

US Auto Dealers

A highly fragmented sector offers a long growth path for the six publicly traded dealers via organic growth, acquisitions, and new verticals.

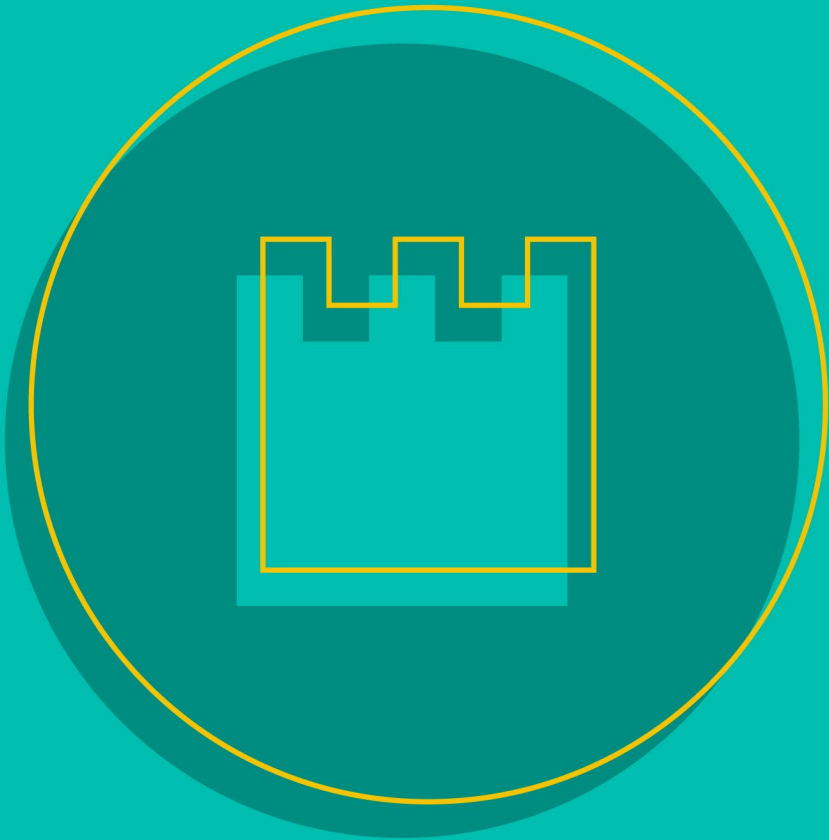
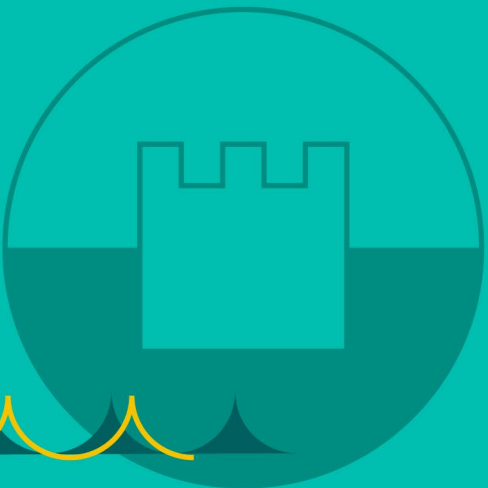


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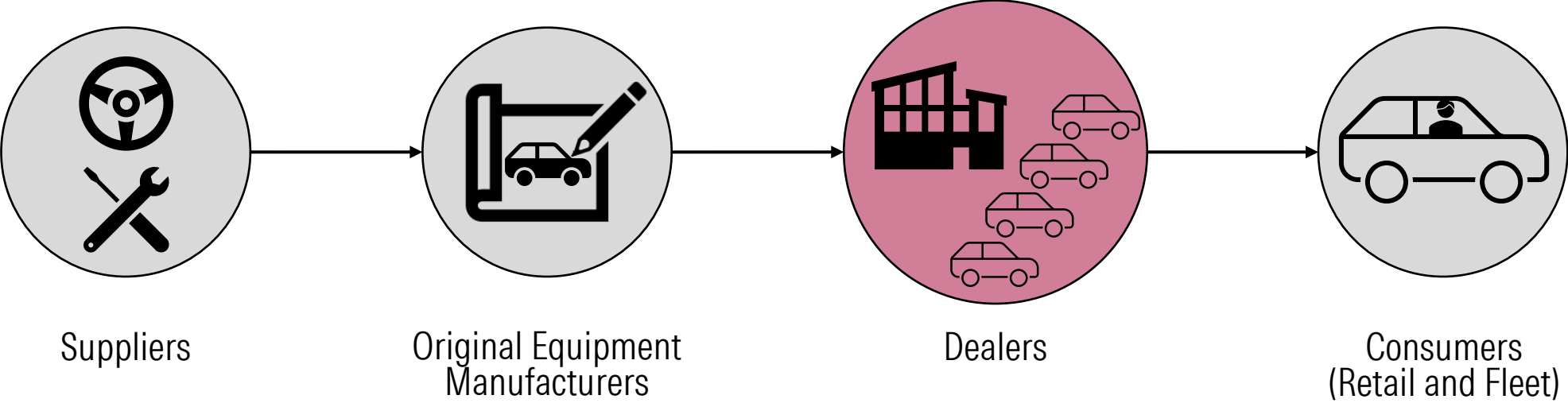
Executive Summary

A fragmented yet moaty sector continues to consolidate.

Industry Map

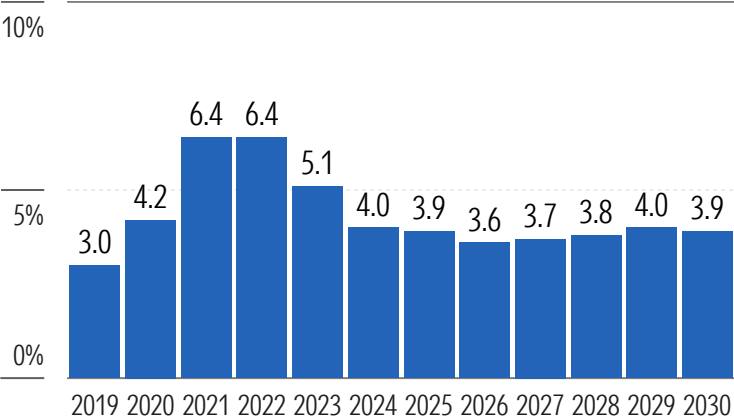
Dealers are the distributors between the automakers and the end users of the vehicles (consumers and fleet customers). Selling new vehicles is the genesis of everything else that happens at the store. A new-vehicle customer often trades in a used vehicle, which the dealer can then retail, gets a loan 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, may bypass the dealer.

Dealers Are the Bridge Between Automakers and Vehicles' End Users



Key Industry Themes

EBIT Margin Down but Above 2019 Levels



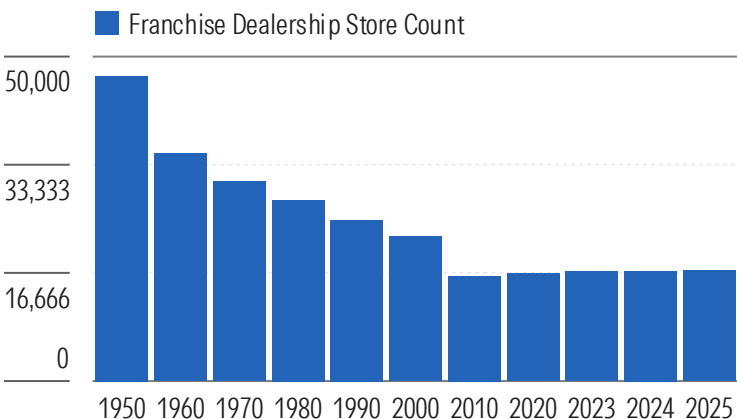
Before 2020, a strong operating margin, including floorplan interest (interest cost to buy inventory), was around 4%. Covid-19 and the chip shortage decimated new-vehicle inventory and gave dealers a surge in new-vehicle pricing power through 2022, sending margins to levels that would have been absurd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

Not As Cyclical as You May Think (2025 Gross Margin)

Segment	Asbury	AutoNation	Group 1	Lithia	Penske	Sonic
New	6.5%	4.9%	6.9%	6.3%	9.0%	5.2%
Used	5.3%	5.8%	4.8%	5.5%	5.2%	5.1%
Service	58.7%	48.7%	55.7%	57.7%	58.4%	51.1%
F&I	93.2%	100%	100%	100%	100%	100%
Total	17.1%	17.9%	16.0%	15.2%	16.3%	16.3%

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 their new-vehicle franchise brand. A new-vehicle customer often has a trade-in that the dealer can then sell as a used vehicle. Normally, used vehicles bring higher gross margins than new vehicles, but that has reversed for now, as the chip shortage is still 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 brings lucrative profits.

Sector Consolidating Over Time



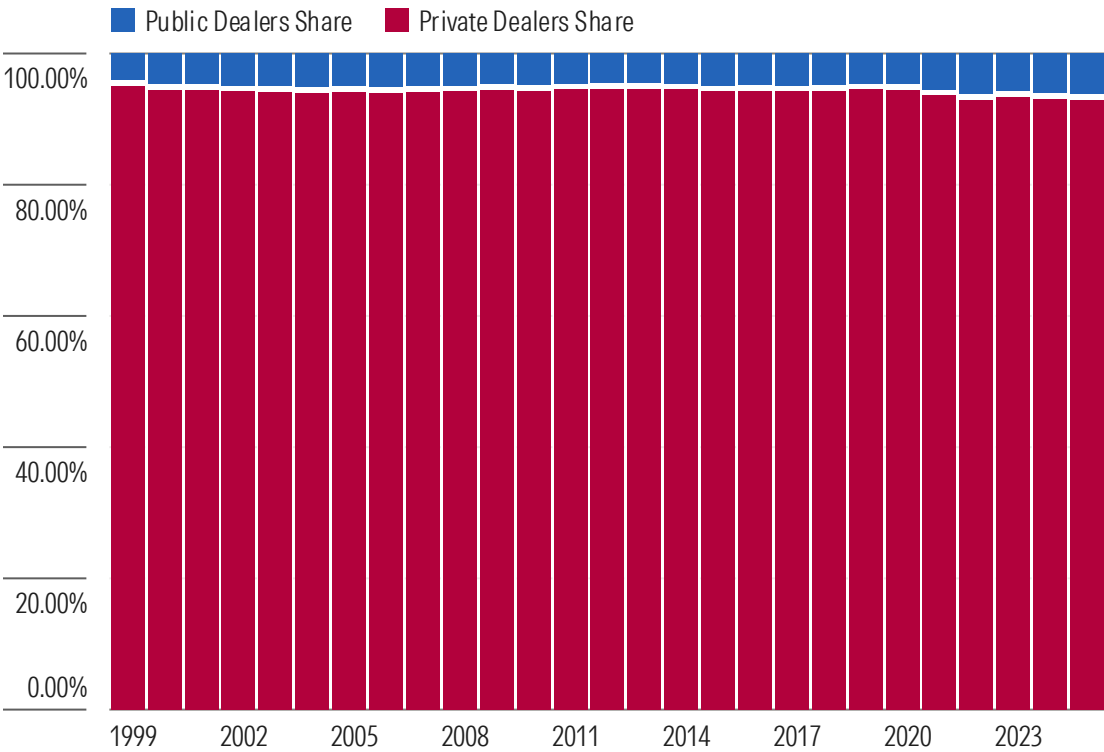
As the US urbanized and the Detroit Three lost their dominance, larger dealers serving more people has become necessary for them to do well. The sector has consolidated over decades. Some have exited the industry due to insufficient throughput (volume per store), expensive store imaging requirements, and automaker bonus payouts that can be too hard to reach. The sector has seen a 64% 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.

US Auto Dealers' Market Share and Concentration

We cover all six US publicly traded new-vehicle franchise dealers, but they sell only about 7% 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; the top 10 firms' share is now about 9% 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

Private dealers dominate market share.



Percentage of Dealer Owners by Number of Dealerships Owned

Majority of dealer owners have few dealerships.

# of Dealerships	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
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%	91.0%	90.5%
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%	5.5%	5.9%
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%	2.7%	2.8%
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%	0.6%	0.6%
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%	0.2%	0.2%
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

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

See Important Disclosures at the end of this report.

Industry Value Drivers

Simplified Financial Statement: Lithia Motors

Pro forma income statement (\$ in millions).

	2025	% of Sales
Revenue 1	\$ 37,635	
Cost of Goods Sold	31,902	84.8%
Gross Profit 2	5,733	
Selling, General, and Administrative Costs 3	3,941	67.4% of gross profit
Depreciation and Amortization	262	
Floorplan Interest Expense 4	228	
Captive Finance Pre-Tax Income 5	75	
Operating Income Excluding Special Items	1,376	3.7%
Interest Expense	276	
Other (Income)	(17)	
Pretax Income	1,118	
Income Tax Provision	283	23.6% Tax Rate
Adjusted Net Income	835	
Free Cash Flow Comparison		
Cash flow from operations	357	
(Capital Expenditures)	(351)	
Free Cash Flow - GAAP	6	
GAAP CFO	357	
Move Net Non-Trade Floorplan Borrowing to CFO from Financing	56	
Captive Finance Receivable Changes Moved to CFO	878	
Adjusted CFO	1,291	
(Capital Expenditures)	(351)	
Free Cash Flow - Adjusted 6	940	

(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 typically 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 on less SG&A leverage.

(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 then have SG&A to gross lowered via pursuing more service retention or better 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. These borrowings should not be thought of as debt.

(5) Financing Operations: Lithia and AutoNation recently established their own captive finance arms. They are early-stage, but over time, 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 understated because working capital inflows from nontrade floorplan lenders (lenders that are not automaker captives) 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 and fourth-quarter 2025 earnings release.

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US Auto Retailers Coverage List and Ratings

Morningstar covers seven companies retailing vehicles. The first six are franchise new-vehicle retailers that also sell used vehicles. 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)	3.9	Narrow	★★★★	\$312	0.68	High	8.1	0.23	N/A	-20.0%
AutoNation (AN)	6.5	Narrow	★★★★	\$234	0.84	High	9.0	0.26	N/A	-9.0%
Group 1 Automotive (GPI)	3.5	Narrow	★★★★	\$461	0.64	High	7.1	0.16	0.7%	-38.0%
Lithia Motors (LAD)	7.2	Narrow	★★★★	\$426	0.75	High	9.2	0.21	0.7%	-9.0%
Penske Automotive Group (PAG)	12.6	Narrow	★★★	\$206	0.93	High	14.5	0.40	2.9%	9.0%
Sonic Automotive (SAH)	2.8	Narrow	★★★	\$96	0.95	High	13.0	0.21	1.8%	4.0%
CarMax Enterprise Services (KMX)	7.7	Narrow	★★★★★	\$96	0.57	High	21.0	0.30	N/A	-15.0%

Source: Morningstar and PitchBook. Data as of July 14, 2026.

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Economic Moat

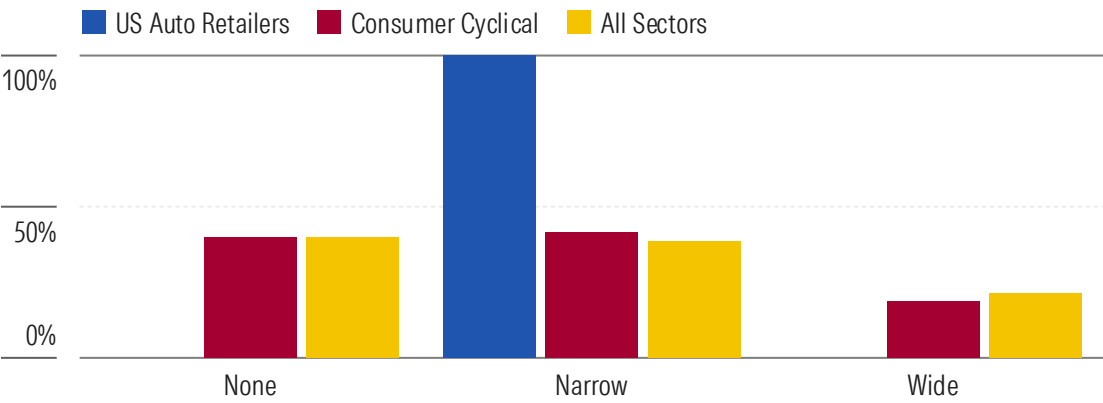
Narrow moats are abundant, thanks to intangible assets and cost advantages.

Summary of Moat Ratings and Sources

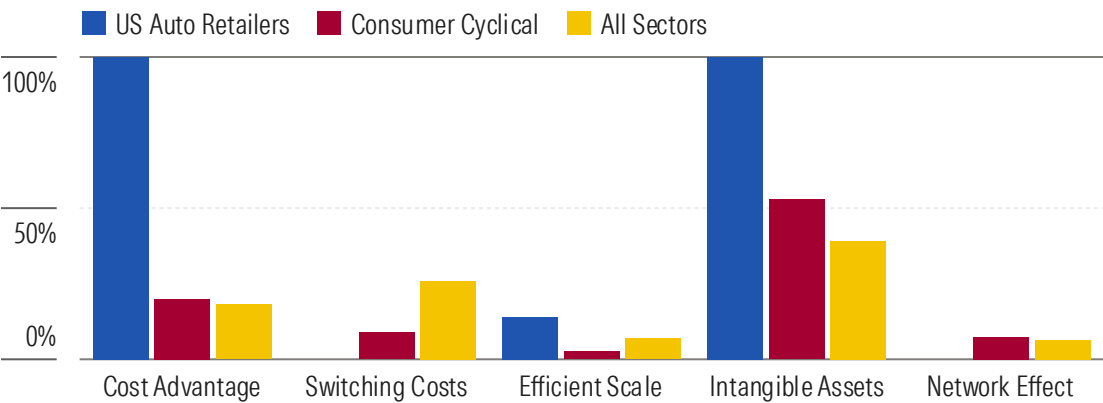
All seven firms we cover in the vehicle retailer space have a narrow economic moat. The six franchise dealers are the largest on trade journal *Automotive News*' annual list of the biggest dealers. There are some large private players and other private players doing roll-up acquisitions to grow. However, 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 via a proprietary algorithm—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 of efficient scale just for it. A public dealer's store base of as many as a few hundred stores allows for optimal placement of inventory in a metro area and across the country, an intangible advantage that a single store cannot replicate, as is warranty service work. The public dealers also enjoy a cost advantage on countless overhead items such as health insurance, dealer management software fees, technician uniforms, and supplies. This has caused some large private players to sell to public dealers in recent years.

Narrow Moats Throughout the Auto Dealer Sector



Cost Advantage and Intangibles Drive the Moat Story

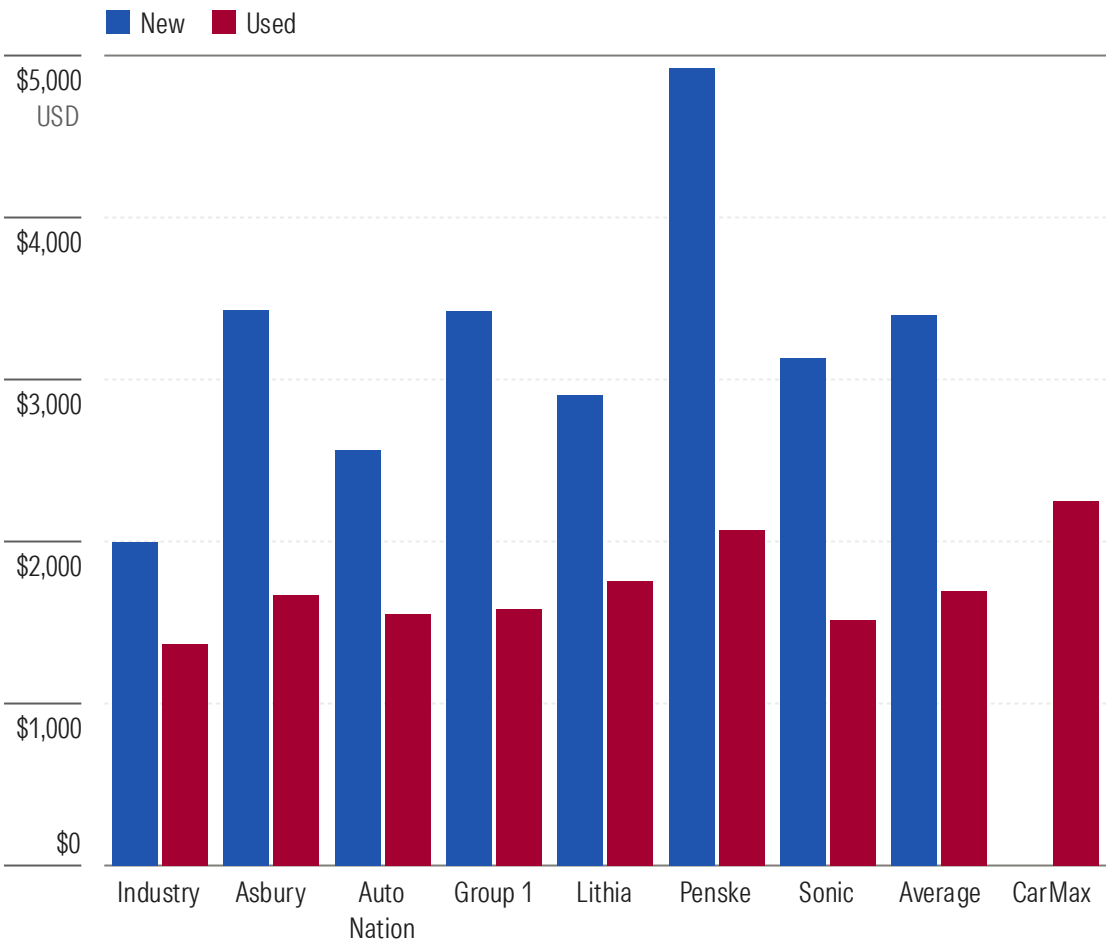


Cost Advantage and Intangibles Drive Strong Gross Profit Dollars and Leverage Overhead Costs

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 (that is, lower as a percentage of gross profit) 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.

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.

2025 New- and Used-Vehicle Gross Profit per Unit



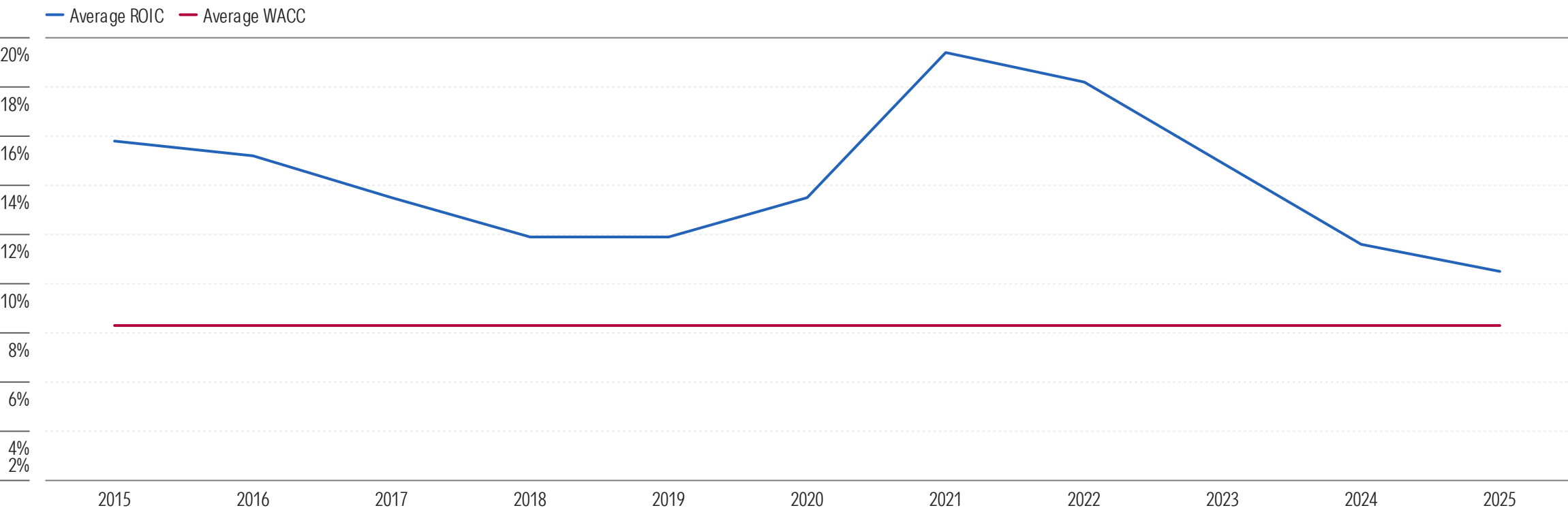
Sources: Company filings, The Presidio Group, Morningstar.

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Return on Invested Capital Levels Merit Narrow Moats Across Our Vehicle Retailer Coverage

Higher gross profit dollars versus smaller players, 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 that is 100% variable (versus fixed) and SG&A generally at least 50% variable, returns on invested capital in the low double digits to midteens are common for our coverage. The chip shortage causing a short supply of new vehicles helped ROICs for 2021-23.

Average Return on Invested Capital for the Six Franchise Dealers and CarMax



Source: Morningstar valuation models. CarMax is for fiscal 2016-26.

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Challenges Abound for Dealers Smaller Than the Publics

Noteworthy Sales of Large Private Groups to the Six Public Dealers

Announced	Buyer	Seller	Price	Annual Revenue	Region
Dec. 2019	Asbury	Park Place	\$889.9 million	\$1.7 billion	Texas
April 2021	Lithia	Suburban Collection	Not disclosed	\$2.4 billion	Michigan
Sept. 2021	Asbury	Larry H. Miller	\$3.48 billion	\$5.7 billion	Western US
Sept. 2021	Group 1	Prime Automotive	\$934.2 million	\$1.8 billion	New England
Sept. 2021	Sonic	RFJ Auto Partners	\$950.2 million	\$3.2 billion	West & Midwest
Dec. 2021	Asbury	Stevinson	Not disclosed	\$715 million	Colorado
June 2022	Lithia	Lehman/Esserman	Not disclosed	\$850 million	South Florida
June 2023	Lithia	Priority	Not disclosed	\$1.2 billion	Virginia
Sept. 2023	Asbury	Koons	\$1.5 billion	\$3 billion	Mid-Atlantic
Feb. 2024	Lithia	Carousel	Not disclosed	\$900 million	Twin Cities
July 2024	Penske	Bill Brown Ford	Not disclosed	\$550 million	Michigan
Feb. 2025	Asbury	Herb Chambers	\$1.34 billion	\$2.9 billion	Massachusetts
Nov. 2025	Penske	Penske Motor Group	\$519.4 million	\$1.5 billion	California/Texas
Jan. 2026	Penske	Lexus of Orlando/WinterPark	Not disclosed	\$450 million	Central Florida

Small dealers can't get the scale that the larger dealers do, and they don't have the deep pockets for expensive and ever-changing automaker store imaging requirements. Several large private dealers also sold to publics in 2021, as they were unwilling or unable to invest for a digital retailing world.

Examples include Michigan-based Suburban Collection's 34-store sale to Lithia and Asbury buying Larry H. Miller (the eighth-largest US dealer at the time with 54 dealerships). *The Wall Street Journal* in September 2021 quoted Suburban co-owner David Fischer Jr. on why he sold: "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." Larry H. Miller Group CEO Steve Sparks discussed the sale to Asbury with trade journal *Automotive News* in October 2021: "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."

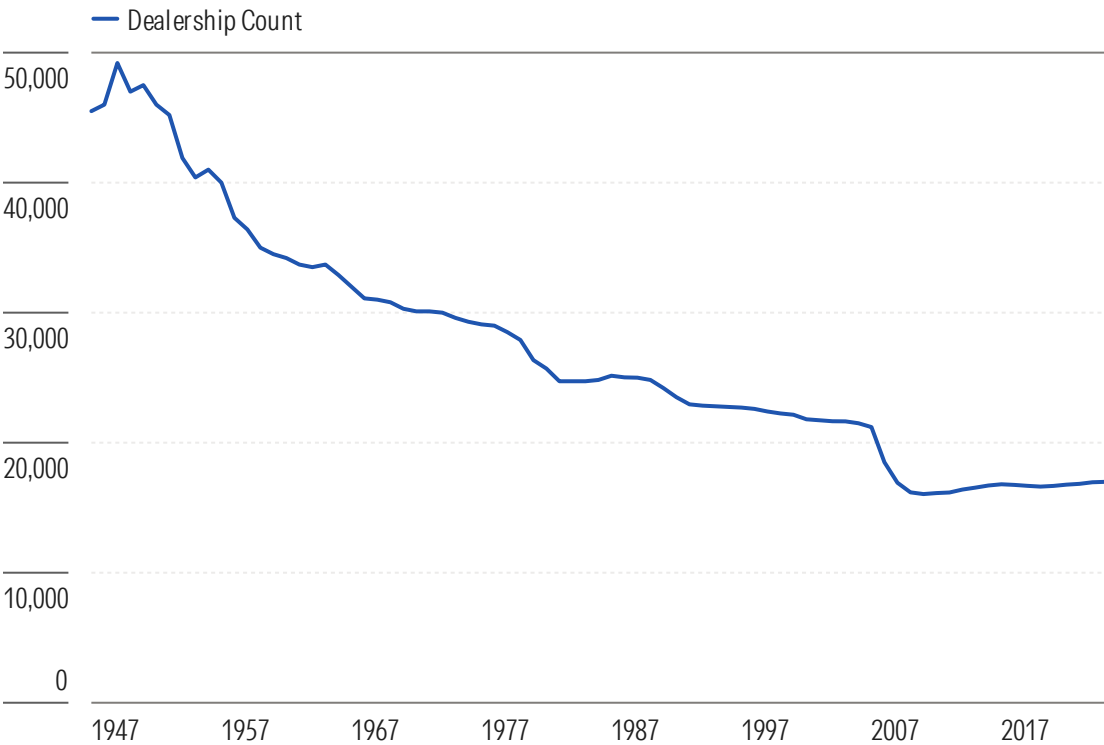
Pressure on smaller dealers was present before 2021's consolidation. In June 2017, Steve Kalafer, who then owned eight stores in New Jersey under the Flemington name, told *Automotive News*, "The opportunity I had and was able to maximize, sadly really does not exist today. The mom-and-pop days, they 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."

Industry Basics

Dealers do far more than sell new vehicles.

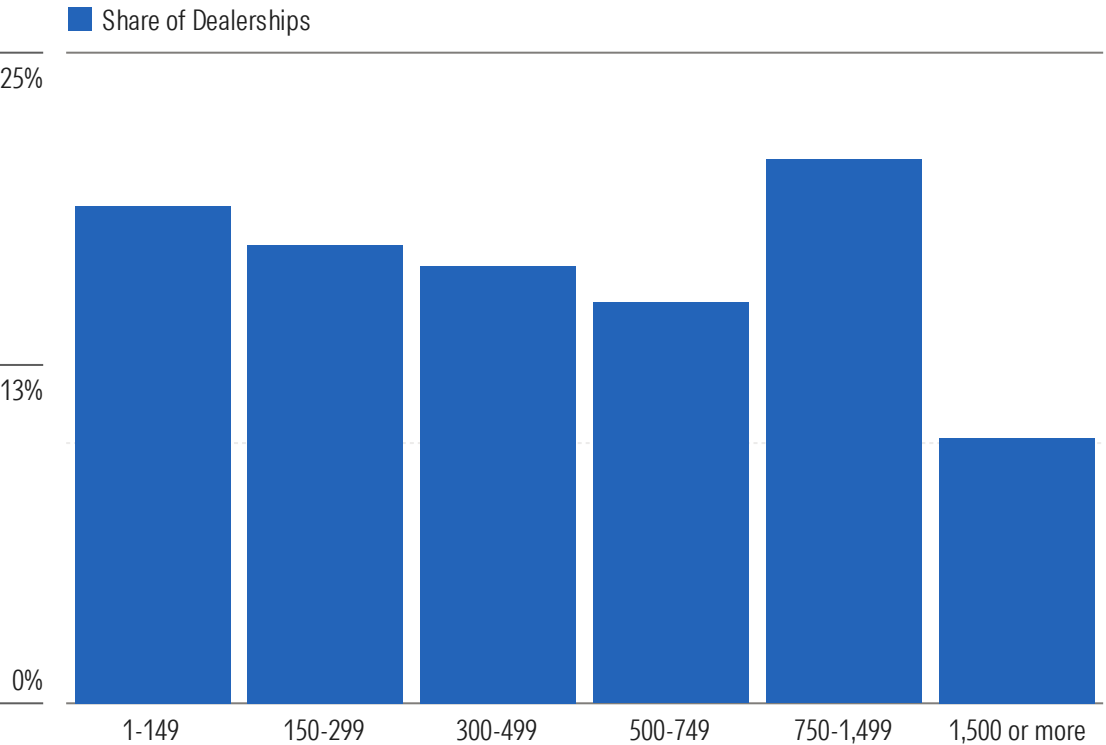
Dealerships Are Not Big-Box Retail, but Sector Is Slowly Consolidating

Number of US Franchised New-Car Dealerships (1947-2025)



The number of new-vehicle dealerships has increased from the prior year only 18 times since 1947. This shrinkage is the byproduct of the Detroit Three losing their dominance over time, although the count has increased five straight years and 11 times since 2012.

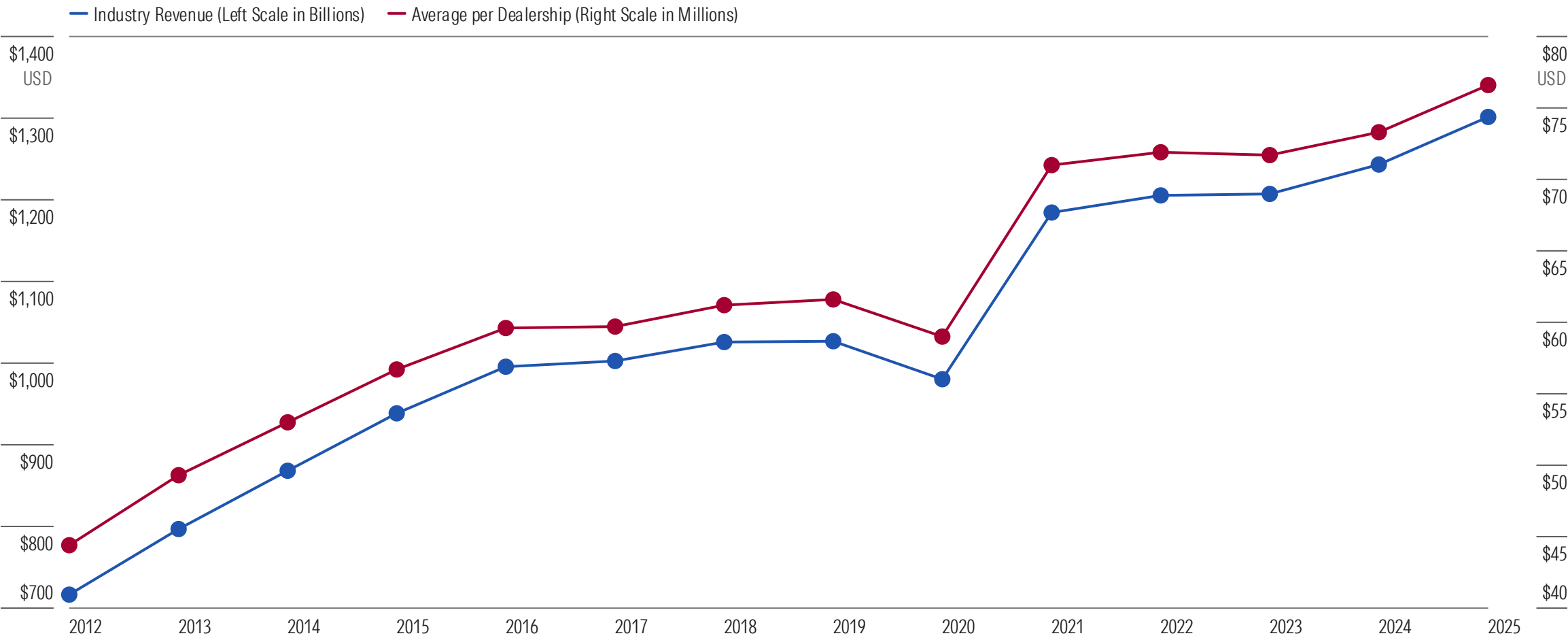
Mix of US Dealers by Number of New Vehicles Sold in 2025



In 2025, 53.5% of dealers retailed less than 500 new vehicles annually versus about 54% in 2019. The sector is consolidating in favor of larger dealers but very slowly. Dealer buyouts by the Detroit Three also push the mix away from lower-volume stores.

US Dealers Are an Over \$1.3 Trillion Industry

2025 Total Revenue for US Dealers and Revenue per Store



Source: NADA Data.

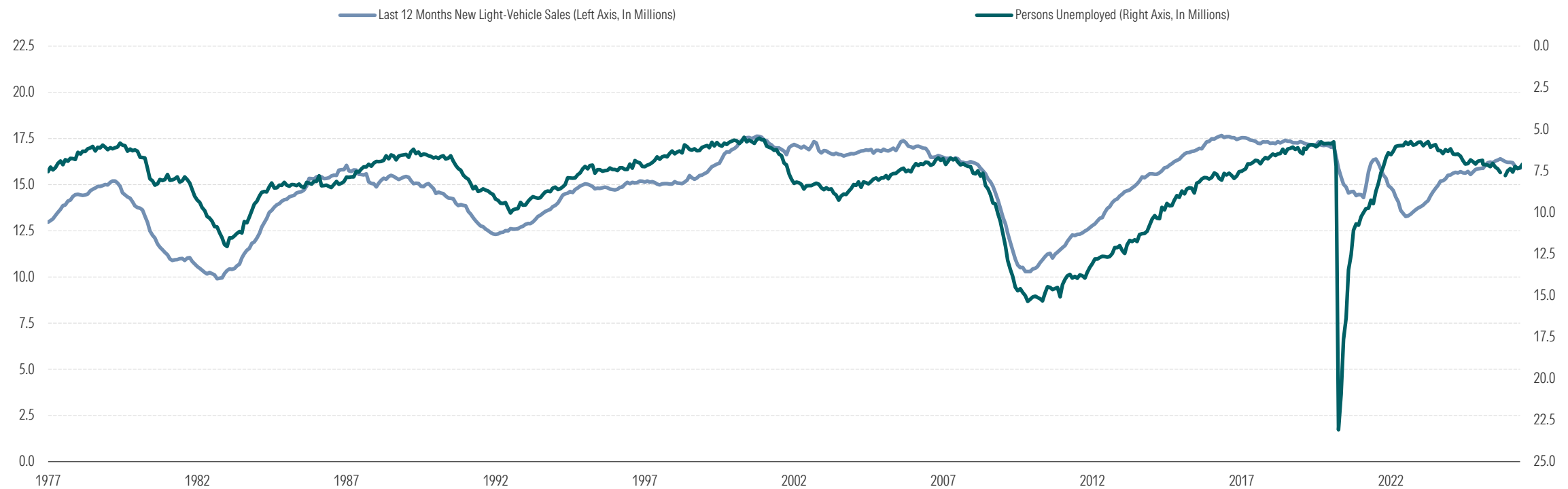
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Year-Over-Year Change in Unemployment and Auto Sales Stopped Rising Together in 2026

Auto sales and unemployment are usually negatively correlated, as sales require consumers to feel good about their financial situation. Auto sales often decline before an increase in unemployment and before a recession is declared. Since 1977, the correlation coefficient is negative 0.53. However, sales and the number of unemployed increased each month for May 2023-February 2026. This positive correlation last occurred in September 2016. Since March, sales have declined year over year while persons unemployed rose—not good for dealers.

There Is Typically a Strong Negative Correlation Between Auto Sales and Unemployment

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

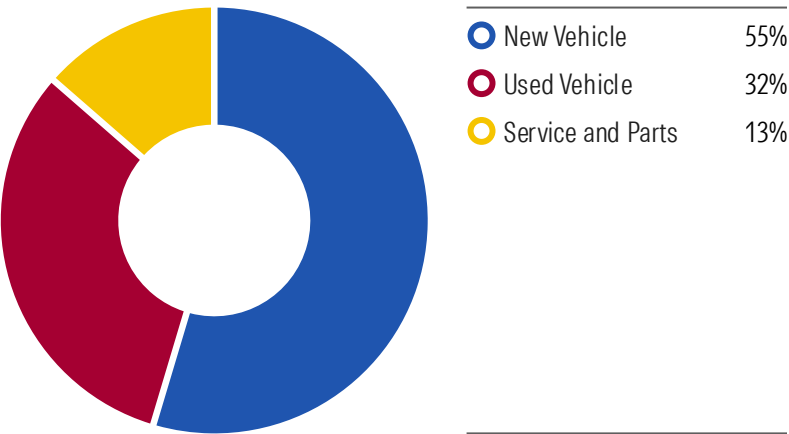


Source: Automotive News, Bureau of Labor Statistics, Federal Reserve Bank of St. Louis, Omdia, Morningstar. Data is through June 2026.

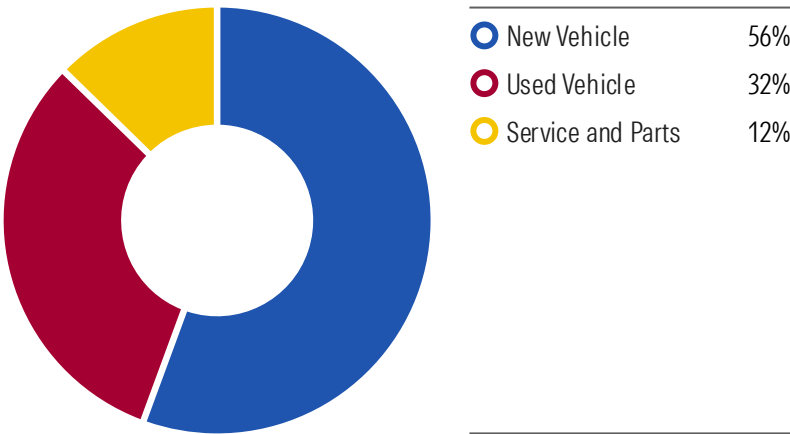
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Big Differences Between Revenue and Gross Profit Mix

2025 Average Dealer Revenue Mix (F&I in New and Used)

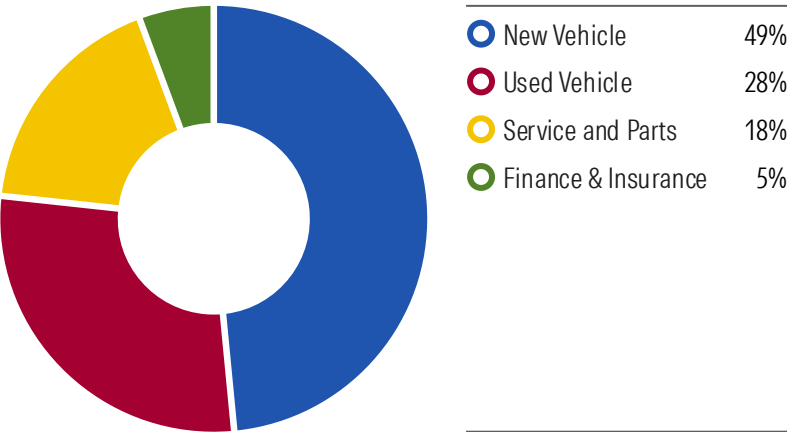


2019 Average Dealer Revenue Mix (F&I in New and Used)

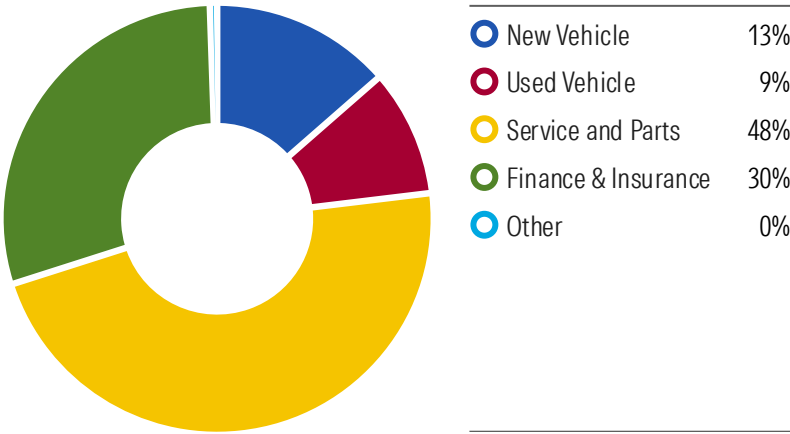


Retailing new and used vehicles, along with the related finance and insurance sales, made up about 87% of the US dealer industry's revenue in 2025. This ratio is hardly different from 2019, just before the pandemic. However, far more gross profit contribution comes from service and F&I than from just selling the vehicle, as shown in the bottom two charts with data from AutoNation.

AutoNation's 2025 Revenue Mix



AutoNation's 2025 Gross Profit Mix



Service on average contributes about one-fourth as much of the revenue that new-vehicle sales does, yet for AutoNation, service contributes just under half of gross profit, thanks to gross margins of about 45%-55% versus typically mid-single-digit gross margins for selling new vehicles. F&I's gross profit composition is over 5.5 times larger than its revenue mix because it's a commission-based 100% gross profit segment. Dealers aren't just about selling new vehicles.

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

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GM, Ford, Toyota, Lexus, Honda, and Genesis Are Throughput Growth Winners for 2025 vs. 2024

New Light-Vehicle Sales per Franchise

Brand	2025 Units	2024 Units	Change	Brand	2025 Units	2024 Units	Change
Toyota	1,736	1,607	8.0%	Cadillac	306	282	8.5%
Lexus	1,518	1,417	7.1%	Mini	274	251	9.2%
Honda	1,211	1,207	0.3%	Infiniti	270	292	-7.5%
BMW	1,108	1,061	4.4%	Jeep	250	245	2.0%
Kia	1,069	1,006	6.3%	Buick	237	184	28.8%
Hyundai	1,054	988	6.7%	Polestar	236	296	-20.3%
Subaru	1,003	1,042	-3.7%	Lincoln	235	207	13.5%
Mercedes	891	975	-8.6%	Ram	182	183	-0.5%
Nissan	822	806	2.0%	Jaguar	72	99	-27.3%
Mazda	756	783	-3.4%	Ferrari	72	76	-5.3%
Ford	738	682	8.2%	Lamborghini	69	93	-25.8%
Chevrolet	631	598	5.5%	Bentley	61	80	-23.8%
Audi	537	643	-16.5%	Alfa Romeo	54	76	-28.9%
Land Rover	526	528	-0.4%	Chrysler	53	52	1.9%
Volkswagen	523	596	-12.2%	Aston Martin	52	54	-3.7%
Acura	487	485	0.4%	Maserati	51	62	-17.7%
Volvo	434	444	-2.3%	Dodge	43	59	-27.1%
GMC	394	369	6.8%	McLaren	43	49	-12.2%
Genesis	391	327	19.6%	Rolls-Royce	42	46	-8.7%
Porsche	376	381	-1.3%	Lotus	36	24	50.0%
Mitsubishi	307	340	-9.7%	Fiat	4	5	-20.0%

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 versus Toyota or Honda dealers, for example. The foreign automakers, also known as transplants, franchise 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 Lexus 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.

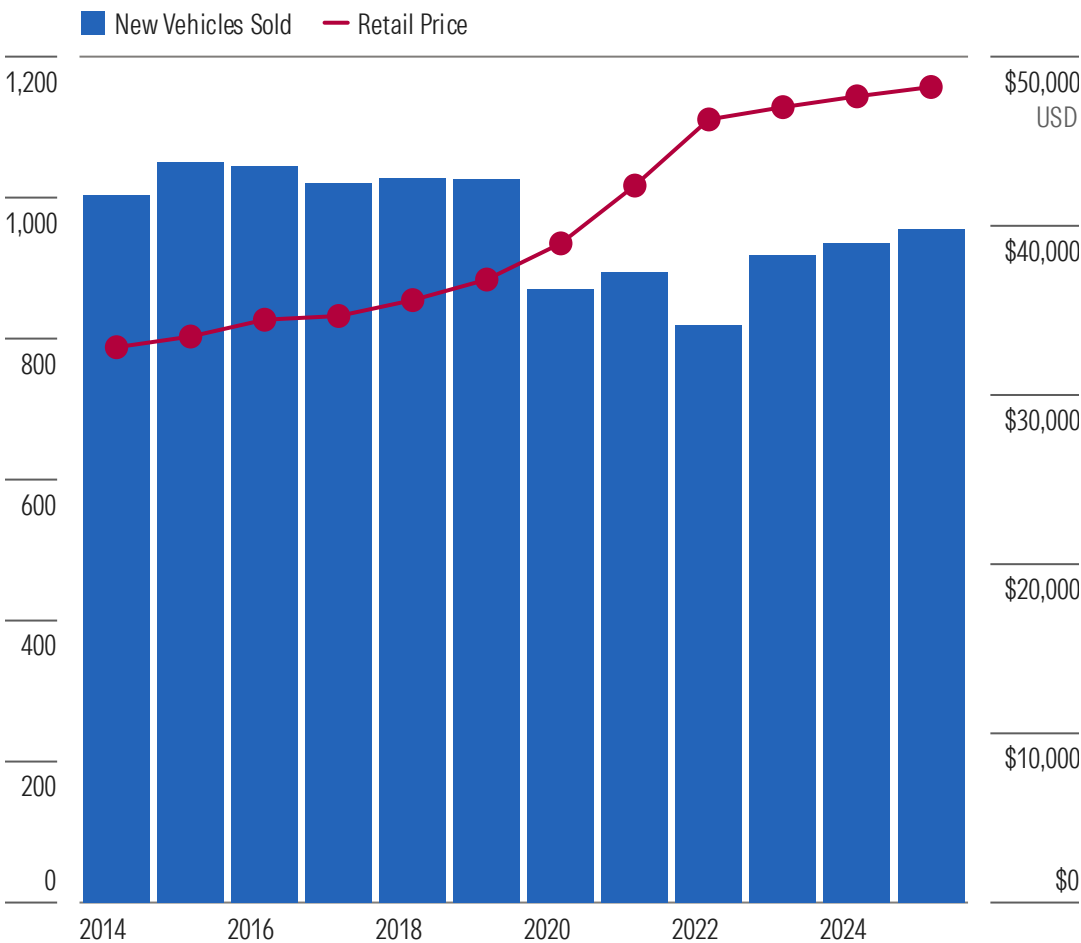
Mass buyouts don't just happen in bankruptcies. In 2023, GM's Buick brand underwent a buyout program and saw its US dealer count reduced by about 46% to 1,062 franchises. Buick's throughput more than doubled in 2023, rose 66% in 2024, and rose 29% in 2025.

Source: Automotive News, Morningstar calculations.

See Important Disclosures at the end of this report.

New-Vehicle Pricing Still Growing, but Less Than During the Chip Shortage-Induced Highs

2025 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 (955 in 2025). Some franchises of these brands do better than the national average, though, because they are excellent operators or marketers or have little competition near them. For the four public franchise dealers that disclose total US new light-vehicle unit sales, 2025 new volume per franchise store is a bit higher than the national average, ranging from 1,058 at AutoNation to 1,119 at Group 1.

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 Omdia 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 in 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 2021 and 2022 was about 4 times the average change for each year of 2015-19. 2025's change was 1.2%.

By 2024, the chip shortage was mostly over, and summer 2026 monthly industry new-vehicle inventory levels are nearly 2.7 million. Wealthy consumers buying expensive vehicle trims is keeping pricing high, but many consumers crave better affordability.

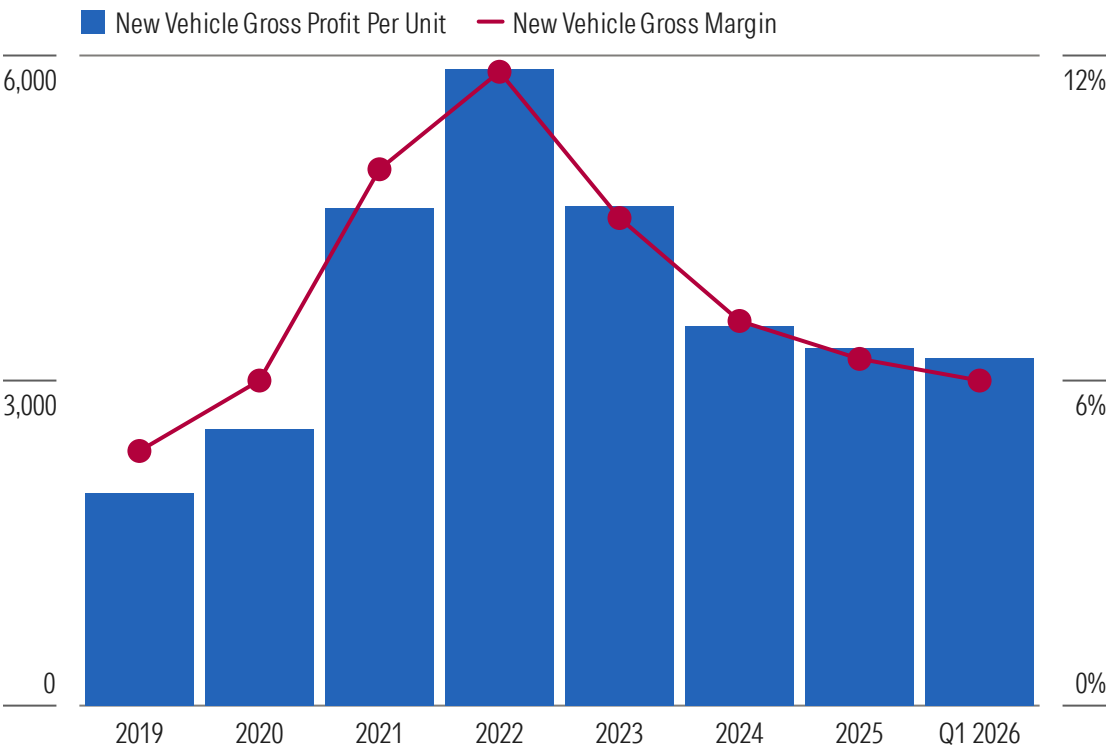
Source: NADA Data, Morningstar.

See Important Disclosures at the end of this report.

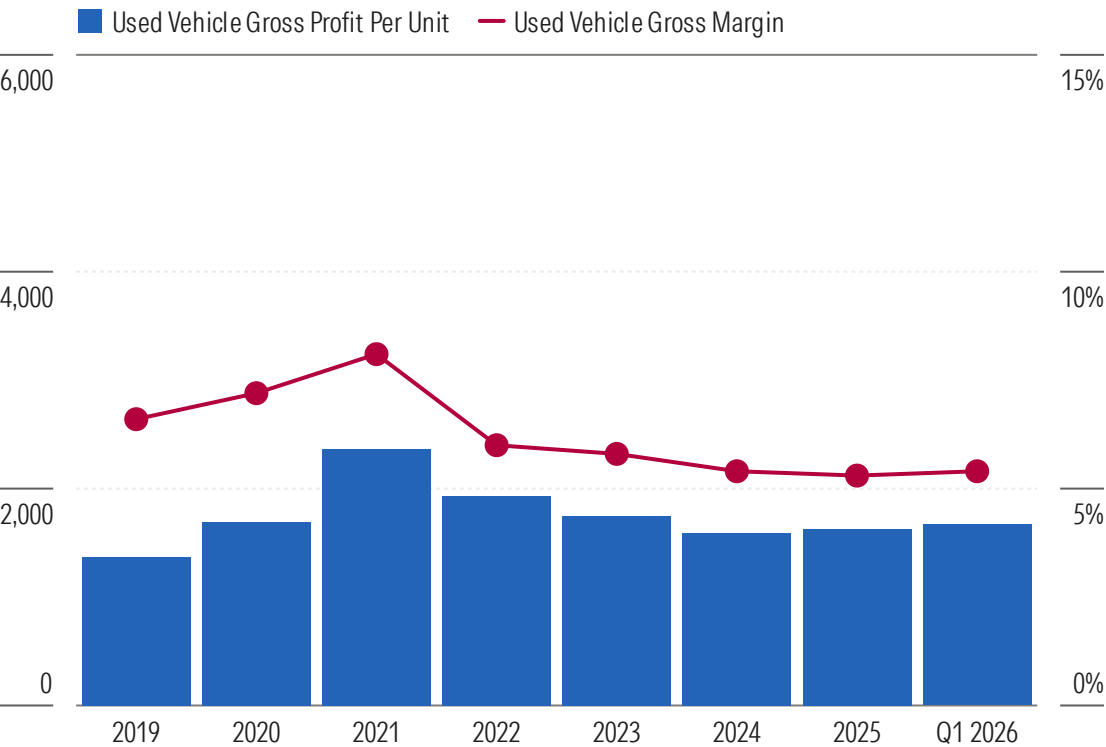
Chip Shortage's New-Vehicle Supply Dearth Meant High New-Vehicle Profits While Used Profits Suffered

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. High costs combined with high used loan interest rates means that used margin falls for auto dealers. However, 2025-26 data indicates improving used profitability and slowing new-vehicle profit decline.

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



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



Used-Vehicle Affordability Remains a Problem; Manheim Index Up Year Over Year All but One Month Since 2025

Falling new-vehicle sales at times means that dealers need to focus more on selling used vehicles. However, that’s often not easy, because lower new-vehicle sales means fewer quality used vehicles enter 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 then accelerated at rates far higher than before the collapse of Lehman Brothers or the start of the pandemic.

The used market 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 along 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 will take beyond 2026 to normalize.

Chip Shortage Fallout Still Disrupting the Used-Vehicle Market

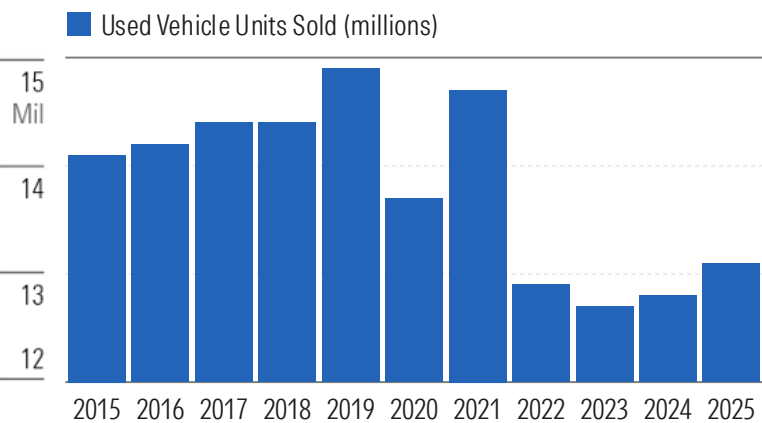


Sources: Manheim, Morningstar. Data through June 2026.

See Important Disclosures at the end of this report.

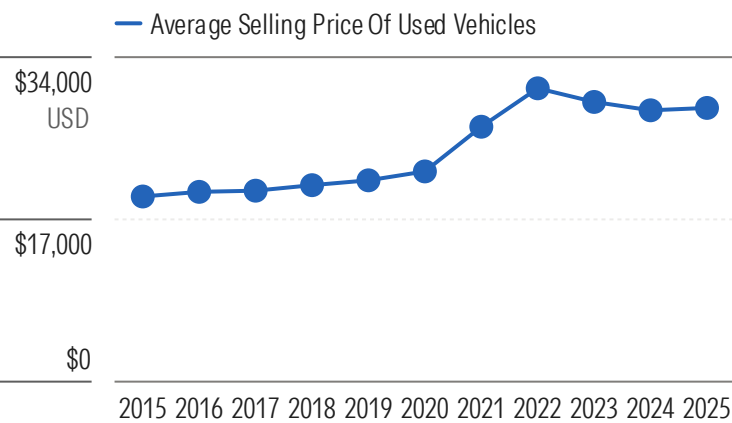
Chip Shortage Massively Distorted the US Used-Vehicle Market, and Its Impact Is Not Over

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



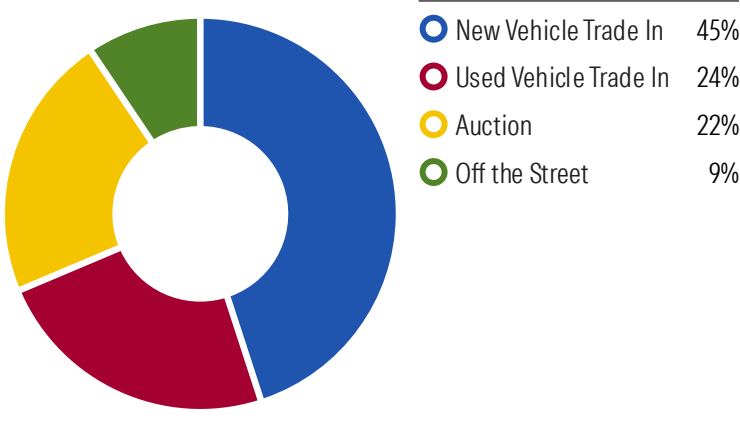
When new-vehicle sales fall, it causes a decline in used-vehicle supply. New-vehicle buyers are the most likely source of what are called late-model used vehicles, meaning generally up to four years old. These used vehicles acquired on trade can be reconditioned by franchise dealers and earn certified preowned status, commonly called 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. 2025 was a second straight year of growth as consumers seek affordability.

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 reversed and prices came down, but off-lease supply for 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 used prices for now to remain below chip shortage levels of around \$30,000.

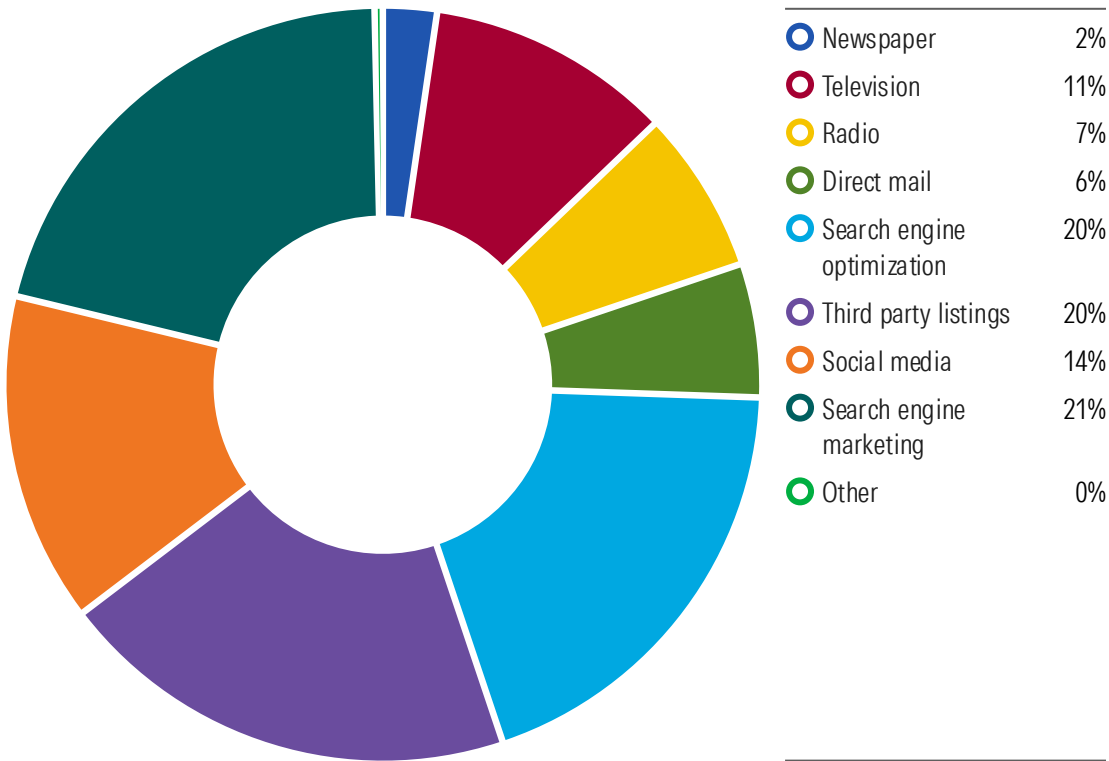
2025 Used-Vehicle Sources by US New-Vehicle Dealers



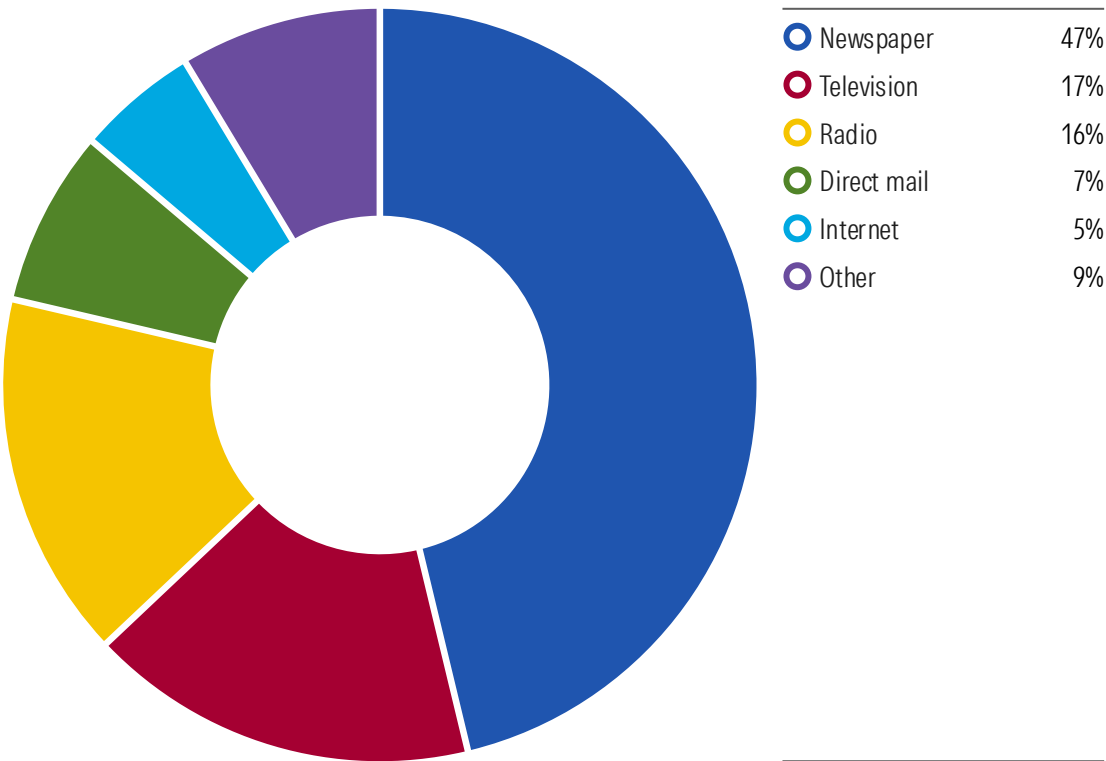
Dealers grew tired over the years of seeing CarMax do so well selling used vehicles while many of them would not give the space enough effort. More focus by dealers, plus some of the publics now having stand-alone used-vehicle stores to stock and more digital capabilities to reach consumers, means dealers are buying more vehicles “off the street”—directly from consumers—than ever before. 2025's 9.1% off-the-street sourcing mix is well above 2019's 4.8%, while new- and used-vehicle trade-in sourcing is 470 and 80 basis points higher. The expensive auction channel is 530 basis points lower than in 2019.

Advertising Spending Online-Focused, With More Choices Meaning Share Losses for Traditional Media

US Dealers' 2025 Advertising Spending Mix



US Dealers' 2002 Advertising Spending Mix

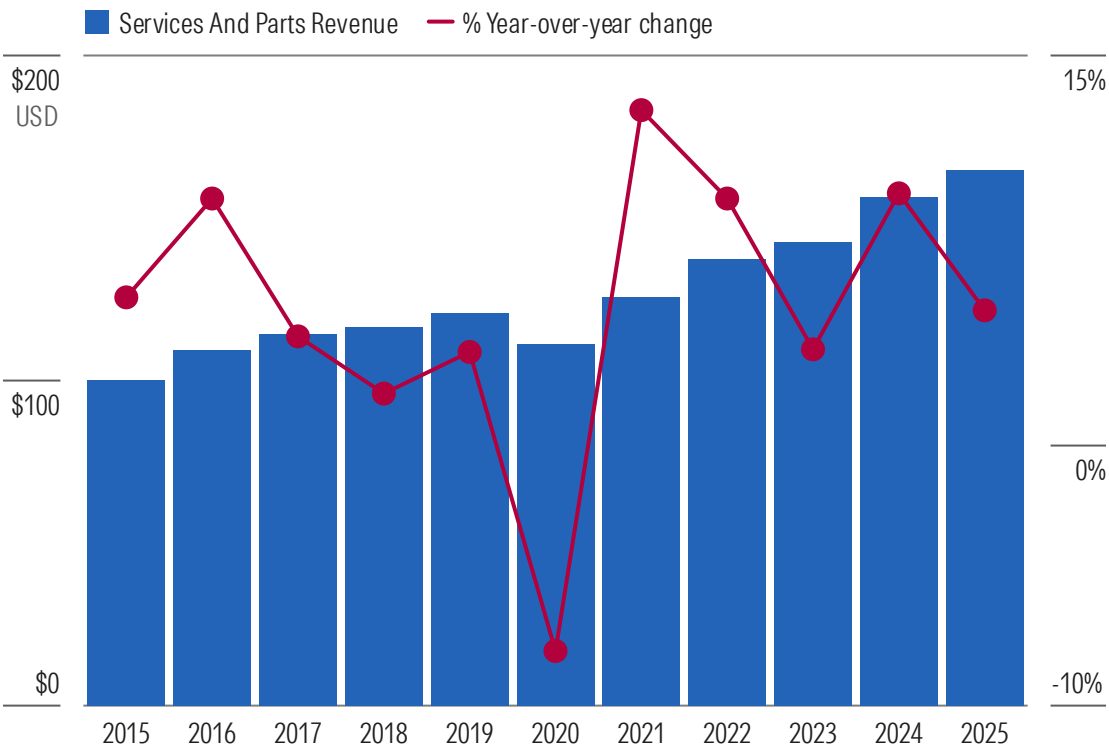


Auto dealers spent \$9.96 billion on advertising in 2025, per NADA, up 8.3% from 2024. Over time, the spending has moved away from newspapers and television to online channels such as search engine optimization and social media. Social media's mix increased 150 basis points from 2024. TV's mix is down 90 basis points year over year but up 50 basis points from 2023. SEO is important because it can mean using fewer third-party listing sites (such as Edmunds or Cars.com), which results in cheaper customer acquisition costs.

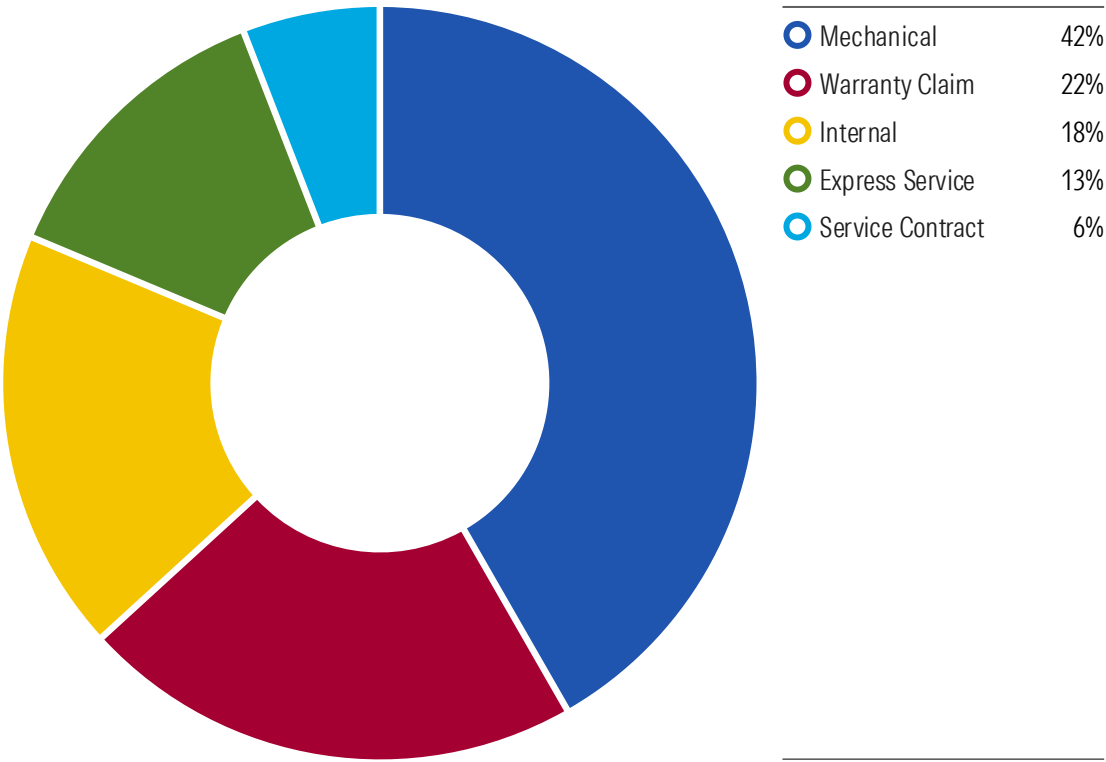
Service Is a Critical Part of a Dealer's Operation

Parts and service, also called fixed ops by dealers, carries gross margin 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 about 115%-130%. Body shops provide another revenue stream; 34% of dealers had a body shop in 2025.

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



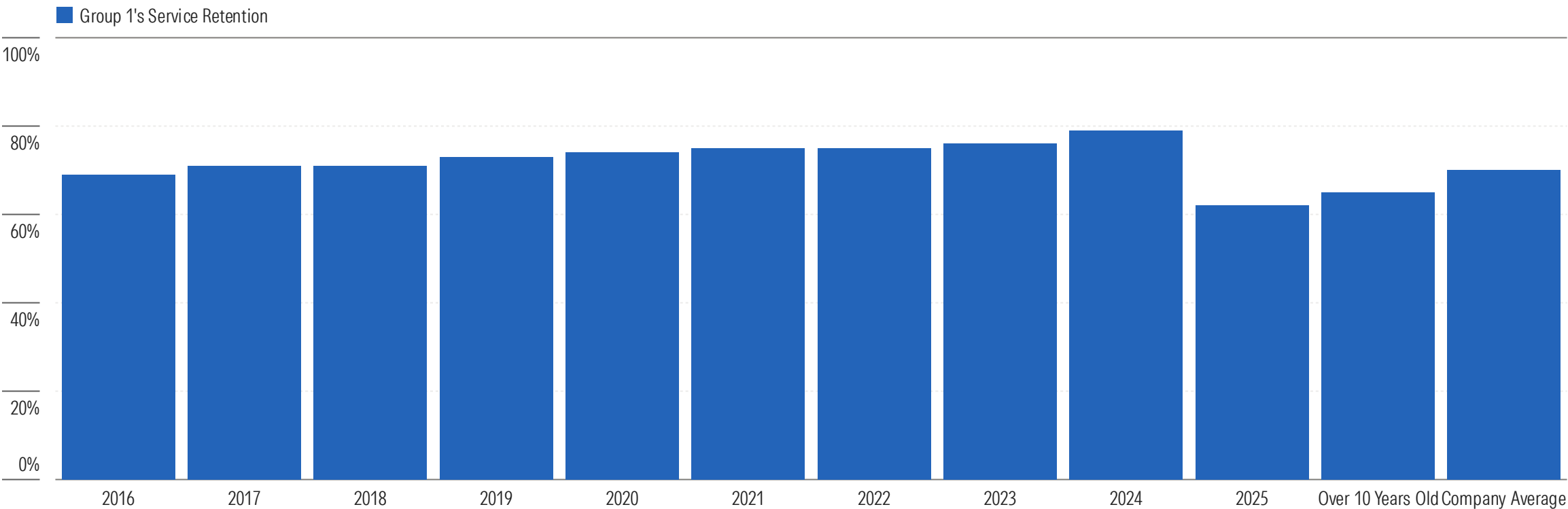
2025 US Dealership Repair Order Mix (268.3 Million Order Count)



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 that sold the vehicle. 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 and Lithia's on the next slide show respectable retention.

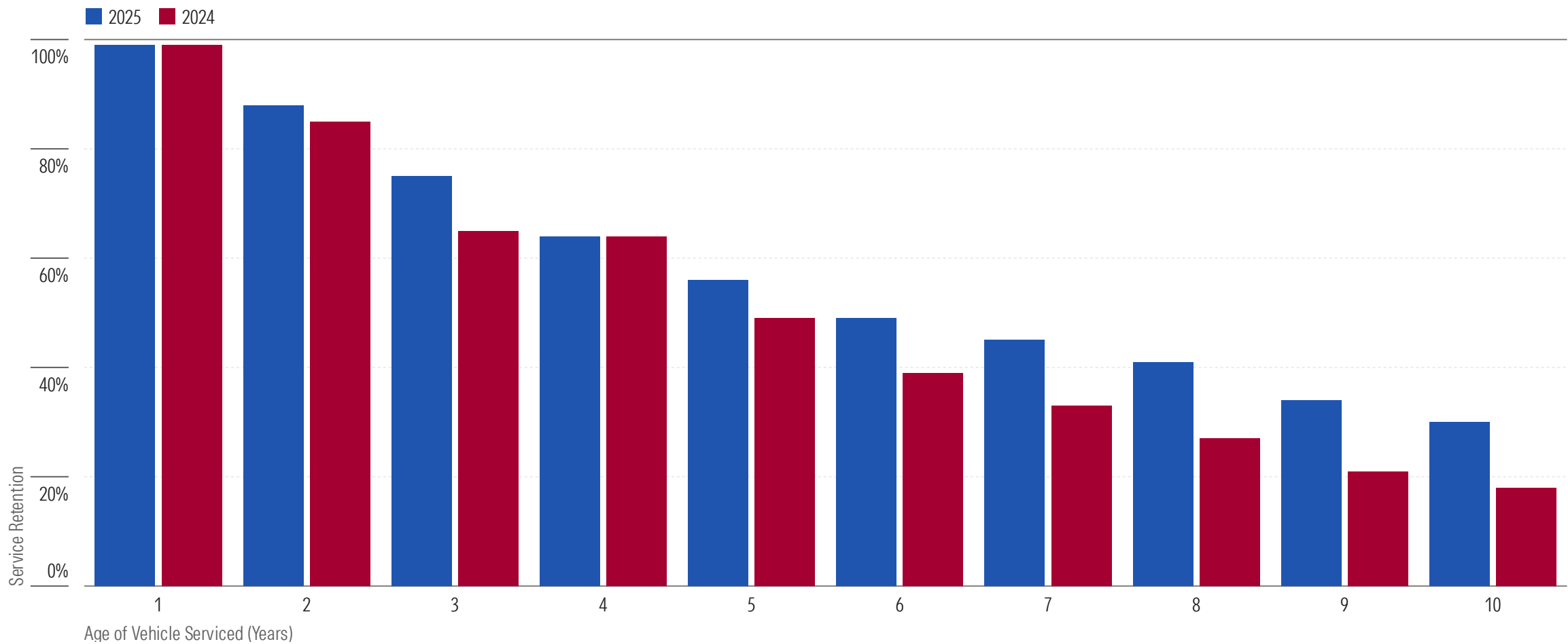
Group 1's Vehicle Service Retention Data by Model Year (for Vehicles With at Least Two Visits in the Past 15 Months)



Source: Group 1 investor presentation, Morningstar. 2025 model year data is through March 2026, and some of those vehicles have not been in service long enough to need two service visits. We expect the 2025 percentage to notably increase over the next few quarters. See Important Disclosures at the end of this report.

Warranty Helps Service Retention

Lithia’s US Service Retention by Model Year Age for 2024-25 (Defined as Customers Who Previously Purchased a Vehicle and Returned for Service in the Past 12 Months)



Source: Lithia investor presentation, Morningstar.

See Important Disclosures at the end of this report.

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.

About two-thirds of dealers' finance and insurance business comes from selling products, and one-third is from the dealer reserve markup for 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. Its 2025 dealer reserve penetration was 70%, service contracts 45%, maintenance 24%, and other products nearly 24%. 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. Leasing can have less F&I business.

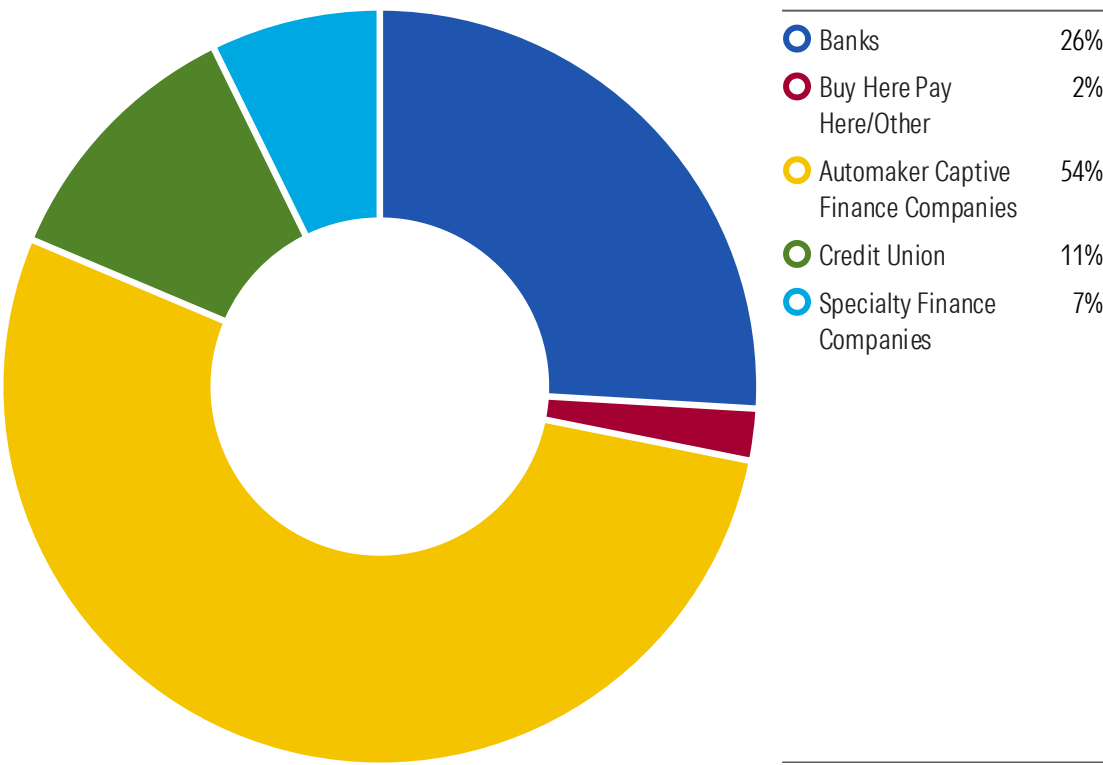
Source: Dealer 10-Ks, Morningstar research.

See Important Disclosures at the end of this report.

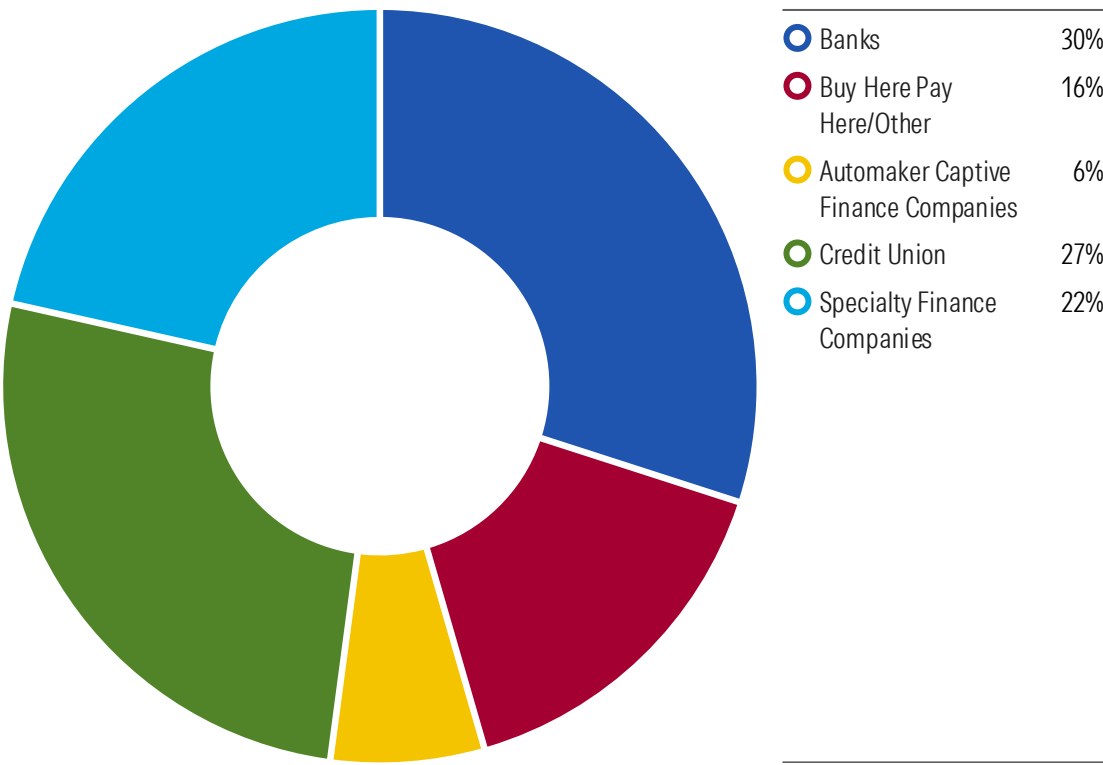
Automaker Captive Loan Origination Primarily for New Vehicles, Leaving Door Open for Dealer Captives on Used

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 2025, AutoNation Finance's and DFC's combined financed percentage of all US new-vehicle units sold was 0.5%, and for used vehicles their combined mix was 0.2%, so there is plenty of growth runway.

New-Vehicle Financing Mix: First Quarter 2026



Used-Vehicle Financing Mix: First Quarter 2026



Source: Experian's State of the Automotive Finance Market Report, Morningstar.

See Important Disclosures at the end of this report.

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 15%-20%.

Public Dealers' 2025 SG&A as a Percentage of Gross Profit

Asbury Automotive Group (GAAP)		AutoNation (GAAP)		Group 1 Automotive (GAAP)	
Personnel	41.7%	Compensation	43.9%	Personnel	Not disclosed
Rent and related	4.3%	Store and overhead	18.5%	Rent	2.2%
Advertising	2.2%	Advertising	5.5%	Advertising	3.7%
Other	16.4%			Other	Not disclosed
GAAP SG&A to Gross Profit	64.7%	GAAP SG&A to Gross Profit	67.9%	GAAP SG&A to Gross Profit	N/A
Adjusted SG&A to Gross Profit Excluding Rent	62.7%	Adjusted SG&A to Gross Profit Excluding Rent	65.2%	Adjusted SG&A to Gross Profit Excluding Rent	68.6%
Lithia Motors (GAAP)		Penske Automotive Group (GAAP)		Sonic Automotive (GAAP)	
Personnel	43.3%	Personnel	43.1%	Compensation	45.6%
Rent and Facility	7.1%	Rent and related	8.6%	Rent	1.9%
Advertising	4.5%	Advertising	2.5%	Advertising	4.2%
Other	13.9%	Other	17.9%	Other	18.7%
GAAP SG&A to Gross Profit	68.8%	GAAP SG&A to Gross Profit	72.1%	GAAP SG&A to Gross Profit	70.4%
Adjusted SG&A to Gross Profit Excluding Rent	66.2%	Adjusted SG&A to Gross Profit Excluding Rent	66.1%	Adjusted SG&A to Gross Profit Excluding Rent	69.7%

Source: Dealer 10-Ks, Morningstar calculations. Most dealers only gave this breakout for their GAAP SG&A. Data includes non-US stores and other stores such as trucks.

See Important Disclosures at the end of this report.

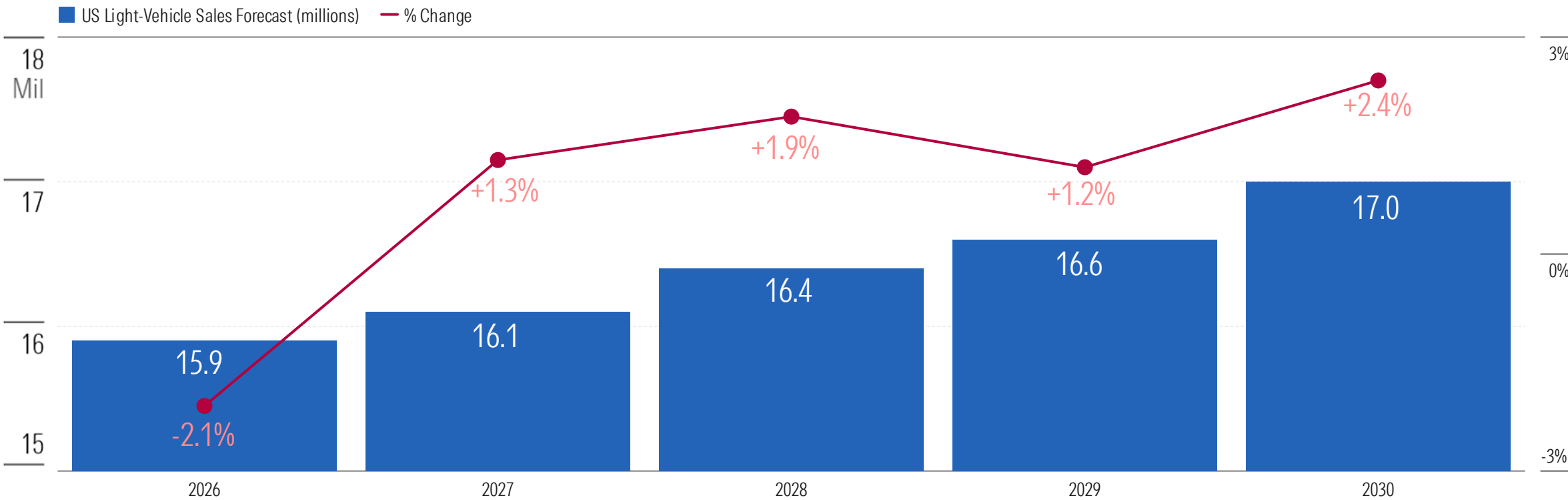
Outlook

Affordability slowing auto sales recovery while consolidation continues.

New-Vehicle Sales Recovery Will Take Time, so Dealers Have Good Growth Runway

At nearly 2.7 million units, US light-vehicle inventory for now is not back to where we think it will likely settle. Low inventory, along with leasing still below 2019 levels, gives reason to think that new-vehicle sales will rise in the next few years, though not rapidly. Many consumers who bought in 2020-23 during poor availability may not have purchased the exact vehicle they wanted, so they could return to the market early. Still, much higher interest rates than in recent years and high prices likely mean a decline for 2026 versus 2025.

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



Per Capita Sales Math Says Recent Sales Years Below Long-Term Trend Levels, Which Suggests Future Growth

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

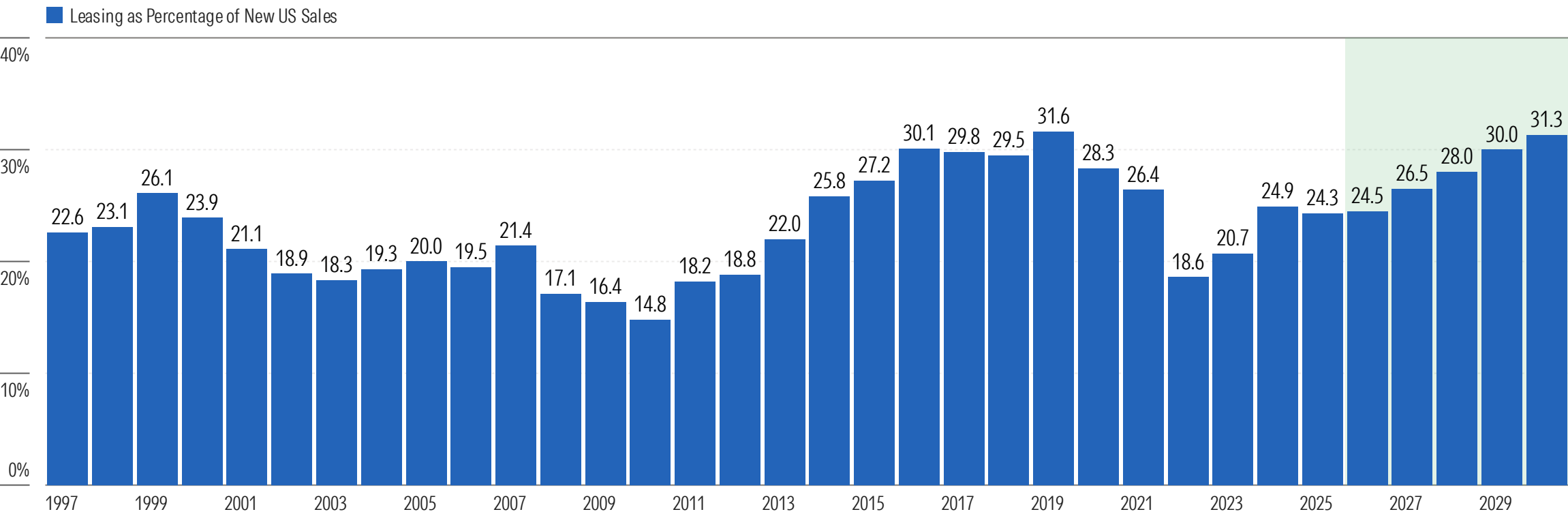
	Total US Population	US Licensed Driver Population
Per capita sales average 1951-2025	5.1%	8.3%
Per capita sales average 2000-2025	5.0%	7.3%
1980 per capita sales	4.9%	7.7%
1982 per capita sales	4.5%	6.9%
1991 per capita sales	4.9%	7.3%
2009 per capita sales	3.4%	5.0%
2020 per capita sales	4.4%	6.4%
2021 per capita sales	4.5%	6.5%
2022 per capita sales	4.1%	5.9%
2023 per capita sales	4.7%	6.6%
2024 per capita sales	4.7%	6.7%
2025 per capita sales	4.8%	6.8%

Recessionary New Light Vehicle Sales Scenarios		
	Total US Population Sales	US Licensed Driver Sales
Sales at 1980 per capita levels	16,905,083	18,630,529
Sales at 1982 per capita levels	15,336,946	16,666,108
Sales at 1991 per capita levels	16,747,327	17,609,170
Sales at 2009 per capita levels (actual 2009 sales totaled 10.43 million)	11,642,112	12,030,195
Sales at deep recession per capita levels of 4% of total population and 6% of drivers	13,721,821	14,504,613
Sales at 2019 per capita levels	17,768,848	18,081,940
Sales at 2020 per capita levels	15,116,025	15,440,572
Actual 2025 US sales	16,348,337	
Midpoint of our 2026 expected sales	15,900,000	

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 automakers' 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 as it nears 30%.

Percentage of New US Light-Vehicle Sales That Are Leased (2026-30 Are Morningstar's Forecast)



Lower Interest Rates Help Sales, but Industry Can Absorb Some Rate Hikes Too

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

	New Vehicle	Used Vehicle	New % Change	Used % Change
Principal	\$43,925	\$27,070		
Rate	6.4%	11.4%		
Months	69.48	67.73		
Monthly Payment	\$753.99	\$539.06		
Increase in monthly payment if rates rise 100 basis points	\$20.22	\$13.34	2.7%	2.5%
Rise 200 basis points	\$40.75	\$26.85	5.4%	5.0%
Rise 300 basis points	\$61.59	\$40.53	8.2%	7.5%
Rise 400 basis points	\$82.72	\$54.38	11.0%	10.1%
Rise 500 basis points	\$104.16	\$68.40	13.8%	12.7%
Rise 1,000 basis points	\$215.68	\$140.92	28.6%	26.1%
Rise to Aug. 1982 peak of 17.87% (new only)	\$250.03	N/A	33.2%	N/A

With first-quarter 2026 new-vehicle loan average interest rates about 55% higher than in the first quarter of 2021 and about 30% higher for used vehicles, the consumer has experienced borrowing cost sticker shock. Used-vehicle customers have at times delayed purchases altogether per CarMax, while new-vehicle buyers are in some cases trading down to compact cars. Luxury buyers remain willing to buy. Average new-vehicle monthly loan payments of \$770 are 39% higher than in the first quarter of 2019 and about 36% higher for used at \$531.

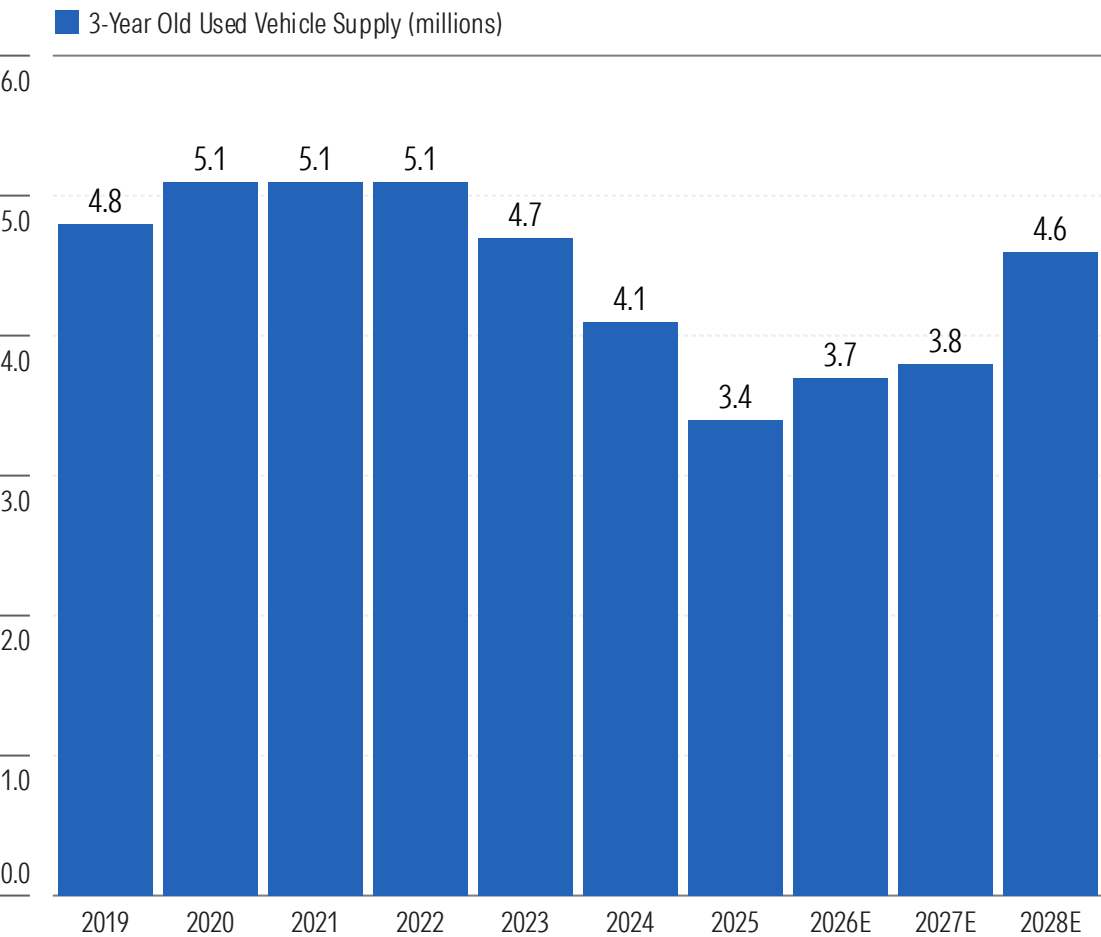
A few interest rate cuts would help the auto market, especially for used vehicles. The chart shows that at the margin, even future increases of up to 500 basis points would mean about a \$70-\$100 increase in the monthly payment for new and used loans.

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 new monthly payments would rise by \$250.

Late-Model Used-Vehicle Supply Increase Is a Question of When, Not If

Quality Used-Vehicle Supply Increase Started This Year and Accelerates in 2028

US supply of three-year-old used vehicles (millions).



2025's leasing penetration is almost 600 basis points higher than 2022's 18.6%, leading to higher off-lease supply and higher supply of desirable used vehicles with a relatively young age of three years. Supply improvement is projected to be gradual through 2027 and then meaningfully step up in 2028 thanks to 2025's new-vehicle sales being the highest since 2019. Better supply suggests affordability improvement for consumers, which may mean more volume for dealers' sales and service lanes.

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, given 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 (instead 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. A decline in new-vehicle production 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 new/used gap just before the pandemic was about \$15,400; it fell 30% to \$10,704 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); it exceeded first-quarter 2020 levels for the first time in the first quarter of 2023 at \$15,816.

Source: Sonic Automotive investor presentation (citing JD Power data), Morningstar.

See Important Disclosures at the end of this report.

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 2026, 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 launched. We don't think a dealer must have used stores, but it's a growth channel with no automaker rules oversight.

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

Dealer	Used Stores	Used Store Brand	Used Store Count	Used Store Retail Volume (2025)	Change From 2024	Used Store Revenue (2025)	Percent of Total Revenue
AutoNation	Yes	AutoNation USA	25	28,893	7.6%	Not disclosed	Not disclosed
Penske Automotive Group	Yes	Sytner Select (UK), CarShop (US), Australia Select	16 (7 UK, 8 US, 1 Australia)	Not disclosed. Company says will retail about 30,000 units annually.	NA	~\$900 million	2.8%
Sonic Automotive	Yes	EchoPark	18	67,636	-2.1%	\$2.072 billion	13.7%
Group 1 Automotive	No	N/A	-	-	-	-	-
Lithia Motors	No	N/A	-	-	-	-	-
Asbury Automotive Group	No	N/A	-	-	-	-	-

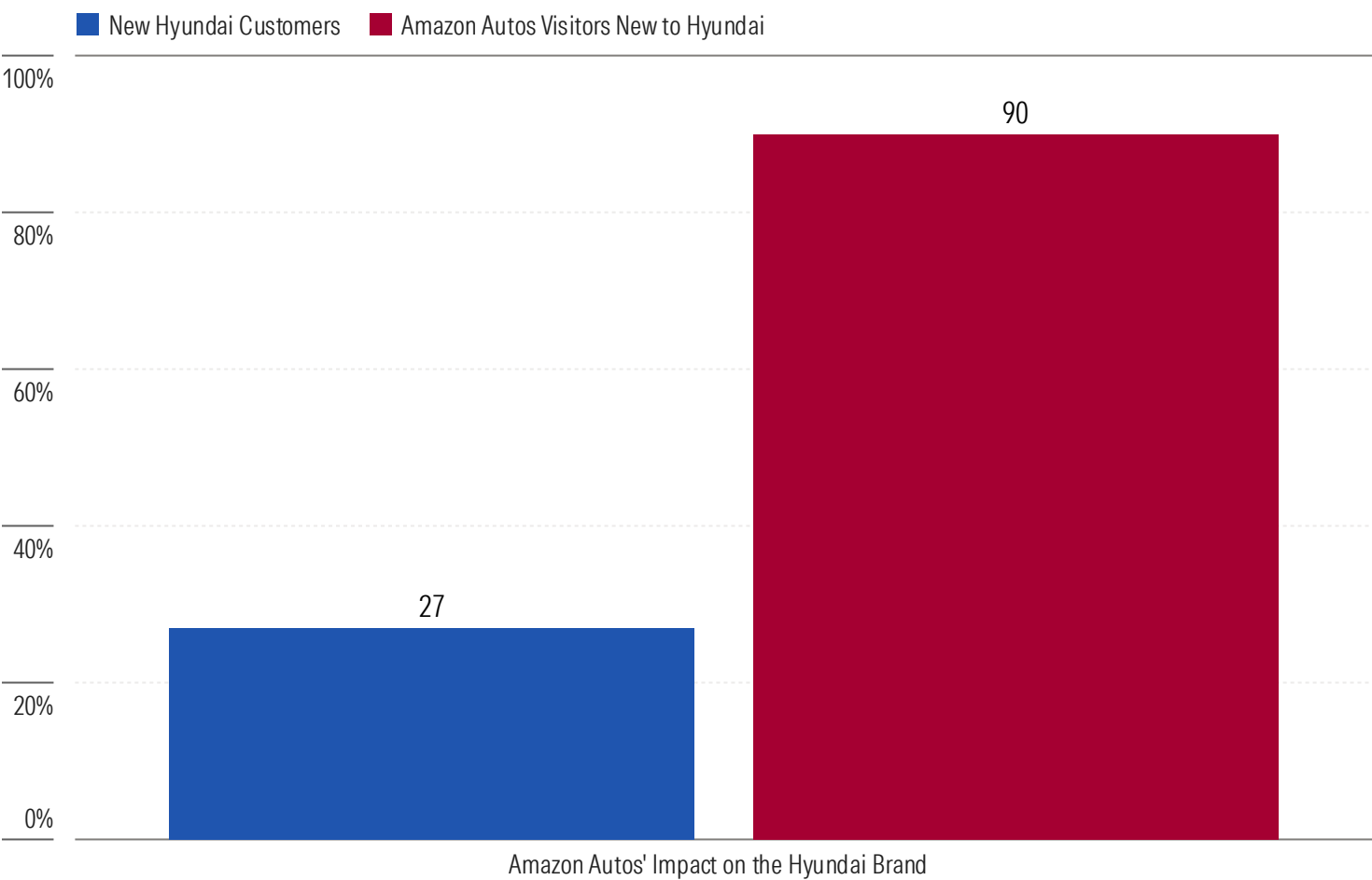
Dealers Not Afraid to Go Digital; Omnichannel Allows Customer to Choose Optimal E-Commerce Exposure

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 for a far easier buying process, and they are not resisting the change, though smaller ones cannot afford to add omnichannel. Digital also lets dealers collect data. Customers shop via omnichannel, where they choose how much of the process to do online versus in-store. Hyundai and Amazon have a program to sell new vehicles, but this is a lead generator; the dealer will still be making the sale and retain the chance for service. Amazon has brought new customers.

Asbury's Clicklane tool is a good illustration. Clicklane can do the entire buying process—trade-in, financing, and loan payoff—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 approach contrasts with Lithia's Driveway tool, where the average customer is 800 miles from the vehicle and has it delivered.

Amazon Autos Is Bringing New Customers to Hyundai

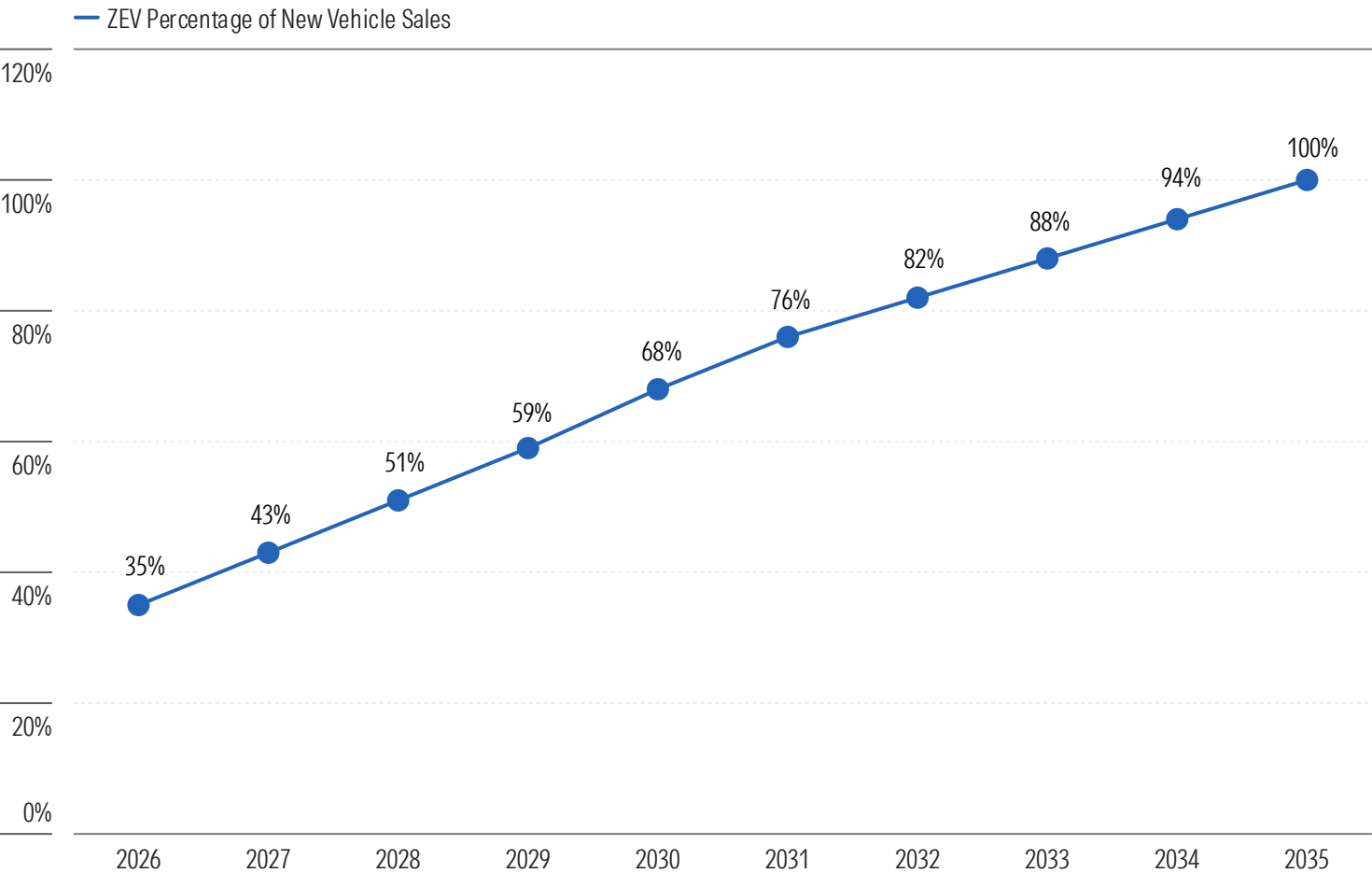
Impact of Hyundai-Amazon partnership per Hyundai CEO in December 2025 interview.



Further Electric Vehicle Penetration Looks Inevitable, Regardless of Federal Policy

California Fighting the Federal Government so It and Other States Can Fully Ban Combustion Sales in 2035

California's zero-emission vehicle rule for new light-vehicle sales by model year under the revoked (for now) ACC II.



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 11.8% of 2025 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.

However, on June 12, 2025, the US government revoked California's waiver to set its own rules, including ACC II. California is suing to stop what it sees as an illegal act by the federal government, but there is no court decision yet. California Gov. Gavin Newsom that day issued an executive order to create ACC III, which will be used as an alternative to ACC II should the state's lawsuit fail. Details on ACC III are few.

We see higher battery electric vehicle penetration as inevitable as battery costs fall. The next two slides show more detail on BEV sales and our 2030 BEV forecast.

Hybrids Still Winning Share in 2026, but We See Battery Electric Vehicles Rebounding Once Affordability Improves

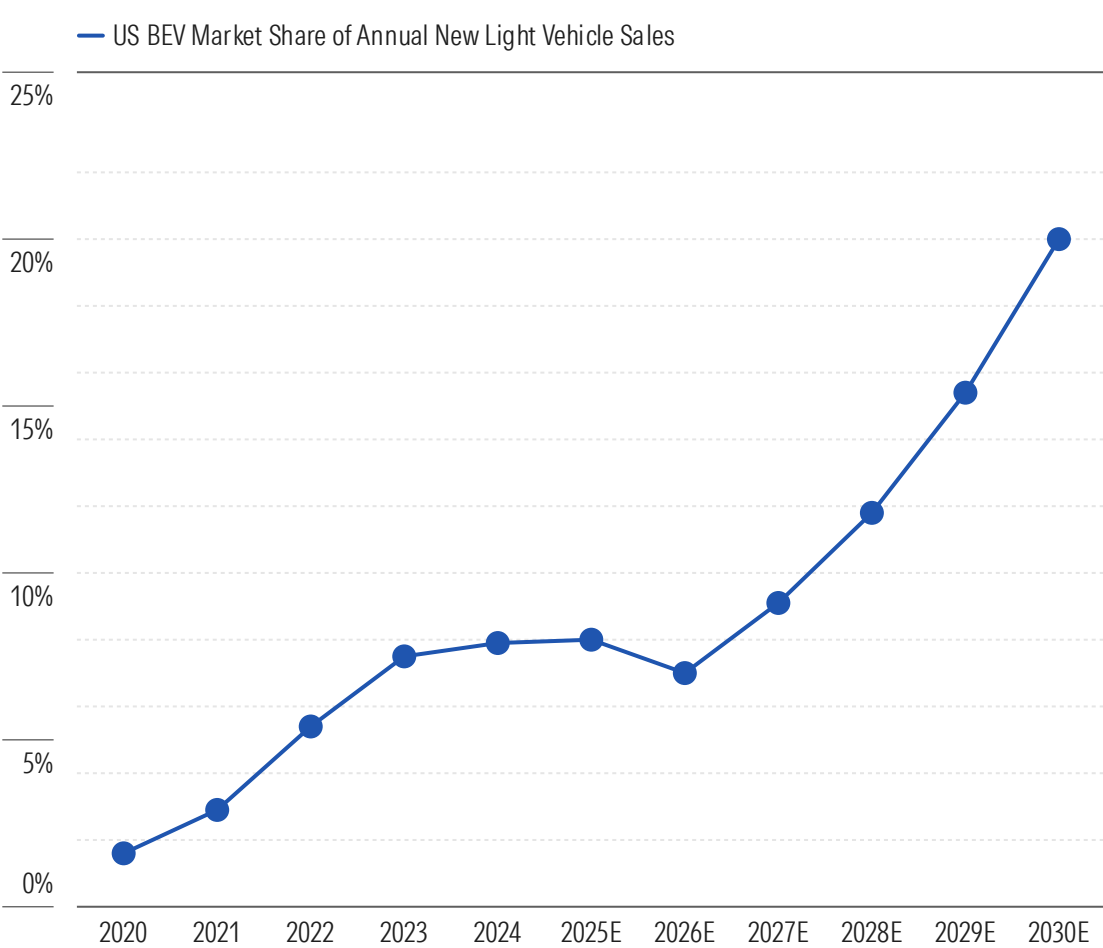
Hybrids Gaining Share in 2025-26 on Toyota and Honda Offerings

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	15,502,479	7.5%	1.9%	9.4%	7.6%	0.019%	17.0%
2024	15,858,418	7.8%	2.0%	9.8%	10.2%	0.004%	20.0%
2025	16,233,363	7.8%	1.6%	9.4%	12.7%	0.002%	22.0%
1H 2026	7,883,658	5.8%	1.2%	7.0%	15.4%	0.002%	22.4%

We See BEVs Gaining More Share as Battery Costs Come Down

BEVs' share of US new light-vehicle sales.



Source: US Department of Energy Alternative Fuels Data Center, Automotive News, Omdia (left), Omdia, Morningstar forecast (right).

See Important Disclosures at the end of this report.

2026 Is a Bad Year for BEVs, Given Tax Credit Expiration, but Market Share Losses Stabilizing Sequentially

Tax Credit Ending Means Large Year-Over-Year BEV Declines, but Those Will End in Fourth Quarter

2025 and year-to-date June 2026 US new light-vehicle sales by propulsion type.

	2025 Year-Over-Year US Sales Growth by Propulsion	2025 Market Share	2025 Year-Over-Year Share Change in Basis Points	YTD June 2026 Year-Over-Year US Sales Growth by Propulsion	YTD June 2026 Market Share	YTD June 2026 Year-Over-Year Share Change in Basis Points
Internal combustion	-0.2%	78.0%	-203	-3.2%	77.6%	-31
Hybrid	27.6%	12.7%	251	19.4%	15.4%	286
Plug-In hybrid	-17.2%	1.6%	-38	-43.2%	1.2%	-83
Battery electric vehicle (BEV)	1.2%	7.7%	-9	-25.1%	5.8%	-172
BEV ex-Tesla	5.5%	4.3%	13	-34.1%	2.8%	-135
Fuel cell	-42.5%	0.002%	Not meaningful	27.3%	Not meaningful	Not meaningful
US light vehicle sales growth	2.4%	N/A	N/A	-2.8%	N/A	N/A

We see BEV sales in a holding pattern rather than permanently leveling off. BEVs excluding Tesla grew 27% in 2024 and 5.5% in 2025, but that momentum ran out in 2026 after the tax credit ended on Sept. 30 last year. US BEV share is down in 2026, but BEV sales have risen sequentially in four of six months this year, including up 11.6% in May and 3.9% in June on high gas prices from the Iran war.

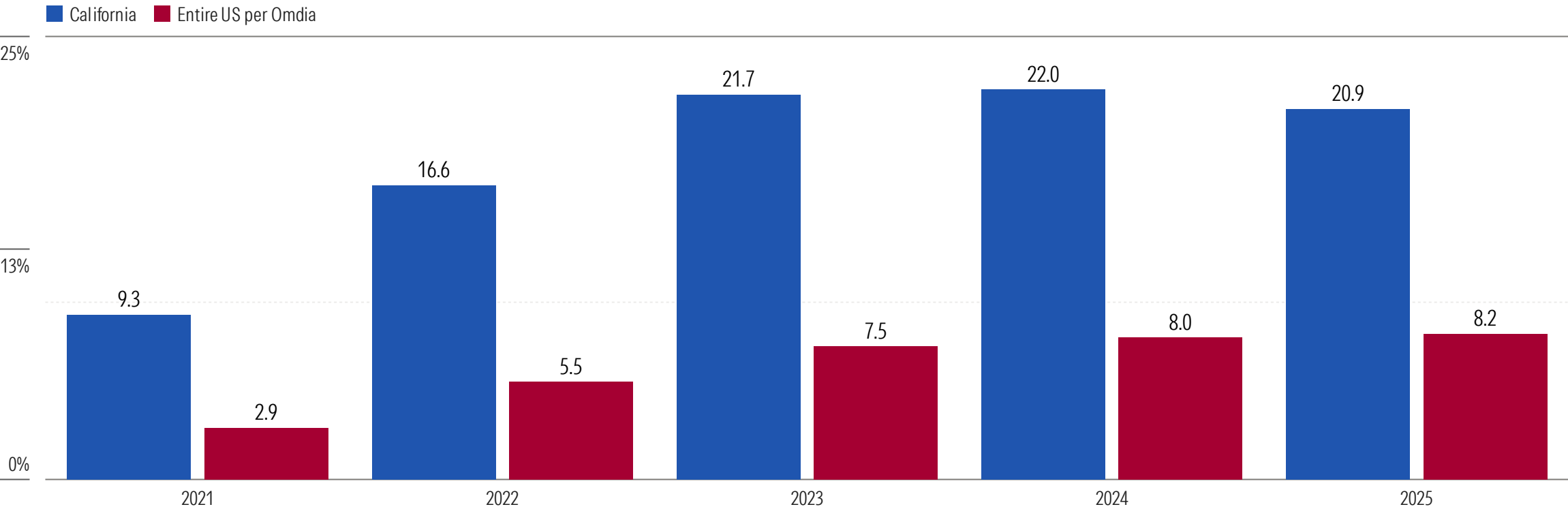
The US needs more time to build out infrastructure, expand its BEV offerings to more affordable choices, as Chevrolet has done, and give higher-income customers BEV options beyond Tesla, like Cadillac is doing. Dealers can sell whatever propulsion type their customers want (other than Tesla and other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

California Has Far More Zero-Emission Vehicles Than the National Average

A key problem for zero-emission vehicles now is their popularity split in and out of California. According to the California New Car Dealers Association, in 2025, ZEVs were 20.9% of new-vehicle registrations in the state, but for the whole country including California, they were only about 8%. California was about 28.5% of all US ZEV registrations, per the association.

California’s Love of ZEVs Is Not Shared by the Rest of the US

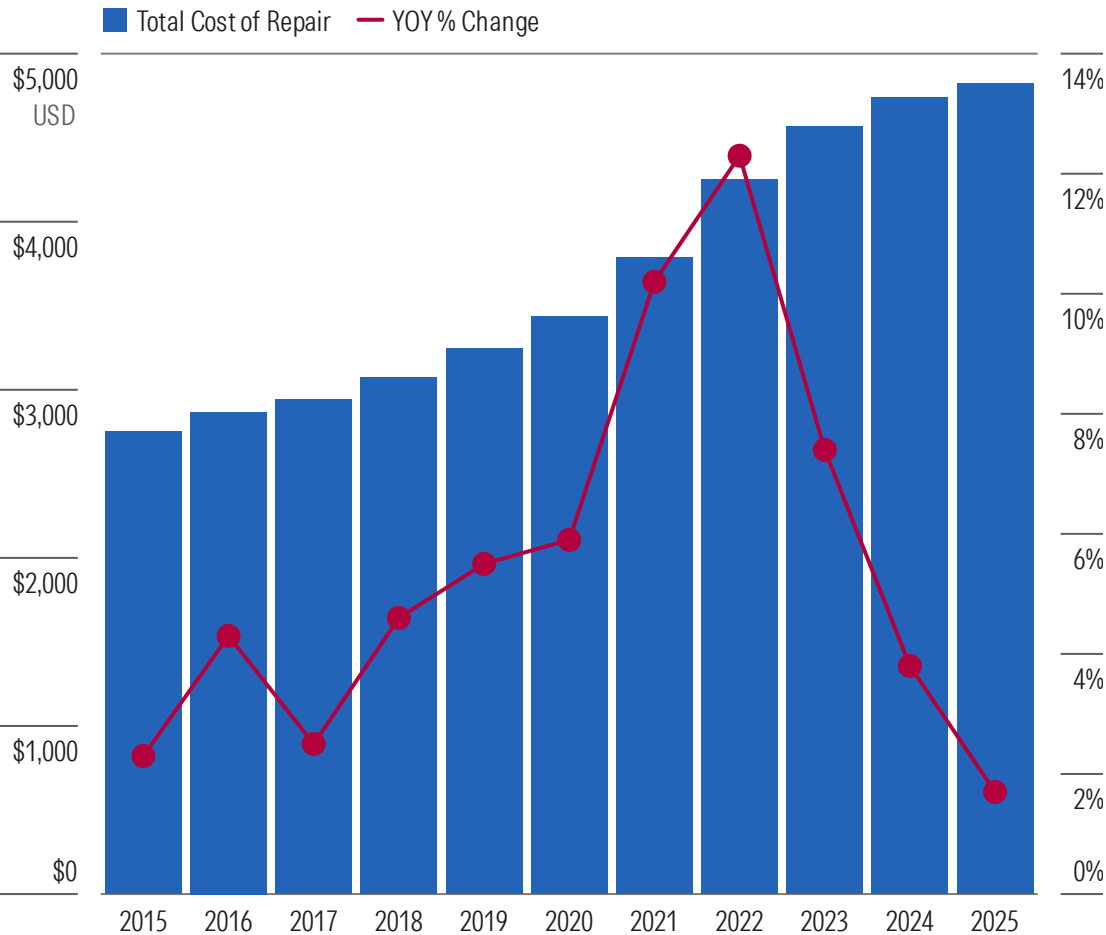
California’s ZEV or BEV percentage of annual new-vehicle registrations or sales versus nationwide ZEV or BEV new-vehicle share.



No Evidence That BEVs Are Hurting the Lucrative Service Segment

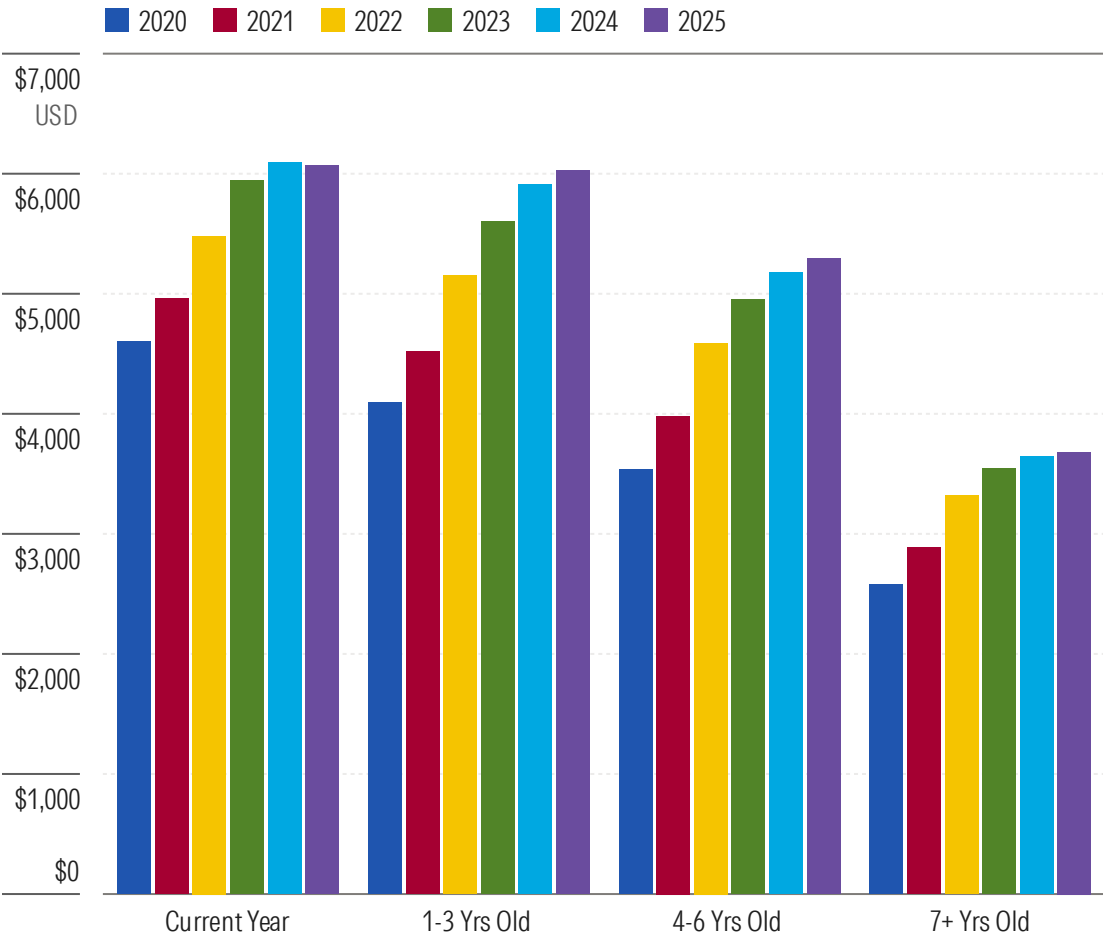
No Indication BEVs Are Causing a Decline in Service Revenue

Average total cost of repair by year (all powertrains).



Repair Costs Increasing Over Time Regardless of Vehicle Age

Average total repair cost by vehicle age group (all powertrains).



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

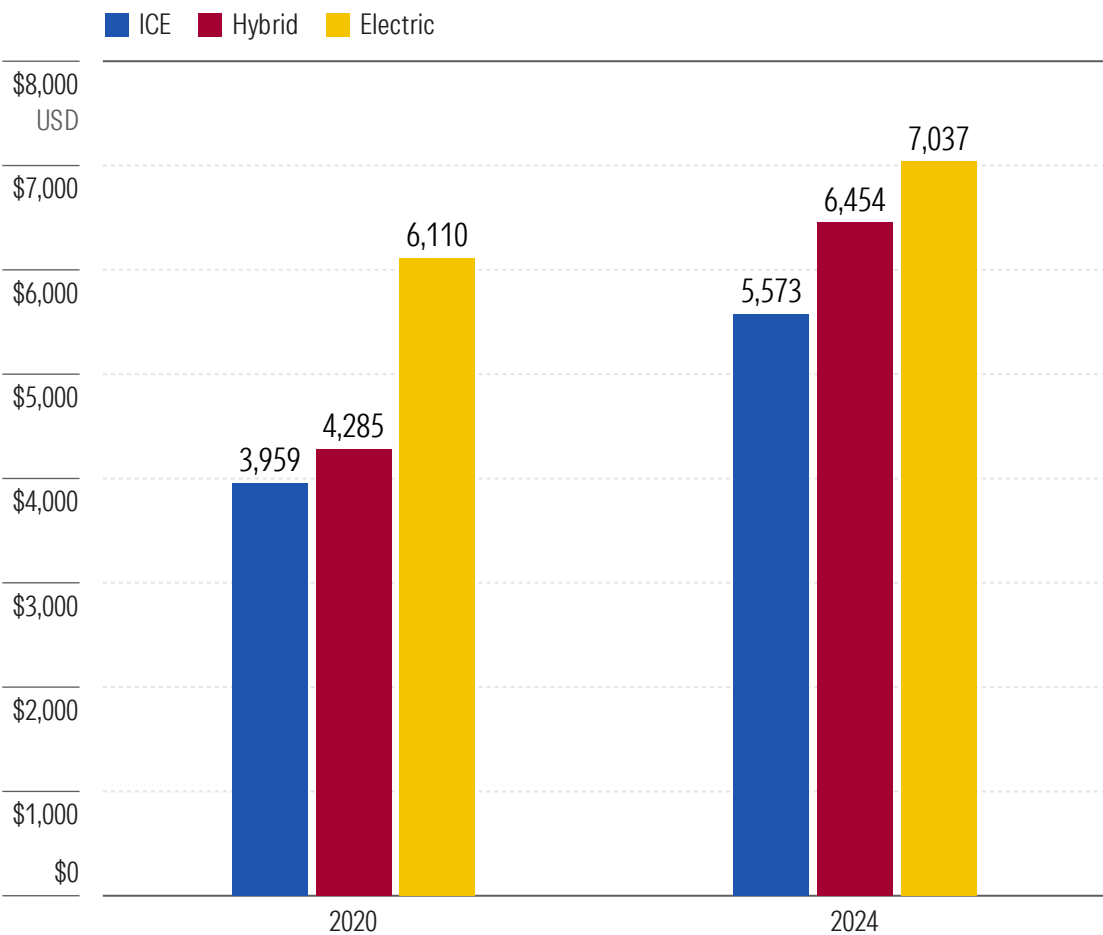
BEVs Need More Parts and More Labor Than Internal Combustion Engine Repairs

Repair metrics for BEV, ICE, and HEV.

	2020	2021	2022	2023	2024
ICE					
Parts per Repair	13.5	14.3	15.9	16.3	15.9
Avg. Price per Part	\$ 131.50	\$ 141.16	\$ 149.58	\$ 151.72	\$ 156.60
Avg. Labor Hours	27.1	28.5	30.4	30.8	30.7
Labor as % of Total Repair Cost	36.2%	34.9%	34.3%	34.9%	35.2%
Electric					
Parts per Repair	33.9	34.6	28.1	24.3	22.0
Avg. Price per Part	\$ 56.46	\$ 62.21	\$ 85.60	\$ 103.83	\$ 126.67
Avg. Labor Hours	35.5	37.5	38.2	37.2	34.7
Labor as % of Total Repair Cost	47.6%	46.2%	45.4%	45.7%	42.6%
Hybrid					
Parts per Repair	15.1	16.4	18.4	18.9	18.5
Avg. Price per Part	\$ 125.47	\$ 139.55	\$ 148.26	\$ 154.88	\$ 160.05
Avg. Labor Hours	27.6	29.1	31.3	32.0	31.8
Labor as % of Total Repair Cost	35.7%	35.1%	34.4%	34.6%	35.2%

BEV Repair Premium to ICE 26% in 2024 vs. 54% in 2020, Partly on Rising Labor Costs

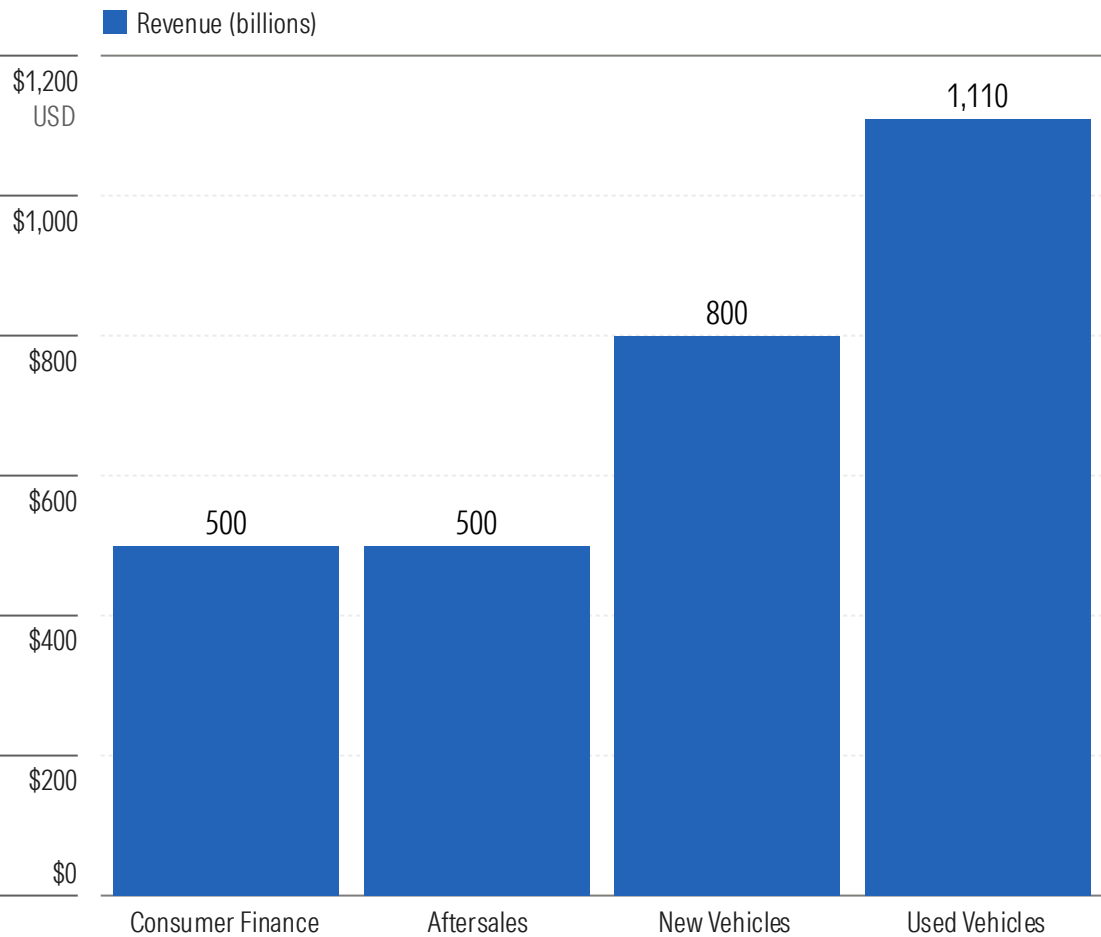
Total cost of repair for vehicles up to three years old by powertrain.



Dealers Have Many Growth Runways as Sector Slowly Consolidates

Traditional Automotive Retailing a Big Market, Plus New Verticals Possible

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 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 has its own captive finance arm as well and said in July 2024 that its higher profit ratio is 2.5-3 times. It can also use AutoNation Finance to grow its AutoNation USA stand-alone used-vehicle store sales. The lender was about 17% of the company’s first-quarter loans. CarMax Auto Finance’s \$16 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 national fleet provider. Dealers could help lease AVs as well. We calculate 2030 passenger mile demand for US robotaxis as a \$3.7 trillion market (assuming 100% share) at \$0.70/mile, and dealers can service or sell some of these vehicles. Lithia has moved into selling RVs in recent years, Penske has 45 truck stores, and Sonic has added Harley-Davidson motorcycle dealerships and powersports. 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 last firms still have the option to go international. We think AutoNation is the most likely to do it next.

Source: Lithia Motors investor presentation, Morningstar.

See Important Disclosures at the end of this report.

Tariff Exposure Varies by Dealer and by Automaker

Every Dealer Has Tariff Exposure, but Risk Is Not Uniform

Dealers' automaker exposure as percent of 2025 units, revenue, or total dealer revenue.

GM, Ford, Stellantis Exposure				
Asbury	29%			
AutoNation	29%			
Lithia	22%			
Group 1	17%			
Sonic	18%			
Penske	3%			
Toyota & Lexus Exposure	Toyota	Lexus	Honda/Acura	Total
Asbury	19%	11%	10%	40%
Group 1				34%
AutoNation	16%	4%	8%	28%
Lithia	14%	3%	16%	33%
Penske	13%	5%	6%	24%
Sonic	9%	6%	11%	26%
Audi, BMW, Mercedes, & Porsche Exposure				
Penske	52%			
Sonic	45%			
Group 1	35%			
AutoNation	28%			
Lithia	17%			
Asbury	14%			

Dealers on recent earnings calls have either not mentioned tariffs or, in Sonic's case, said automakers will be more aggressive about passing along tariff costs in 2026 than in 2025. It's certainly possible automakers will not keep absorbing nearly the entire tariff cost, but new-vehicle affordability is keeping many consumers out of the market. Some vehicles are not tariffed as much as others due to US assembly (foreign parts used in US assembly can be tariffed), and vehicles still need service despite tariffs on parts.

Our dealer coverage also has experience relying more on the used-vehicle business when new-vehicle supply shocks occur, thanks to the chip shortage and the aftermath of the 2011 tsunami in Japan. For example, Lithia sells late-model used vehicles but also what it calls value autos, which are vehicles nine years or older, regardless of mileage. Value autos are about 24% of Lithia's same-store used-vehicle volume and are its most profitable used vehicles, with a return on investment over 100%.

The table shows that tariff exposure isn't uniform across dealers; it depends on which brands they carry. For example, Penske does not do much Detroit Three business but has a lot of German brand exposure. For dealers with high Detroit exposure, those automakers have high compliance with the United States-Mexico-Canada Agreement. USMCA-compliant parts will not be tariffed when shipped into the US before final vehicle assembly. Non-US content still faces a 25% tariff when the vehicle is imported into the US, as does a Mexican- or Canadian-made Detroit Three vehicle. Penske, Asbury, and Group 1 got help with the 15% tariff deals for Japan and the EU, meaning that those brands pay lower tariffs than a US automaker does from Mexico.

ESG Snapshot

Family ownership and human capital are the main risks.

Summary of Sustainalytics' ESG Exposure Ratings

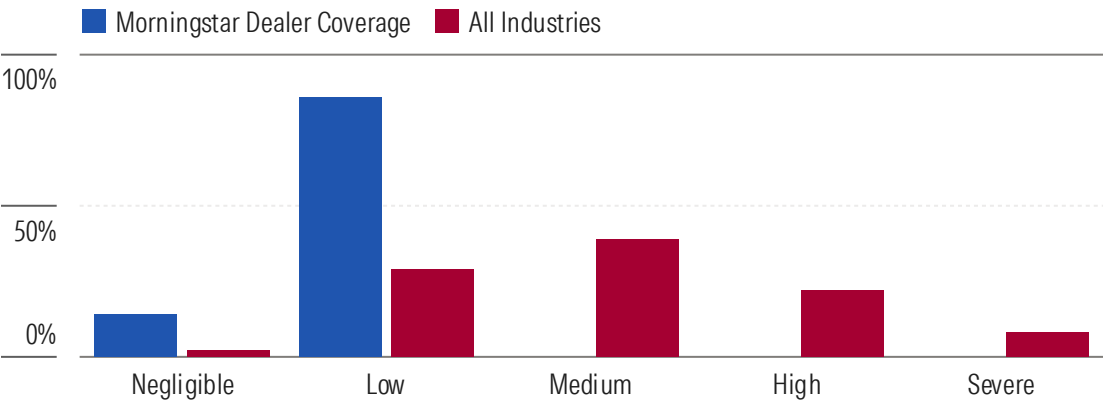
Sustainalytics assigns all US auto dealers in our coverage an ESG Risk Rating of Low or Negligible. For comparison, over two-thirds of all companies are assigned an ESG Risk Rating of Medium or higher. Therefore, the auto dealer industry faces less risk than the average for companies across all industries. 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.

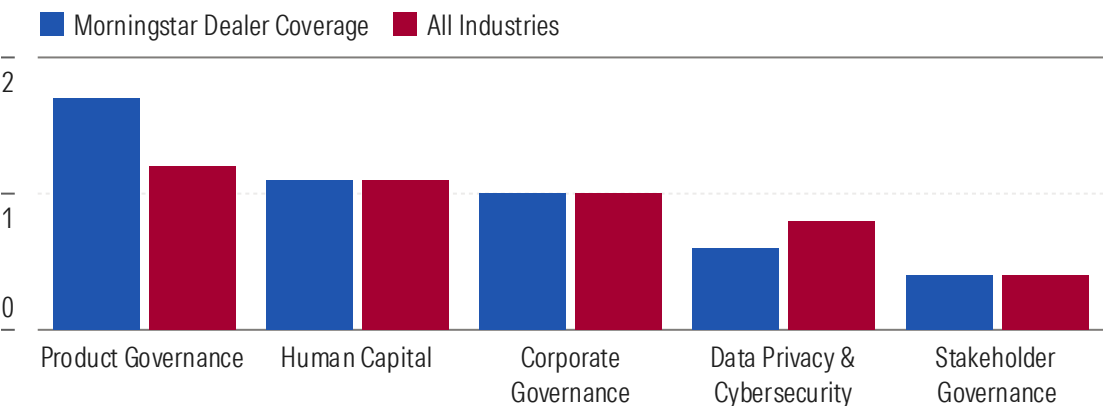
Human capital: Selling cars is a highly cyclical operation, and commission-based salespeople means that turnover is common. Service technician shortages are the most pressing human capital concern for dealers; some are better than others at retaining techs. Attracting and maintaining top store-level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

Corporate governance: Family ownership and concentrated voting power expose some dealers we cover to the 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 private. The DeBoer family owns under 1% of Lithia via the CEO and his father. Penske is 52% owned by Penske Corp. (controlled by CEO Roger Penske), and nearly 86% 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 July 14, 2026. Data includes CarMax.

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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 Tech 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%
2024	270,869	6.0%	16	24.1%
2025	283,021	4.5%	17	25.2%

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 has not been 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 stay on graduates' radar screens. Turnover metrics are not available industrywide, but we read that a common reason for techs leaving is that 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, mentor programs, 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.

Group 1 has discussed its recent technician success. It pays techs at or above market, offers a four-day workweek, has installed air conditioning in US shops, and provides mentoring programs, tuition, and training so techs see a long-term career path. In October 2023, Group 1 said its US tech headcount was up 11% versus 2019. Its 2025 and 2024 same-store US tech headcount rose by 2.3% and 7% year over year.

Source: NADA Data, Morningstar calculations.

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