

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.

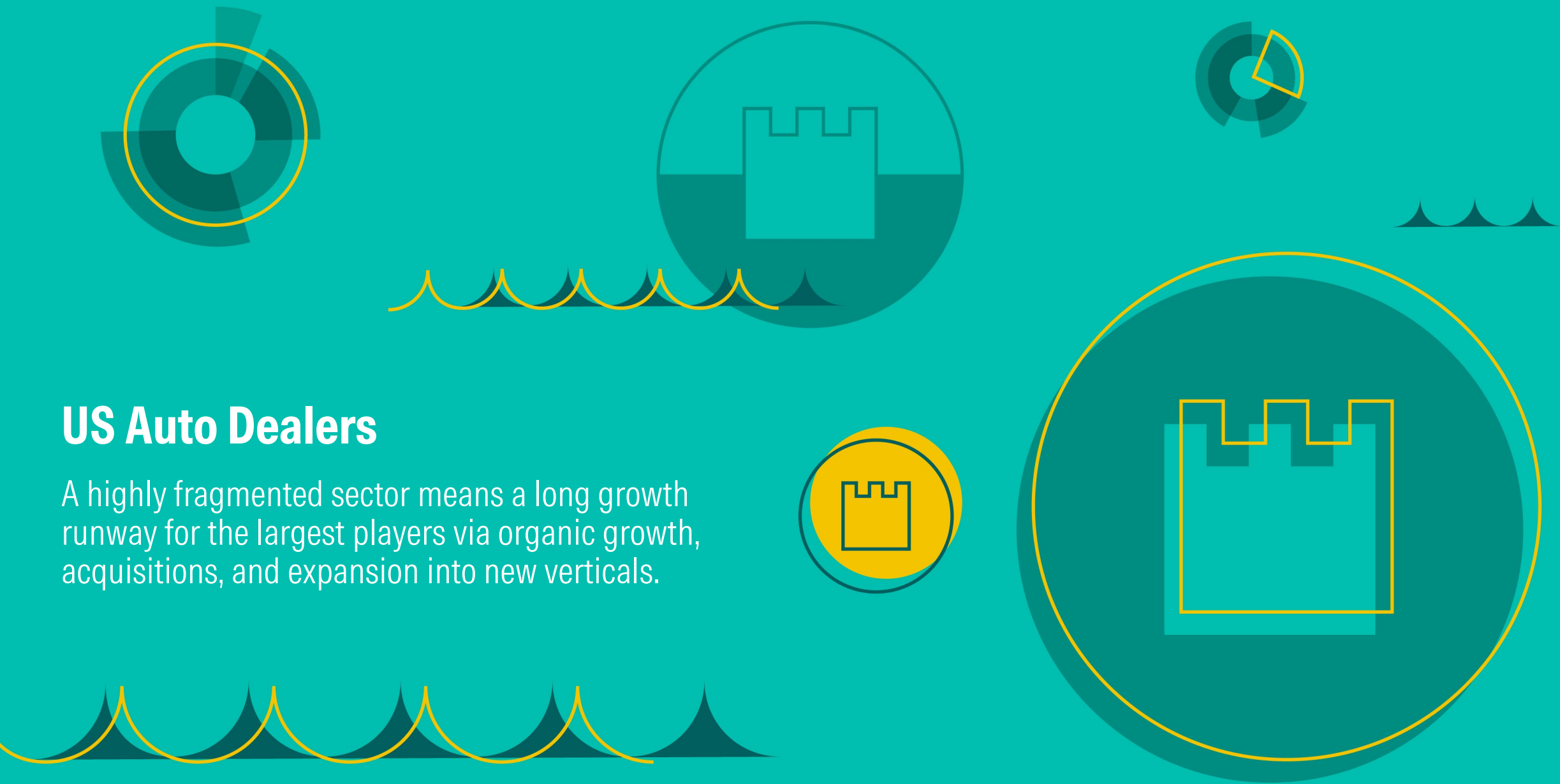


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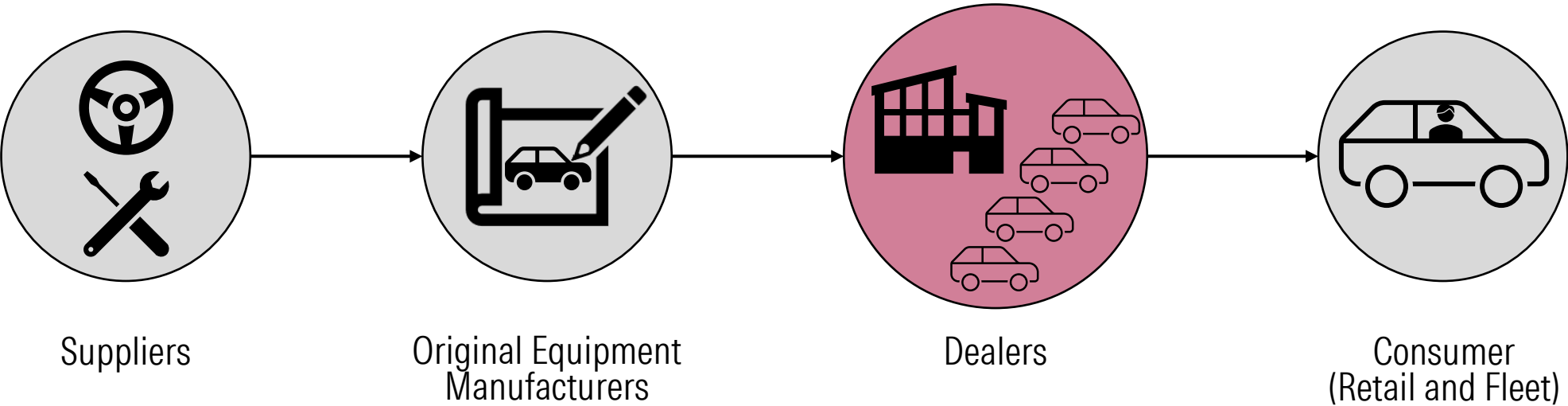
Executive Summary

A fragmented and moaty sector continues to consolidate.

Industry Map

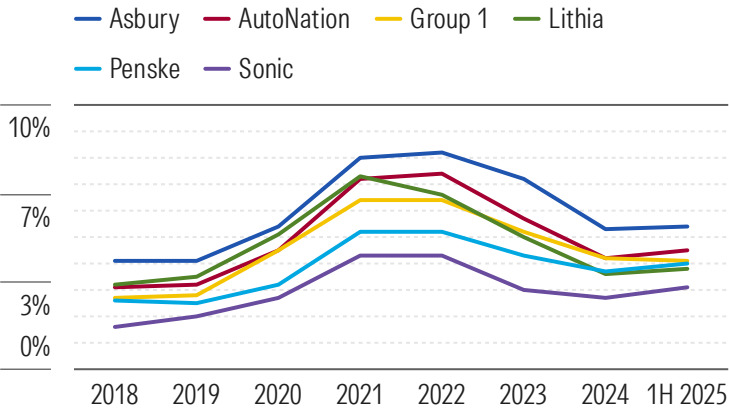
Dealers are the distributors between the automakers and the end users of the vehicle (consumers and fleet customers). Selling new vehicles is the genesis of everything else that happens at the store. A new-vehicle customer often trades in a used vehicle, which the dealer can then retail, gets a loan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

Dealers Are the Intermediary Between Automakers and the End User of the Vehicle



Key Industry Themes

Profits Stabilizing but Lower Than Covid Years



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 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.

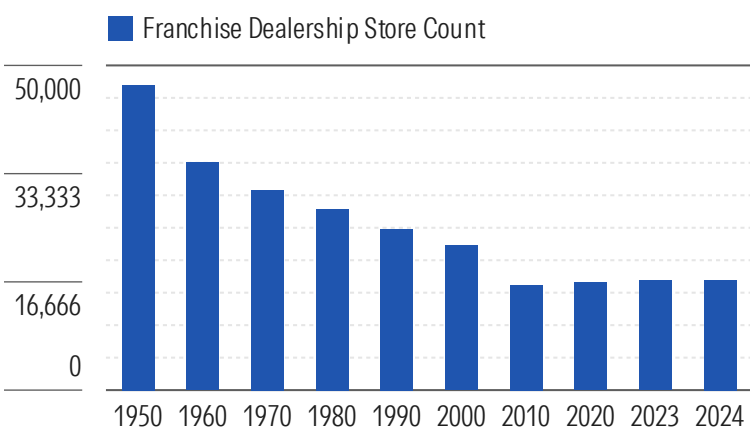
Not as Cyclical as You May Think

2024 gross margin by segment (franchise light-vehicle stores).

Segment	Asbury	AutoNation	Group 1	Lithia	Penske	Sonic
New	7.2%	5.9%	7.2%	7.0%	9.5%	5.8%
Used	5.0%	5.7%	4.9%	6.5%	5.2%	5.1%
Service	57.4%	47.9%	54.9%	55.8%	58.1%	50.4%
F&I	92.9%	100%	100%	100%	100%	100%
Total	17.2%	17.9%	16.3%	15.4%	16.5%	15.4%

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 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



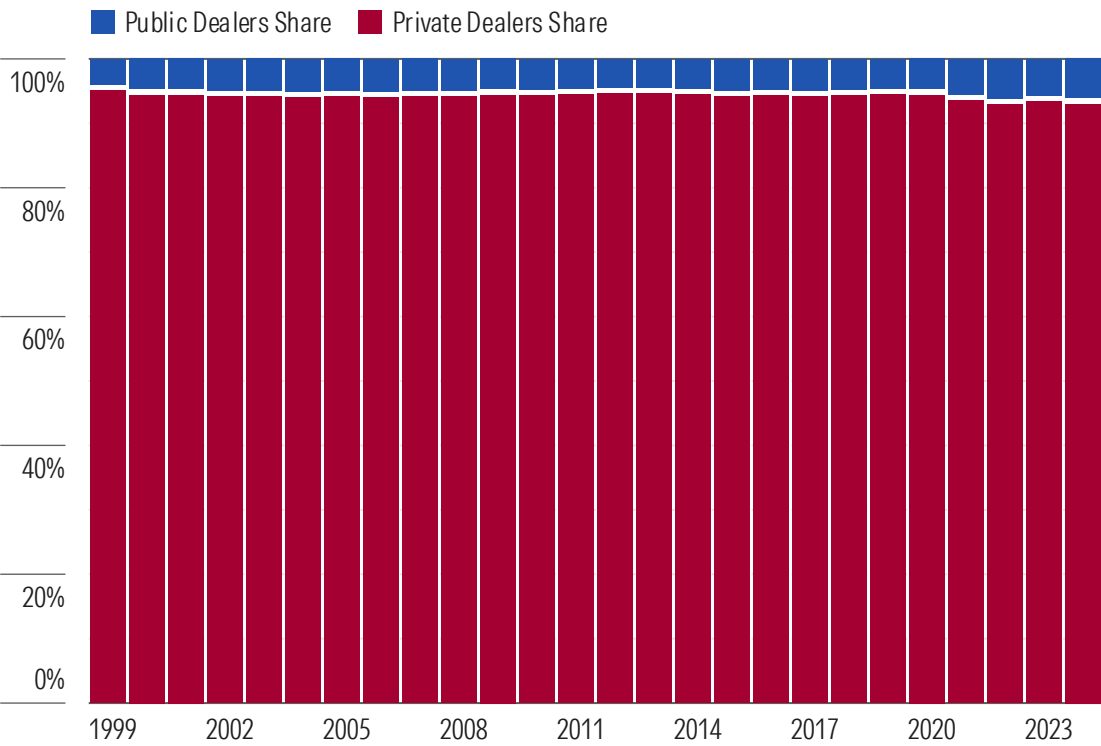
As the US urbanized and the Detroit Three lost their dominance, larger dealers serving more people has become necessary for them to do well. The sector has consolidated over decades. Some have exited the industry due to insufficient throughput (volume per store), expensive store imaging requirements,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

Although we cover all six publicly traded new-vehicle franchise dealers, 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, while the top 10 firms' share now is 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 still dominate market share.



Percentage of Dealer Owners by Number of Dealerships Owned

Majority of dealer owners have few dealerships.

# Dealerships	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
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%
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%
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%
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%
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%

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

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Industry Value Drivers

Simplified Financial Statement: Lithia Motors

Pro forma income statement (\$ in millions).

	2024	% of Sales
Revenue ¹	\$ 36,188	
Cost of Goods Sold	30,627	84.6%
Gross Profit ²	5,561	
Selling, General, and Administrative Costs ³	3,747	67.4% of gross profit
Depreciation and Amortization	246	
Floorplan Interest Expense ⁴	279	
Captive Finance Income ⁵	15	
Operating Income Excluding Special Items	1,305	3.6%
Interest Expense	258	
Other (Income)	(39)	
Pretax Income	1,086	
Income Tax Provision	257	23.6% Tax Rate
Adjusted Net Income	829	
2024 Discounted Cash Flow		
Operating Income	1,305	
Other	(969)	
Earnings Before Interest	336	
Depreciation and Amortization	295	
(Capital Expenditures)	(351)	
(Cash from Working Capital)	42	
(Net Acquisitions/Divestments)	(1,148)	
Net New Investment	(1,163)	
Free Cash Flow to the Firm ⁶	(827)	

- (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:** 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 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.

See Important Disclosures at the end of this report.

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)	4.7	Narrow	★★★★	\$297	0.81	High	8.7	0.28	N/A	7.4%
AutoNation (AN)	8.0	Narrow	★★★	\$200	1.05	High	10.5	0.30	N/A	21.2%
Group 1 Automotive (GPI)	5.9	Narrow	★★★	\$401	1.12	High	10.6	0.26	0.4%	28.1%
Lithia Motors (LAD)	7.9	Narrow	★★★★	\$426	0.72	High	8.7	0.23	0.7%	8.0%
Penske Automotive Group (PAG)	12.1	Narrow	★★★	\$168	1.08	High	12.9	0.38	2.7%	14.3%
Sonic Automotive (SAH)	2.7	Narrow	★★★	\$92	0.85	High	11.2	0.19	2.0%	33.2%
CarMax Enterprise Services (KMX)	8.9	Narrow	★★★★★	\$120	0.50	High	15.2	0.34	N/A	-26.8%

Source: Morningstar and PitchBook. Data as of Aug. 20, 2025.

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Economic Moat

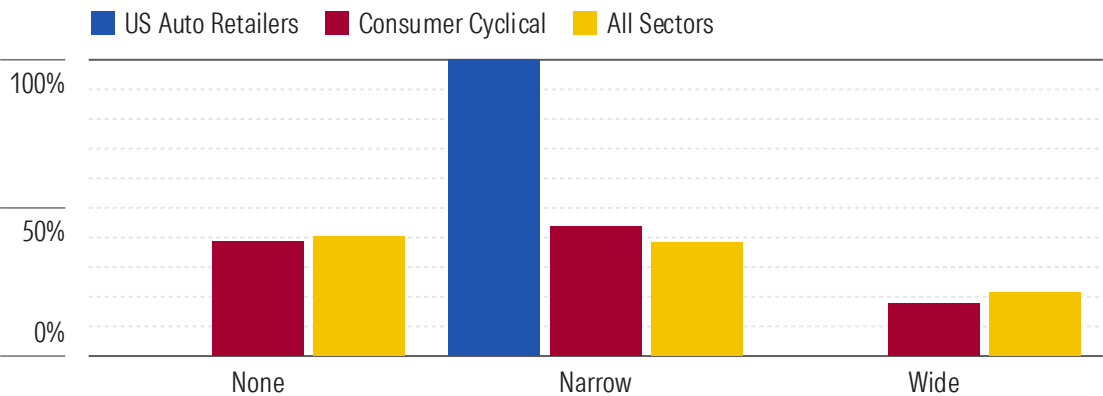
Narrow moats abound, thanks to intangible assets and cost advantages.

Summary of Moat Ratings and Sources

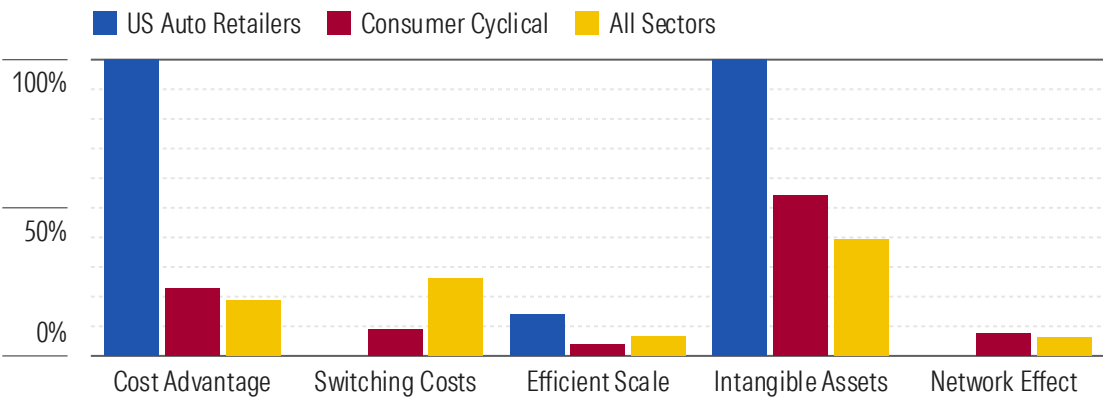
All seven firms we cover in the dealer space have a narrow economic moat. The six franchise dealers are the largest on trade journal *Automotive News*' annual list of the biggest dealers. There are some large private players and other private players doing roll-up acquisitions to grow. However, we see 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 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



Scale and Intangibles Drive the Moat Story



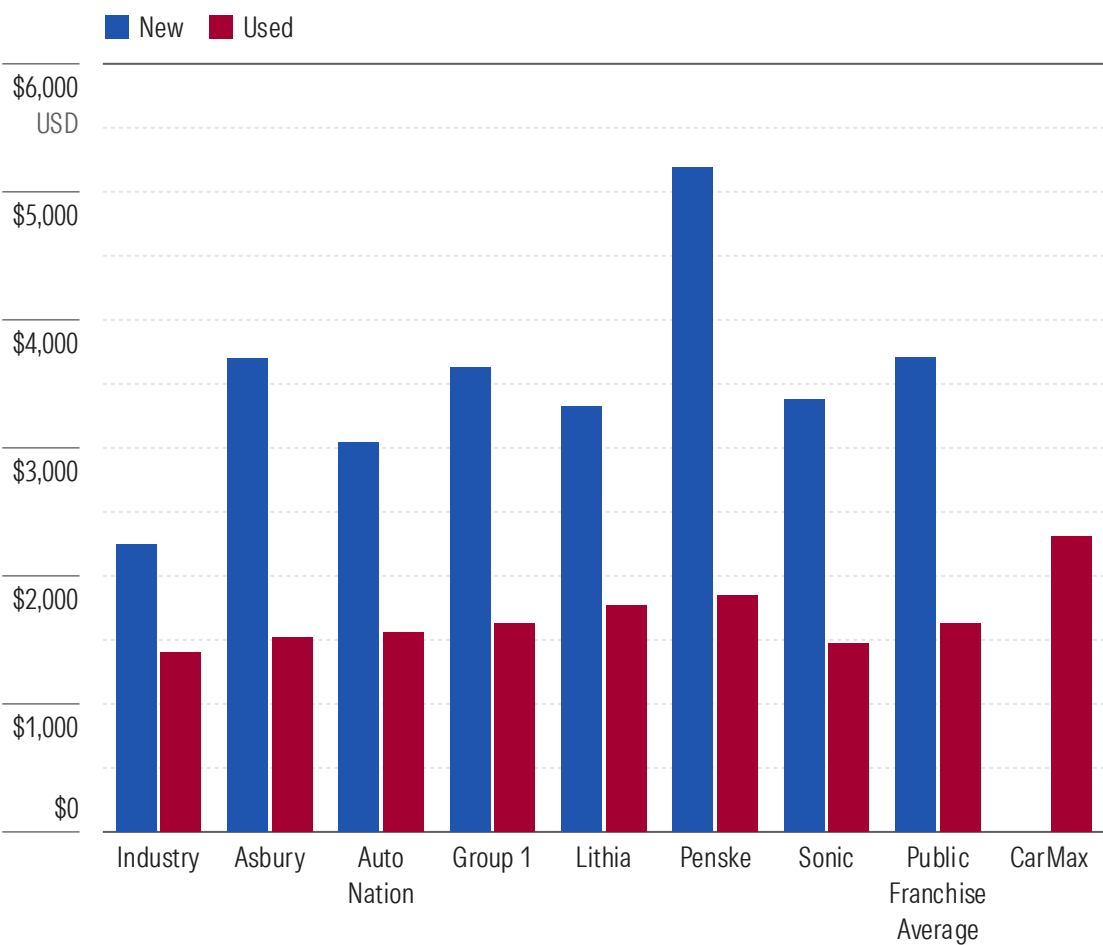
Cost Advantage and Intangibles Drive Strong Gross Profit Dollars and Leverage Overhead Costs

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.

These 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, 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.

2024 New- and Used-Vehicle Gross Profit per Unit



Sources: Company filings, The Presidio Group, Morningstar.

See Important Disclosures at the end of this report.

Challenges Abound for Dealers Smaller Than the Publics

Recent 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

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."

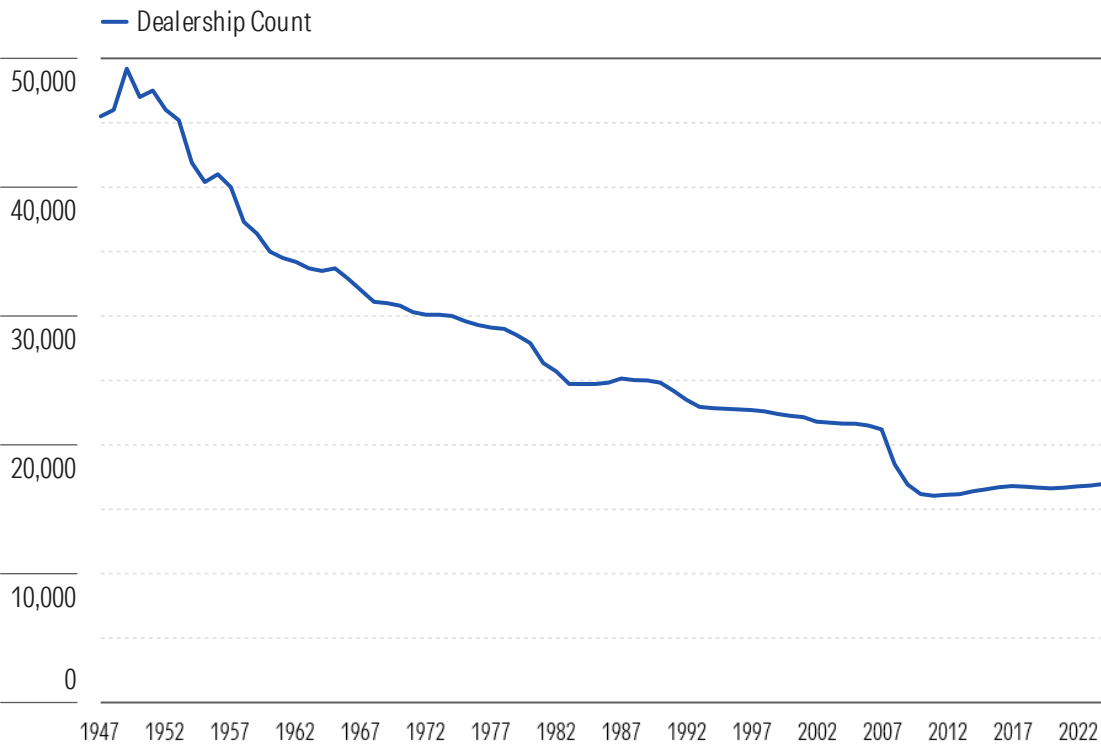
Pressure on smaller dealers was present before 2021's consolidation. In June 2017, Steve Kalafer, who then owned eight stores in New Jersey under the Flemington name, told *Automotive News*, "The opportunity I had and was able to maximize, sadly really does not exist today. The mom-and-pop days, they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

Not Big-Box Retail, but Sector Is Slowly Consolidating

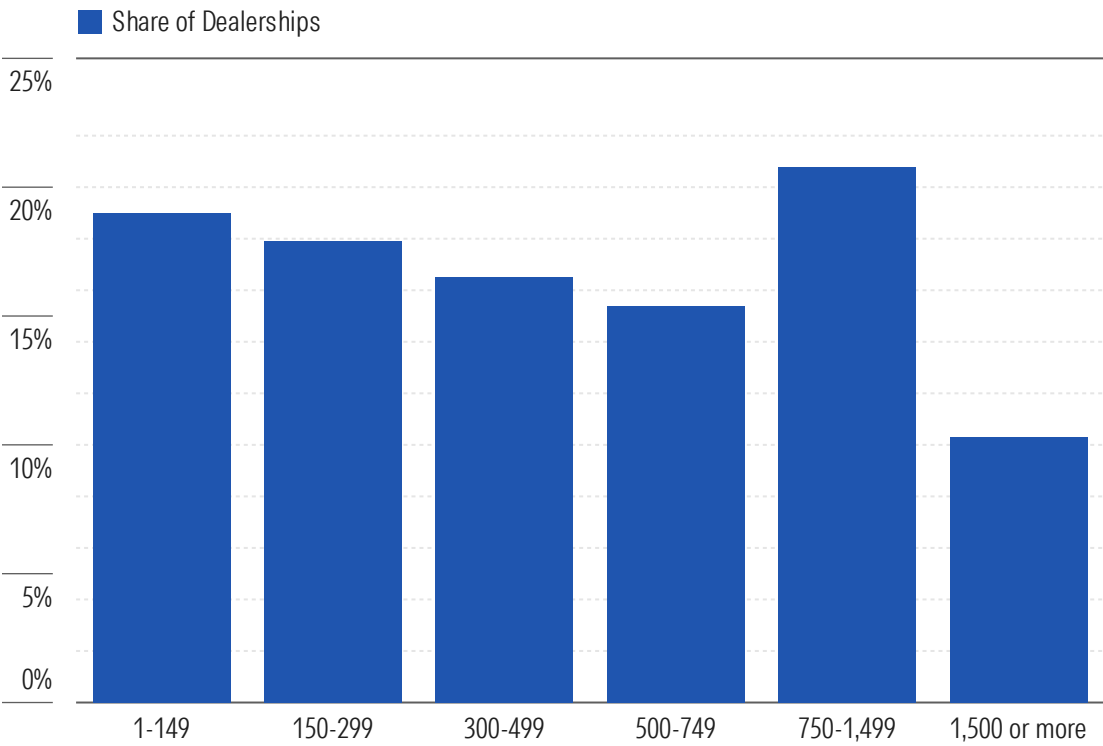
Number of US Franchised New-Car Dealerships (1947-2024)



The number of new-vehicle dealerships has increased from the prior year only 17 times since 1947. This shrinkage is the byproduct of the Detroit Three losing their dominance over time, but the count has increased four straight years and 10 times since 2012.

Source: NADA Data.

Mix of US Dealers by Number of New Vehicles Sold in 2024

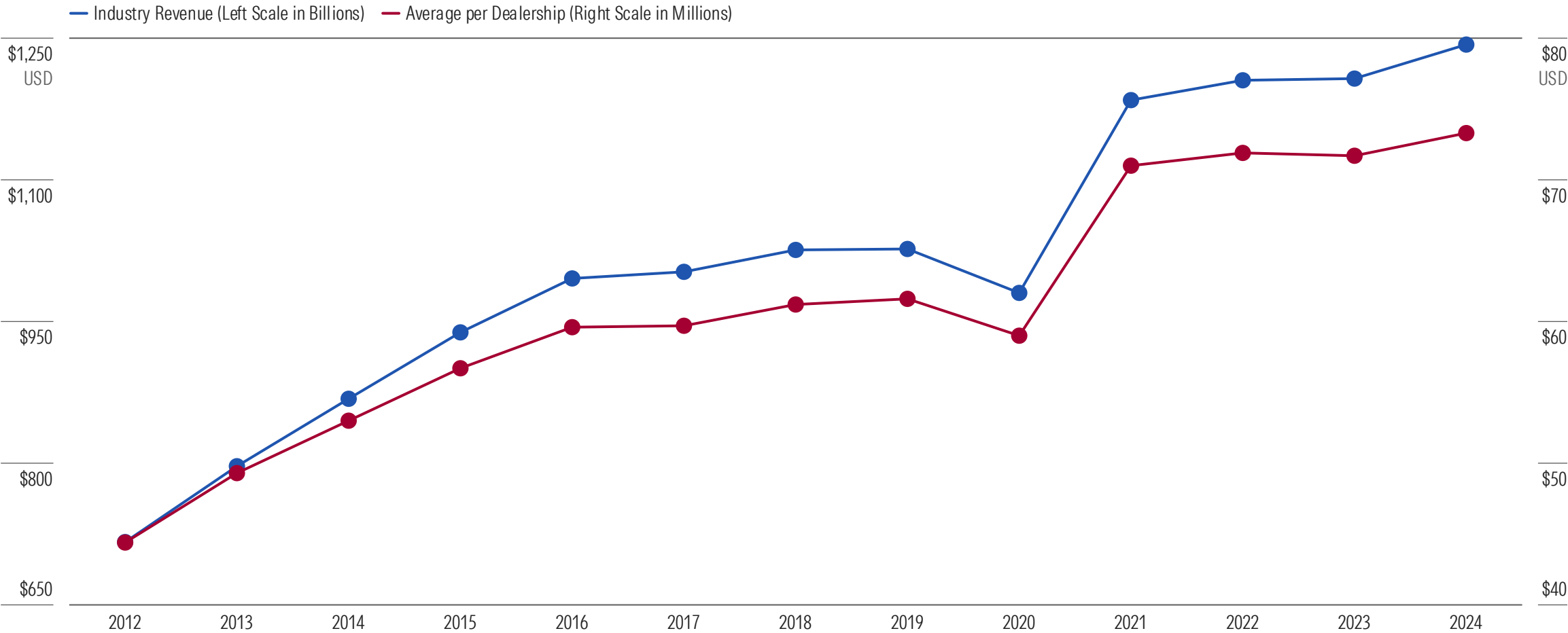


In 2024, 53% of dealers retailed less than 500 new vehicles versus about 54% in 2019. The sector is consolidating in favor of larger dealers but very slowly. Dealer buyouts by the Detroit Three are also going to push the mix away from lower-volume stores.

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US Dealers Are a \$1 Trillion-Plus Industry

2024 Total Revenue for US Dealers and Revenue per Store



Source: NADA Data.

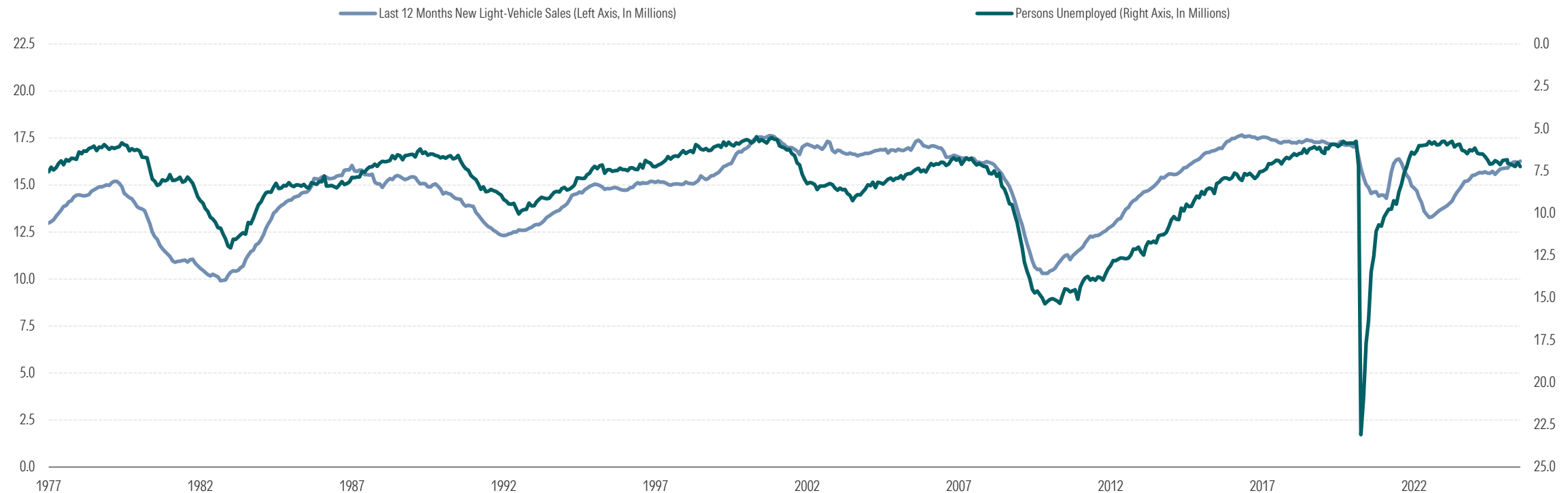
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Year-Over-Year Change in Unemployment and Auto Sales Moving Together of Late, but This Won't Last Forever

Auto sales and unemployment are usually negatively correlated, as auto sales require consumers to feel good about their 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 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.

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

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

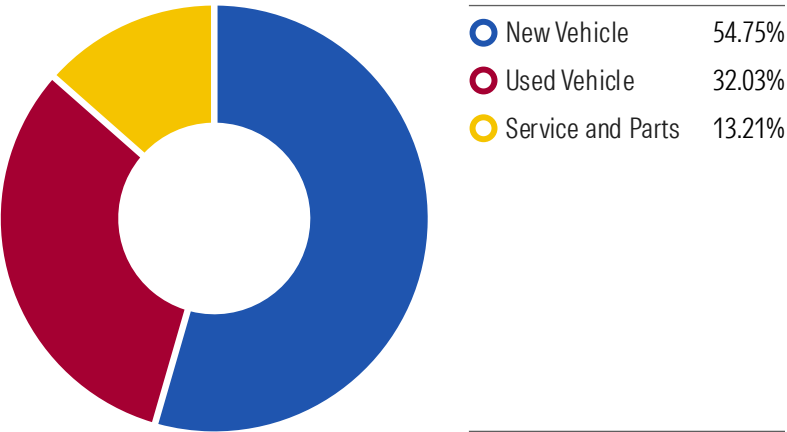


Source: Automotive News, Bureau of Labor Statistics, Federal Reserve Bank of St. Louis, Wards Intelligence, Morningstar. Data is through July 2025.

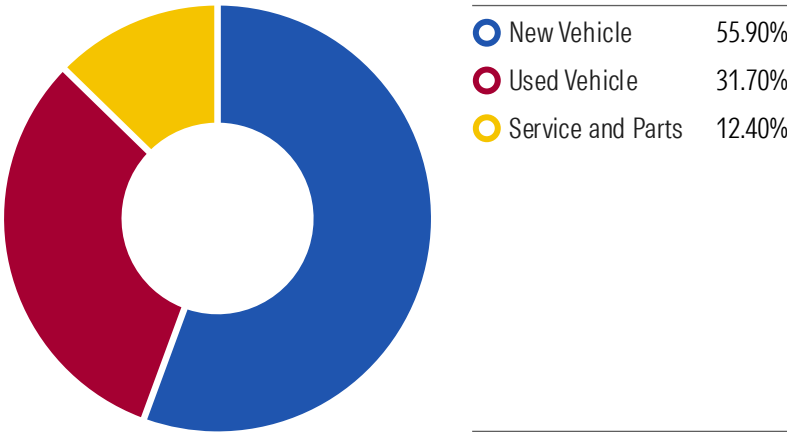
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Big Differences Between Revenue and Gross Profit Contribution

2024 Average Dealer Revenue Mix (F&I in New and Used)

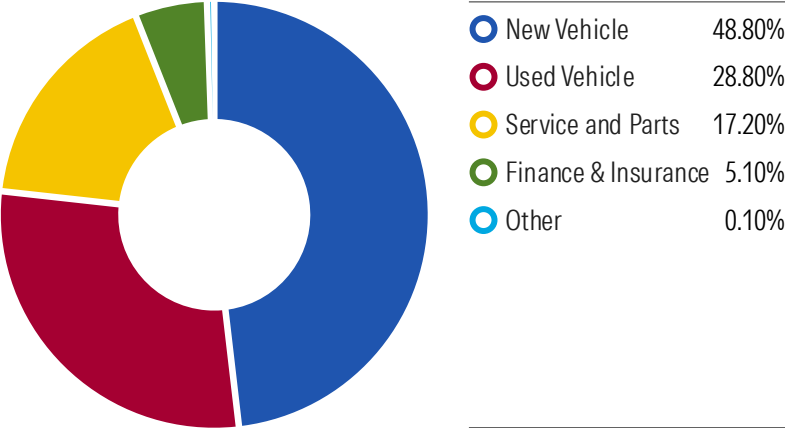


2019 Average Dealer Revenue Mix (F&I in New and Used)

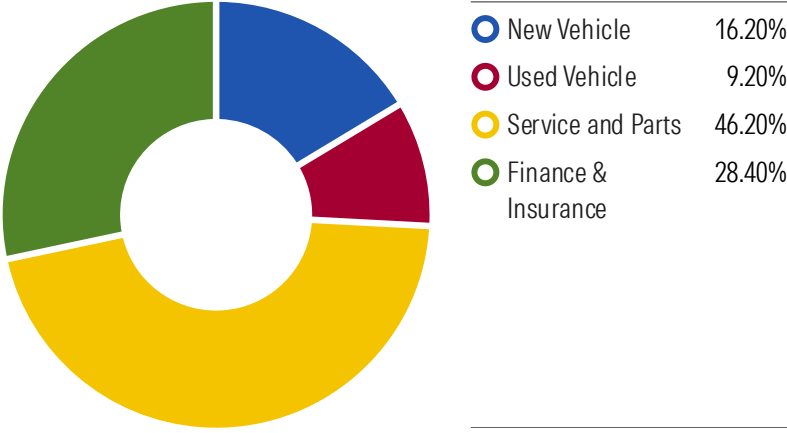


Retailing new and used vehicles, along with the related finance and insurance sales, made up about 87% of the US dealer industry's revenue in 2024. This ratio is hardly different than 2019, just before the pandemic. However, far more gross profit contribution comes from service and F&I than from just selling the vehicle, as shown in the bottom two charts with data from AutoNation.

AutoNation's 2024 Revenue Mix



AutoNation's 2024 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 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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Foreign Automaker Market Share Gains Benefiting Import Dealers at Expense of Detroit Three Stores

New Light-Vehicle Sales per Franchise

Brand	2024 Units	2023 Units	Change	Brand	2024 Units	2023 Units	Change
Toyota	1,607	1,558	3.1%	Polestar	296	326	-9.2%
Lexus	1,417	1,312	8.0%	Infiniti	292	319	-8.5%
Honda	1,207	1,088	10.9%	Cadillac	282	260	8.5%
BMW	1,061	1,035	2.5%	Mini	251	322	-22.0%
Subaru	1,042	989	5.4%	Jeep	245	268	-8.6%
Kia	1,006	997	0.9%	Lincoln	207	140	47.9%
Hyundai	988	956	3.3%	Buick	184	111	65.8%
Mercedes	975	916	6.4%	Ram	183	224	-18.3%
Nissan	806	773	4.3%	Jaguar	99	48	106.3%
Mazda	783	669	17.0%	Lamborghini	93	92	1.1%
Ford	682	648	5.2%	Bentley	80	87	-8.0%
Audi	643	750	-14.3%	Alfa Romeo	76	86	-11.6%
Chevrolet	598	586	2.0%	Ferrari	76	72	5.6%
Volkswagen	596	514	16.0%	Maserati	62	60	3.3%
Land Rover	528	323	63.5%	Dodge	59	83	-28.9%
Acura	485	536	-9.5%	Aston Martin	54	25	116.0%
Volvo	444	457	-2.8%	Chrysler	52	55	-5.5%
Porsche	381	381	0.0%	McLaren	49	42	16.7%
GMC	369	337	9.5%	Rolls-Royce	46	47	-2.1%
Mitsubishi	340	268	26.9%	Lotus	24	2	1100.0%
Genesis	327	270	21.1%	Fiat	5	2	150.0%

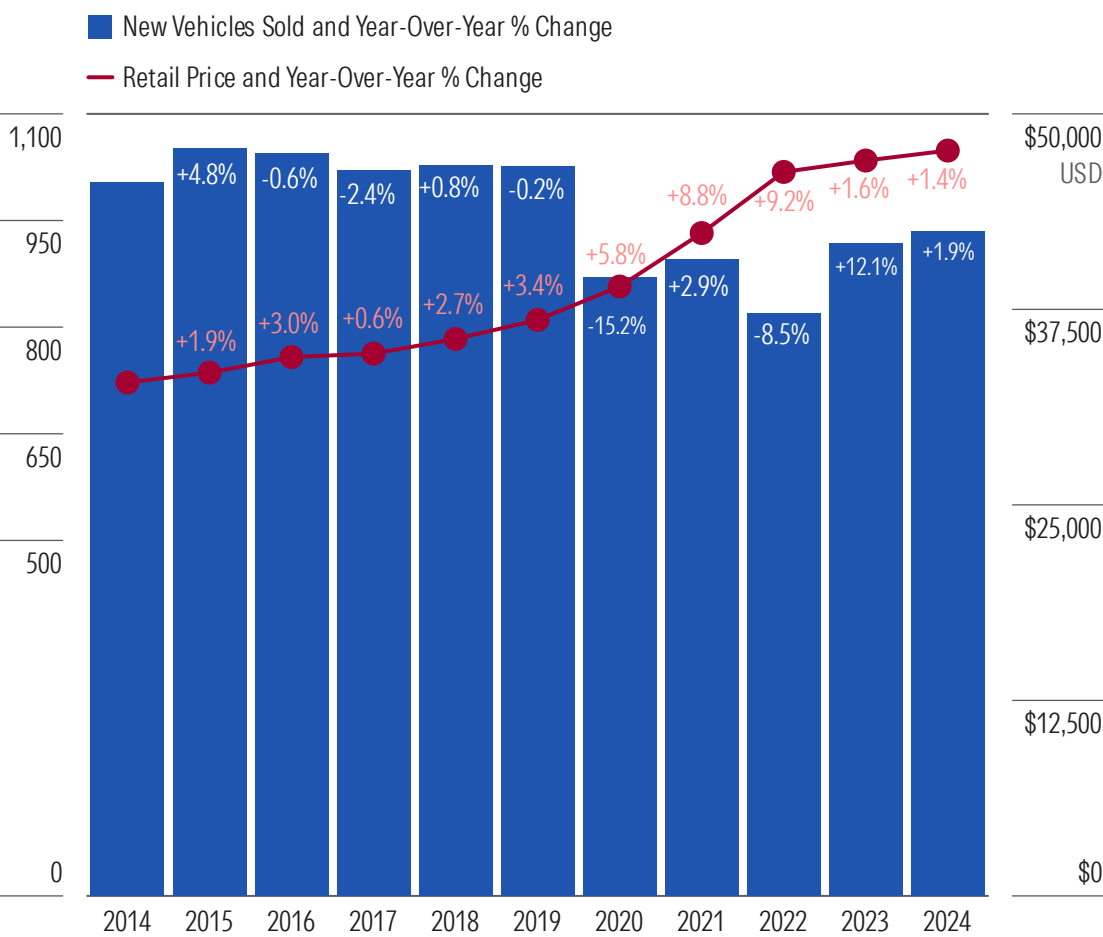
New-vehicle unit volume per store (what the industry refers to as throughput) for a brand is a byproduct of history. In the middle of the 20th century, General Motors alone had about half the US market, so its dealer base, along with Ford's and Chrysler's, was huge. As Japanese and more recently Korean automakers took share from the Detroit Three, the latter's dealer bases became bloated, with too little volume to be as profitable as 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. The brand's throughput more than doubled that year and rose 66% in 2024.

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

2024 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 (935 in 2024). 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, 2024 new volume per franchise store is a bit higher than the national average, ranging from 1,048 at AutoNation to 1,140 at Asbury.

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 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.

By 2024, the chip shortage was mostly over, and summer 2025 monthly industry new-vehicle inventory levels are about 2.5 million. New-vehicle pricing did not collapse in the first half of 2025, likely because of a demand surge from tariff fears.

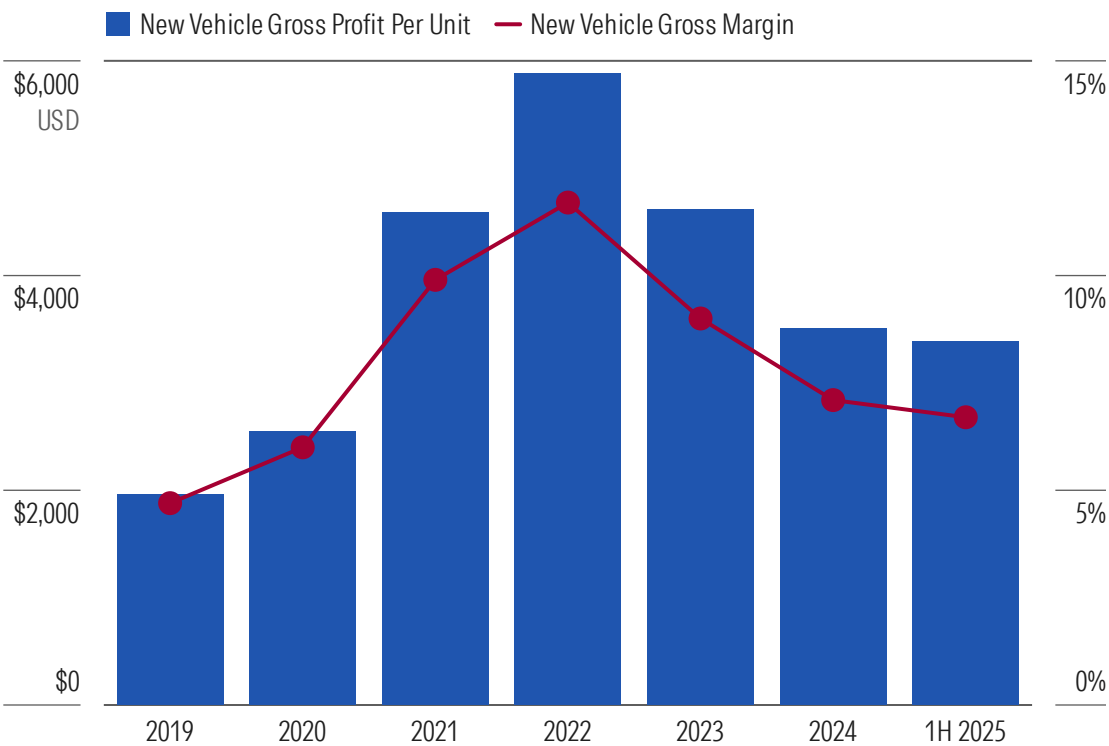
Source: NADA Data, Morningstar.

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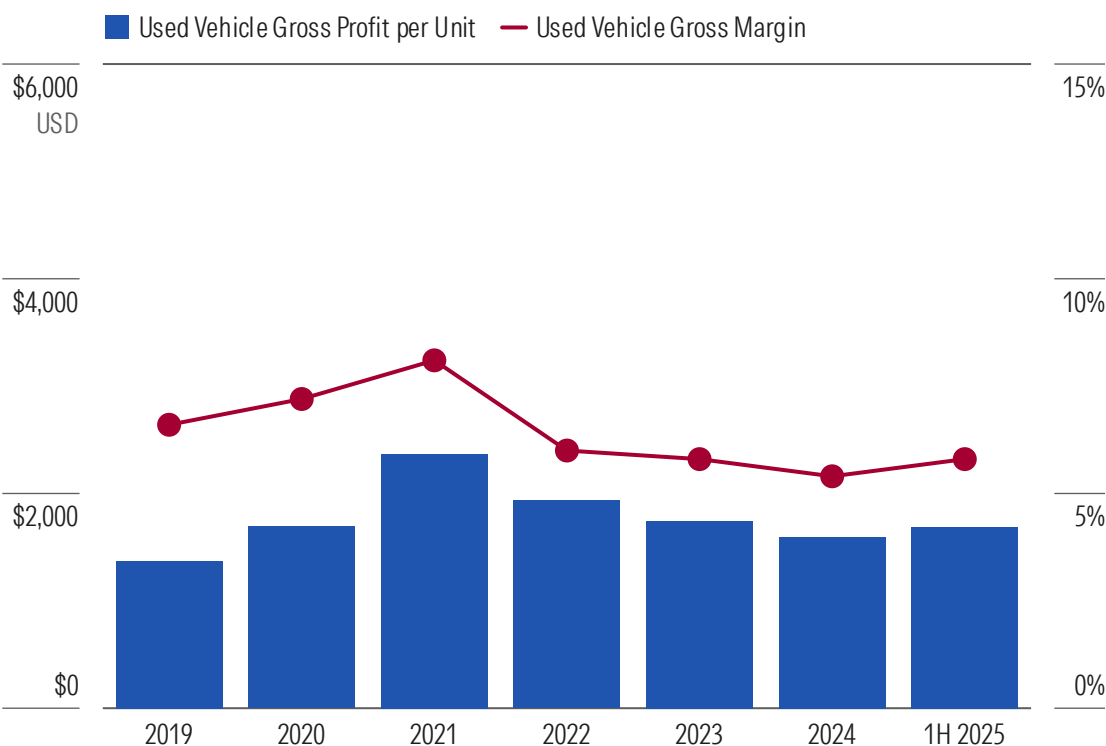
Chip Shortage's New-Vehicle Supply Dearth Meant High New-Vehicle Profits While Used Profits Suffered

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 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 but Is Better Than During the Chip Shortage

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 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

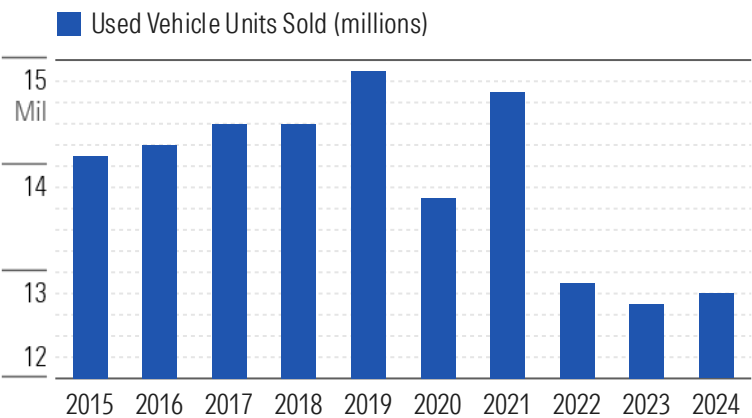


Source: Manheim, Morningstar. Data through July 2025.

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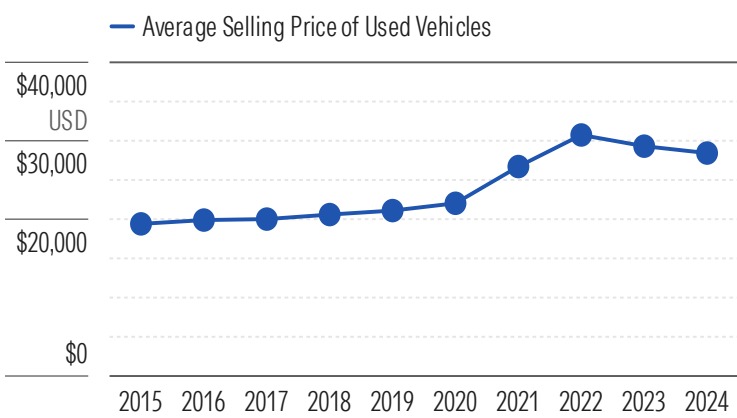
Chip Shortage Massively Distorted the US Used-Vehicle Market, and Its Impact Is Not Over

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



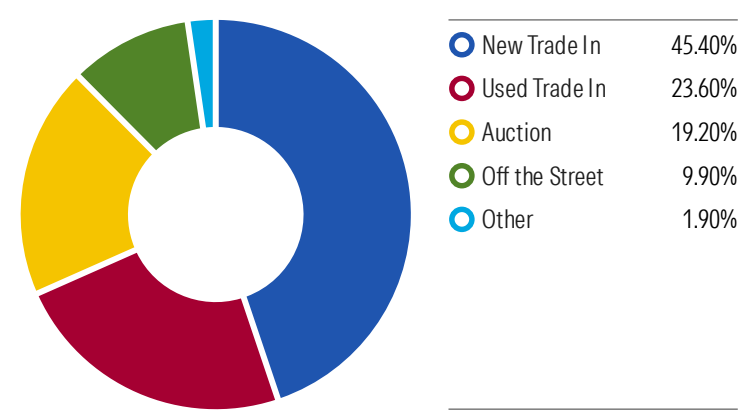
When new-vehicle sales fall, it causes a decline in used-vehicle supply. New-vehicle buyers are the most likely source of what are called late-model used vehicles, meaning generally up to four years old. These used vehicles acquired on trade can be reconditioned by franchise dealers and earn certified 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. 2024 saw a slight rebound in volume, but we don't expect 2019-type volume for a while.

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.

2024 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. 2024's 9.9% 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 800 basis points lower than in 2019.

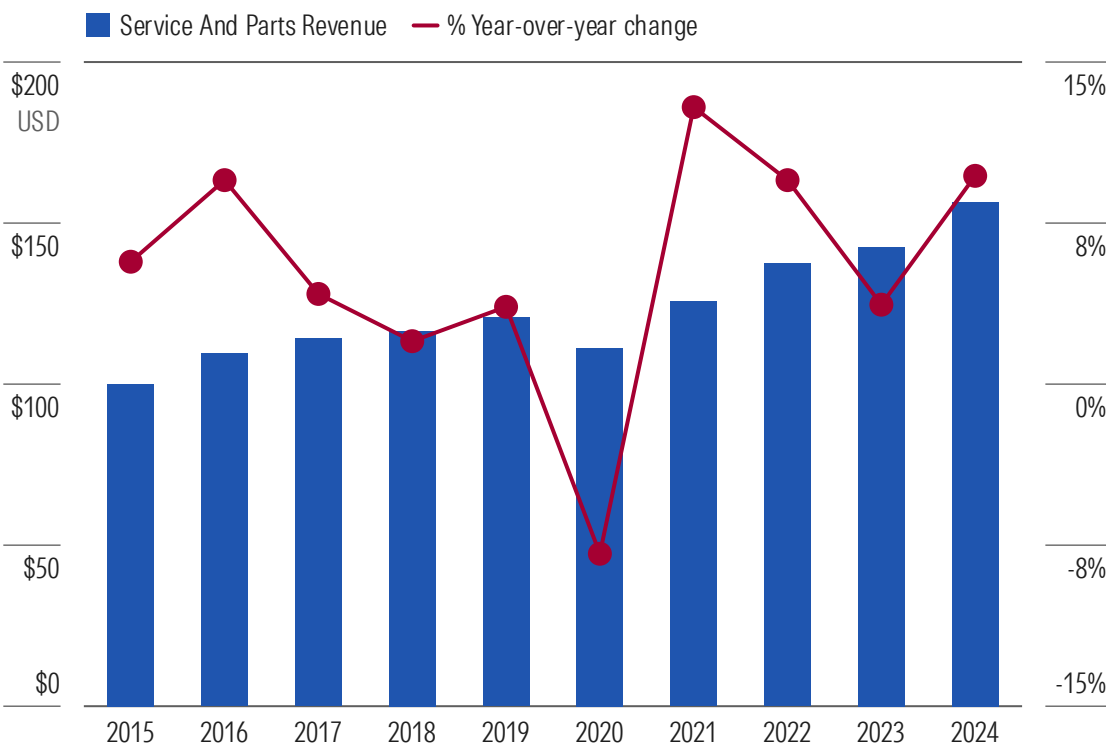
Source: NADA Data.

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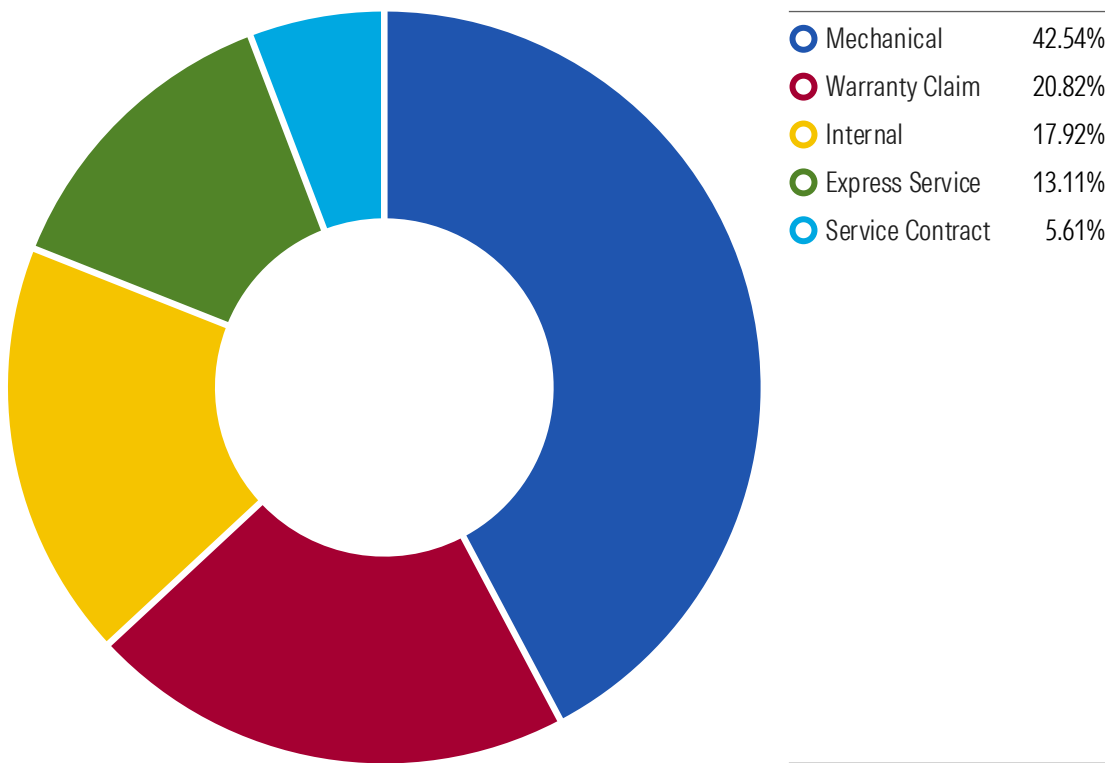
Service Is a Critical Part of a Dealer's Operation

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 one in 2024.

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



2024 US Dealership Repair Order Mix (261.9 Million Order Count)



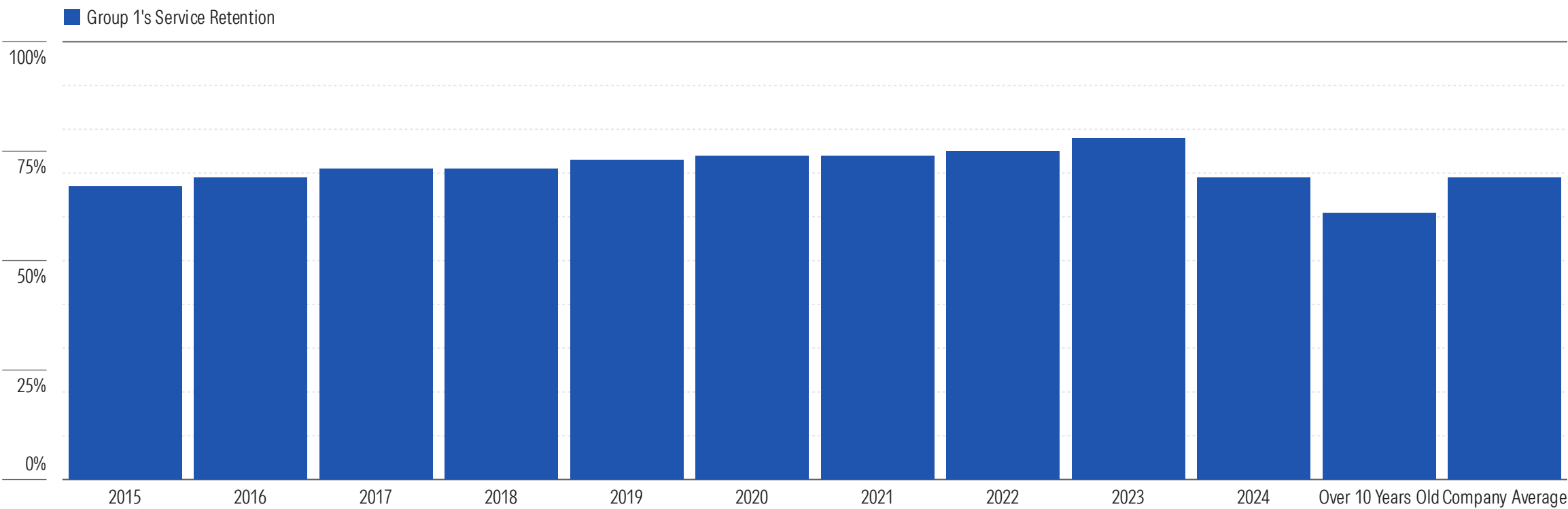
Source: NADA Data, Morningstar.

See Important Disclosures at the end of this report.

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)

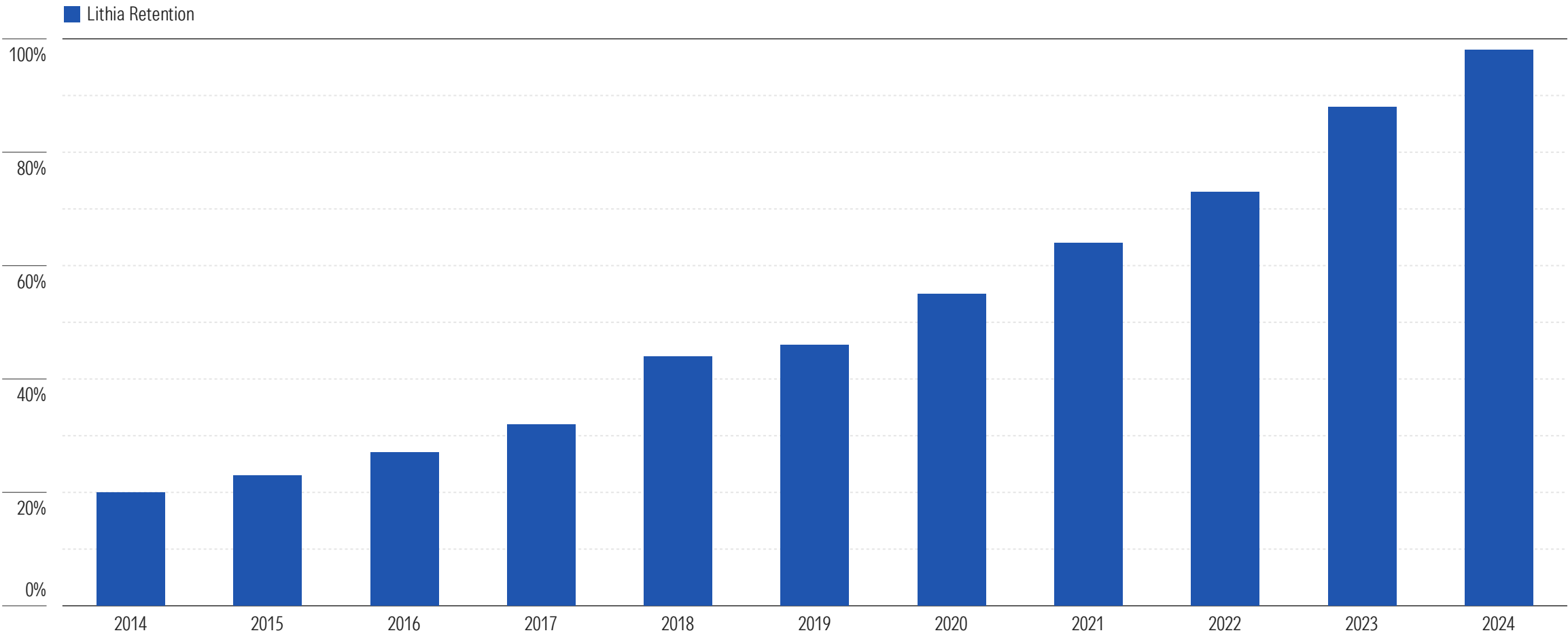


Source: Group 1's second-quarter 2025 investor presentation, Morningstar.

See Important Disclosures at the end of this report.

Warranty Helps Service Retention

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



Source: Lithia’s second-quarter 2025 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 dealer reserve penetration is around 70%, service contracts is about 45%, maintenance is about 20%, and other products nearly 25%. 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.

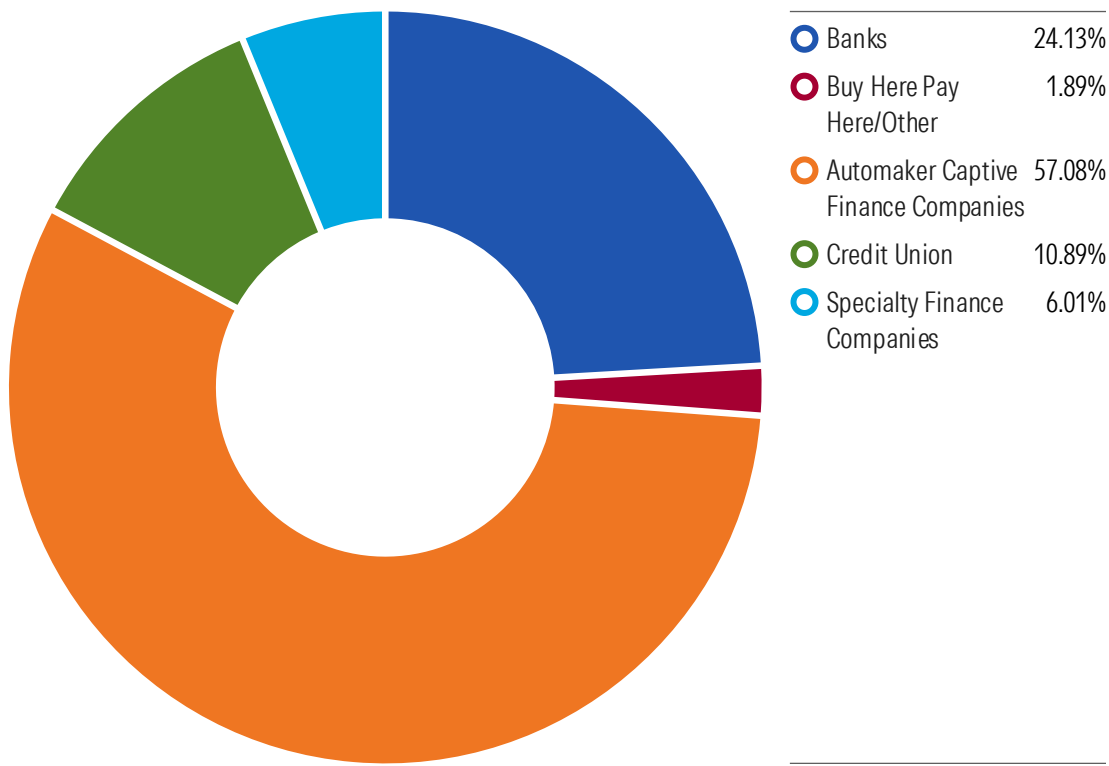
Source: Dealer 10-Ks, Morningstar research.

See Important Disclosures at the end of this report.

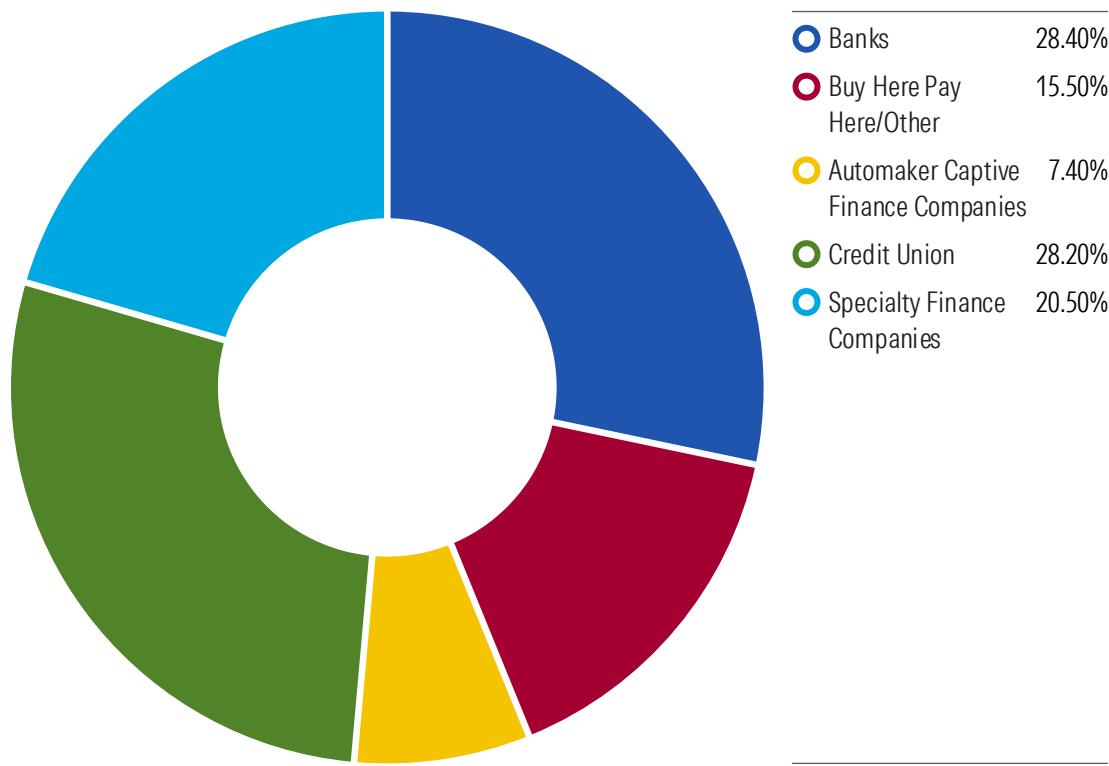
Automaker Captive Loan Origination Primarily for New Vehicles, Leaving Door Open for Dealer Captives on Used

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 2024, 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 0.3%, both up 20 basis points from 2023.

New-Vehicle Financing Mix: First Quarter 2025



Used-Vehicle Financing Mix: First Quarter 2025



Source: Experian (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' 2024 SG&A as a Percentage of Gross Profit

Asbury Automotive Group (GAAP)		AutoNation (GAAP)		Group 1 Automotive (Adjusted SG&A)	
Personnel	42.1%	Compensation	44.0%	Personnel	44.3%
Rent and related	4.8%	Store and overhead	18.8%	Rent and Facility	5.5%
Advertising	2.1%	Advertising	5.4%	Advertising	3.0%
Other	15.1%			Other	15.1%
GAAP SG&A to Gross Profit	64.0%	GAAP SG&A to Gross Profit	68.2%	Adjusted SG&A to Gross Profit	67.9%
Adjusted SG&A to Gross Profit Excluding Rent	51.9%	Adjusted SG&A to Gross Profit Excluding Rent	64.7%	Adjusted SG&A to Gross Profit Excluding Rent	66.4%
Lithia Motors (GAAP)		Penske Automotive Group (GAAP)		Sonic Automotive (GAAP)	
Personnel	43.1%	Personnel	42.1%	Compensation	46.2%
Rent and Facility	6.7%	Rent and related	8.3%	Rent	1.7%
Advertising	4.5%	Advertising	2.7%	Advertising	3.9%
Other	13.2%	Other	17.5%	Other	20.1%
GAAP SG&A to Gross Profit	67.5%	GAAP SG&A to Gross Profit	70.6%	GAAP SG&A to Gross Profit	71.9%
Adjusted SG&A to Gross Profit Excluding Rent	64.8%	Adjusted SG&A to Gross Profit Excluding Rent	65.3%	Adjusted SG&A to Gross Profit Excluding Rent	69.8%

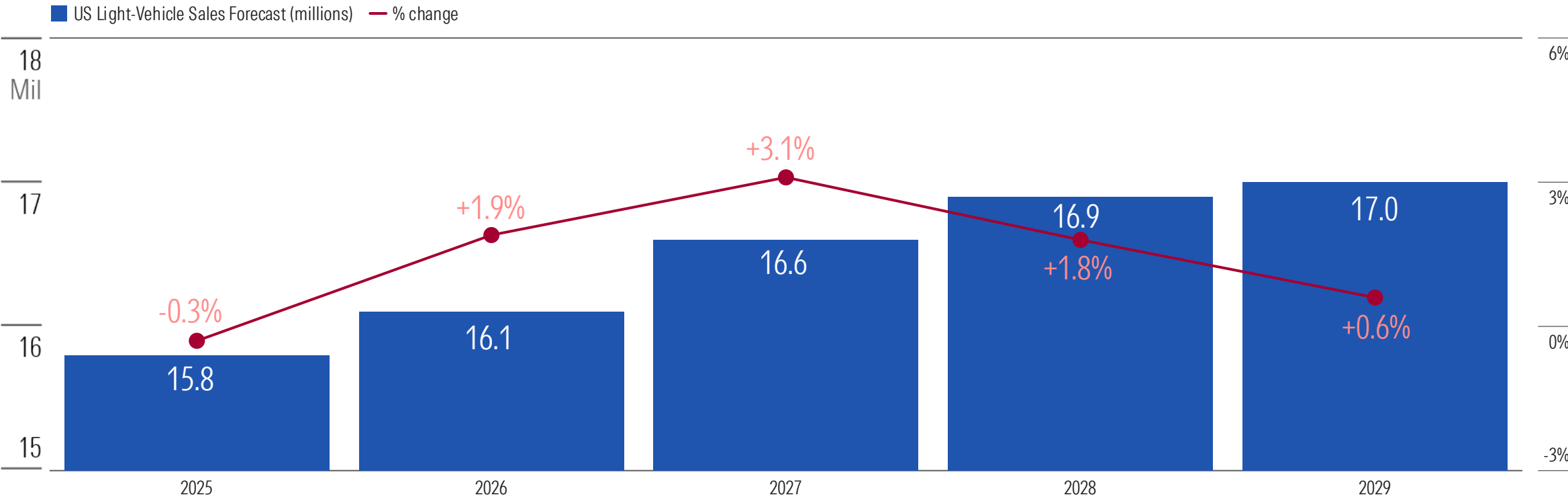
Outlook

Tariffs slowing auto sales' pandemic recovery while consolidation continues.

New-Vehicle Sales Recovery Will Take Beyond 2025, so Dealers Have Good Growth Runway

At 2.5 million units, US light-vehicle inventory for now is not 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 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 are holding some consumers back.

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



Per Capita Sales Math Suggests 2024-25 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

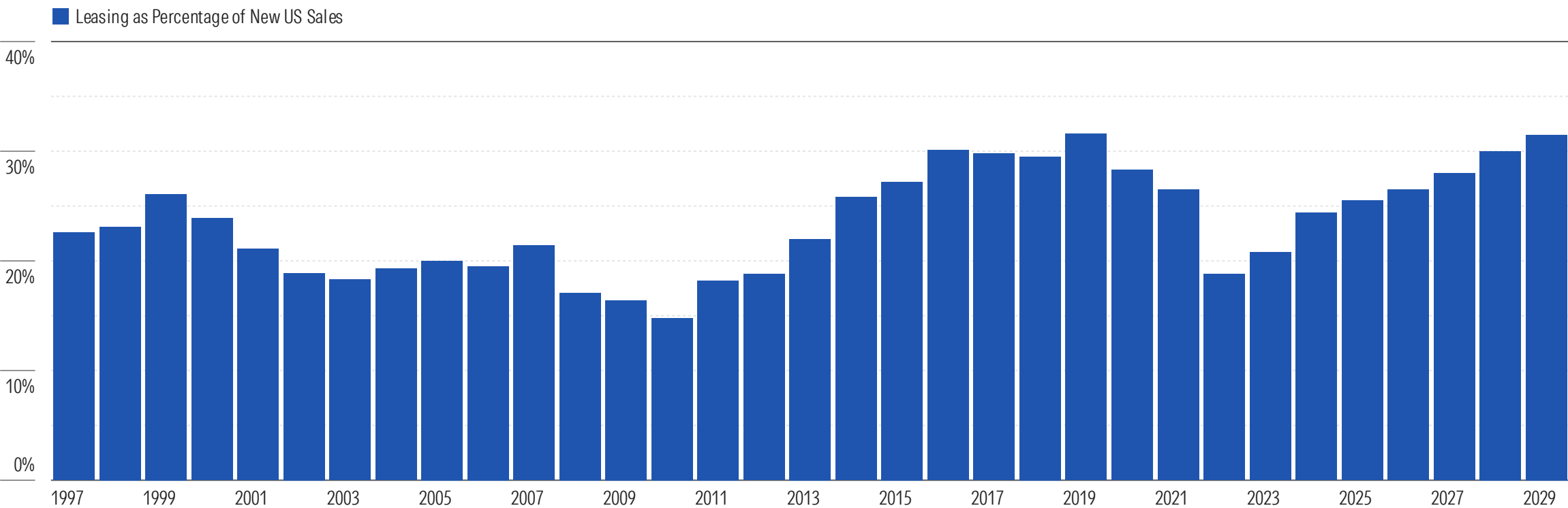
	Per Capita Sales Ratios	
	Total US Population	US Licensed Driver Population
Per capita sales average 1951-2024	5.1%	8.4%
Per capita sales average 2000-2024	5.0%	7.3%
1980 per capita sales	4.9%	7.7%
1982 per capita sales	4.5%	6.9%
1991 per capita sales	4.9%	7.3%
2009 per capita sales	3.4%	5.0%
2020 per 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%

	Recessionary New Light Vehicle Sales Scenarios	
	Total US Population Sales	US Licensed Driver Sales
Sales at 1980 per capita levels	16,811,578	18,462,028
Sales at 1982 per capita levels	15,252,115	16,515,374
Sales at 1991 per capita levels	16,654,695	17,449,907
Sales at 2009 per capita levels (actual 2009 sales totaled 10.43 million)	11,577,717	11,921,389
Sales at deep recession per capita levels of 4% of total population and 6% of drivers	13,645,923	14,373,428
Actual 2024 US sales	16,034,759	
Midpoint of our 2025 expected sales	15,800,000	

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 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 as it nears 30%.

Percentage of New US Light-Vehicle Sales That Are Leased (2025-29 Are Morningstar's Forecast)



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

See Important Disclosures at the end of this report.

Interest Rates Need to Come Down, but We Don't See Them Going Higher

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

	New Vehicle	Used Vehicle	New % Change	Used % Change
Principal	\$41,720	\$26,144		
Rate	6.7%	11.9%		
Months	68.63	67.22		
Monthly Payment	\$729.96	\$529.08		
Increase in monthly payment if rates rise 100 basis points	\$19.28	\$12.93	2.6%	2.4%
Rise 200 basis points	\$38.84	\$26.03	5.3%	4.9%
Rise 300 basis points	\$58.69	\$39.30	8.0%	7.4%
Rise 400 basis points	\$78.82	\$52.72	10.8%	10.0%
Rise 500 basis points	\$99.23	\$66.31	13.6%	12.5%
Rise 1,000 basis points	\$205.33	\$136.55	28.1%	25.8%
Rise to Aug. 1982 peak of 17.87% (new only)	\$230.43	N/A	31.6%	N/A

With first-quarter 2025 new-vehicle loan average interest rates about 63% higher than in the first quarter of 2021 and about 37% 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 SUV buyers remain willing to buy. Average new-vehicle monthly loan payments of \$745 are 35% higher than in the first quarter of 2019 and about 33% higher for used at \$521.

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 less than a \$100 increase in the monthly payment for new and used loans.

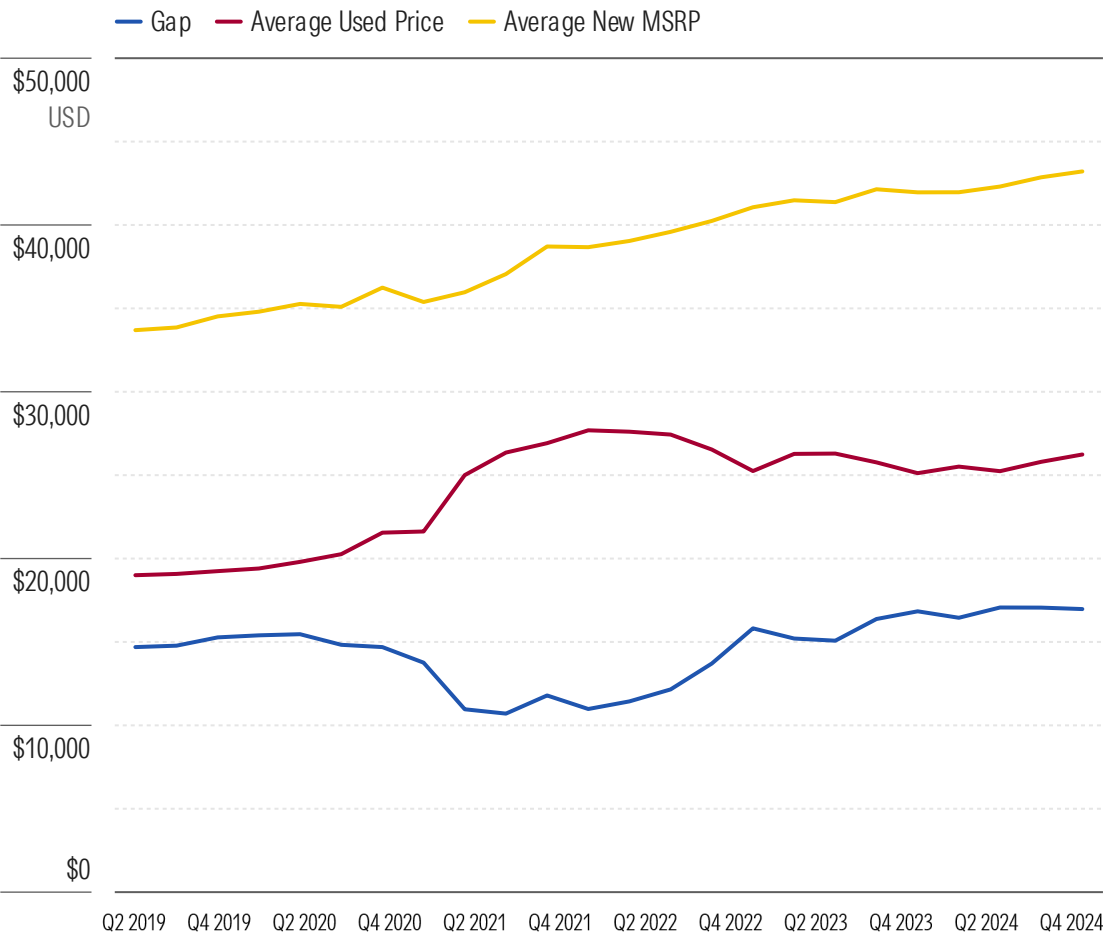
New US light-vehicle sales declined every year during 1979-82 (1982 was down 31% versus 1978), but we don't see the US economy in that bad shape relative to back then. Still, a repeat of ultrahigh rates to crush inflation, as in the early 1980s, would be a temporary disaster for auto sales, as monthly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

Source: Experian, Federal Reserve, Morningstar calculations.

See Important Disclosures at the end of this report.

New- and Used-Vehicle Pricing Gap Remains 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, 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) and exceeded first-quarter 2020 levels for the first time in the first quarter of 2023 at \$15,816. It widened to over \$16,000 in the fourth quarter of 2023 and is now \$16,972.

The widening pace has slowed, though, with no widening for three of the past five quarters through the first quarter of 2025. We don't expect much further widening, since off-lease volume will suffer for a bit due to poor leasing three years earlier from the chip shortage. Used prices were about 56% of new prices in early 2020 but are about 60% in 2024-25, down from the low 70s in late 2021 and the first half of 2022.

Source: Experian, 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 2025, 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 used stores, 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 (2024)	Change From 2023	Used Store Revenue (2024)	Percent of Total Revenue
AutoNation	Yes	AutoNation USA	26	26,861	16.9%	Not disclosed	Not disclosed
Penske Automotive Group	Yes	Sytner Select (UK), CarShop (US), Penske Select (Australia)	15 (8 UK, 6 US, 1 Australia)	Not disclosed. Company says 30,000 to 35,000 going forward.	NA	\$1.308 billion	4.3%
Sonic Automotive	Yes	EchoPark	18	69,053	-6.3%	\$2.128 billion	15.0%
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 to have a far easier buying process, and they are not resisting the change. It also lets dealers collect data. Customers shop via omnichannel, where they choose how much of the process to do online versus in-store. CarMax has said that 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 approach contrasts with Lithia’s Driveway tool, where the average customer is 800 miles from the vehicle and has it delivered. 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 retains the chance for service.

The Vast Majority of Asbury’s Clicklane Customers Are New to the Firm

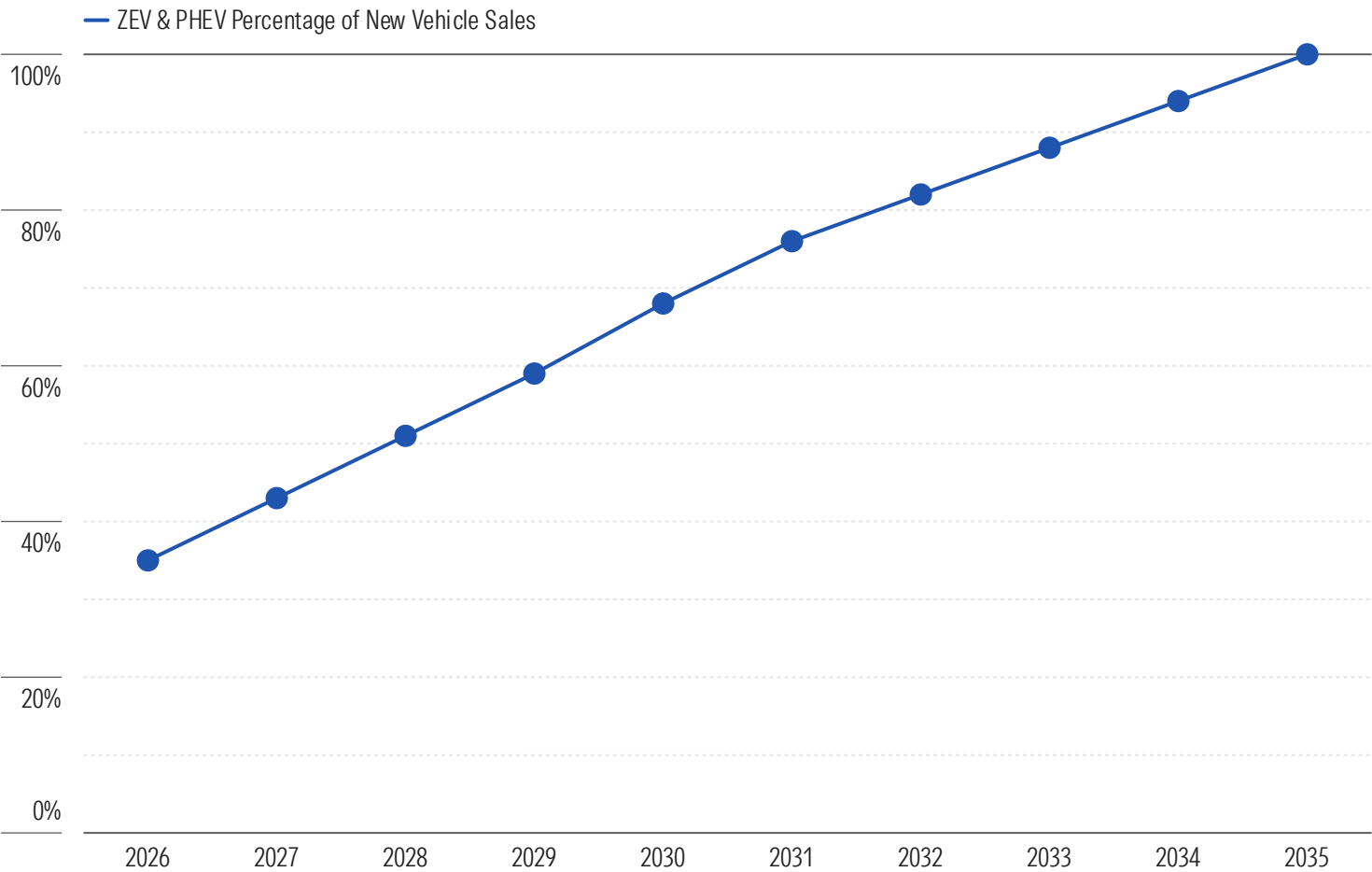
Summary metrics for Asbury’s Clicklane digital shopping tool.

	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024	Q3 2024	Q4 2024	Q1 2025	Q2 2025
Units Sold via Clicklane	5,600	6,594	6,817	8,471	10,840	11,444	11,661	11,182	10,832	15,201	~13,000	~12,000	~10,500	~9,500
Clicklane's New Vehicle Mix	38.0%	37.0%	36.0%	42.0%	42.0%	48.0%	46.0%	51.0%	48.0%	48.5%	49.2%	52.0%	47.0%	46.0%
Clicklane's Used Used Vehicle Mix	62.0%	63.0%	64.0%	58.0%	58.0%	52.0%	54.0%	49.0%	52.0%	51.5%	50.8%	48.0%	53.0%	54.0%
Clicklane as % of Total Asbury Retail Units	7.2%	8.4%	9.0%	11.9%	16.1%	16.4%	16.9%	15.8%	16.3%	18.7%	16.3%	14.5%	13.7%	11.8%
Front End Yield - Clicklane	\$6,100	\$5,900	\$5,543	\$5,519	\$5,876	\$5,740	\$5,168	N/A	N/A	N/A	N/A	N/A	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	N/A	N/A	N/A	N/A	N/A

Further Electric Vehicle Penetration Looks Inevitable Regardless of Federal Policy

California Fighting the Federal Government so the State Can Fully Ban Combustion Sales in 2035

California's zero-emission vehicle rule for new light-vehicle sales by model year under 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 nearly 11.3% of 2024 new light-vehicle registrations, and the 12 states combined were about 32%. 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, 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. 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 three slides show more detail on BEV sales, our 2030 BEV forecast, and BEVs' impact on dealers' lucrative service operations.

Hybrids Still Winning Share in 2025, but We See Battery Electric Vehicles Rebounding Once Affordability Improves

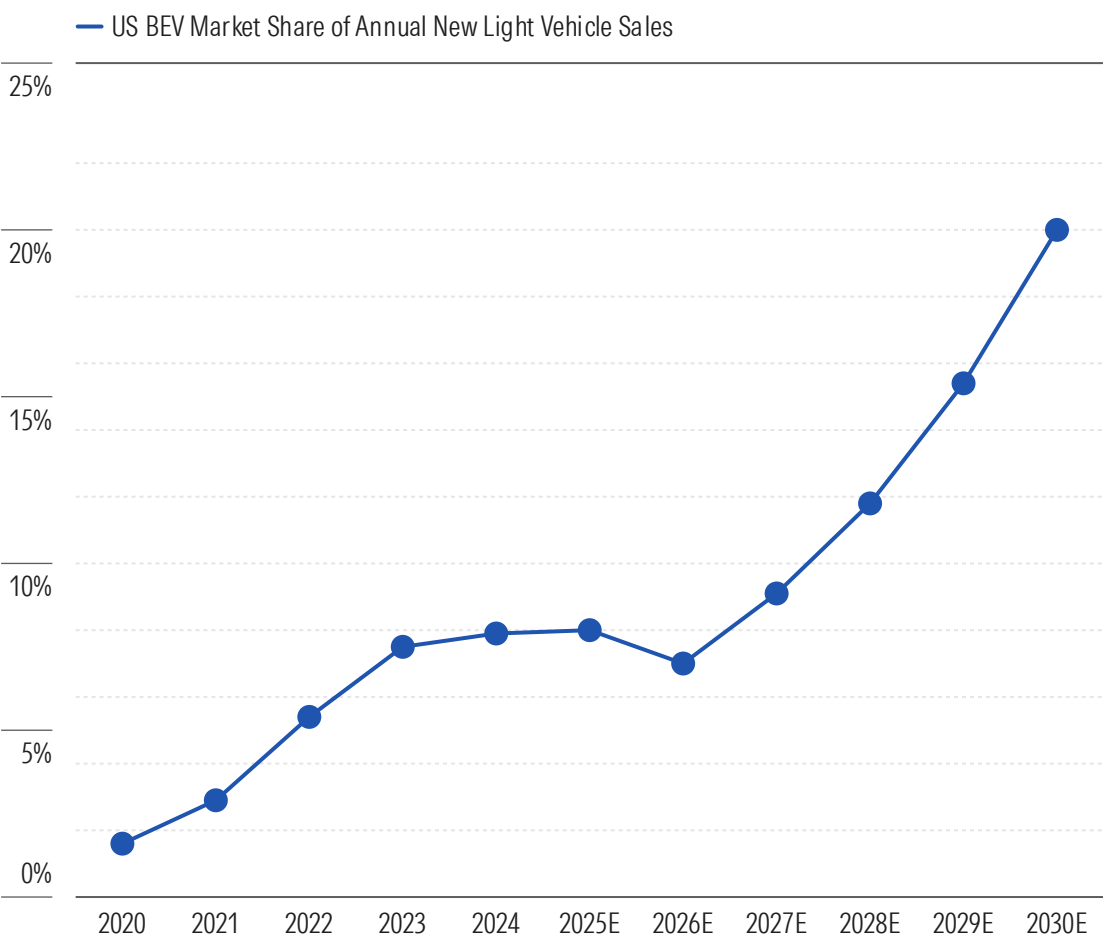
Hybrids Gaining Share in 2025 on Vehicles Such as Civic, CR-V, and RAV4

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	7.5%	1.9%	9.4%	7.6%	0.019%	17.0%
2024	15,851,070	7.9%	2.0%	9.9%	10.1%	0.004%	20.0%
YTD July 2025	9,464,382	7.4%	1.8%	9.2%	12.4%	0.002%	21.6%

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, Wards Intelligence (left), Wards Intelligence, Morningstar forecast (right).

See Important Disclosures at the end of this report.

2025 BEV Growth Lags Hybrids, but BEV Sales Growth Better When Excluding Tesla

Data Does Not Show BEV Demand Collapsing, Especially Excluding Tesla

2024 and year-to-date July 2025 US new light-vehicle sales by propulsion type.

	2024 Year-Over-Year US Sales Growth by Propulsion	2024 Market Share	2024 Year-Over-Year Basis Point Share Change	YTD July 2025 Year-Over-Year US Sales Growth by Propulsion	YTD July 2025 Market Share	YTD July 2025 Year-Over-Year Basis Point Share Change
Internal combustion	-1.4%	80.0%	-298	0.8%	78.4%	-275
Hybrid	36.7%	10.1%	255	37.7%	12.4%	300
Plug-In hybrid	8.2%	2.0%	11	-6.8%	1.8%	-22
Battery electric vehicle (BEV)	6.8%	7.9%	34	3.9%	7.4%	-3
BEV ex-Tesla	26.7%	4.1%	80	21.9%	4.3%	62
Fuel cell	-78.0%	0.004%	Not meaningful	-54.3%	0.002%	Not meaningful
US light vehicle sales growth	2.2%	N/A	N/A	4.3%	N/A	N/A

We see BEV sales in a holding pattern rather than permanently leveling off. The data on the left supports this argument: In 2024, BEVs excluding Tesla grew 27%, and so far in 2025, BEVs excluding Tesla are up 22%. Tesla made up about 47.5% of all US BEV sales in 2024, so Model 3 sales down 35.8% last year and Model Y down 1.8% made the overall BEV sales story look worse than it was for non-Tesla players.

A key problem for BEVs now is their popularity split in and out of California. According to the California New Car Dealers Association, in 2024, BEVs were 22% of new-vehicle registrations in the state, but for the whole country including California, they were only about 8%. California was about 31% of BEV registrations, per the association.

The US needs more time to build out infrastructure, expand its BEV offerings to more affordable choices, like Chevrolet is doing, 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

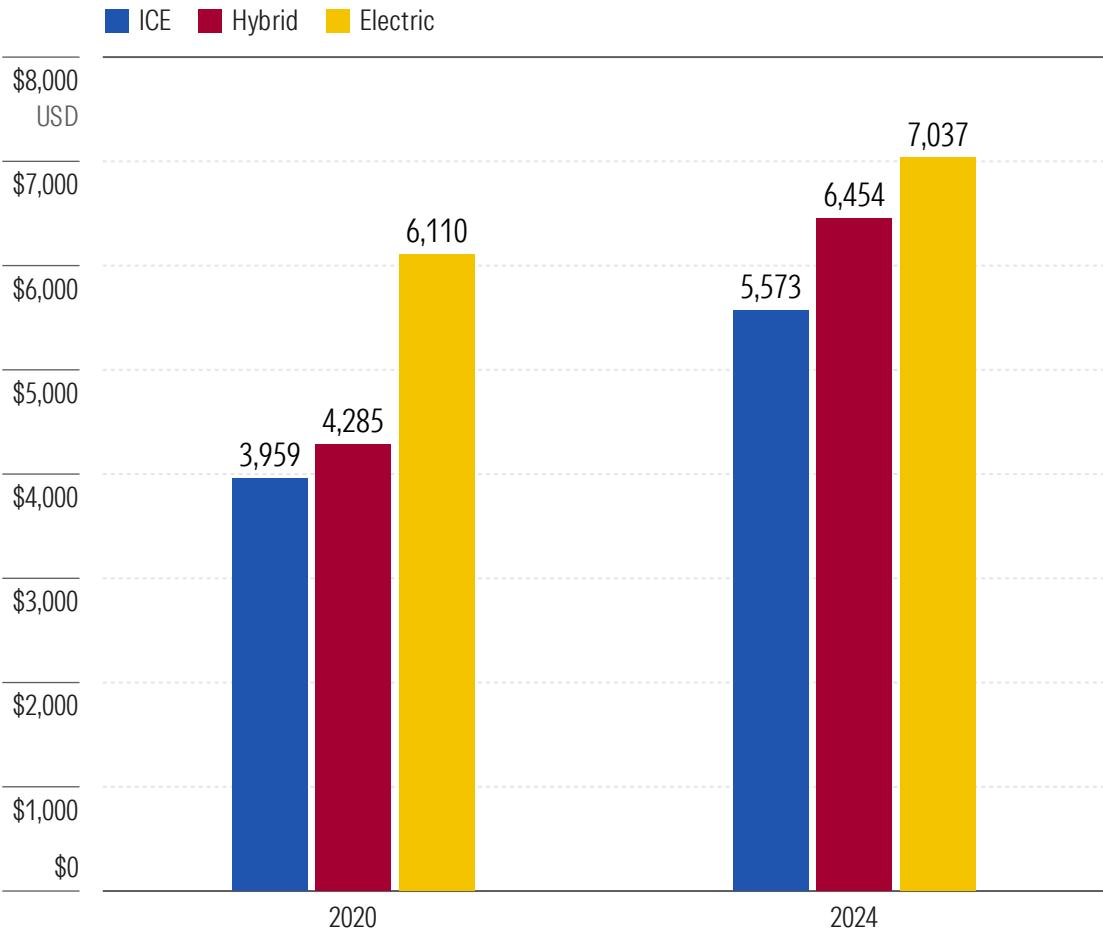
BEVs Need More Parts and More Labor Than Internal Combustion Engine Repairs

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% vs. 54% in 2020, Partly on Rising Labor Costs

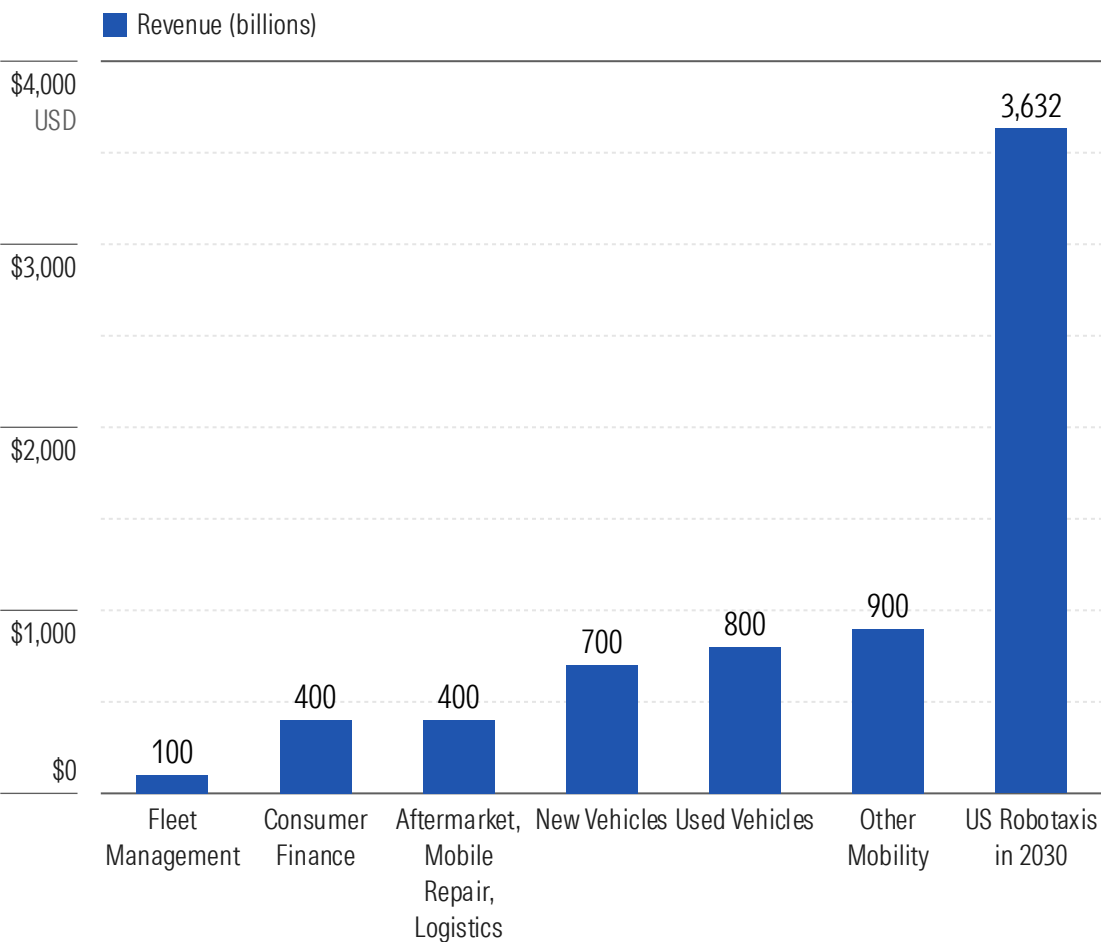
Total cost of repair for vehicles up to three years old by powertrain.



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 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 April 2024 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 30% 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 national fleet provider. Dealers could help lease AVs as well. We see 2030 passenger mile demand for US robotaxis as an over \$3.6 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 nearly 50 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 latter firms still have the option to go international. We think AutoNation is the most likely to do it first.

Tariff Exposure Varies by Dealer and by Automaker

Every Dealer Has Tariff Exposure, but Risk Is Not Uniform

Dealers' automaker exposure as percent of 2024 units, revenue, or total dealer revenue.

GM, Ford, Stellantis Exposure			
Asbury	30%		
AutoNation	27%		
Lithia	22%		
Group 1	18%		
Sonic	14%		
Penske	2%		
Toyota & Lexus Exposure	Toyota	Lexus	Total
Asbury	19%	10%	29%
Group 1			25%
AutoNation	16%	4%	19%
Lithia	14%	3%	17%
Penske	11%	3%	14%
Sonic	9%	5%	14%
Audi, BMW, Mercedes, & Porsche Exposure			
Penske	54%		
Sonic	48%		
Group 1	34%		
AutoNation	29%		
Lithia	15%		
Asbury	14%		

Dealers on 2025 earnings calls have been optimistic about sales and the impact of US tariffs despite possible price increases to consumers of a few thousand dollars per vehicle. This optimism is because in some cases, the automaker is bearing all of the tariff cost via cutting prices before a vehicle is imported, some vehicles are not tarified due to US assembly, and vehicles still need service despite tariffs on parts. The 2026 model year may bring price hikes to consumers, though.

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 9-20 years old, regardless of mileage. Value autos are about 20% of Lithia's same-store used-vehicle volume and are its most profitable used vehicles, sold with a return on investment over 100%.

The table shows tariff exposure isn't uniform across dealers; it depends 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 tarified 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 this summer with the 15% tariff deals for Japan and the EU, meaning that those brands pay lower tariffs than an American automaker does from Mexico.

ESG Snapshot

Family ownership and human capital are the main risks.

Summary of Sustainalytics' ESG Exposure Ratings

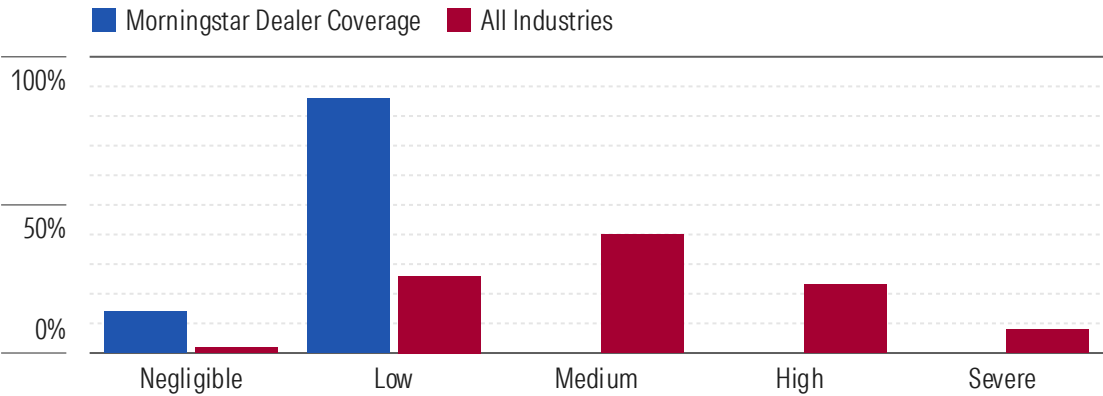
Sustainalytics assigns all US auto dealers in our coverage an ESG Risk Rating of Low or Negligible. For comparison, over two-thirds of all companies are assigned an ESG Risk Rating of Medium or higher. The auto dealer industry, therefore, faces less risk than the average for companies across all industries.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

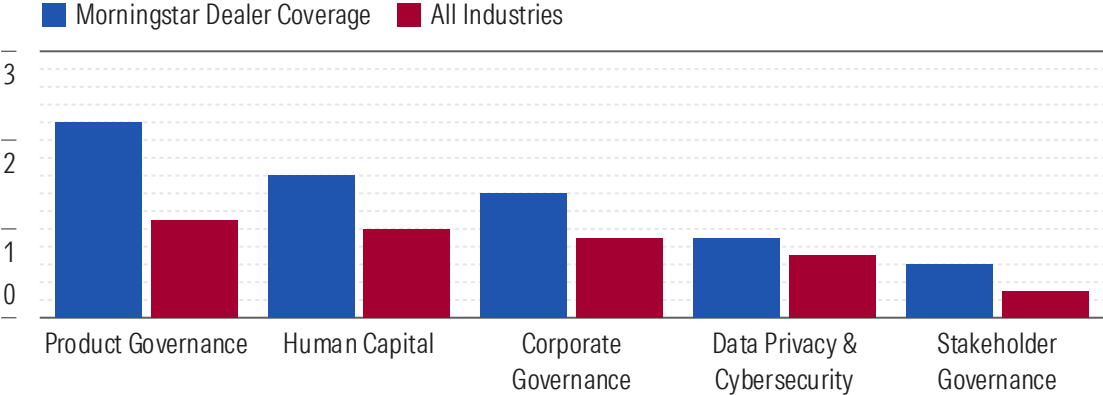
Human capital: Selling cars is a highly cyclical operation, and commission-based salespeople means that turnover is common. Service technician shortages are the most pressing human capital concern for dealers; some are better than others at retaining techs. Attracting and maintaining top store-level 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 over 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. 20, 2025. Data includes CarMax.

See Important Disclosures at the end of this report.

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%
2024	270,869	6.0%	16	24.1%

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 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.

In our coverage, Group 1 talks about the technician success it’s recently had. It pays techs at or above market, offers a four-day workweek, is installing 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 even though overall company headcount was down 7% over the same period. 2024 same-store US tech headcount rose 7% versus 2023.

Source: NADA Data, Automotive News, Morningstar calculations.

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