

Analysis of the US VIO and scrappage rates

20 April 2023



Key highlights of the US market



National trends 2% CAGR in VIO from 2018 to 2022 at ~283m with age at ~12.2 years in 2021



 BEV potential
~200k units open to aftermarket services



Regional focus Mid West largest and oldest region in the US with ~38m aftermarket customers



 VMT changes
Current difference between BEV and gasoline mileage is only ~280 miles



 State trends
~60% of each state VIO are out-ofwarranty



Scrappage trends 2% CAGR in scrappage from 2015-2022



Historically healthy economic performance leading to significant volatility

Excluding the pandemic, aftermarket business remained stable throughout US GDP growth, 2015 - q1 2023



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Recession fears and delayed growth impact

US GDP growth, 2023 - 2025 2.5 2.0 1.5 Percentage change (%) Stronger economy, stronger new car inventory and renewed consumer confidence; expect to see 1.0 increase in VIO, adding new used car opportunities 0.5 0.0 01/2023 05/2023 09/2023 01/2024 05/2024 09/2024 01/2025 05/2025 09/2025 0.5 -1.0 Potential for recession in Q2 or Q3 2023 could stifle new VIO entry, increase vehicle age, boosting aftermarket revenue -1.5 -2.0 Data compiled Mar. 31, 2023.

Easing of cost of living within 2024 could encourage higher miles travelled

Source: S&P Global Mobility. © 2023 S&P Global.



Industry hypothesis based on economic factors



Decrease in vehicle ownership rates

Urban and/or the younger demographic will potentially prioritized financial strength by selling and not replacing their vehicles



Increase in average age

Legacy long term loans, reduced mileage and lack of favorable re-financing options would have been a significant influence.



Reduced vehicle miles travelled

Higher cost of fuel and vehicle maintenance, hybrid/flexible working and lesser disposable income impacted mileage.



Changes in vehicle retirement or scrappage

Economies of repair strongly affected older VIO retirement, in addition to new energy vehicle incentives and developing mobility options



Declining growth in VIO and increasing average age in the US

The aftermarket benefits due to increased retention, even if scrappage forces the older VIO out **US VIO and average age forecast**



Source: S&P Global Mobili © 2023 S&P Global.



Considerable internal demographic migration causing VIO shifts

Aftermarket parts and service capacity would need to recalibrate for increased demand in growing regions





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Limited scrappage, alternative fuel incentives for newer VIO

Higher scrapping could result from further incentives towards HEVs and/or BEVs

State	Condition of policy	Type of policy
California	Employer invested programs such as low emission, alternative fuel, or zero emission vehicle procurement and old vehicle scrapping may be considered for funding	State incentive - scrappage
California	Bay Area residents eligible for \$1,200 to turn in their operable, registered 1998 or older vehicle for scrapping.	State incentive – scrappage
New York	Rebates of up to \$2,000 for the purchase or lease of a new eligible EV	State incentive – BEV
Colorado	Light-duty EVs eligible for a tax credit, per calendar year, up to \$2500	State incentive – BEV

Minor positive growth in scrappage volumes but significant climb in age

Scrappage average age increasing presents for remanufacturing/refurbishing opportunity **US VIO scrappage trend**



Data compiled Mar. 13, 2023. Source: S&P Global Mobility. © 2023 S&P Global.



What do these VIO and age trends mean for the aftermarket?



Newer technology vehicles

The increase in share of out-of-warranty VIO is driving the revenue opportunity from potentially high yielding customers



Geographical shifts

Businesses should monitor and adapt to shifting VIO patterns at the regional and state levels to ensure continuity and ability to capitalize on how their car parc changes.

BEV repair and maintenance



BEV skill development, tooling and basic capex at strategic service center locations is critical in developing long term sustainable growth, especially based on cost effective repair and maintenance for out-of-warranty vehicles.



Remanufacturing/refurbishing

Significant opportunities available for reconditioning of parts in the market with a growing and aging population of VIO destined to be scrapped.



National mileage dropped across the board in 2022

Positive outlook for the aftermarket industry with out-of-warranty vehicles driving more **US total mileage, 2021, 2022**



Source: Source: S&P Global Mobility. © 2023 S&P Global.



BEVs closing the gap to ICE mileage

Increasing BEV mileage offering additional quick service aftermarket opportunities



US total mileage by fuel type (2022)



Growing BEV numbers coming within aftermarket reach

Major maintenance and repair opportunities at reduced levels due to low average age

BEV VIO: Mileage and age (2022)



Data compiled Apr. 13, 2023.

Note: MY 2022 data used for mileage readings. © 2023 S&P Global.



How do these VMT trends affect the aftermarket?



Older VIO

Higher mileage by vehicles between the ages of 4 to 8 years old will drive more aftermarket opportunity.



BEVs

Industry to continue catering to quick service/maintenance items, for in and out-of-warranty vehicles till the long term, especially in high mileage locations.



Geographical spread

Southern states are the most lucrative for parts and servicing, because of both mileage and vehicle age.

Bodystyles



Pickups are still the most lucrative opportunity as they consistently have the highest miles travelled.



Validation of initial hypothesis



Decrease in vehicle ownership rates

Customers refrained from indulging in new vehicles, retaining older vehicles due to necessity or forgoing ownership.



Increase in average age

Average age increased, validating lower consumer confidence during economic uncertainty increasing vehicle retention.



Reduced vehicle miles travelled

Reduction in mileage across all model years between 2022 and 2021, influenced by increased economic challenges.



Changes in vehicle retirement or scrappage

Returning upward trend in scrappage, either establishing a more secure financial position, or lowering necessary driving costs with newer vehicles.



Conclusion: Important points to consider for the aftermarket



Vehicles getting older

Increasing VIO age, and volume within prime aftermarket age segments catering to more aftermarket opportunities.



Internal migration

Demographic shifts can make a dynamic change to the vehicle parc and bring in higher revenue opportunities.



BEV repair and maintenance

Including BEV and repair ability ensures supporting local community and prepares for an evolving vehicle parc.



Miles being driven

Out-of-warranty vehicles being driven more than newer models, aftermarket parts and servicing should continue growing.



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