%
Over 50	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%	0.2%	0.2%

Source: Automotive News, dealers' 10-K filings and earnings releases, Morningstar estimates (left), NADA Data (right).

Industry Value Drivers

Simplified Financial Statement: Lithia Motors

Pro forma income statement ($ in millions).

		2023	% of Sales
Revenue (1)	$	31,042	
Cost of Goods Sold		25,813	83.2%
Gross Profit (2)		**5,229**	
Selling, General, and Administrative Costs (3)		3,279	62.7% of gross profit
Depreciation and Amortization		196	
Floorplan Interest Expense (4)		151	
Financing Operations Loss (5)		46	
Operating Income Excluding Special Items		**1,557**	5.0%
Interest Expense		201	
Other (Income)		(22)	
Pretax Income		**1,378**	
Income Tax Provision		351	25.5% Tax Rate
Adjusted Net Income		**1,027**	
2023 Discounted Cash Flow			
Operating Income		1,557	
Other		(1,394)	
Earnings Before Interest		**163**	
Depreciation and Amortization		204	
(Capital Expenditures)		(230)	
(Cash from Working Capital)		(106)	
(Net Acquisitions/Divestments)		(1,029)	
Net New Investment		**(1,161)**	
Free Cash Flow to the Firm (6)		**(998)**	

(1) Revenue: Core revenue segments are retailing new vehicles under a franchise agreement with the automaker, selling used vehicles of any brand, parts and service revenue for on and off-warranty vehicles, and a 100% commission-based finance and insurance segment.

(2) Gross Profit: Dealers focus on maximizing gross profit dollars versus targeting a margin percentage. Profit is turbocharged by service work at 45%-55% gross margin and 100% finance and insurance margin. In a recession, gross margin typically goes up due to a mix shift toward service, but lower vehicle sales means reduced F&I gross profit dollars, so operating margin declines.

(3) SG&A: Dealers focus on SG&A as a percentage of gross profit, with top dealers in the low to mid-60s. It's common for large dealers to acquire stores that can have SG&A to gross lowered via pursuing more service retention or more F&I penetration.

(4) Floorplan Interest: Refers to dealers "flooring" their inventory purchases through floorplan credit lines often from automakers' captive finance arms to keep relations good with the automaker. This should not be thought of as debt.

(5) Financing Operations: A recent development is Lithia and AutoNation establishing their own captive finance arms. They are early-stage, but over time, the loan income can be 2-3 times more profitable than a 100% dealer reserve F&I commission.

(6) Free Cash Flow: Free cash flow calculated from a GAAP cash flow statement is typically too low because working capital inflows from nontrade floorplan lenders (nonautomaker captive finance arm lenders) must be recorded in cash from financing while trade lender activity is in cash from operations. Dealers and CarMax with asset-backed securitizations also have too low free cash flow calculated from GAAP numbers.

Source: Morningstar valuation model, Lithia's 10-K.

US Auto Retailers Coverage List and Ratings

Morningstar covers seven companies retailing vehicles. The first six are franchise new-vehicle retailers but also sell used vehicles, while CarMax only sells used vehicles. CarMax provides service to customers but cannot perform warranty service because that work must be done at a franchise dealer. Several of the franchise dealers are family-controlled, specifically Lithia (DeBoer family), Penske (Roger Penske), and Sonic (Smith family). Only Sonic has a dual share class structure to keep voting control within the family.

Morningstar's US Auto Retailers Coverage List

Company (Ticker)	Market Cap (Billions)	Moat Rating	Star Rating	Fair Value Estimate	P/FVE	Uncertainty Rating	Forward P/E	P/S	Dividend Yield	1-Year Return
Asbury Automotive Group (ABG)	4.9	Narrow	★★★★	$295	0.83	High	9.04	0.31	N/A	10.1%
AutoNation (AN)	7.2	Narrow	★★★	$192	0.95	High	10.36	0.29	N/A	17.5%
Group 1 Automotive (GPI)	5.0	Narrow	★★	$312	1.18	High	9.37	0.27	0.5%	42.5%
Lithia Motors (LAD)	8.1	Narrow	★★★★	$424	0.71	High	10.54	0.25	0.7%	-0.8%
Penske Automotive Group (PAG)	11.3	Narrow	★★★	$148	1.14	High	12.14	0.38	2.2%	3.6%
Sonic Automotive (SAH)	2.2	Narrow	★★★	$62	1.02	High	10.75	0.16	1.9%	19.4%
CarMax Enterprise Services (KMX)	13.3	Narrow	★★★★	$123	0.69	High	28.25	0.52	N/A	6.3%

Source: Morningstar and PitchBook. Data as of Aug. 27, 2024.

Economic Moat

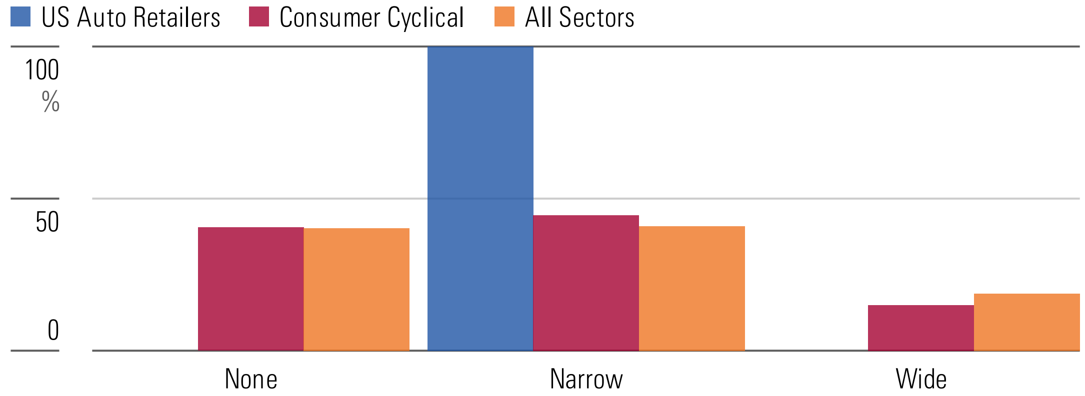
All our covered companies in this space have a narrow moat thanks to intangible assets and cost advantages.

Summary of Moat Ratings and Sources

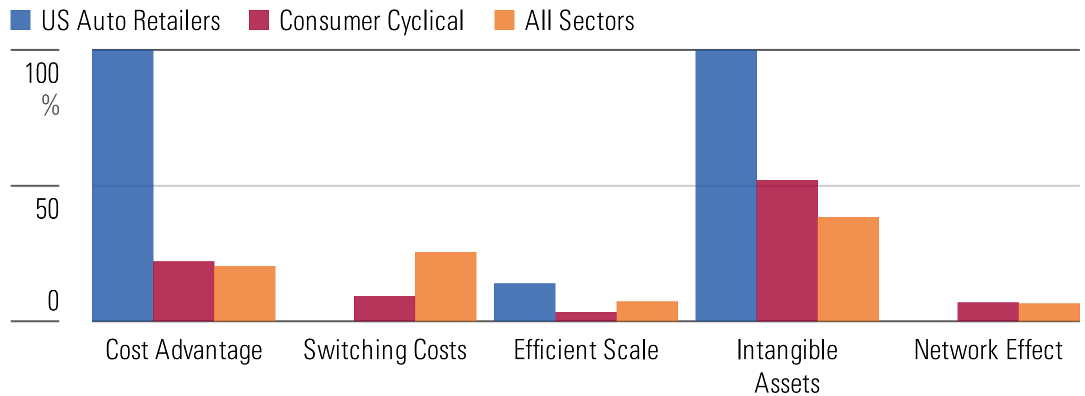
All seven firms we cover in the dealer space have a narrow economic moat. The six franchise dealers are the largest on trade journal *Automotive News'* annual list of the biggest dealers. There are some large private players and other private players doing roll-up acquisitions to grow. However, we see the public firms' moats as safe regardless of how big private dealers become; the market is fragmented enough that both public and private consolidators should keep growing for a long time. Public dealers' access to capital is better than small dealers', and some small owners are exiting the space due to the high costs of staying in business or the lack of a succession plan, so we see the public firms' growth runway as long. CarMax is the largest used-vehicle retailer in the US, and although its competition has increased in quantity with franchise dealers and online competitors like Carvana, we see its brand, size, captive finance arm, and proprietary transaction data going back to 1993—which lets it source and price inventory efficiently—as durable competitive advantages.

Franchise dealers' and CarMax's narrow moats all share the cost advantage and intangible asset moat source. Lithia's longtime emphasis on rural markets, like owning all the Honda franchises on the island of Maui, enables a third source just for it of efficient scale. A public dealer's store base of as many as a few hundred stores allows for optimal placement of inventory in a metro area or across the country, an intangible advantage a single store cannot replicate. The publics also enjoy a cost advantage on countless overhead items such as health insurance, dealer management software fees, technician uniforms, and supplies. This advantage has caused some large private players to sell to public dealers in recent years.

Consistent Narrow Moats Throughout Sector



Scale and Intangibles Drive the Moat Story



Source: Morningstar. Data as of August 2024.

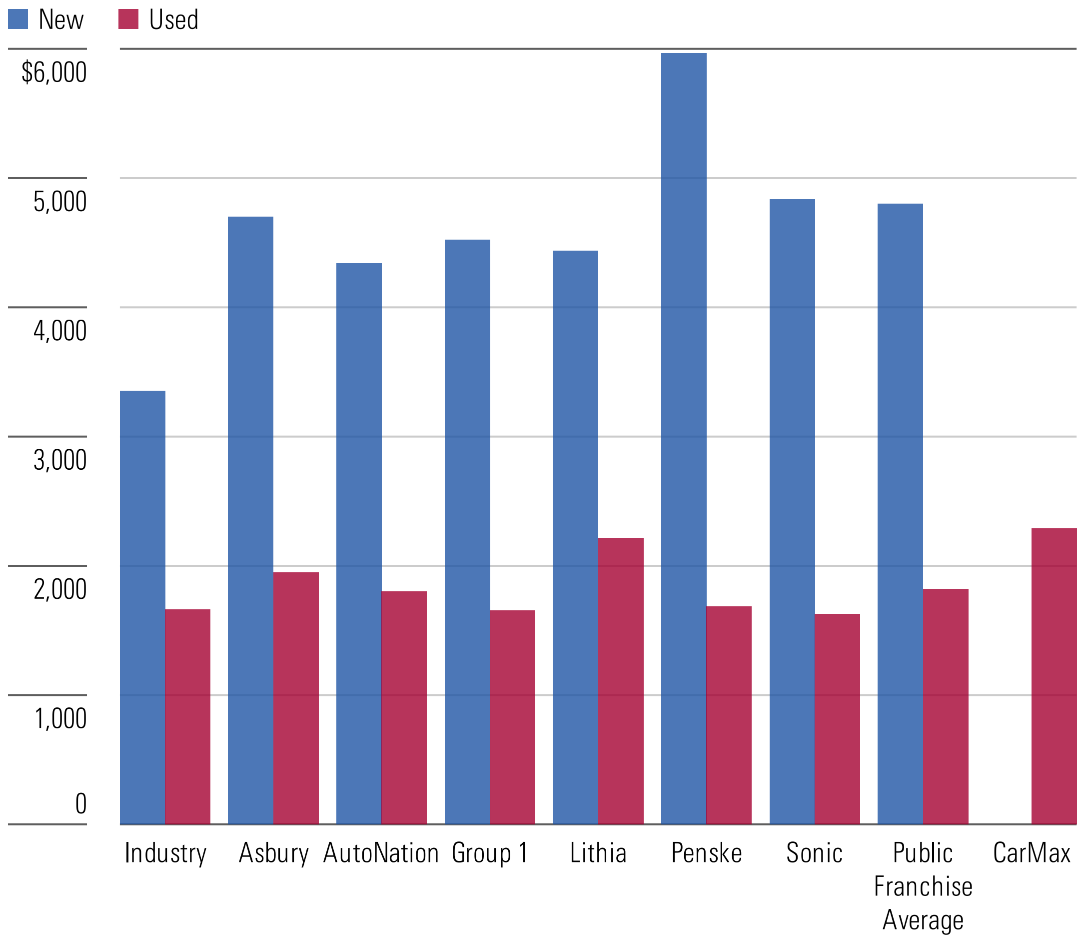
Cost Advantage and Intangibles Drive Efficiencies

Public dealers' industry knowledge and inventory allocation across multiple stores to maximize customer selection allow them to price new vehicles more optimally than the industry, leading to higher gross profit dollars per unit retailed. Public dealers can also better afford to discount vehicles to earn monthly volume bonus payouts from the automakers. These bonuses are then booked as a reduction to cost of goods sold. Many smaller dealers have painful months when they discount to chase volume and then fail to reach the automaker's sales bonus threshold. Selling, general, and administrative costs are also usually more efficient at public dealers, as they can negotiate the best prices possible from vendors for health insurance or the dealer management system that runs many aspects of a store's operations.

These higher gross profit dollars versus smaller players, when combined with superior SG&A as a percentage of gross profit, lead to moatworthy returns. A good dealer may only earn a 4%-5% EBIT margin, but with a highly variable cost structure due to cost of sales 100% variable (versus fixed) and SG&A generally at least 50% variable, return on invested capital in the low double digits to midteens is common for our coverage.

CarMax has decades' worth of data on every vehicle it's retailed, auctioned, or made a buy offer on, plus digital capabilities that, along with its brand and marketing budget, allow it to source inventory directly from consumers and other vehicle retailers. Directly sourced inventory, as opposed to that bought at auction, brings at least a few hundred dollars per unit more gross profit due to the lower acquisition price that CarMax pays.

2023 New- and Used-Vehicle Gross Profit per Unit



Sources: Company filings, The Presidio Group, Morningstar.

Challenges Abound for Dealers Smaller Than the Publics

Small dealers can't get the scale the larger ones do and don't have the deep pockets for expensive and ever-changing store imaging requirements from the automakers. The sector also saw several large private dealers sell to public ones in 2021 as the former were unwilling or unable to invest for a digital retailing future. Following are four quotes from owners that we think emphasize these challenges, which public dealers with their size and capital markets access can more easily handle than other dealers.

Fewer Economies of Scale and Fallout From Not Making a Month's Volume Bonus Payout Make Being a Small Dealer Very Hard

"The opportunity that I had and was able to maximize, sadly really does not exist today. The mom-and-pop days, they survived the last 20 years. My fear for them is not that they're not competent. Not that they can't do the job. But the manufacturers are crushing them."

—Steve Kalafer, then owner of eight-store Flemington Car & Truck Country, Automotive News, June 2017

Source: Automotive News.

Challenges Abound for Dealers Smaller Than the Publics

Carbone Sold to Lithia Despite Working Hard to Get Better Terms From Its Vendors; It Still Was Paying More Than Lithia for the Same Services

"Ten years down the road, we don't want to be the 13-point dealership group feeling the pain from the larger groups the way the smaller ones are now. That seems to be the trend of the future."

—Carbone Auto Group CEO Enessa Carbone on why she sold to Lithia, Automotive News, October 2016

Source: Automotive News.

Challenges Abound for Dealers Smaller Than the Publics

Michigan's Suburban Collection Was a 34-Store Acquisition for Lithia With $2.4 Billion of Annual Revenue

"When we looked at Lithia, they were creating their own brand, their own online process, and their own proprietary software. All the stuff we couldn't do."

—Suburban Collection co-owner David Fischer, Jr. on why he sold to Lithia, The Wall Street Journal, September 2021

Source: The Wall Street Journal.

Challenges Abound for Dealers Smaller Than the Publics

Even Some of the Very Largest Private Groups, Like Larry H. Miller, Did Not Want to Take the Time and Money to Transform Themselves for Omnichannel Shopping

"What it came down to is feeling like we had grown the business about as large as we could without a national footprint and without having an over-the-top digital retail strategy .... What we don't have is a robust platform that plays over the top like Asbury has .... It would have been difficult to have grown to a national footprint, short of going on a large acquisition spree."

—LHM Group CEO Steve Starks on why it sold to Asbury despite being the eighth-largest US dealer, Automotive News, October 2021

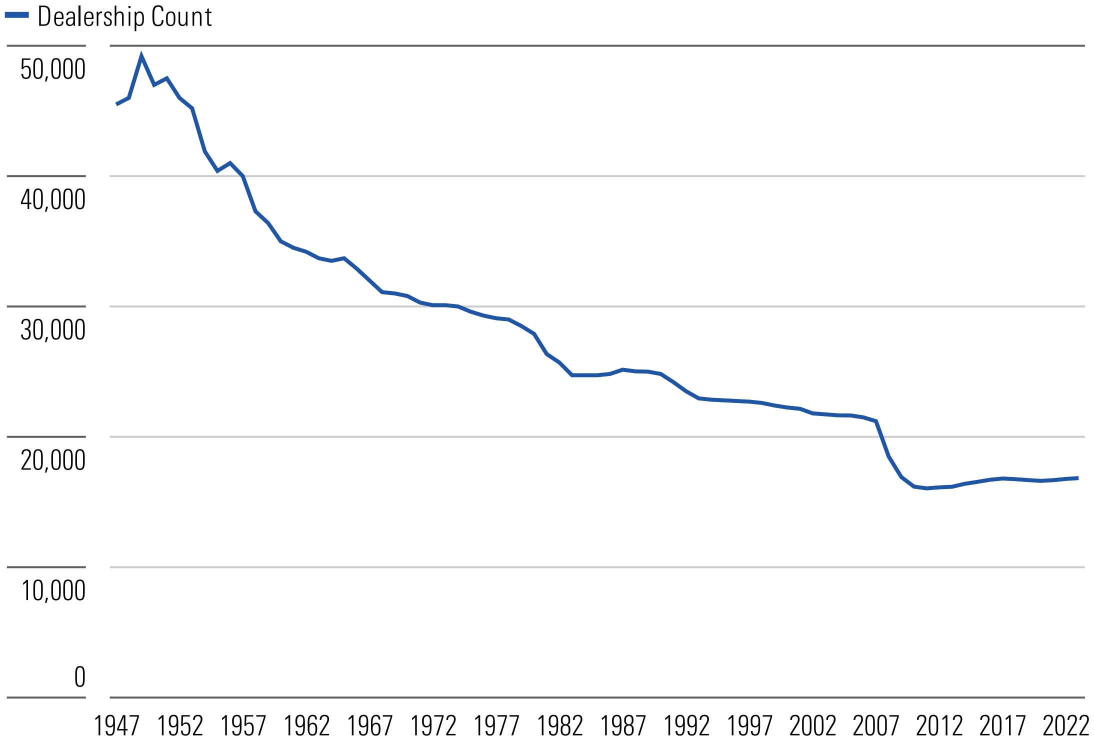
Source: Automotive News.

Industry Basics

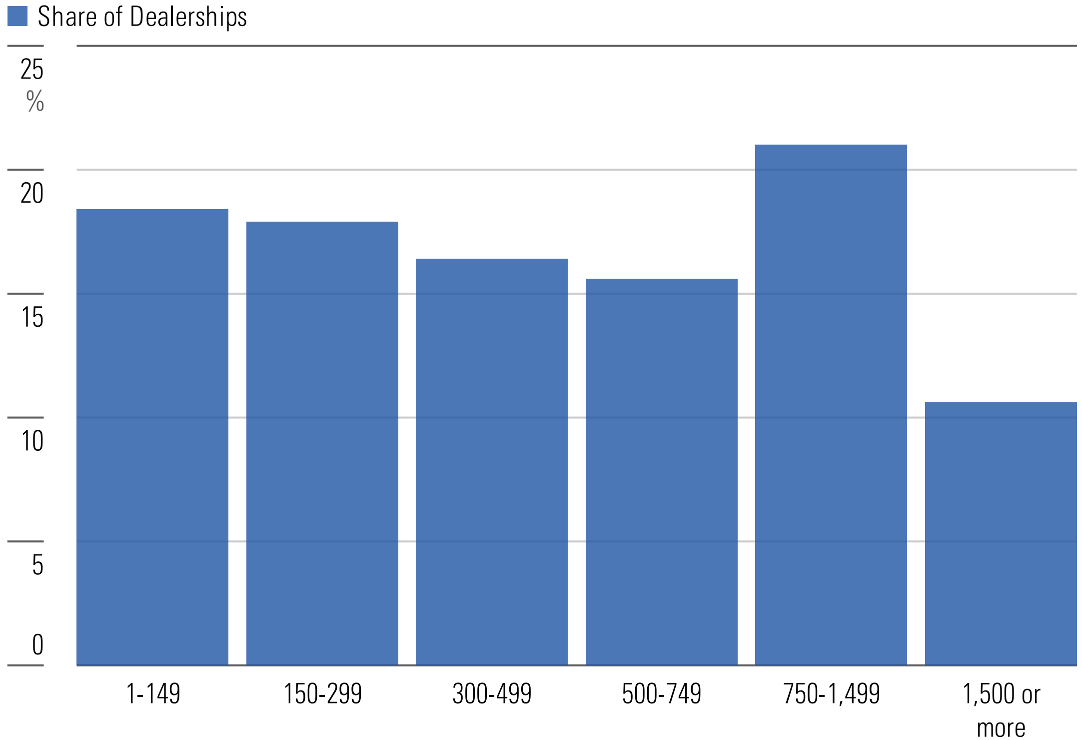
Dealers don’t just sell new vehicles.

Not a Big-Box Retail Sector for Now

Number of US Franchised New-Car Dealerships (1947-2023)



Mix of US Dealers by Number of New Vehicles Sold in 2023

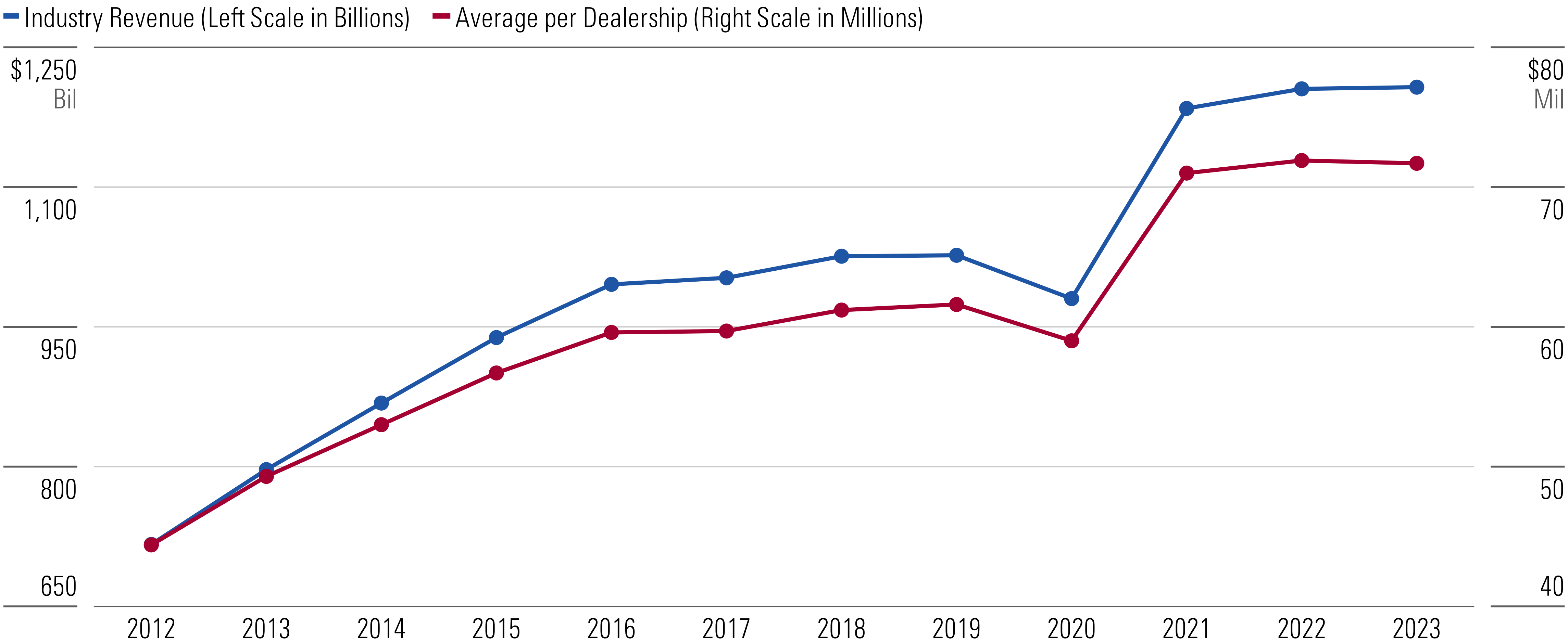


The number of new-vehicle dealerships has increased from the prior year only 16 times since 1947. This shrinkage is the byproduct of the Detroit Three losing their dominance over time, but the count has increased three straight years and nine times since 2012.

In 2023, 53% of dealers retailed less than 500 new vehicles versus about 54% in 2019. The sector is consolidating in favor of larger dealers but very slowly. Dealer buyouts by the Detroit Three are also going to push the mix away from lower-volume stores.

US Dealers Are a $1 Trillion-Plus Industry

2023 Total Revenue for US Dealers and Revenue per Store



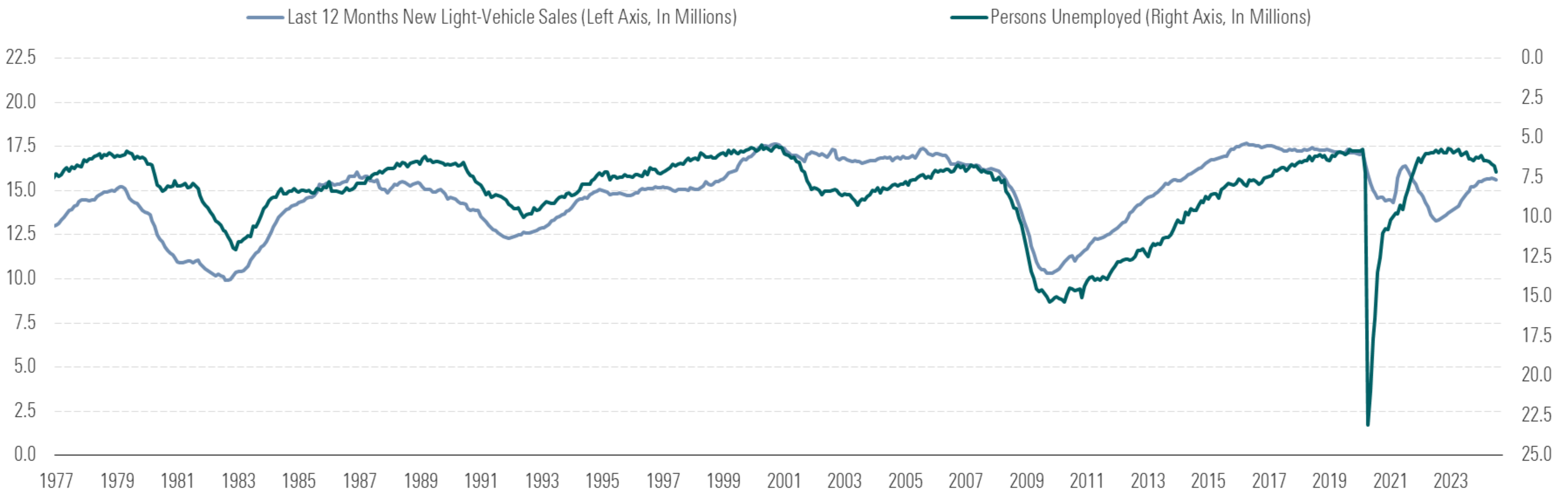
Source: NADA Data.

Unemployment and Sales Moving Together of Late, but This Won't Last Forever

Auto sales and unemployment are usually negatively correlated, as auto sales require consumers to feel good about their situation. Auto sales often decline before an increase in unemployment and before a recession is declared. Since 1977, the correlation coefficient is negative 0.79. However, sales and the number of unemployed have increased each month since May 2023. This positive correlation is rare and last occurred in September 2016. We think one of the variables will stop increasing, but it could be sales before unemployment.

Strong Negative Correlation Between Auto Sales and Unemployment

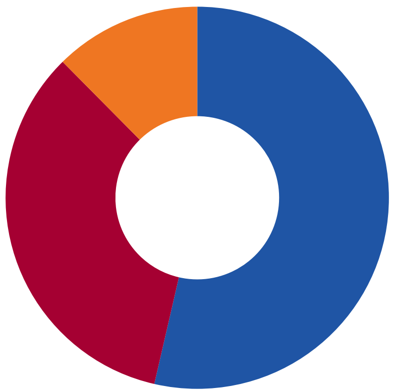
US new light-vehicle sales and persons unemployed since 1977.



Source: Automotive News, Bureau of Labor Statistics, Federal Reserve Bank of St. Louis, Wards Intelligence, Morningstar. Data as of July 2024.

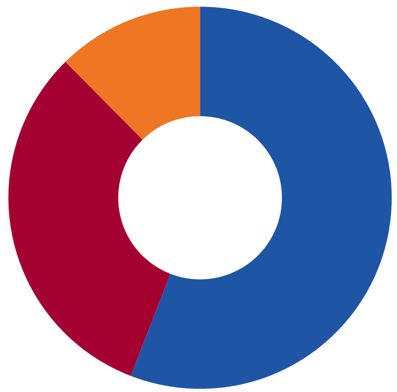
Big Differences Between Revenue and Gross Profit Contribution

2023 Average Dealer Revenue Mix (F&I in New and Used)



Revenue Mix	%
New Vehicle	53.60
Used Vehicle	34.00
Service and Parts	12.40

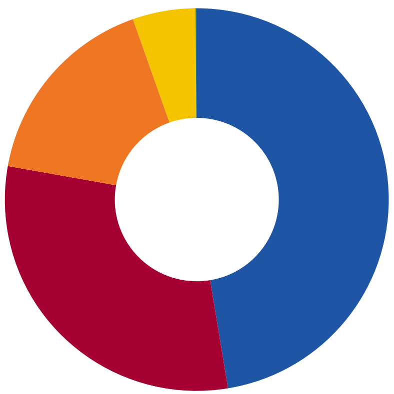
2019 Average Dealer Revenue Mix (F&I in New and Used)



Revenue Mix	%
New Vehicle	55.90
Used Vehicle	31.70
Service and Parts	12.40

Retailing new and used vehicles, along with the related finance and insurance sales, made up about 88% of the US dealer industry's revenue in 2023. This ratio is not different than in 2019, just before the pandemic. However, far more gross profit contribution comes from service and F&I than from just selling the vehicle, as shown in the bottom two charts with data from AutoNation.

AutoNation's 2023 Revenue Mix



Revenue Mix	%
New Vehicle	47.40
Used Vehicle	30.40
Service and Parts	16.80
Finance & Insurance	5.30
Other	0.10

AutoNation's 2023 Gross Profit Mix

Gross Profit Mix	%
New Vehicle	20.70
Used Vehicle	9.90
Service and Parts	41.70
Finance & Insurance	27.60
Other	0.10

Service is about a third of the revenue contributor versus new-vehicle sales, yet service contributes just under half of AutoNation's gross profit thanks to gross margins of about 45%-55% versus typically mid-single-digit gross margins for new vehicles. F&I's gross profit composition is over 5 times larger than its revenue mix because it's a commission-based 100% gross profit segment. So, it's not just about selling new vehicles.

Source: NADA Data (top), AutoNation 10-K (bottom), Morningstar.

Foreign Automaker Market Share Gains Benefiting Import Dealers at Expense of Detroit Three Stores

New Light-Vehicle Sales per Franchise

Brand	2023 Units	2022 Units	Change	Brand	2023 Units	2022 Units	Change
Toyota	1,558	1,494	4.3%	Infiniti	319	230	38.7%
Lexus	1,312	1,060	23.8%	Genesis	270	196	37.8%
Honda	1,088	826	31.7%	Jeep	268	285	-6.0%
BMW	1,035	947	9.3%	Mitsubishi	268	266	0.8%
Kia	997	892	11.8%	Cadillac	260	240	8.3%
Subaru	989	875	13.0%	Ram	224	227	-1.3%
Hyundai	956	872	9.6%	Lincoln	140	126	11.1%
Mercedes	916	916	0.0%	Buick	111	53	109.4%
Nissan	773	633	22.1%	Lamborghini	92	85	8.2%
Audi	750	615	22.0%	Bentley	87	83	4.8%
Mazda	669	543	23.2%	Alfa Romeo	86	96	-10.4%
Ford	648	593	9.3%	Dodge	83	79	5.1%
Chevrolet	586	517	13.3%	Ferrari	72	62	16.1%
Acura	536	378	41.8%	Maserati	60	56	7.1%
Volkswagen	514	472	8.9%	Chrysler	55	47	17.0%
Volvo	457	361	26.6%	Jaguar	48	47	2.1%
Porsche	381	357	6.7%	Rolls-Royce	47	45	4.4%
GMC	337	310	8.7%	McLaren	42	34	23.5%
Polestar	326	290	12.4%	Aston Martin	25	29	-13.8%
Land Rover	323	284	13.7%	Fiat	2	2	0.0%
Mini	322	281	14.6%	Lotus	2	6	-66.7%

Source: Automotive News.

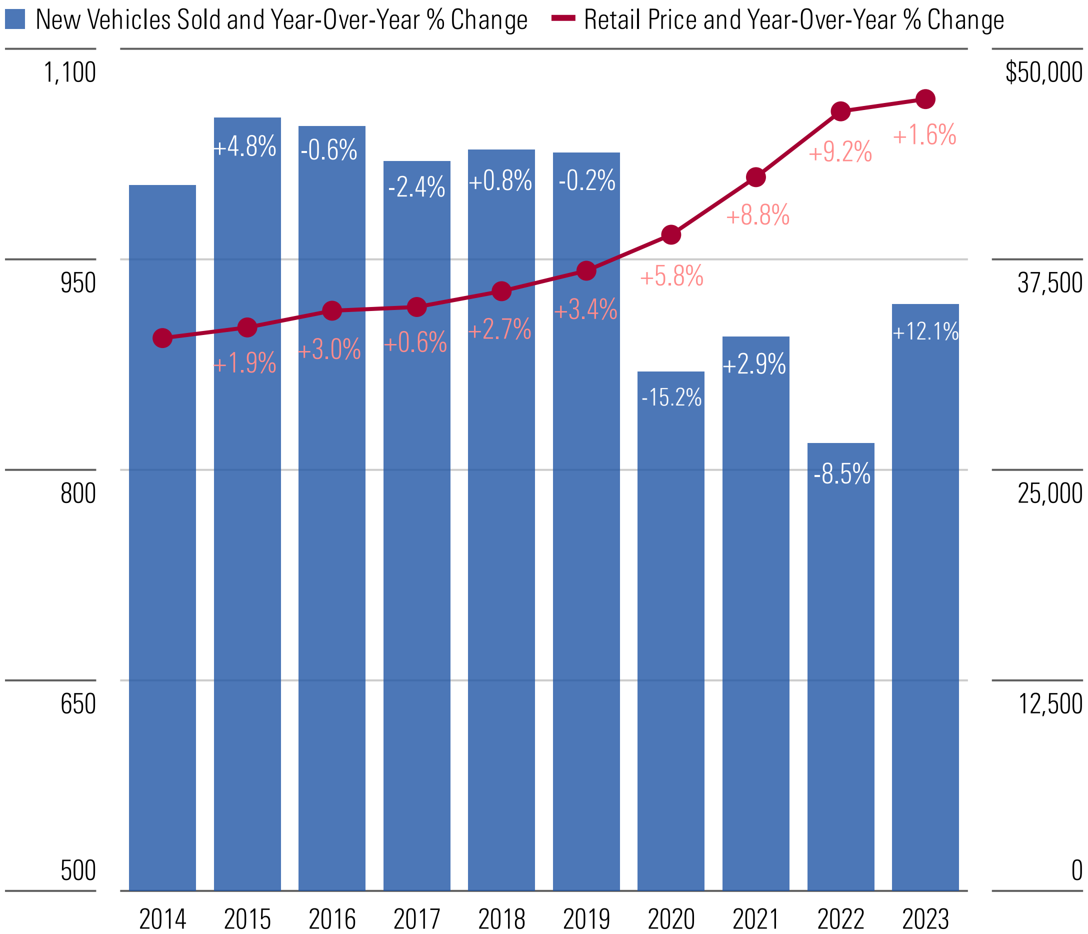
New-vehicle unit volume per store (what the industry refers to as throughput) for a brand is a byproduct of history. In the middle of the 20th century, General Motors alone had about half the US market, so its dealer base, along with Ford's and Chrysler's, was huge. As Japanese and more recently Korean automakers took share from the Detroit Three, the latter's dealer bases became bloated, with too little volume to be as profitable as Toyota or Honda dealers, for example. The foreign automakers, also known as transplants, franchise retailing to dealers as well, but their dealer bases grew as the automakers grew. The result of growing with the automaker means that each franchise, especially for Toyota and its Lexus premium brand (Lexus' framework agreement lets a dealer have no more than eight stores), enjoys excellent throughput.

The first major reduction in Detroit Three stores came for GM and Chrysler with their bankruptcies. Ford has also gradually but less dramatically culled its dealer ranks to make the surviving dealers more profitable and reduce automaker costs to interact with franchise partners. Some dealers believe that automakers unfairly target rural dealerships for closure (closures happen via buyout or not renewing a franchise agreement), so Detroit Three firms have a balancing act of how many stores to close without abandoning rural Americans, many of whom buy highly profitable pickup trucks and full-size SUVs that are mostly made by the Detroit Three.

Mass buyouts don't just happen in bankruptcies. In 2023, GM's Buick brand underwent a buyout program and saw its US dealer count reduced by about 46% to 1,062 franchises. The brand's throughput more than doubled that year.

New-Vehicle Pricing Coming Down From Chip Shortage-Induced Highs

2023 US Dealers' New-Vehicle Units Sold per Store and Average Retail Pricing



Many brands are low enough in volume that they don't sell the national annual average of new vehicles per store (918 in 2023). Some franchises of these brands do better than the national average, though, due to being excellent operators or marketers or having little competition near them. For the four public franchise dealers that disclose total US new light-vehicle unit sales, 2023 new volume per franchise store is a bit higher than the national average, ranging from 933 at Asbury to 1,011 at Sonic.

By September 2021, the chip shortage decimated US industry new light-vehicle inventory to just 973,000 units, a 73% decline from September 2019. This was the lowest level since at least 1985, which is as far back as Wards Intelligence data goes. 2022 monthly inventory data shows stock ranged between about 1.1 million and 1.7 million units. This shortage enabled massive artificially high pricing power for dealers, with new-vehicle segment gross margin at the public dealers into the low double digits. Such levels would have been absurd to model before the pandemic, when continual discounting and automakers keeping more new-vehicle profitability for themselves was driving gross margin below 5%. Pricing generally moves up over time due to inflation and new electronic, powertrain, or safety content that justifies price increases. However, the annual price change for the industry in this chart shows a rate of increase for 2021 and for 2022 that is about 4 times the average change for each year of 2015-19.

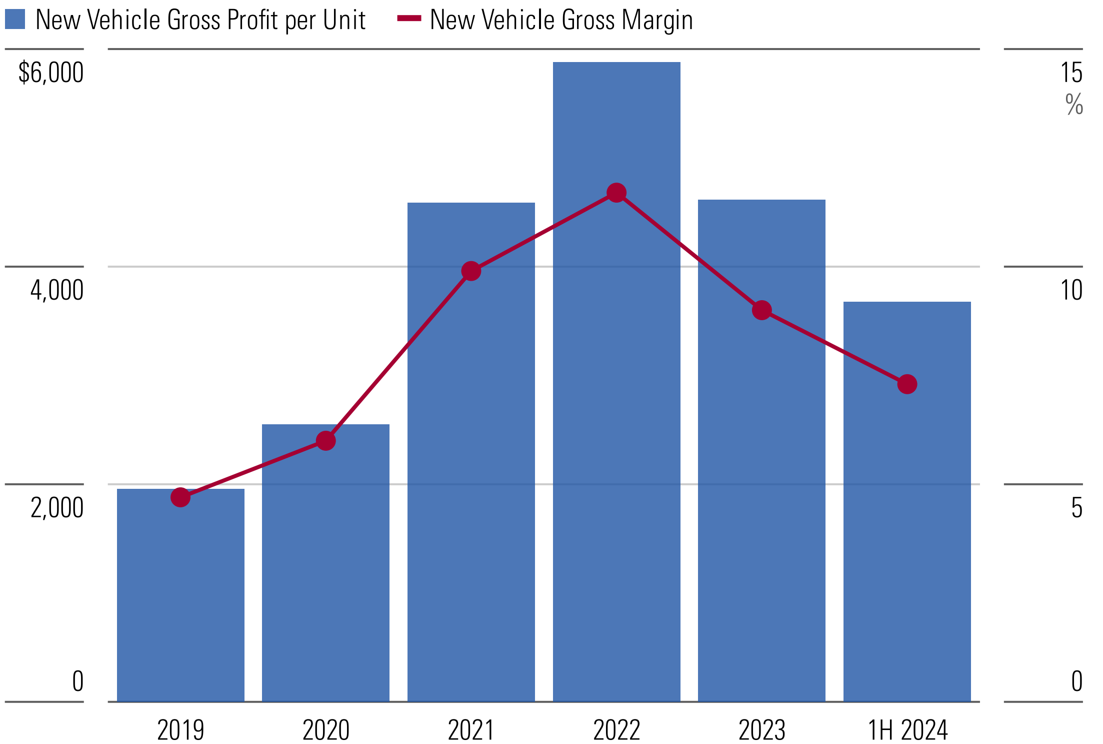
In 2024, the chip shortage is mostly over, and monthly industry new-vehicle inventory levels are about 2.7 million. New-vehicle pricing should finish 2024 lower than 2023 levels.

Source: NADA Data, Morningstar.

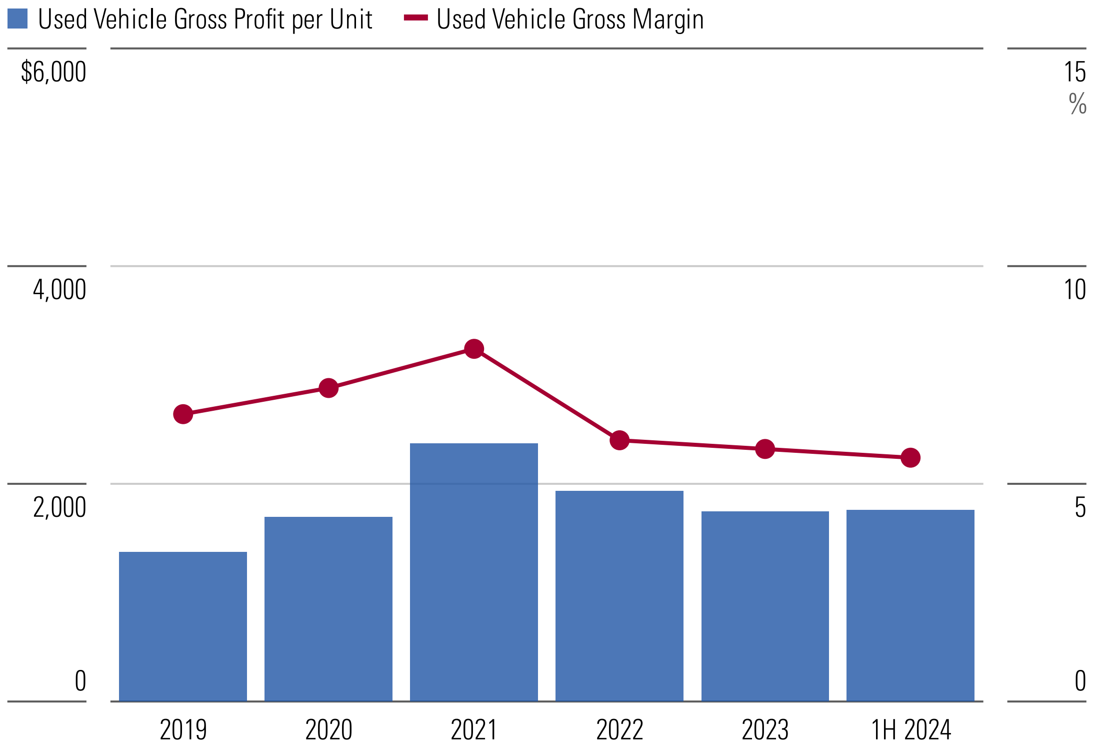
Chip Shortage and New-Vehicle Supply Dearth Means High New-Vehicle Profits While Used Profits Suffer

The chip shortage enabled excellent new-vehicle profitability. The downside to poor new-vehicle supply and, in turn, poor new-vehicle sales is that not many used vehicles entered the supply chain as trade-ins. This used shortage created much higher used-vehicle pricing for consumers and for retailers to acquire inventory. Car rental firms also entered auctions to source inventory, which further elevated inventory acquisition costs. High costs combined with high used loan interest rates means used margin falls for auto dealers.

Median New-Vehicle Gross Profit Metrics Across the Six Public Franchise Dealers



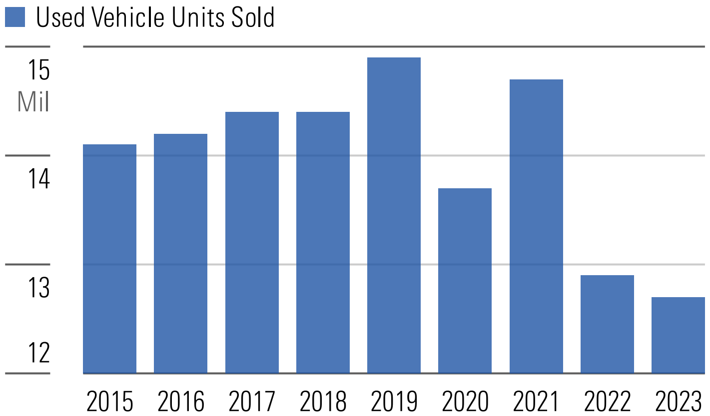
Median Used-Vehicle Gross Profit Metrics Across the Six Public Franchise Dealers



Source: Company earnings releases, 10-K filings, Morningstar calculations. Lithia and Penske figures include stores outside the US, and Sonic's data is for its franchised vehicle stores only. CarMax not included.

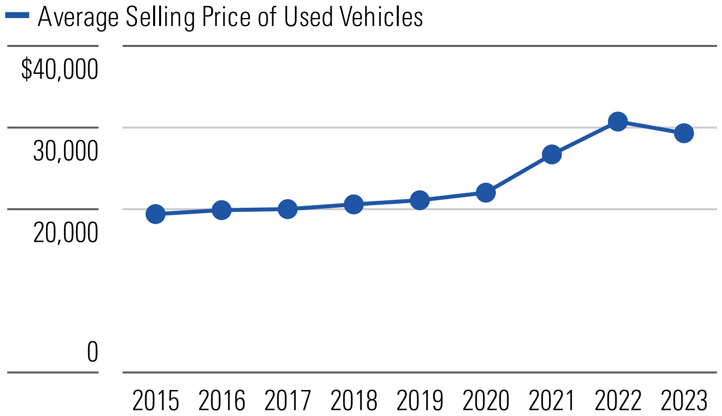
Chip Shortage Has Massively Distorted the US Used-Vehicle Market

Used Units Sold by US New-Vehicle Dealers (Millions)



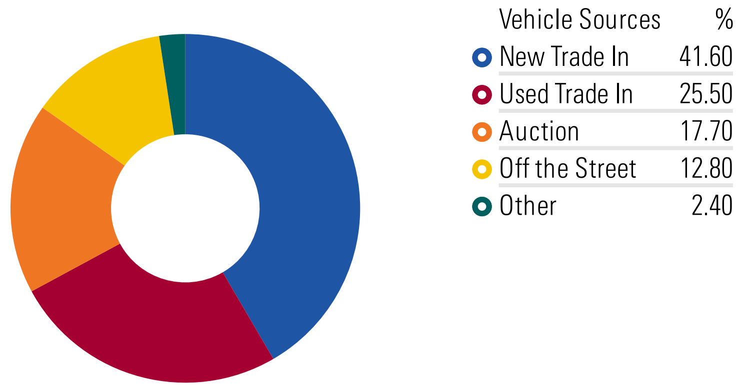
When new-vehicle sales fall, it causes a decline in used-vehicle supply. New-vehicle buyers are the most likely source of what are called late-model used vehicles, meaning generally up to four years old. These used vehicles acquired on trade can be reconditioned by franchise dealers and earn certified preowned status, which dealers call CPO. The used-vehicle shortage combined with rapidly rising interest rates in 2022-23 explains franchise dealer used-vehicle sales falling over 12% in 2022 versus 2021.

Average Selling Price of Used Vehicles at New Dealers



Less supply means higher prices not only for consumers but also for dealers. Car rental firms were desperate for inventory in 2021-22, so they aggressively bid up auction prices, which forced dealers to pay up to acquire inventory. As such, consumers had to pay more as well. In 2024, these factors are reversing and prices are coming down, but off-lease supply in late 2024-26 will be poor due to a lack of new-vehicle sales three years prior. We don't expect pricing to return to prepandemic levels due to inflation being sticky, but we expect prices for now to remain below chip shortage levels.

2023 Used-Vehicle Sources by US New-Vehicle Dealers



Dealers tired over the years of seeing CarMax do so well selling used vehicles while many dealers would not give the space enough effort. More focus by dealers, plus some of the publics now having stand-alone used-vehicle stores to stock and more digital capabilities to reach consumers, means dealers are buying more vehicles "off the street"—directly from consumers—than ever before. 2023's 12.8% off-the-street sourcing mix is well above 2019's 4.8%, while new- and used-vehicle trade-in sourcing is 90 and 270 basis points higher. The expensive auction channel is 950 basis points lower than in 2019.

Source: NADA Data.

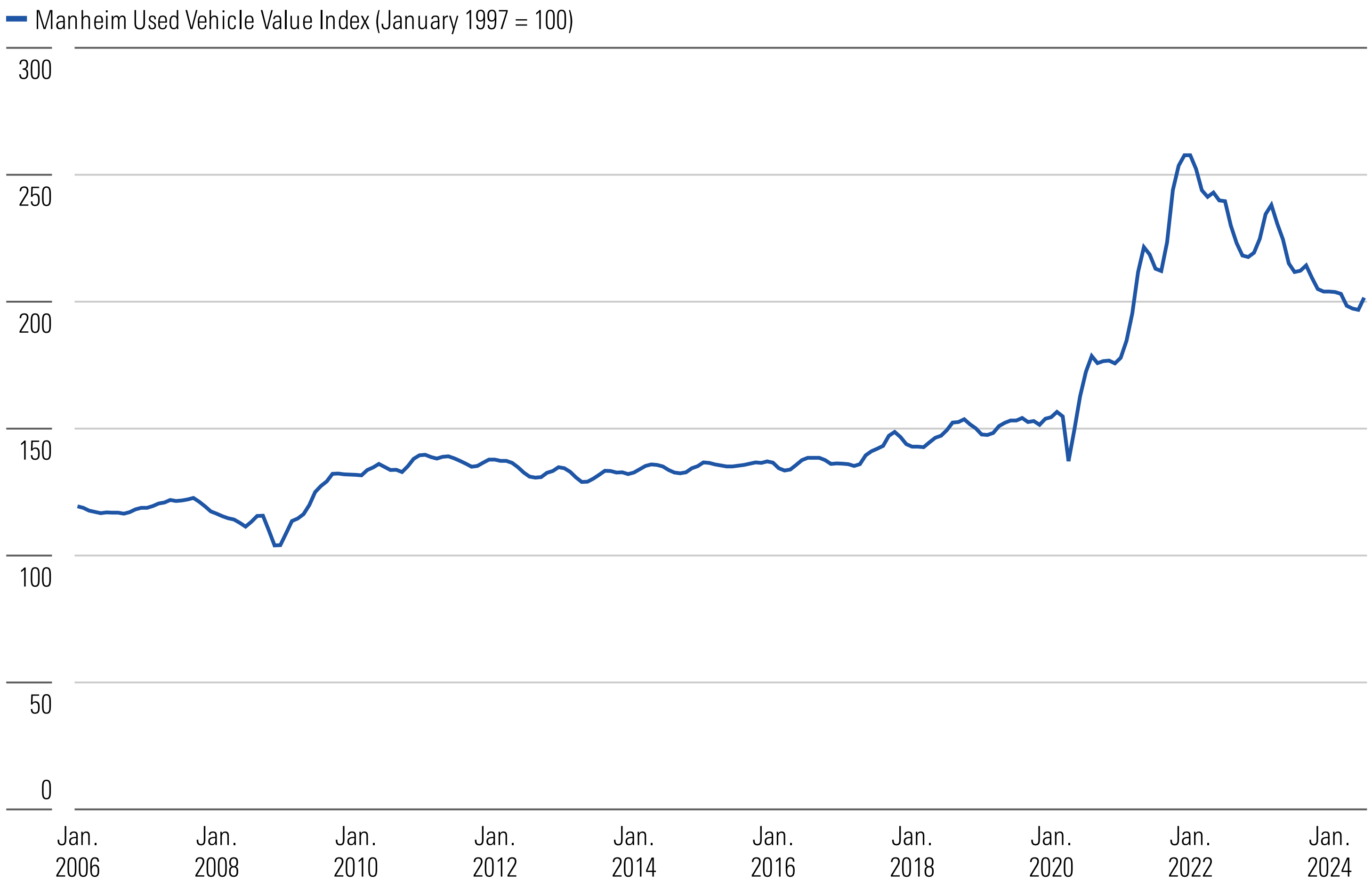
Used-Vehicle Affordability a Problem but Slowly Improving

Falling new-vehicle sales means dealers need to focus on selling used vehicles more. However, that's often not easy, because lower new-vehicle sales means fewer quality used vehicles entering the marketplace via trade-ins. In macroeconomic turmoil, like in fall 2008 and March 2020, used-vehicle pricing collapsed at the start of bad times but very quickly rebounded and accelerated at rates far higher than at rates before the collapse of Lehman Brothers or the start of the pandemic.

The used market currently is recovering from the pandemic and the chip shortage that started in spring 2021. Sparse new-vehicle production caused a surge in used-vehicle demand that used supply couldn't match. That supply dearth caused high bidding at auctions for used vehicles.

Poor new-vehicle production with good new-vehicle demand meant little incentive for automaker captive finance arms to lease vehicles versus selling them. Leases are often three years, which means reduced used-vehicle supply for each of the three years after 2021-23. Used pricing is falling but will take several years to normalize.

The Chip Shortage Has Severely Disrupted the Used-Vehicle Market

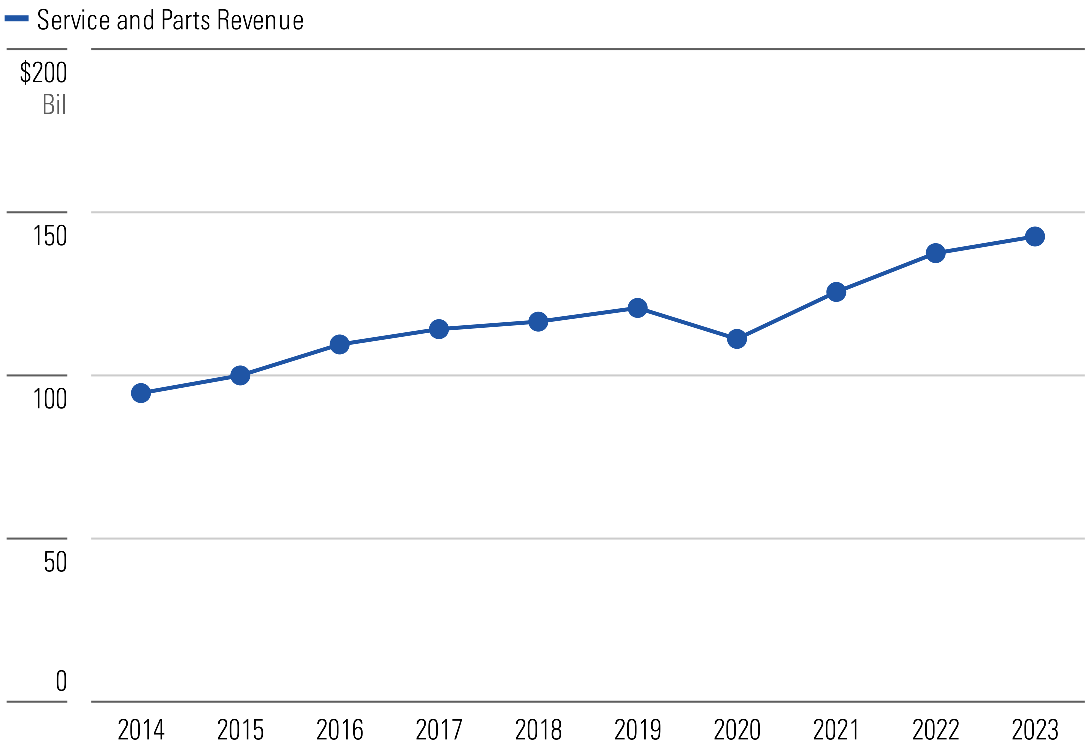


Source: Manheim as of July 2024, Morningstar.

Service Is a Key Part of a Dealer's Operation

Parts and service, also called "fixed ops" by dealers, carries gross margins around 45%-55% and can constitute over 40% of total gross profit. Fixed ops gross profit's effectiveness is also measured through absorption, which is the percentage of total dealer fixed overhead costs covered by parts and service gross profit. This ratio can be nearly 60% and can even exceed 100%, as with Penske's Class 8 truck stores' absorption of around 130%. Body shops provide another revenue stream, with 34% of dealers having one in 2023.

Total US Dealer Service and Parts Revenue ($ in Billions)



2023 US Dealership Repair Order Mix (256.7 Million Order Count)

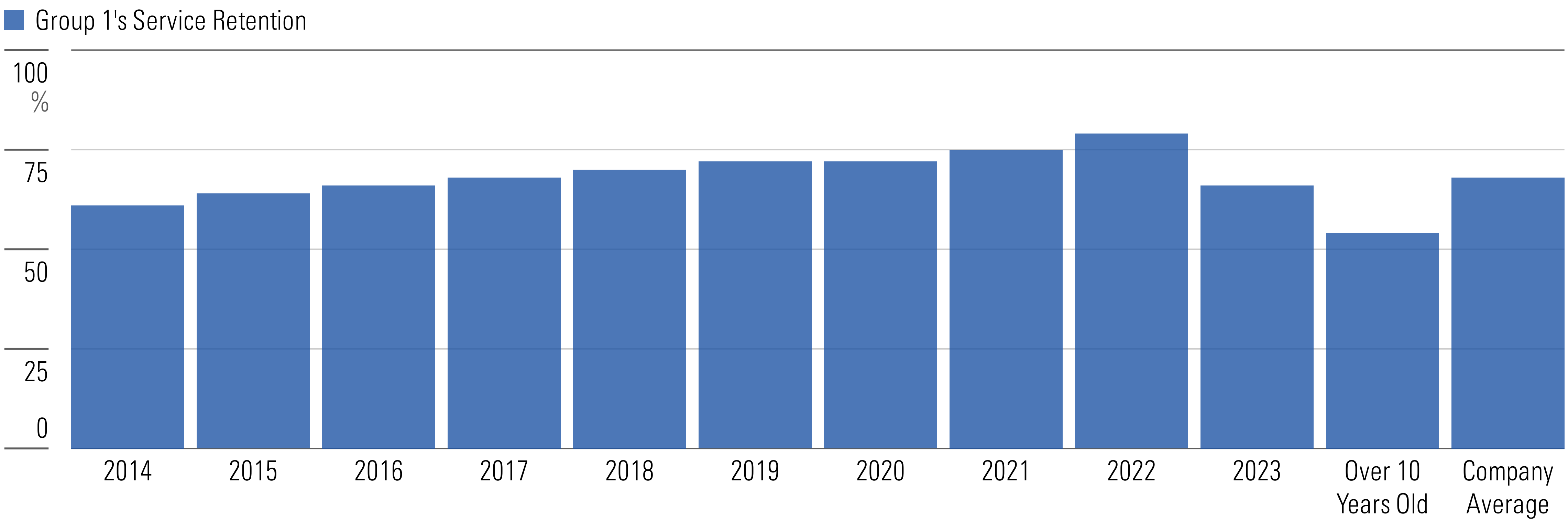
Repair Order Mix	%
Mechanical	42.80
Warranty Claim	20.00
Internal	17.50
Express Service	14.40
Service Contract	5.30

Source: NADA Data, Morningstar.

Warranty Helps Service Retention

Automakers require new-vehicle service warranty work (generally in the first four or five years after purchase) to be done at one of their dealers, but not necessarily the same store from where the vehicle was purchased. This dynamic creates an opportunity for lucrative captive work while the vehicle is under warranty. Dealers also do about half of their service jobs from nonwarranty business, called customer pay. Retention disclosures are few, but Group 1’s data below shows respectable retention.

Group 1’s Vehicle Service Retention Data by Model Year (for Vehicles With at Least Two Visits in the Past 15 Months)



Source: Group 1 second-quarter 2024 investor presentation, Morningstar.

F&I Not Just About Facilitating Loans

Finance and Insurance Product Overview

Item	Description
Dealer Reserve	The dealer is not a lender in this transaction. Instead, it arranges customer loans in store from a third-party lending partner, such as a bank, credit union, specialty finance company, or an automaker's captive finance arm. The dealer receives a commission from the lender that is either a flat fee or the difference between the interest rate charged to the customer and the rate set by the lender. This rate markup is called dealer reserve and is often capped at 100-200 basis points. Dealers record revenue net of chargeback estimates in case a loan is paid off quickly. Customers will go this route due to sometimes below-market rates available to them via an automaker's captive lender; also, customers can quickly comparison shop across sometimes dozens of possible lenders without leaving the dealership or contacting each lender themselves.
Extended-Service Contracts	These are generally extended-warranty contracts to give customers extra assurances in case of quality problems. They are written by third parties such as specialty insurance carriers.
Maintenance	Third-party contracts for what is often called prepaid maintenance, where maintenance costs are covered for the first few years of vehicle ownership. Some dealers, such as AutoNation, sell maintenance contracts good for work done only at their dealerships for a set number of years. Revenue for these contracts is recognized each time the customer brings the vehicle in for service.
GAP	Guaranteed auto (or asset) protection. It refers to a third-party insurer paying the gap that may exist, after a vehicle is totaled after an accident, between what the customer's insurance company pays them and the customer's remaining loan balance.
Protection	Various additional insurance options such as protecting tires and wheels, key fob replacement, or theft insurance.

Source: Dealer 10-Ks, Morningstar research.

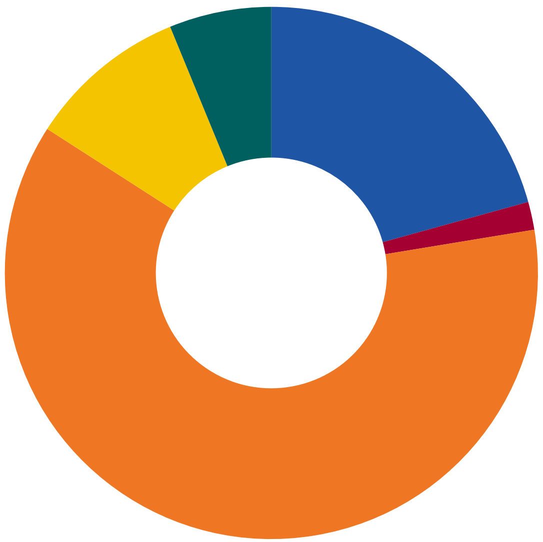
About two thirds of dealers’ finance and insurance business comes from selling products rather than the dealer reserve markup from arranging a loan with a third-party lender. The Consumer Financial Protection Bureau has scrutinized dealer reserve in the past, but actual regulation of dealers’ F&I falls under the Federal Trade Commission. The CFPB regulates the dealers’ lending partners as well as dealers’ own lending arms like at AutoNation and Lithia.

Dealers do not disclose much on F&I penetration by category, but Group 1 does. Dealer reserve penetration is around 70%, service contracts is about 45%, maintenance is nearly 20%, and other products are just over 20%. F&I is so important because 100% of gross profit flows to operating income, and the segment’s gross profit per unit is often in the $2,000-$2,300 range. F&I can be a quick source of profit improvement at newly acquired dealerships when the previous owner did not emphasize F&I penetration. New vehicles tend to have higher F&I GPU than used, likely due to wealthier buyers who may be more likely to want their vehicle protected since it’s new and because of higher loan principal.

Automaker Captive Loan Origination Primarily for New Vehicles, Leaving Door Open for Dealer Captives on Used

Credit is the lifeblood of the US auto industry, and CarMax's success with its captive finance arm has inspired AutoNation and Lithia to recently establish their own captive lenders: AutoNation Finance and Driveway Finance Corp., respectively. Experian's data below does not yet include dealers' captive lenders as a category. We estimate that in 2023, AutoNation Finance's and DFC's combined financed percentage of all US new-vehicle units sold was 0.3%, and for used vehicles, their combined mix was 0.1%.

New-Vehicle Financing Mix: First Quarter 2024



New Vehicle Financing Mix	%
Banks	20.70
Buy Here Pay Here/Other	1.70
Automaker Captive Finance	61.70
Credit Union	9.70
Specialty Finance Companies	6.20

Used-Vehicle Financing Mix: First Quarter 2024

Used Vehicle Financing Mix	%
Banks	28.40
Buy Here Pay Here/Other	15.60
Automaker Captive Finance	8.70
Credit Union	28.00
Specialty Finance Companies	19.30

Source: Experian (State of the Automotive Finance Market Report), Morningstar.

Compensation and Real Estate Costs Drive Overhead Expense

Selling, general, and administrative costs typically are about 50% fixed and include commissions. Many special items such as storm damage or acquisition costs get booked for GAAP in SG&A. Dealers heavily focus on the ratio of SG&A to gross profit dollars, the lower the better (hence the F&I emphasis discussed previously). The ratio has increased lately as profits have come down from chip shortage highs, but it should stay lower than before the pandemic, because in 2020 the public dealers each cut headcount by about 20%.

Public Dealers' 2023 SG&A as a Percentage of Gross Profit

Asbury Automotive Group (GAAP)	
Personnel	39.3%
Rent and related	4.3%
Advertising	1.7%
Other	13.4%
GAAP SG&A to Gross Profit	58.7%
Adjusted SG&A to Gross Profit Excluding Rent	57.1%

AutoNation (GAAP)	
Compensation	41.4%
Store and overhead	17.2%
Advertising	4.8%
GAAP SG&A to Gross Profit	63.4%
Adjusted SG&A to Gross Profit Excluding Rent	61.0%

Group 1 Automotive (Adjusted SG&A)	
Personnel	42.7%
Rent and Facility	5.1%
Advertising	2.7%
Other	13.7%
Adjusted SG&A to Gross Profit	64.2%
Adjusted SG&A to Gross Profit Excluding Rent	62.7%

Lithia Motors (GAAP)	
Personnel	41.4%
Rent	1.7%
Facility	3.5%
Advertising	4.7%
Other	11.7%
GAAP SG&A to Gross Profit	63.0%
Adjusted SG&A to Gross Profit Excluding Rent	60.7%

Penske Automotive Group (GAAP)	
Personnel	41.3%
Rent and related	7.9%
Advertising	2.8%
Other	16.9%
GAAP SG&A to Gross Profit	68.9%
Adjusted SG&A to Gross Profit Excluding Rent	63.9%

Sonic Automotive (GAAP)	
Compensation	45.3%
Rent	2.1%
Advertising	4.1%
Other	19.8%
GAAP SG&A to Gross Profit	71.3%
Adjusted SG&A to Gross Profit Excluding Rent	69.6%

Source: Dealer 10-Ks, Group 1 investor presentation, Morningstar calculations. Most dealers only gave this breakout for their GAAP SG&A.

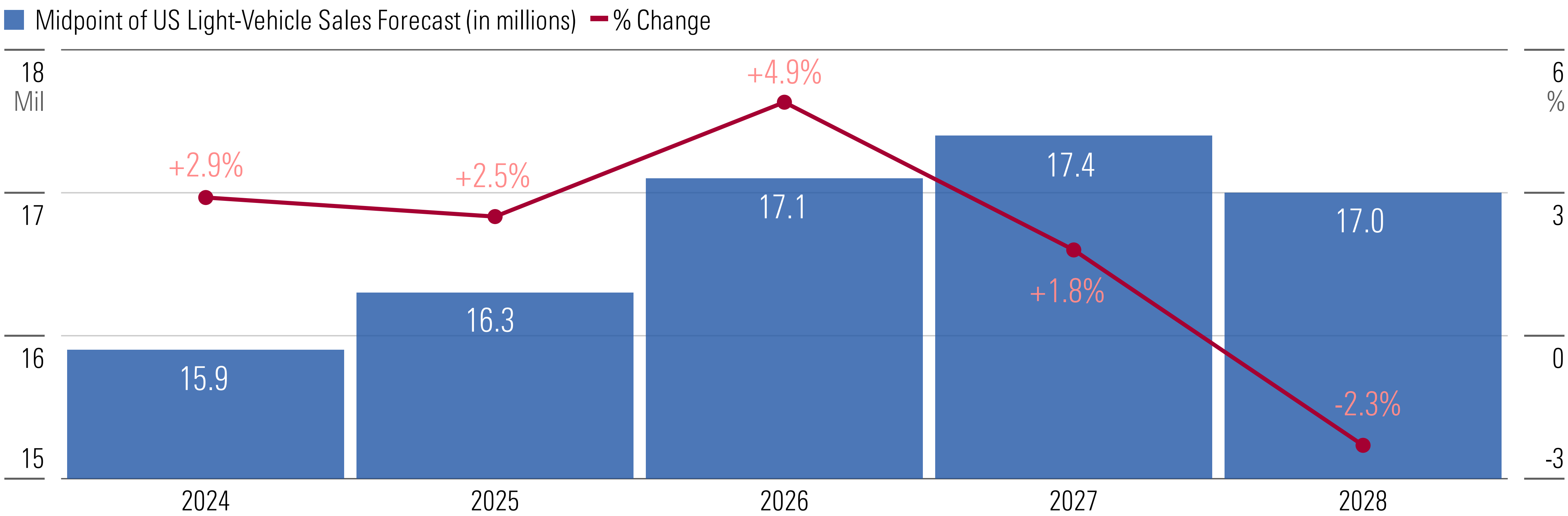
Outlook

New and used vehicles will recover from 2020 and new verticals await, while consolidation continues.

New-Vehicle Sales Recovery Will Take Beyond 2024, So Dealers Have Good Growth Runway

At a bit under 3 million, US light-vehicle inventory for now is not quite back to where it will likely settle after the pandemic. Low inventory, along with leasing still below 2019 levels, gives reason to think new-vehicle sales will rise the next few years, though not rapidly. Many consumers who bought in 2020-23 during poor availability may not have bought the exact vehicle they wanted, so they could return to the market early. Still, much higher interest rates than recent years and lower supply means higher prices are holding some consumers back.

Morningstar's US New Light-Vehicle Sales Forecast (Millions)



Source: Morningstar. Change is calculated from the midpoint of each year's range.

Per Capita Sales Math Suggests 2024 Sales Are Still Recessionary, Which Points to Likely Future Growth

Recent Years' US New Light-Vehicle Sales Have Been Below Historical Averages Due to the Pandemic and Chip Shortage

	Per Capita Sales Ratios	
	Total U.S. Population	U.S. Licensed Driver Population
Per capita sales average 1951-2023	5.1%	8.4%
Per capita sales average 2000-2023	5.0%	7.4%
1980 per capita sales	4.9%	7.7%
1982 per capita sales	4.5%	6.9%
1991 per capita sales	4.9%	7.3%
2009 per capita sales	3.4%	5.0%
2020 per capita sales	4.4%	6.4%
2021 per capita sales	4.5%	6.5%
2022 per capita sales	4.1%	5.9%
2023 per capita sales	4.6%	6.6%

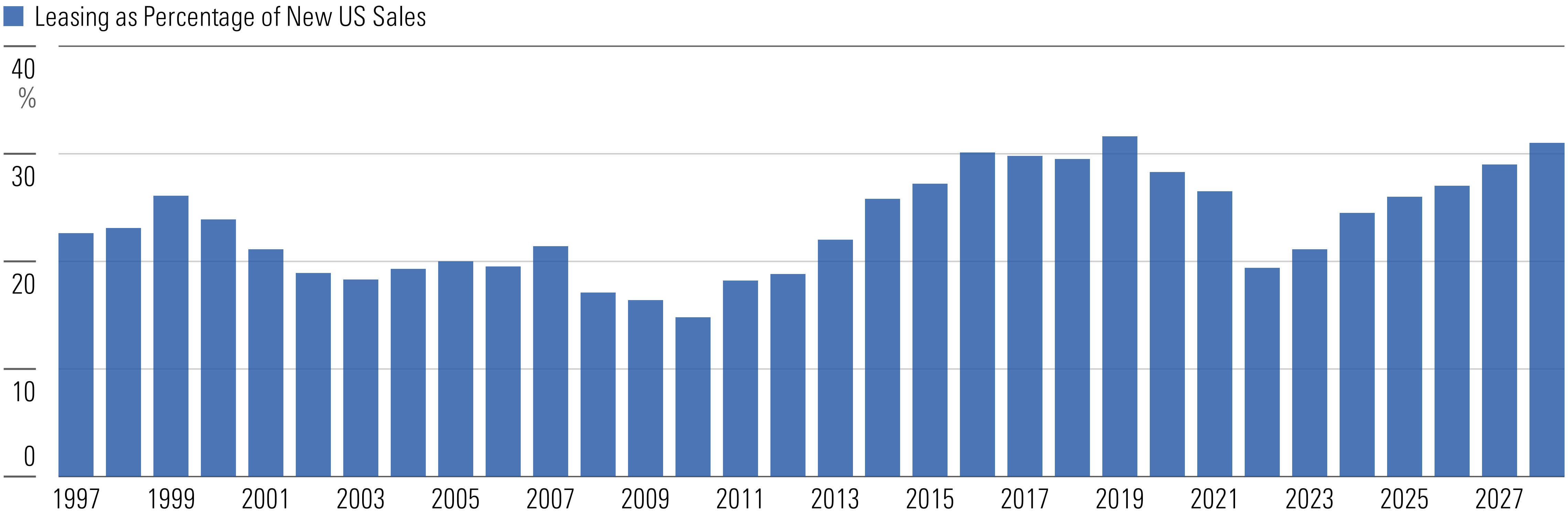
	Recessionary New Light Vehicle Sales Scenarios	
	Total U.S. Population Sales	U.S. Licensed Driver Sales
Sales at 1980 per capita levels	16,552,720	18,262,401
Sales at 1982 per capita levels	15,017,268	16,336,796
Sales at 1991 per capita levels	16,398,252	17,261,224
Sales at 2009 per capita levels (actual 2009 sales totaled 10.43 million)	11,399,448	11,792,485
Sales at deep recession per capita levels of 4% of total population and 6% of drivers	13,435,808	14,218,011
Actual 2023 U.S. sales	15,614,336	
Midpoint of our 2024 expected sales	15,900,000	

Source: Automotive News, Center for Automotive Research, Federal Highway Administration, Morningstar calculations and estimates.

Leasing's Portion of New-Vehicle Sales Is Coming Back but Has a Ways to Go to Reach 30%

Leasing is a popular way to buy a new vehicle because the monthly payment is lower than buying outright and one can get a new vehicle every three years. The events of 2020-21 made leasing penetration contract severely because low new-vehicle inventory did not give automaker captive finance arms a reason to write leases. Low supply also made estimating the residual value very difficult. Captives take residual value risk as lessors. Generally, lease penetration is in the low 30s, so its recovery should help sales grow.

Percentage of New US Light-Vehicle Sales That Are Leased (2024-28 Are Morningstar's Forecast)



Source: Automotive News, Experian, NADA Data, Wards, Morningstar estimates.

Interest Rates Need to Come Down, but Most Damage Is Already Done

Monthly New- and Used-Auto Loan Payment Interest-Rate Sensitivity

	New Vehicle	Used Vehicle	New % Change	Used % Change
Principal	$40,634	$26,073		
Rate	6.7%	11.9%		
Months	67.62	67.37		
Monthly Payment	$719.67	$527.33		
Increase in monthly payment if rates rise 100 basis points	$18.74	$12.91	2.6%	2.4%
Rise 200 basis points	$37.75	$25.98	5.2%	4.9%
Rise 300 basis points	$57.04	$39.22	7.9%	7.4%
Rise 400 basis points	$76.59	$52.63	10.6%	10.0%
Rise 500 basis points	$96.42	$66.19	13.4%	12.6%
Rise 1,000 basis points	$199.43	$136.31	27.7%	25.8%
Rise to Aug. 1982 peak of 17.87% (new only)	$223.80	N/A	31.1%	N/A

With first-quarter 2024 new-vehicle loan average interest rates about 63% higher than the first quarter of 2021 and about 36% higher for used vehicles, the consumer has experienced borrowing cost sticker shock. Used-vehicle customers are delaying purchases altogether per CarMax, while new-vehicle buyers are in some cases trading down to compact cars. Luxury SUV buyers remain willing to buy. New-vehicle monthly loan payments are nearly 30% higher than in 2019 and about 32% higher for used.

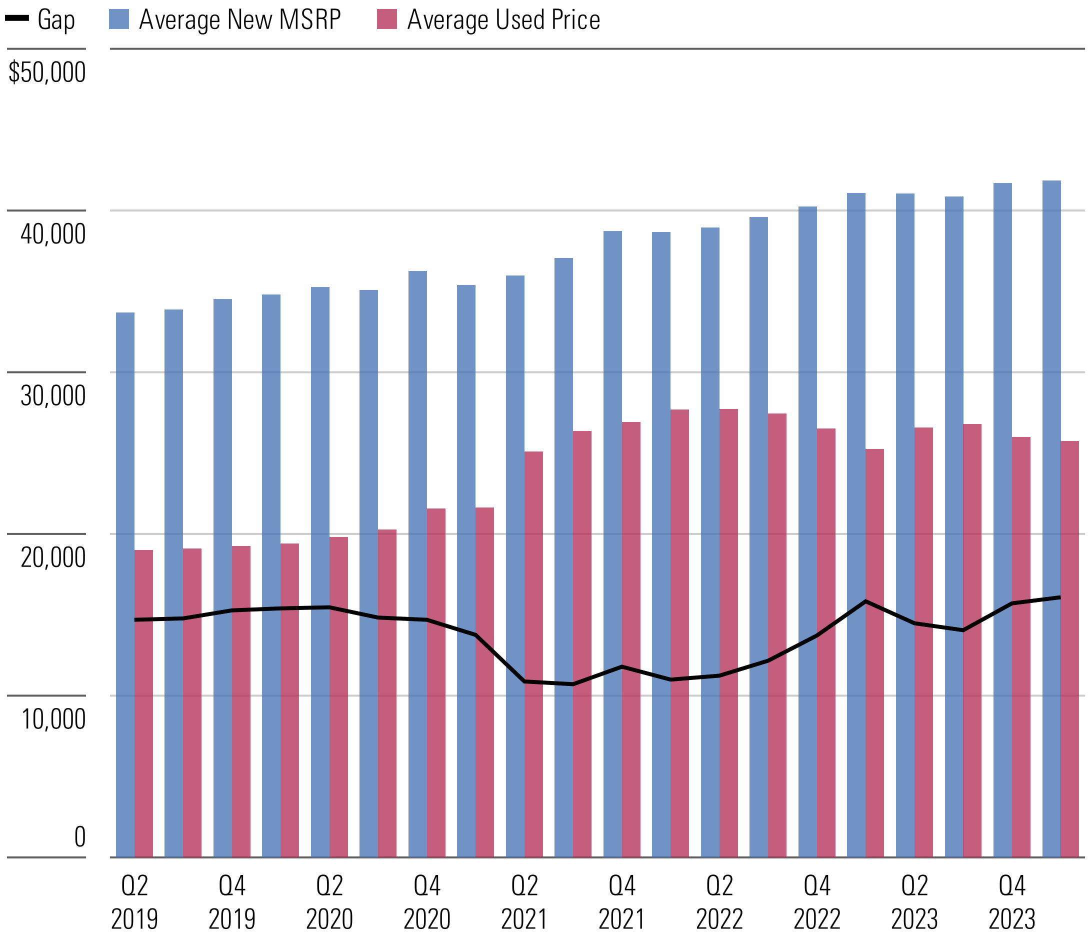
A few interest-rate cuts would help the auto market, especially for used vehicles. The chart shows that at the margin, even future increases aggregating over 500 basis points would mean less than a $100 increase in the monthly payment for new and used loans.

New US light-vehicle sales declined every year during 1979-82 (1982 was down 31% versus 1978), but we don't see the US economy in that bad shape relative to back then. Still, a repeat of ultrahigh rates to crush inflation as in the early 1980s would be a temporary disaster for auto sales, as monthly payments would rise by over $200.

Source: Experian, Federal Reserve, Morningstar calculations.

New- and Used-Vehicle Pricing Gap Now Larger Than Before Pandemic

Gap Between Average New-Vehicle MSRP and Average Used-Vehicle Price



There should be a noticeable gap between new- and used-vehicle prices; otherwise, everyone would buy a new vehicle. US used-vehicle sales often are around 2.5 times the annual new volume for easier affordability and some buyers wanting to avoid the depreciation hit of driving a new vehicle off the lot. This volume difference is why many dealers were foolish for decades by not focusing enough on retailing their trade-ins (simply selling them off to auction firms), which CarMax has been happy to take off their hands since its founding in 1993.

The pandemic and chip shortage distorted this traditional new/used gap. When new-vehicle production suffered, that led to low new-vehicle inventory and in turn more demand for used vehicles. At the same time, far fewer used vehicles were entering the marketplace due to low trade-in volume from low new-vehicle sales. The gap just before the pandemic was about $15,400; it fell 30% to $10,709 by the third quarter of 2021 when new-vehicle inventory bottomed out at under 1 million units. As the chip shortage slowly abated, the gap has improved (widened) and exceeded first-quarter 2020 levels for the first time in the first quarter of 2023 at $15,835. It widened to over $16,000 in the first quarter of 2024. We expect the new/used price gap to widen more in 2024 as new-vehicle prices remain firmer than some expected while used prices should decline, as evidenced by the downward trend in the Manheim Used Vehicle Value Index. The widening pace should slow late this year, though, as off-lease volume will suffer as the industry hits the three-year mark of the worst of the chip shortage in the fall. Used prices were about 56% of new prices in early 2020 but are about 60% in 2024, down from the low 70s in late 2021 and the first half of 2022.

Source: Experian, Morningstar.

Separately Branded Used-Vehicle Stores Offer New Vertical for Some Dealers

The deep pockets of the six public dealers and the rise of CarMax inspired some to have their own used-vehicle stores, often under a separate brand. In 2024, three firms have stand-alone used-vehicle stores. Group 1 has never seemed interested. Asbury and Lithia used to have them, but Asbury never sounded very committed to its Q Auto stores in Florida, and the Great Recession forced Lithia to kill the L2 brand that had just started. We don't think a dealer must have them, but it's a growth channel with no automaker franchise oversight.

Which Public Dealers Have Stand-Alone Used-Vehicle Stores?

Dealer	Used Stores	Used Store Brand	Used Store Count	Used Store Retail Volume (2023)	Change From 2022	Used Store Revenue (2023)	Percent of Total Revenue
AutoNation	Yes	AutoNation USA	23	22,987	26.5%	Not disclosed	Not disclosed
Penske Automotive Group	Yes	Sytner Select (UK), CarShop (US), Penske Select (Australia)	19 (12 UK, 6 US, 1 Australia)	69,605	-2.3%	$1.776 billion	6.0%
Sonic Automotive	Yes	EchoPark	18	73,676	14.9%	$2.434 billion	16.9%
Group 1 Automotive	No	N/A	-	-	-	-	-
Lithia Motors	No	N/A	-	-	-	-	-
Asbury Automotive Group	No	N/A	-	-	-	-	-

Source: Company SEC filings and investor presentations, Morningstar. Data as of July 2024.

Dealers Not Afraid to Go Digital; Omnichannel Allows Customer to Choose E-Commerce Exposure

Amazon has changed how people shop for and buy a vehicle, which has long had the reputation of being an unpleasant experience. The public dealers recognize that digital brings an opportunity to have a far easier buying process, and they are not resisting the change. It also lets dealers gather data. Customers shop via omnichannel, where they choose how much of the process to do online versus in-store. CarMax has said 30% of its retail volume is still nondigital, for example.

Asbury's Clicklane tool is a good illustration. Clicklane can do the entire buying process—trade-ins, financing, and loan payoff—all in 15 minutes or less for both new and used cars. The front-end yield (gross profit per unit plus F&I gross profit on the deal) is not drastically different from a traditional in-store transaction. Asbury prefers to use Clicklane for customers within 50 miles of a store so it gets the service business. This contrasts with Lithia's Driveway tool, where the average customer is 800 miles from the vehicle and has it delivered. Hyundai and Amazon are in a pilot program to sell new vehicles, but this is a lead generator; the dealer will still be making the sale and retains the chance for service.

Over 90% of Asbury's Clicklane Customers Are New to the Firm

Summary metrics for Asbury's Clicklane digital shopping tool.

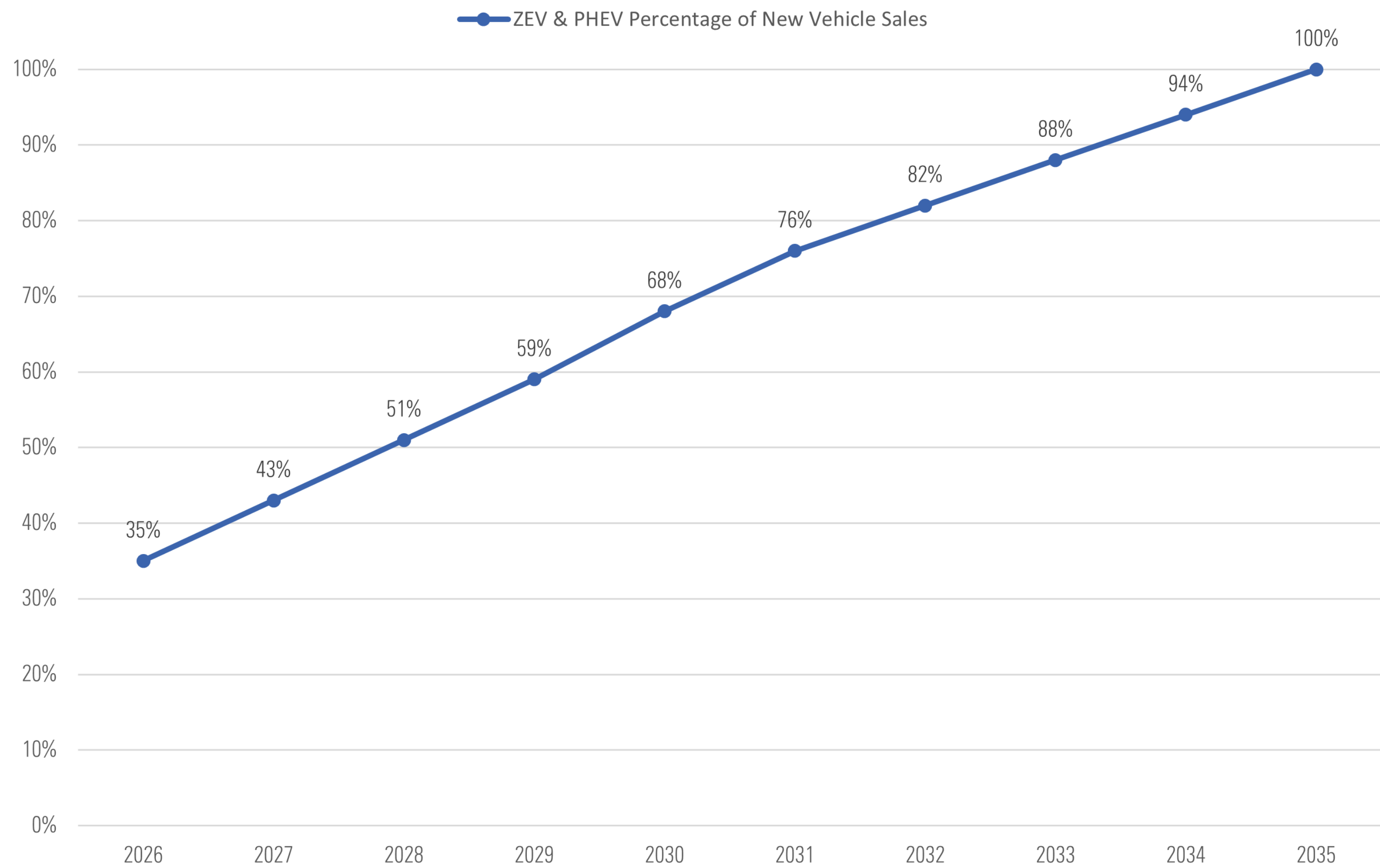
	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024
Units Sold via Clicklane	5,600	6,594	6,817	8,471	10,840	11,444	11,661	11,182	10,832
New Vehicle Clicklane Mix	38.0%	37.0%	36.0%	42.0%	42.0%	48.0%	46.0%	51.0%	48.0%
Used Vehicle Clicklane Mix	62.0%	63.0%	64.0%	58.0%	58.0%	52.0%	54.0%	49.0%	52.0%
Clicklane Mix as % of Total Asbury Unit	7.2%	8.4%	9.0%	11.9%	16.1%	16.4%	16.9%	15.8%	16.3%
Front End Yield - Clicklane	$6,100	$5,900	$5,543	$5,519	$5,876	$5,740	$5,168	N/A	N/A
Front End Yield - Asbury same store	$6,728	$6,564	$6,370	$6,391	$6,070	$5,959	$5,514	$5,438	$5,080

Source: Asbury's quarterly earnings release and earnings calls, Morningstar calculations. The only second-quarter 2024 Clicklane disclosure was that the tool sold 15,201 vehicles as it provided some mitigation from the CDK cyberattack.

Further Electric Vehicle Penetration Seems Inevitable

California and 11 Other States Won't Allow Combustion Sales in 2035

California's zero emission vehicle rule for new light-vehicle sales by model year.



California's Advanced Clean Cars II rule issued in 2022 has ramifications for the entire US auto market. Eleven other states and the District of Columbia follow this rule. California is the single-largest auto market in the country, with nearly 12% of 2023 new light-vehicle registrations, and the 12 states combined were about 31%. Automakers cannot afford to make the same vehicle with two different emission standards and only sell certain versions of a vehicle in certain states, so essentially what California mandates becomes the de facto national policy.

The US needs more charging infrastructure and more affordable battery electric vehicle offerings, but we see higher penetration as inevitable as those problems get solved. The rise of Tesla has made EVs more mainstream, and with the Inflation Reduction Act's $7,500 tax credit, vehicles like the Chevrolet Equinox can be bought for starting price below $30,000.

The next few slides show more detail on BEV sales, our forecast for 2030 US BEV penetration, and BEVs' impact on dealers' lucrative service operations.

Source: California Air Resources Board, Morningstar. Rules are for automakers' sales, not dealers'. CARB defines ZEV as battery electric vehicles, plug-in hybrids, and fuel cell but PHEV volume cannot exceed 20%.

Hybrids the Big Winner in 2024, but We See Battery Electric Vehicles Rebounding Once Affordability Improves

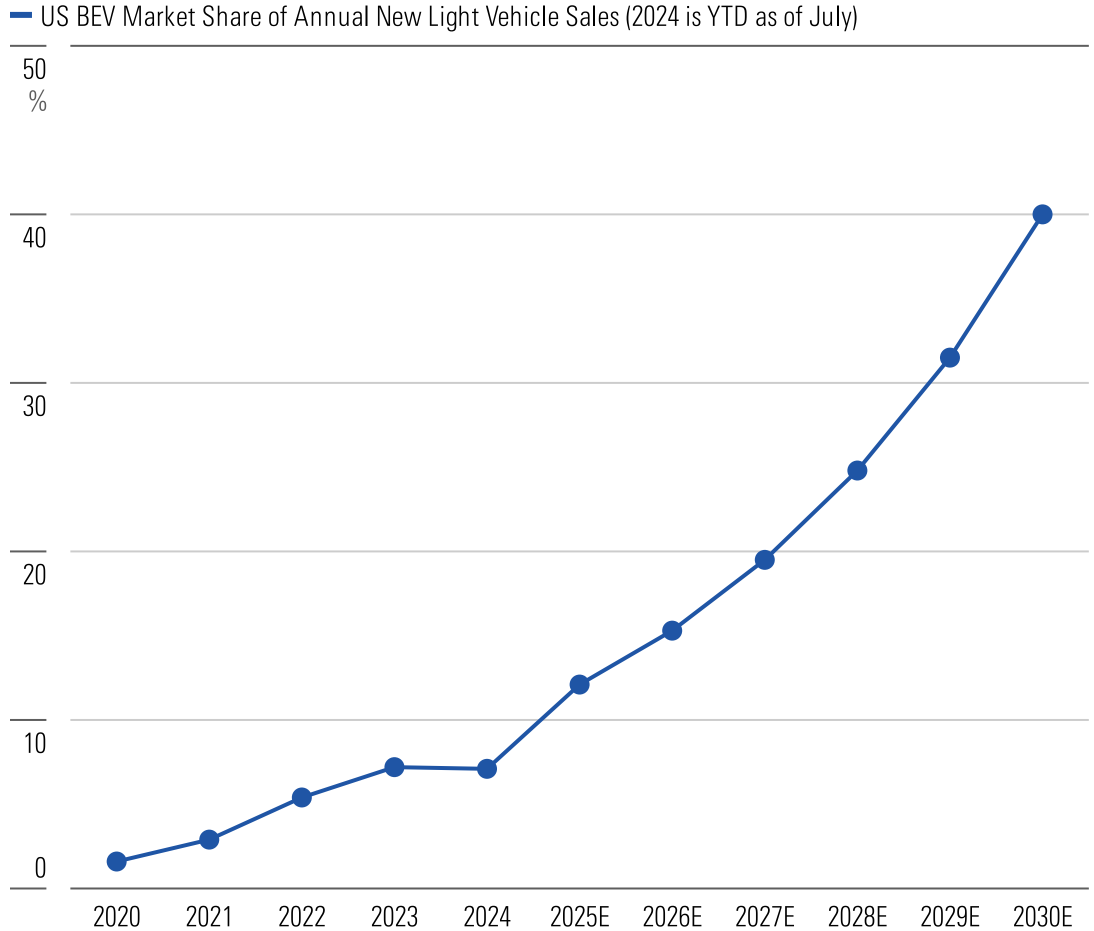
Hybrids Gaining the Most Share in 2024

US electrified vehicle market share as percentage of new light-vehicle sales.

Year	Total US Light Vehicle Sales	BEV Share	PHEV Share	Total BEV & PHEV Share	Hybrid (HEV) Share	Fuel Cell Share	Electrification Share
2011	12,778,885	0.1%	0.1%	0.1%	2.1%		2.2%
2012	14,493,092	0.1%	0.3%	0.4%	3.0%		3.4%
2013	15,603,678	0.3%	0.3%	0.6%	3.2%		3.8%
2014	16,522,663	0.4%	0.3%	0.7%	2.7%		3.4%
2015	17,482,841	0.4%	0.2%	0.7%	2.2%		2.9%
2016	17,553,429	0.5%	0.4%	0.8%	2.0%		2.8%
2017	17,238,915	0.6%	0.5%	1.1%	2.1%		3.2%
2018	17,318,961	1.4%	0.7%	2.1%	2.0%		4.0%
2019	17,104,792	1.4%	0.5%	1.9%	2.3%	0.012%	4.2%
2020	14,575,255	1.6%	0.5%	2.1%	3.1%	0.006%	5.2%
2021	14,946,973	2.9%	1.2%	4.1%	5.4%	0.022%	9.5%
2022	13,754,339	5.4%	1.3%	6.8%	5.6%	0.020%	12.4%
2023	15,457,447	7.2%	1.9%	9.1%	7.6%	0.019%	16.7%
2024 YTD July	9,078,856	7.1%	2.1%	9.2%	9.3%	0.004%	18.5%

We See BEVs Gaining More Share as Battery Costs Come Down

BEVs' share of US new light-vehicle sales.



BEVs in a Holding Pattern in 2024 in Favor of Hybrids, but Their Sales Are Growing, Excluding Tesla

Data Does Not Show BEV Demand Excluding Tesla Collapsing

2023 and year-to-date 2024 US new light-vehicle sales by propulsion type.

	2023 Year-Over-Year US Sales Growth by Propulsion	2023 Market Share	2023 Year-Over-Year Share Change in Basis Points	YTD July 2024 Year-Over-Year US Sales Growth by Propulsion	YTD July 2024 Market Share	YTD July 2024 Year-Over-Year Share Change in Basis Points
Internal combustion	6.8%	83.4%	-430	-1.8%	81.4%	-270
Hybrid	53.5%	7.6%	200	34.6%	9.3%	230
Plug-In hybrid	60.1%	1.8%	60	29.6%	2.1%	40
Battery electric vehicle (BEV)	49.2%	7.2%	180	0.9%	7.1%	-4
BEV ex-Tesla	71.9%	3.2%	110	19.9%	3.5%	54
Fuel cell	10.0%	0.0%	Not meaningful	-84.9%	0.004%	Not meaningful
US light vehicle sales growth	12.4%	N/A	N/A	1.4%	N/A	N/A

Source: Wards Intelligence, Morningstar calculations.

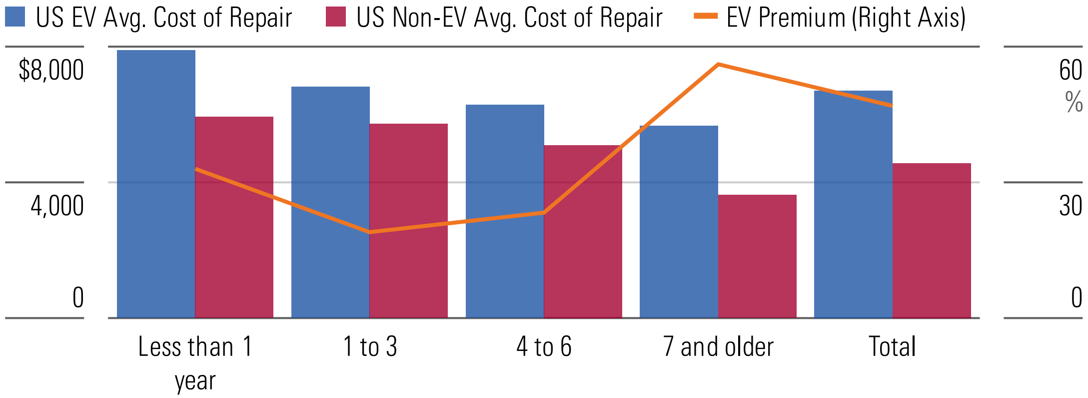
We see BEV sales in a holding pattern rather than permanently plateauing. The data on the left supports this argument: In 2023, BEVs excluding Tesla grew 72%, and we expect further growth excluding Tesla in 2024. Tesla makes up just over half of all US BEV sales in 2024, so Model 3 sales down 48% and Model Y down 0.3% make the overall BEV sales story look worse than it is for non-Tesla players.

The problem now is the split in BEVs' popularity in and out of California. According to the California New Car Dealers Association, in 2023, BEVs were 21.4% of new-vehicle registrations in the state, but for the whole country including California, they were only 7.5%. California was 33.8% of US BEV registrations, per the association.

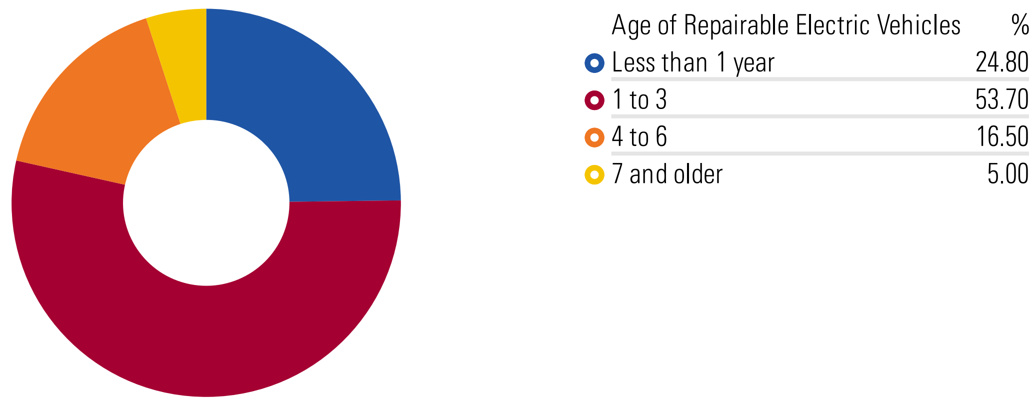
The US needs more time to build out infrastructure, expand its BEV offerings to more affordable choices, and give higher-income customers BEV options beyond Tesla, like Cadillac is doing. Dealers can sell whatever propulsion type their customers want (other than Tesla and other BEV-only firms that do not franchise) while still providing financing and service after the sale.

BEVs' Complexity Means Dealers See Higher Repair Tickets and Are More Likely to Retain Customers for Service

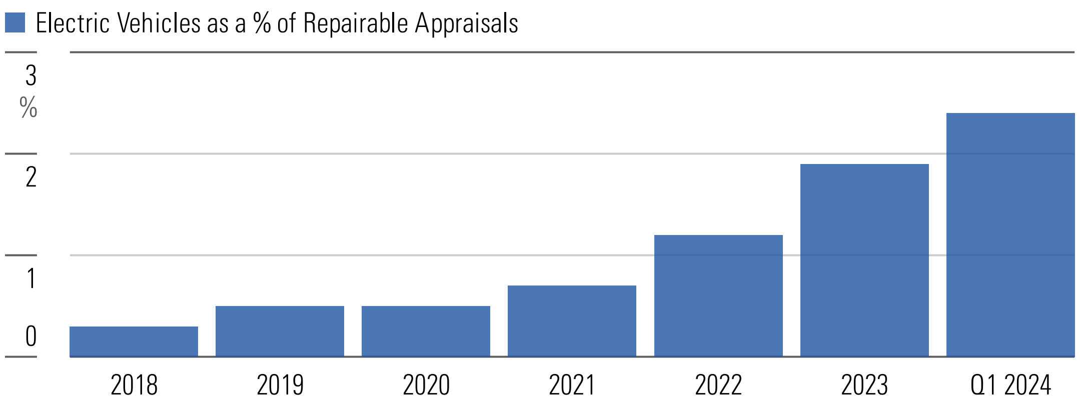
BEVs Consistently Have a Repair Premium to Other Vehicle Types



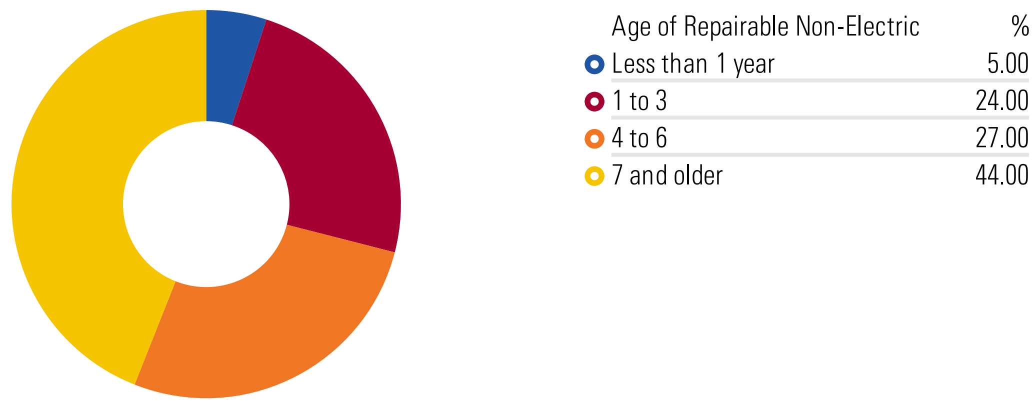
Age of Repairable Electric Vehicles After Damage in 2023



EVs Still a Small Portion of Repair Jobs



Age of Repairable Nonelectric Vehicles After Damage in 2023

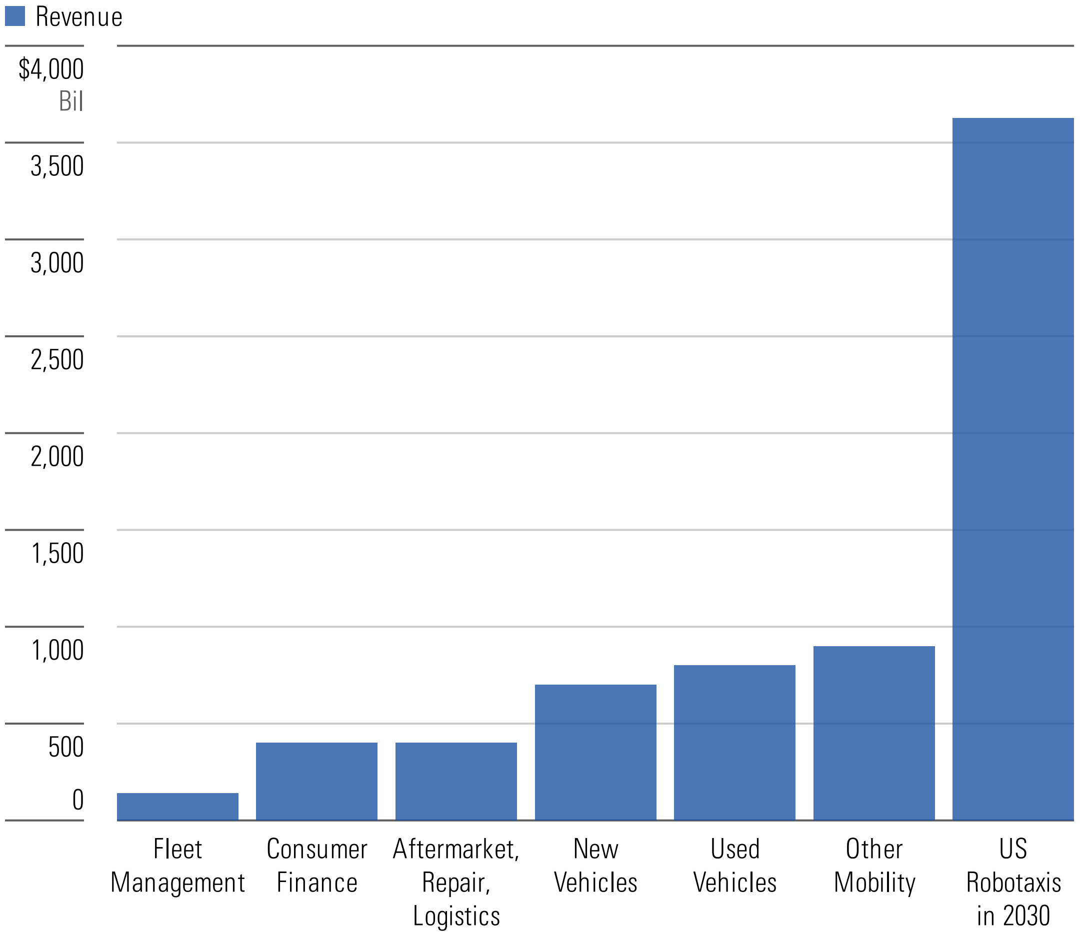


Source: CCC Intelligent Solutions, Morningstar.

Dealers Have Options for New Markets

New Verticals Provide Growth Beyond Traditional Automotive Retailing

Total addressable market for dealers in present and emerging sectors.



We find Lithia's future growth story to be very interesting because its management is willing to move into new segments and new markets. In 2024, Lithia bought a stake in vehicle fleet manager Wheels, and it is expanding its own captive finance arm, Driveway Finance Corp. Lithia says the loans that DFC originates will over their life be 3 times as profitable as arranging third-party loans. AutoNation also has its own captive finance arm and said in April that its higher profit ratio is 2.5 times. It can also use AutoNation Finance to grow its AutoNation USA stand-alone used-vehicle store sales; the lender is already over 20% of financing at those stores. CarMax Auto Finance's $17 billion-plus loan receivables book adds about 200-250 basis points of EBIT margin in a typical quarter.

There are many other channels for growth beyond finance. AutoNation signed a nonexclusive robotaxi service agreement with Waymo in 2017. We see the public dealers, given their size, as best able to service autonomous vehicles for a large fleet provider. Dealers could help lease AVs as well. We see 2030 passenger mile demand for US robotaxis as an over $3.5 trillion market (assumes 100% share) at $0.70/mile, so dealers can service or sell some of these vehicles. Lithia in recent years has moved into selling RVs, Penske has nearly 50 truck stores, and Sonic has added Harley-Davidson motorcycle dealerships and power sports. These sectors are ripe for roll-up as they are even more fragmented than the highly fragmented light-vehicle space. Lithia moved into the UK only in 2023, and Asbury, AutoNation, and Sonic are still just in the US. There's plenty of growth runway just in the US, but the three latter firms still have the option to expand geographically, which we think AutoNation is the most likely to do first.

Source: Lithia Motors investor presentation, Morningstar calculations. Other mobility is selling things like recreational vehicles, marine, and heavy trucks.

ESG Snapshot

Family ownership and human capital are the main issues through an ESG lens. Cybersecurity will have more scrutiny after 2024’s ransomware attack on CDK.

Summary of Sustainalytics' ESG Exposure Ratings

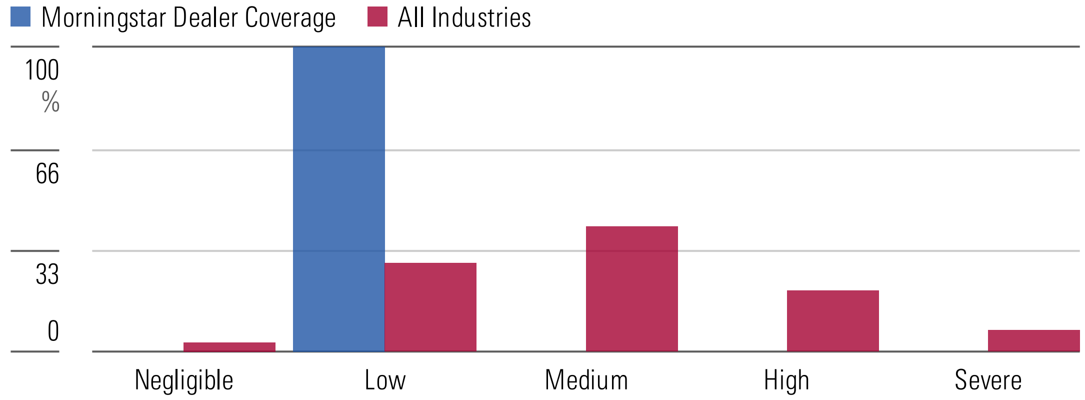
Sustainalytics assigns all US auto dealers in our coverage an ESG Risk Rating of Low. For comparison, over two thirds of all companies are assigned an ESG Risk Rating of Medium or higher. The auto dealer industry, therefore, faces less risk than the average for companies across all industries. Cybersecurity may have a higher risk rating in the future following the June 2024 ransomware attack on dealer management system provider CDK, which forced many dealers to operate via pen and paper for weeks.

Product governance: Dealers assume legal risk for the quality of the automobiles they sell. Stop-sale orders by automakers can freeze new-vehicle sales. Dealers can sell used vehicles under recall but take legal risk under state laws by doing so.

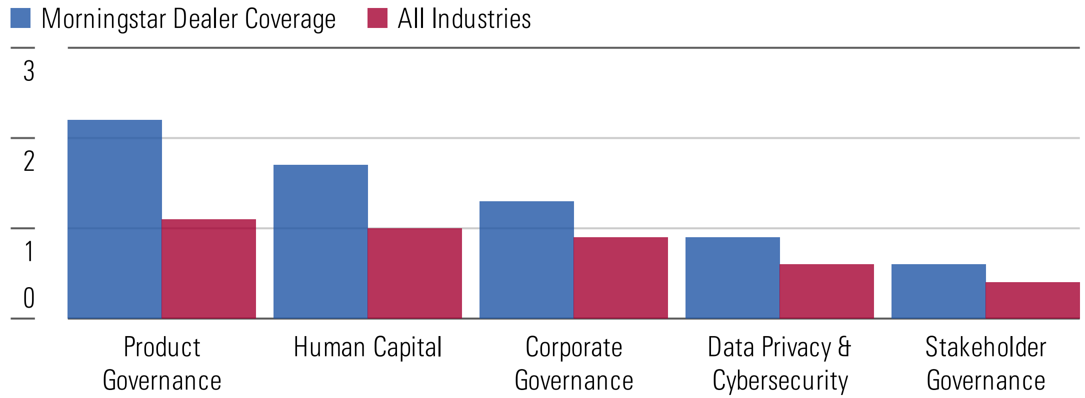
Human capital: Selling cars is a highly cyclical operation, and commission-based salespeople means turnover is common. Service technician shortages are the most pressing human capital concern for dealers; some are better than others at retaining techs. Attracting and maintaining top store-level talent can be difficult in this industry.

Corporate governance: Family ownership and concentrated voting power expose some dealers we cover to risk of poor governance practices. Although we've not seen controlling families in our coverage hurt their companies, the decision-making power is with a small number of people at family-run dealers, whether public or smaller ones. The DeBoer family owns only about 1% of Lithia via the CEO and his father, Penske is 51% owned by Penske Corp. (controlled by CEO Roger Penske), and over 85% of Sonic's voting power is held by the CEO and his brothers.

Distribution of ESG Risk Ratings for US Auto Retailers and All Industries



Highest Scoring Material ESG Issues for US Auto Retailers



Source: Morningstar Sustainalytics. Data as of Aug. 26, 2024. Data includes CarMax.

Service Technician Staffing an Industrywide Issue; Being Short a Tech Can Cost $300,000 in Annual Gross Profit

US Dealership Service Technician Headcount

Year	Technician Headcount	Change from Prior Year	Average Headcount per Store	Share of Dealer Industry Headcount
2018	264,665	NA	16	23.3%
2019	267,087	0.9%	16	23.5%
2020	253,012	-5.3%	15	23.5%
2021	251,334	-0.7%	15	23.8%
2022	257,534	2.5%	15	24.1%
2023	255,642	-0.7%	15	23.2%

The National Automobile Dealers Association website says that about 39,000 service technicians graduate from technical colleges and training programs each year, but the US needs to replace nearly 76,000 each year to keep pace with retirements and incremental labor demand. Working in service departments has historically been seen as a dirty and unprofessional job and not pushed hard enough to high school students. The dealer industry also needs to do a more consistent job partnering with high schools and trade schools to keep themselves on graduates' radar screens. Turnover metrics are not available industrywide, but we read that a common reason for techs leaving is they are not given a career path.

Success stories tend to be shops that provide techs with progression opportunities from express technician to master technician or even service director. A tool allowance can also be a perk to help offset out-of-pocket employee costs (dealers do not provide tools). Upward feedback, paying techs for the level of work they are actually doing if it's above their current grade, and listening to their concerns are also effective. We see the move to EVs and AVs as an opportunity to get younger people interested in the auto industry due to the appeal of much more technology-heavy vehicles.

In our coverage, Group 1 talks about the success it has had the past few years after it decided to aggressively pursue techs. It pays them at or even above market, offers a four-day workweek, and provides mentoring programs, tuition, and training so techs see a long-term path with the company. In October 2023, Group 1 said its US tech headcount was up 11% versus 2019 even though overall company headcount was down 7% over the same period.

Source: NADA Data, Automotive News, Morningstar calculations.

General Disclosure
"Morningstar" is used throughout this section to refer to Morningstar, Inc., and/or its affiliates, as applicable. Unless otherwise provided in a separate agreement, recipients of this report may only use it in the country in which the Morningstar distributor is based. Unless stated otherwise, the original distributor of the report is Morningstar Research Services LLC, a USA-domiciled financial institution.

This report is for informational purposes only, should not be the sole piece of information used in making an investment decision, and has no regard to the specific investment objectives, financial situation, or particular needs of any specific recipient. This publication is intended to provide information to assist investors in making their own investment decisions, not to provide investment advice to any specific investor. Therefore, investments discussed and recommendations made herein may not be suitable for all investors; recipients must exercise their own independent judgment as to the suitability of such investments and recommendations in the light of their own investment objectives, experience, taxation status, and financial position.

The information, data, analyses, and opinions presented herein are not warranted to be accurate, correct, complete, or timely. Unless otherwise provided in a separate agreement, neither Morningstar, Inc., nor the Equity Research Group represents that the report contents meet all of the presentation and/or disclosure standards applicable in the jurisdiction the recipient is located.

Except as otherwise required by law or provided for in a separate agreement, the analyst, Morningstar, Inc., and the Equity Research Group and their officers, directors, and employees shall not be responsible or liable for any trading decisions, damages, or other losses resulting from, or related to, the information, data, analyses, or opinions within the report. The Equity Research Group encourages recipients of this report to read all relevant issue documents—a prospectus, for example) pertaining to the security concerned, including without limitation, information relevant to its investment objectives, risks, and costs before making an investment decision and when deemed necessary, to seek the advice of a legal, tax, and/or accounting professional.

The report and its contents are not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country, or other jurisdiction where such distribution, publication, availability, or use would be contrary to law or regulation or that would subject Morningstar, Inc., or its affiliates to any registration or licensing requirements in such jurisdiction.

Where this report is made available in a language other than English and in the case of inconsistencies between the English and translated versions of the report, the English version will control and supersede any ambiguities associated with any part or section of a report that has been issued in a foreign language. Neither the analyst, Morningstar, Inc., nor the Equity Research Group guarantees the accuracy of the translations.

This report may be distributed in certain localities, countries, and/or jurisdictions ("territories") by independent third parties or independent intermediaries and/or distributors ("distributors"). Such distributors are not acting as agents or representatives of the analyst, Morningstar, Inc., or the Equity Research Group. In territories where a distributor distributes our report, the distributor is solely responsible for complying with all applicable regulations, laws, rules, circulars, codes, and guidelines established by local and/or regional regulatory bodies, including laws in connection with the distribution of third-party research reports.

Risk Warning
Please note that investments in securities are subject to market and other risks, and there is no assurance or guarantee that the intended investment objectives will be achieved. Past performance of a security may or may not continue in the future and is no indication of future performance. A security investment's return and an investor's principal value will fluctuate so that, when redeemed, an investor's shares may be worth more or less than their original cost.

A security's current investment performance may be lower or higher than the investment performance noted within the report. Morningstar's Uncertainty Rating is a useful data point with respect to sensitivity analysis of the assumptions used in our determining a fair value price.

Conflicts of Interest
- No interests are held by the analyst with respect to the securities subject of this investment research report.
- Morningstar, Inc., may hold a long position in the securities subject of this investment research report that exceeds 0.5% of the total issued share capital of the security. To determine if such is the case, see https://www.morningstar.com/company/disclosures/holdings.
- Analysts' compensation is derived from Morningstar, Inc.'s overall earnings and consists of salary, bonus, and in some cases restricted stock.
- Morningstar's overall earnings are generated in part by the activities of the Investment Management and Research groups, and other affiliates, that provide services to product issuers.
- Neither Morningstar, Inc., nor the Equity Research Group receives commissions, compensation, or other material benefits in connection with providing research, nor do they charge companies to be rated.
- Morningstar employees may not pursue business or employment opportunities outside Morningstar within the investment industry (including, but not limited to, working as a financial planner, an investment professional or investment professional representative, a broker/dealer or broker/dealer agent, a financial writer, reporter, or analyst) without the approval of Morningstar's Legal and if applicable, Compliance teams.
- Neither Morningstar, Inc., nor the Equity Research Group is a market maker or a liquidity provider of the securities noted within this report.
- Neither Morningstar, Inc., nor the Equity Research Group has been a lead manager or co-lead manager over the previous 12 months of any publicly disclosed offer of financial instruments of the issuer.
- Morningstar, Inc.'s Investment Management group has arrangements with financial institutions to provide portfolio management/investment advice, some of which an analyst may issue investment research reports on. In addition, the Investment Management group creates and maintains model portfolios whose underlying holdings can include financial products, including securities that may be the subject of this report. However, analysts do not have authority over Morningstar's Investment Management group's business arrangements or allow employees from the Investment Management group to participate or influence the analysis or opinion prepared by them.
- Morningstar, Inc., is a publicly traded company (ticker: MORN) and thus a financial institution the security of which is the subject of this report may own more than 5% of Morningstar, Inc.'s total outstanding shares. Please access Morningstar, Inc.'s proxy statement, "Security Ownership of Certain Beneficial Owners and Management" section at https://shareholders.morningstar.com/investor-relations/financials/sec-filings/default.aspx.

Morningstar may provide the product issuer or its related entities with services or products for a fee and on an arm's-length basis, including software products and licenses, research and consulting services, data services, licenses to republish our ratings and research in their promotional material, event sponsorship, and website advertising. Further information on Morningstar's conflict-of-interest policies is at http://global.morningstar.com/equitydisclosures.

For a list of securities the Equity Research Group currently covers and provides written analysis on, or for historical analysis of covered securities, including fair value estimates, please contact your local Morningstar office.

For Recipients in Australia: This report has been issued and distributed in Australia by Morningstar Australasia Pty. Ltd. (ABN: 95 090 665 544; ASFL: 240892). Morningstar Australasia Pty. Ltd. is the provider of the general advice ("the service") and takes responsibility for the production of this report. The service is provided through the research of investment products. To the extent the report contains general advice, it has been prepared without reference to an investor's objectives, financial situation, or needs. Investors should consider the advice in light of these matters and, if applicable, the relevant Product Disclosure Statement before making any decision to invest. Refer to our Financial Services Guide, or FSG, for more information at http://www.morningstar.com.au/s/fsg.pdf.

For Recipients in New Zealand: This report has been issued and distributed by Morningstar Australasia Pty Ltd and/or Morningstar Research Ltd (together 'Morningstar'). This report has been prepared and is intended for distribution in New Zealand to wholesale clients only and has not been prepared for use by New Zealand retail clients (as those terms are defined in the Financial Markets Conduct Act 2013).

The information, views and any recommendations in this material are provided for general information purposes only, and solely relate to the companies and investment opportunities specified within. Our reports do not take into account any particular investor's financial situation, objectives or appetite for risk, meaning no representation may be implied as to the suitability of any financial product mentioned for any particular investor. We recommend seeking financial advice before making any investment decision.

For recipients in Canada: This research is not prepared subject to Canadian disclosure requirements.

For recipients in Hong Kong: The report is distributed by Morningstar Investment Management Asia Limited, which is regulated by the Hong Kong Securities and Futures Commission to provide investment research and investment advisory services to professional investors only. Neither Morningstar Investment Management Asia Limited nor its representatives are acting or will be deemed to be acting as an investment advisor to any recipients of this information unless expressly agreed to by Morningstar Investment Management Asia Limited.

For recipients in India: This investment research is issued by Morningstar Investment Research India Private Limited (formerly known as Morningstar Investment Adviser India Private Limited). Morningstar Investment Research India Private Limited is registered with SEBI as a Research Entity (registration number INH000008686). Morningstar Investment Research India Private Limited has not been the subject of any disciplinary action by SEBI or any other legal/regulatory body. Morningstar Investment Research India Private Limited is a wholly owned subsidiary of Morningstar Investment Management LLC. In India, Morningstar Investment Research India Private Limited has one associate, Morningstar India Private Limited, which provides data-related services, financial data analysis, and software development. The research analyst has not served as an officer, director, or employee of the fund company within the last 12 months, nor have they or their associates engaged in market-making activity for the fund company.

For recipients in Japan: This report is distributed by Morningstar Japan, Inc. for informational purposes only. Neither Morningstar Japan, Inc. nor its representatives are acting or will be deemed to be acting as an investment advisor to any recipients of this information.

For recipients in Korea: This report is distributed by Morningstar Korea Ltd., which has filed to the Financial Services Committee, for informational purposes only. Neither Morningstar Korea Ltd. nor its representatives are acting or will be deemed to be acting as an investment advisor to any recipients of this information.

For recipients in Singapore: This report is distributed by Morningstar Investment Adviser Singapore Pte Limited, which is licensed and regulated by the Monetary Authority of Singapore to provide financial advisory services in Singapore. Recipients of this report should contact their financial advisor in Singapore in relation to this report. Morningstar, Inc., and its affiliates rely on certain exemptions (Financial Advisers Regulations, Section 28(1)(e), Section 32B and 32C) to provide its investment research to recipients in Singapore.

22 West Washington Street
Chicago, IL 60602 USA

About Morningstar® Equity Research™
Morningstar Equity Research provides independent, fundamental equity research differentiated by a consistent focus on durable competitive advantages, or economic moats.

Information on Morningstar's Equity Research methodology is available from https://www.morningstar.com/research/signature.