

Automotive trends impacting the North American Aftermarket

Navigating ongoing changes in the vehicle fleet

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Agenda

Update: Current metrics

- Channel Forecast
- Fuel Prices and Vehicle Miles Traveled
- General update on the vehicle fleet

Trends

Short-Term

1. Supply Chain Challenges
2. Used Vehicles

Ongoing

3. Shifting vehicle preferences
4. Aging fleet, significant sweet-spot growth

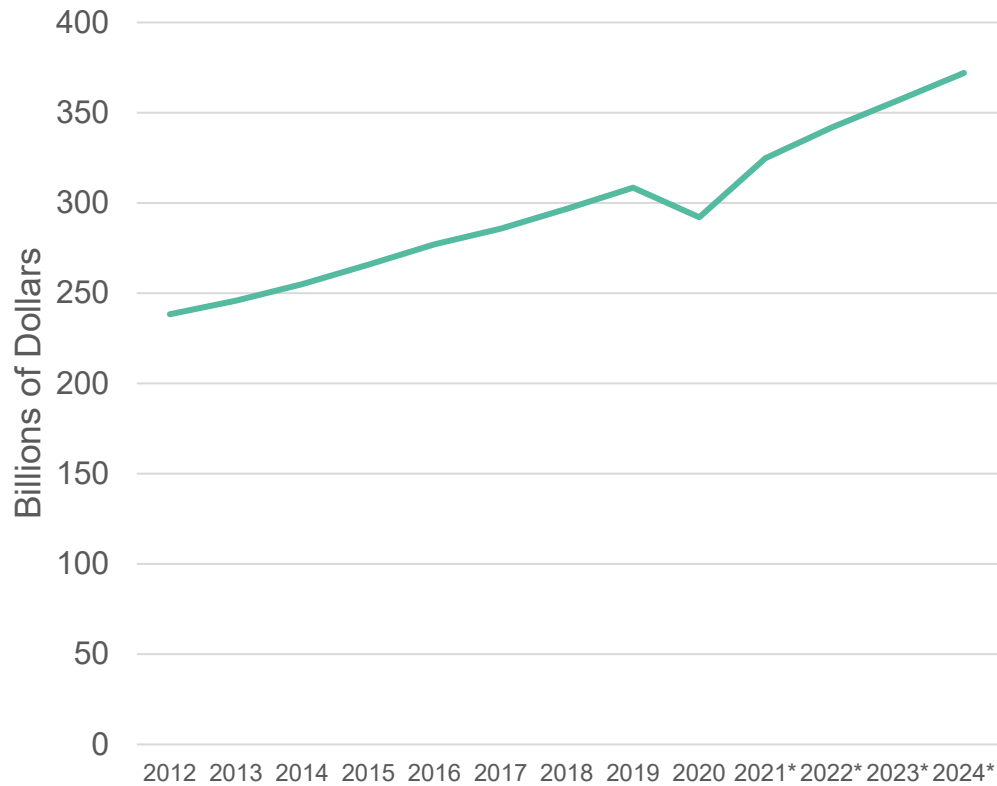
Long-Term

5. Impact of Electric Vehicles

Navigating Opportunities presented by an ever-changing vehicle fleet

Update: Current Metrics Channel Forecast

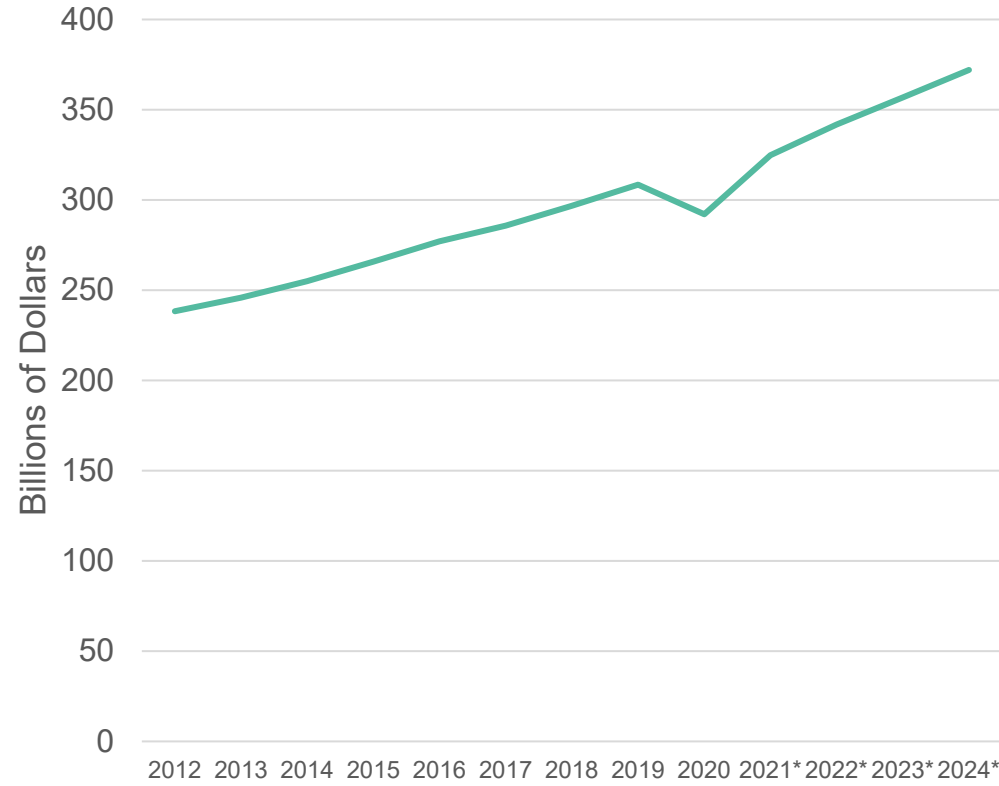
2020 was challenging for everyone, including the aftermarket Channel Forecast Model (Automotive Only)



-5.3%
From 2019 to 2020

Aftermarket Industry demonstrates excellent resilience in 2021

Channel Forecast Model (Automotive Only)

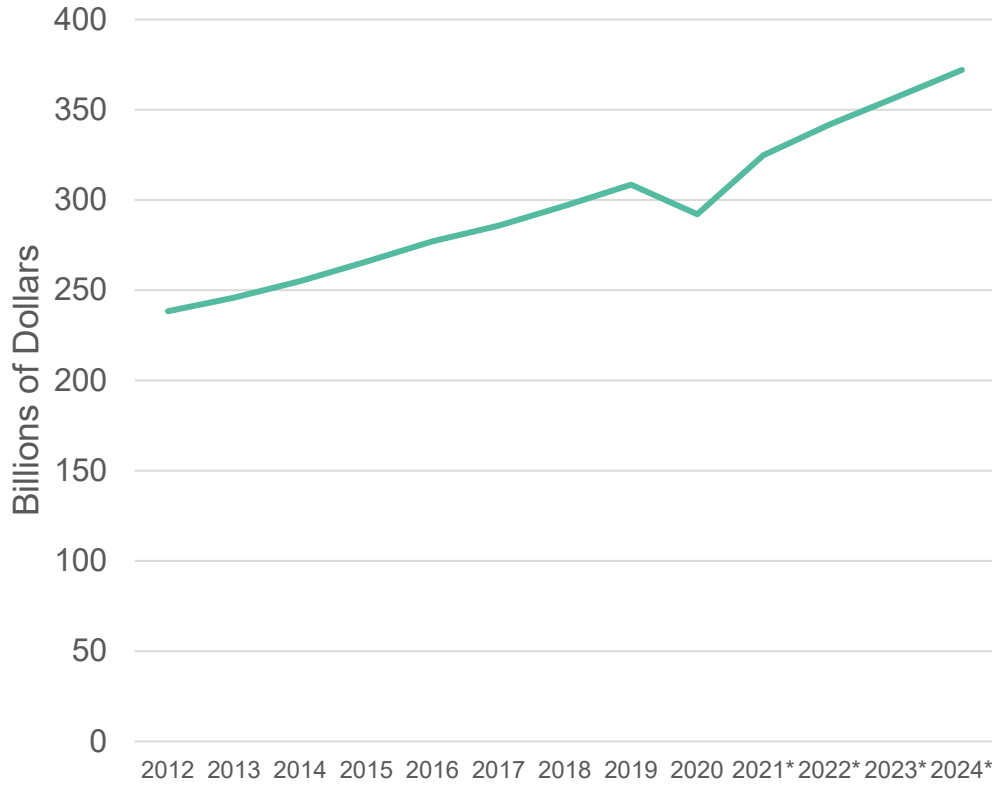


-5.3%
From 2019 to 2020

11.2%
From 2020 to 2021

Aftermarket Industry continues to demonstrate resilience

Channel Forecast Model (Automotive Only)



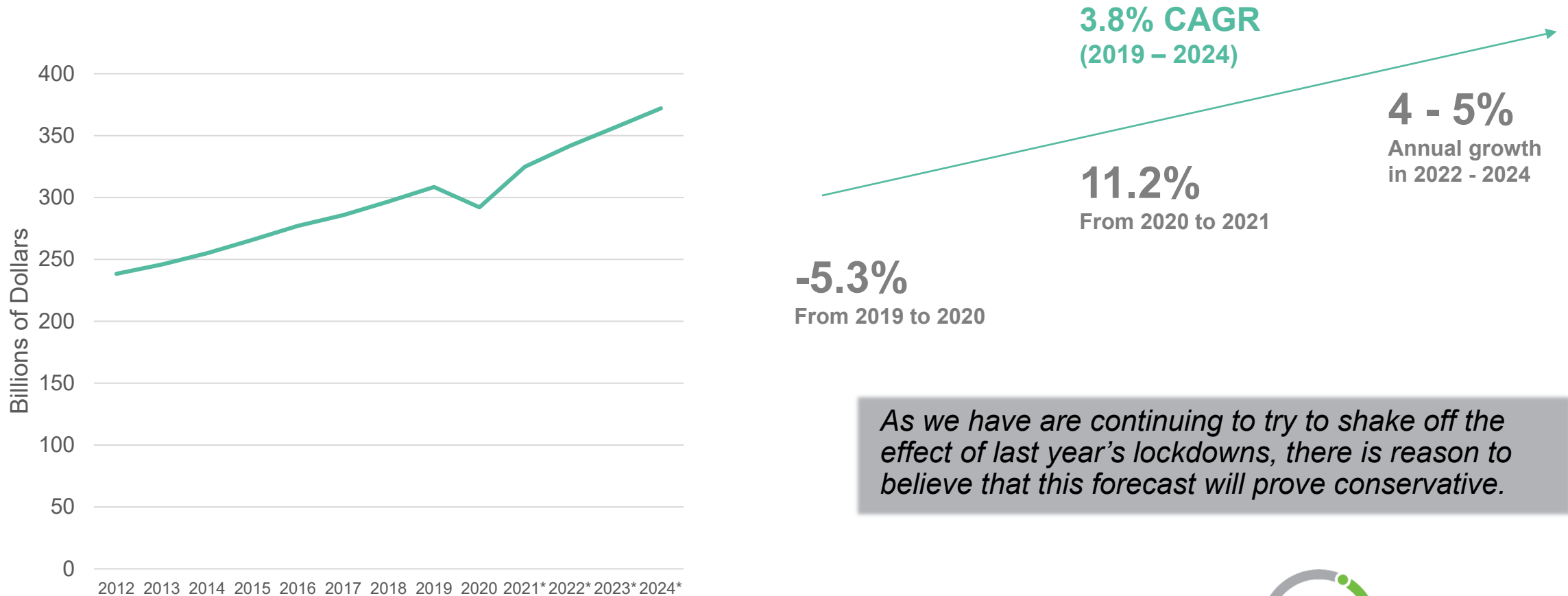
-5.3%
From 2019 to 2020

11.2%
From 2020 to 2021

4 - 5%
Annual growth
in 2022 - 2024

Aftermarket Industry continues to demonstrate resilience, and there maybe upside

Channel Forecast Model (Automotive Only)



As we have are continuing to try to shake off the effect of last year's lockdowns, there is reason to believe that this forecast will prove conservative.

Update: Current Metrics

Fuel prices and Vehicle Miles Traveled

At what point will rising gas prices impact VMT?

A brief macro look at historical gas price trends

Historical

- 2008–2011 (Great Recession): Increasing prices
- 2012–2013: Stable but high prices
- 2014–2017: Reducing prices
- 2018–2019: Stable, reasonable gas prices
- 2020 (Pandemic): Reasonable prices, but lockdowns
- 2021: Reasonable prices plus tapering of lockdowns
- 2022: Rapidly climbing gas prices



Pandemic aside, fuel cost minimally impact VMT by vehicle

There certainly is correlation, but what sustained price will cause a reduction in VMT?

CAGR in VMT by fuel cost shifts

- 2008–2011 (Great Recession): Increasing prices: **-0.26%**
- 2012–2013: Stable but high prices: **0.64%**
- 2014–2017: Reducing prices: **1.82%**
- 2018–2019: Stable, reasonable gas prices: **0.77%**
- 2020 (Pandemic): Reasonable prices, but lockdowns: **-10.98%**
- 2021: Reasonable prices plus tapering of lockdowns: **11.2%**
- 2022: Rapidly climbing gas prices ?



Vehicle miles traveled returned in 2021

2021

12.4k

Average miles traveled for
Passenger Cars and Light Trucks

3.4T

Total US miles traveled for
Passenger Cars and Light Trucks

S&P Global Mobility 2021-2022 VMT

Vehicle miles traveled returned in 2021 and 2022 is poised for further expansion

2021

12.4k

Average miles traveled for
Passenger Cars and Light Trucks

3.4T

Total US miles traveled for
Passenger Cars and Light Trucks

2022

12.5k

Average miles traveled for
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3.5T

Total US miles traveled for
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S&P Global Mobility 2021-2022 VMT

There may be storm clouds on the horizon in 2022 if gas prices stay high

2022

12.5k

Average miles traveled for
Passenger Cars and Light Trucks

3.5T

Total US miles traveled for
Passenger Cars and Light Trucks

In 2022, sustained prices over \$4 will lead to a reduction of less than 1%; sustained pricing at \$5 will likely lead to closer to 2% reduction as elective driving is further constrained.

S&P Global Mobility 2022 VMT

Update: Current Metrics

General update on the vehicle fleet

The vehicle fleet bounced back favorably in 2021

283M

Passenger Cars and Light Trucks

New vehicle sales continue to be muted by supply chain constraints

283M

Passenger Cars and Light Trucks

15.1M

New vehicles added

Vehicles leaving the fleet shrunk significantly and we also saw above average volume of vehicles returning

283M

Passenger Cars and Light Trucks

15.1M

New vehicles added

4.2%

Scrappage

Average age continues its climb over time

283M

Passenger Cars and Light Trucks

15.1M

New vehicles added

4.2%

Scrappage

12.1

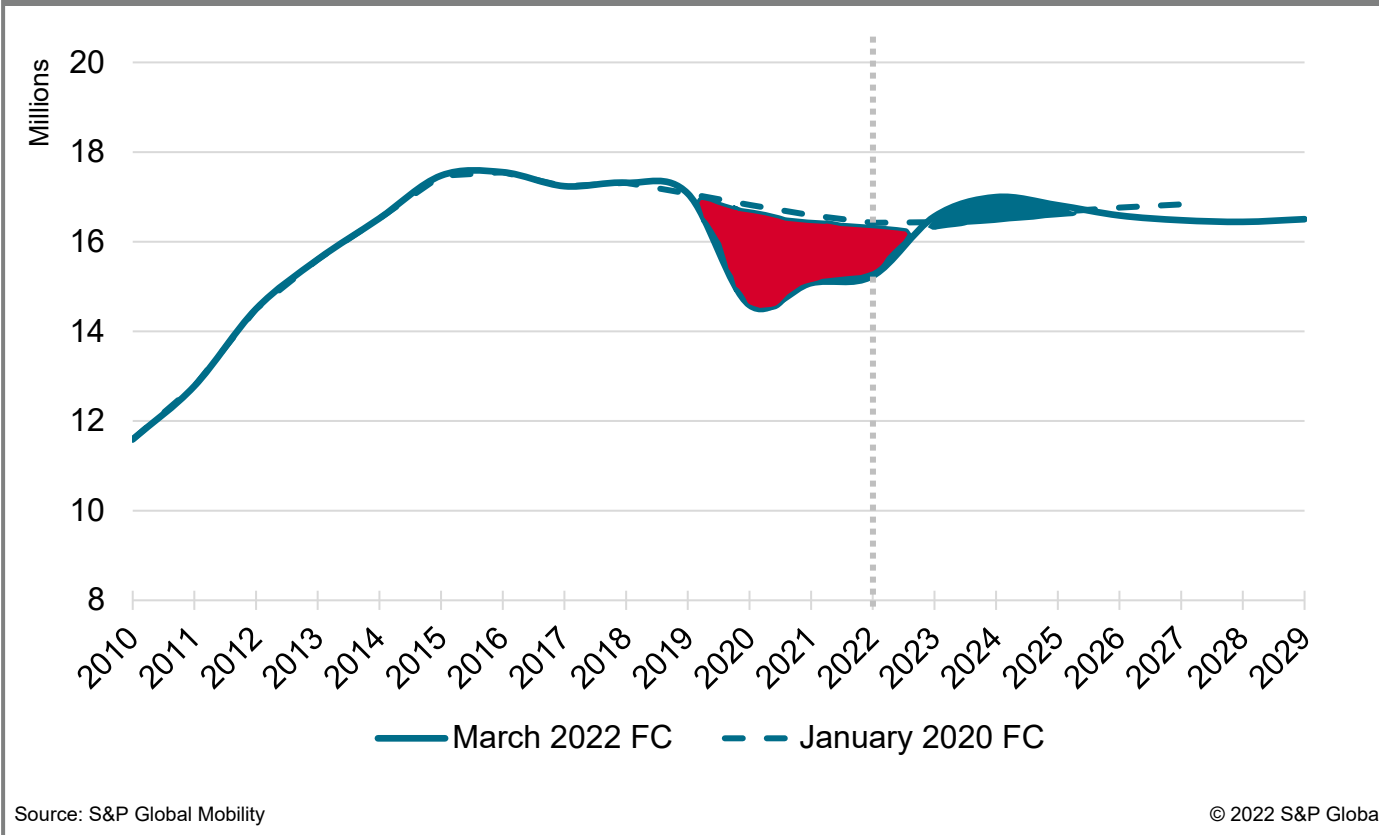
Average vehicle age

Short Term Trend: Supply chain challenges

US: Light Vehicle Sales Outlook

Supply Chain Constraints Alter Sales Recovery; Pent-up Demand is Vulnerable to Second Order Impacts from Russia/Ukraine Conflict Resulting in Demand Destruction

US Light Vehicle Sales

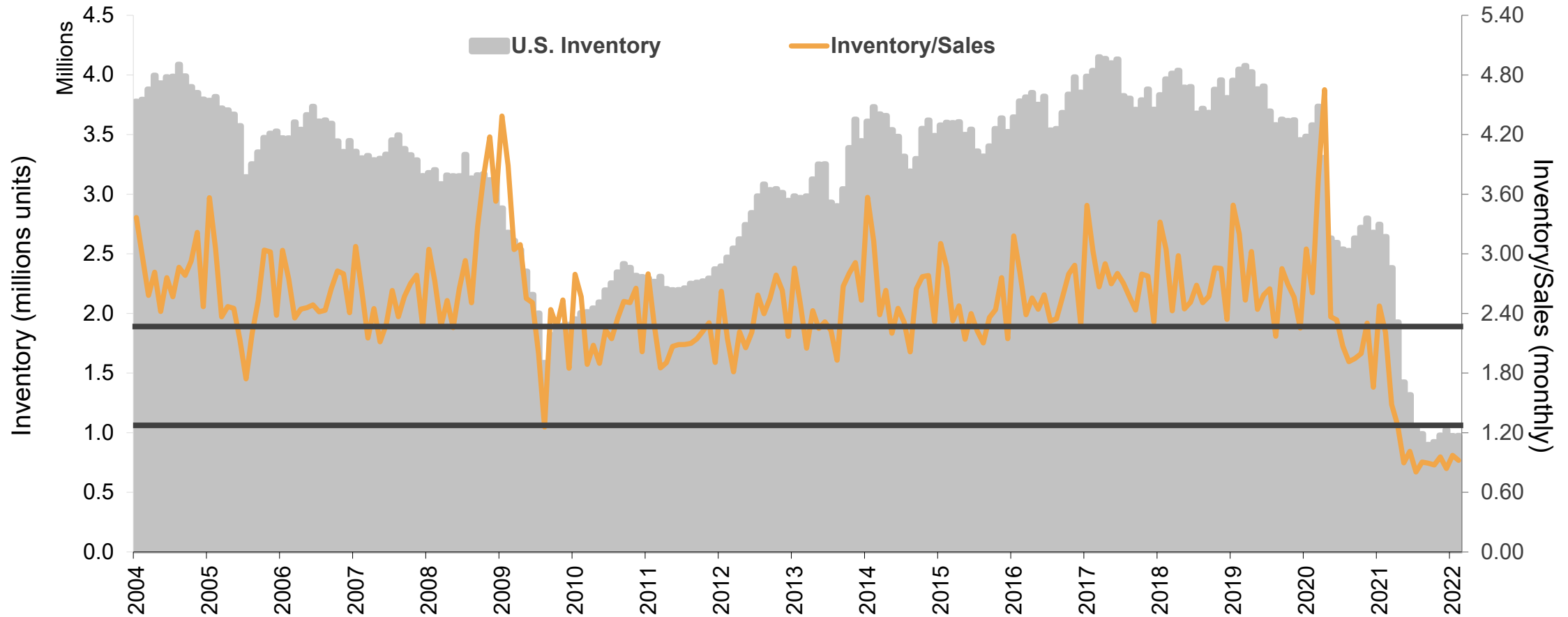


Economic issues


- US consumer outlook remains generally positive, though recovery is skewed and inflation/pricing is a material concern; Russia/Ukraine macro impacts present further risk
- Inventory and production constraints impact sales in the near-term
- Longer term pressure on OEM profitability
- Opportunities to find right customer based on vehicle age and scrappage
- Launches accelerate, mix increasingly attractive
- Vehicle development costs rising
 - Regulatory compliance
 - Consumer contenting
- Market still generally attractive from consumer perspective, risk shifting to lenders
 - Low interest rate environment, for now...
 - Affordability becoming an increasing concern

Near-Term Outlook

Inventories Remain Depressed Due to COVID Impacts & Supply Chain Disruption; What Will “Normal” Look Like?

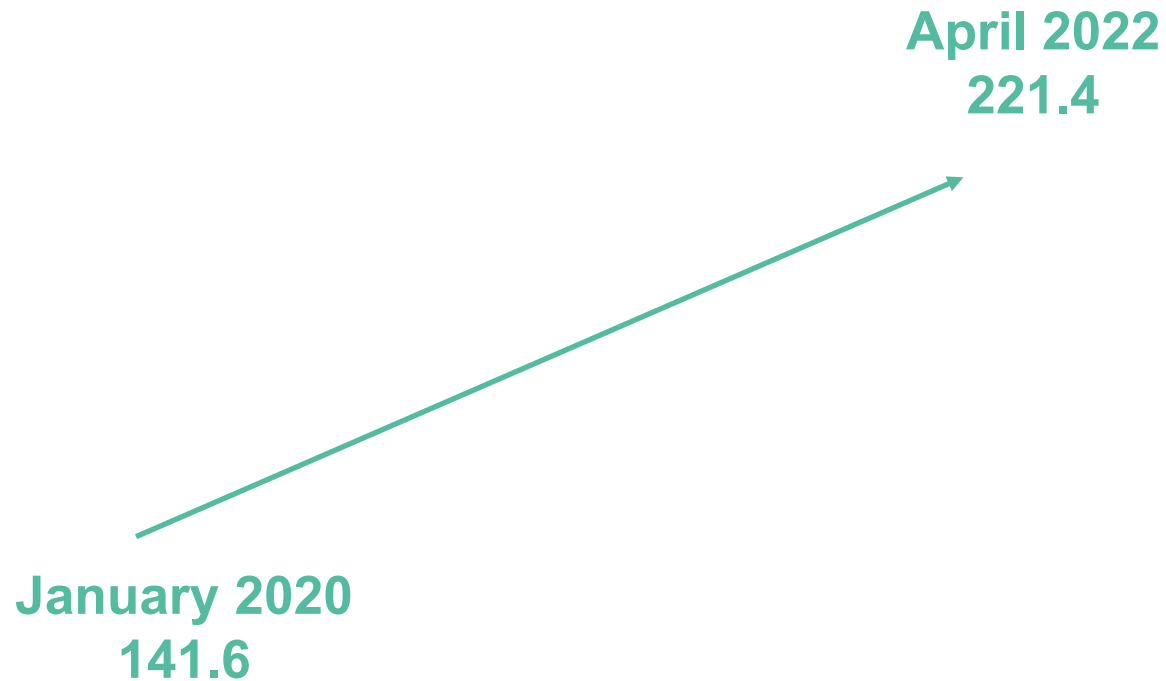


Source: Motor Intelligence, S&P Global Mobility

The Trends		When	Aftermarket Impact
1. Supply Chain Challenges		Next 12 – 16 Months	
Effect	Temporarily constraining new vehicle pipeline, Increased Average Age		
Summary	Stronger demand for new vehicles is creating pent up demand, existing vehicles staying on the road longer		

Short Term Trend: Used Vehicle Values

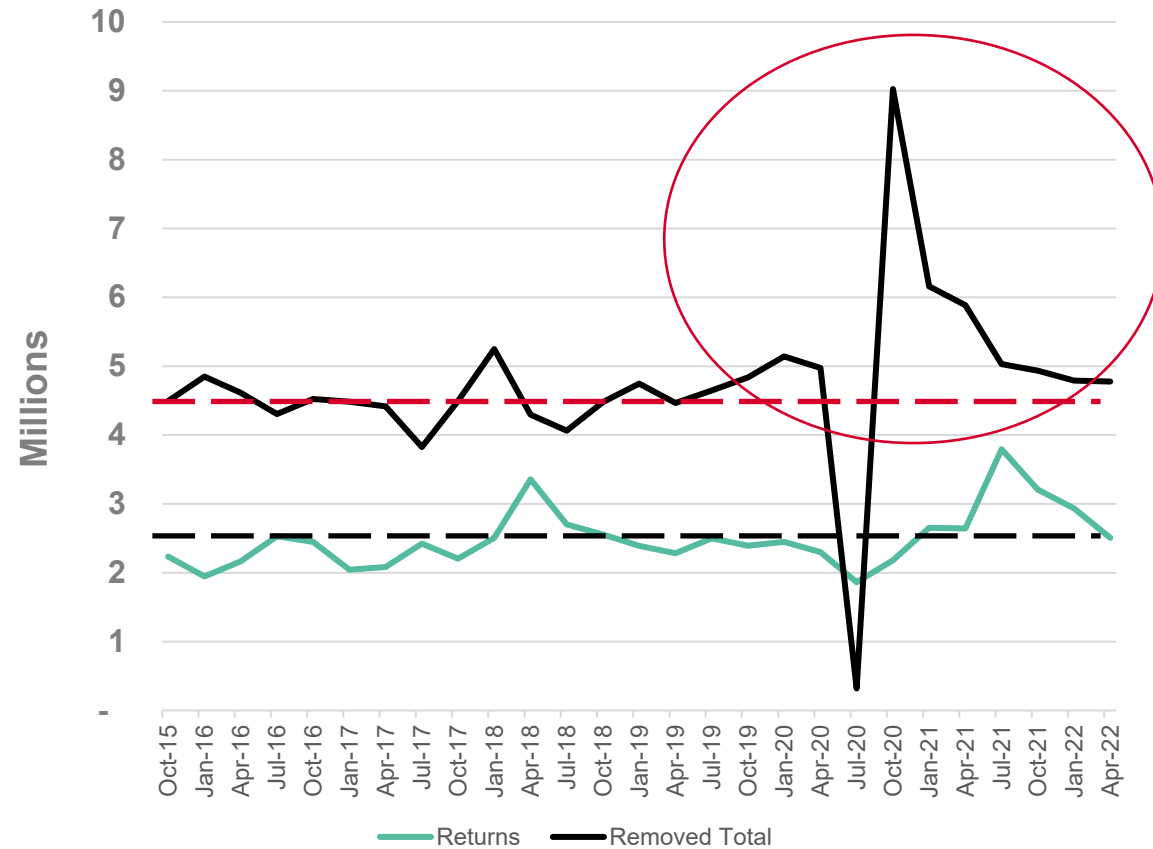
Strong demand for vehicle purchases driving Used sales and value



Manheim Used Vehicle Values Index January 1995 = 100

- Some demand for new vehicles spilling over to used vehicles
 - Additional demand driving used prices exponentially higher
 - Values were climbing before the pandemic, while they will normalize, the upward trend is expected to continue
- Vehicles re-entering the fleet helping to address supply shortage
 - Manheim reports retail and wholesale supply of used vehicles are still challenged, although better than a year ago

Dormant vehicles returning to the fleet are a tailwind to the aftermarket



Since pandemic lockdowns have ended, we've seen over **30M** vehicles 'leave' the population.
– That is nearly 1/3rd more than historical averages

Source: S&P Global Mobility

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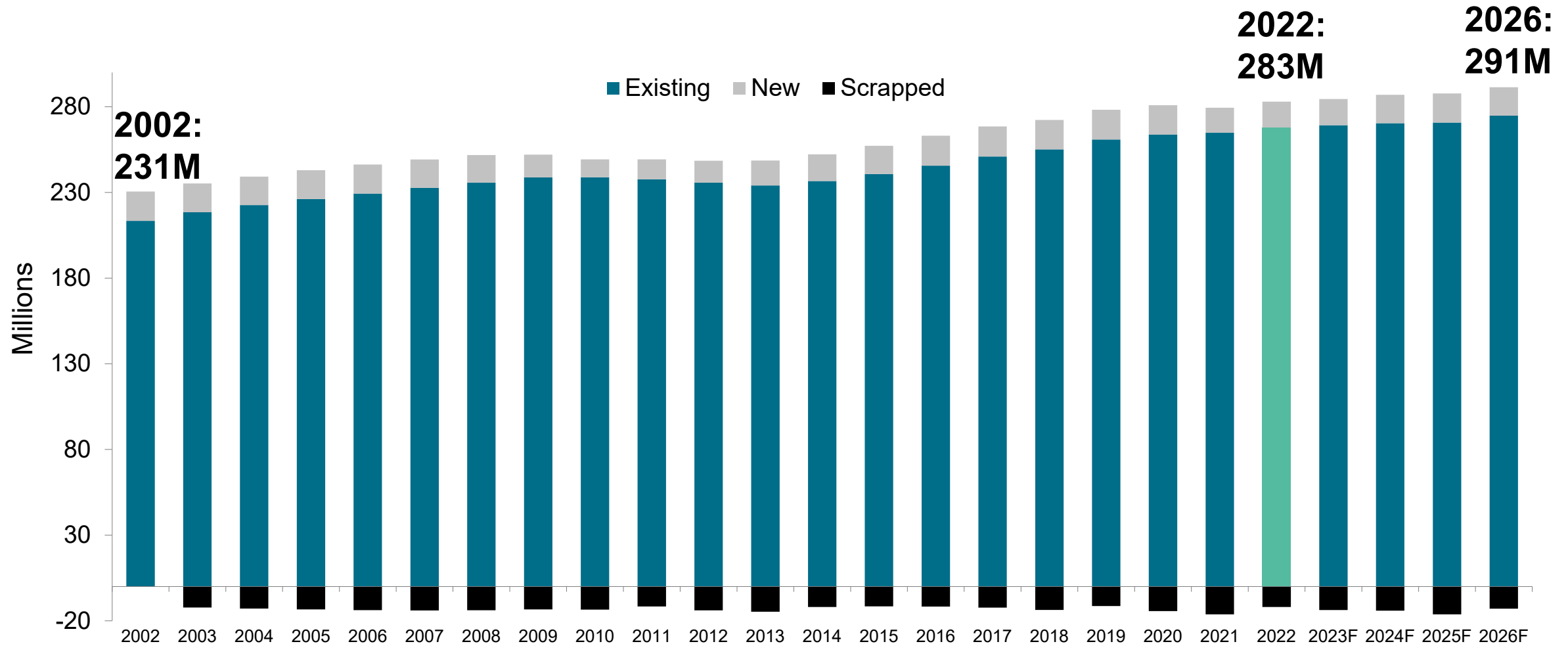
- That is nearly 1/3rd more than historical averages

Most recent data shows a **2.1M** increase in vehicles returning over historical averages



- Assuming normal behavior, we could see another **0.5 – 1M** returning, likely between now and late – 2022.

Source: S&P Global Mobility

Vehicles returning to the fleet are a catalyst to move VIO higher



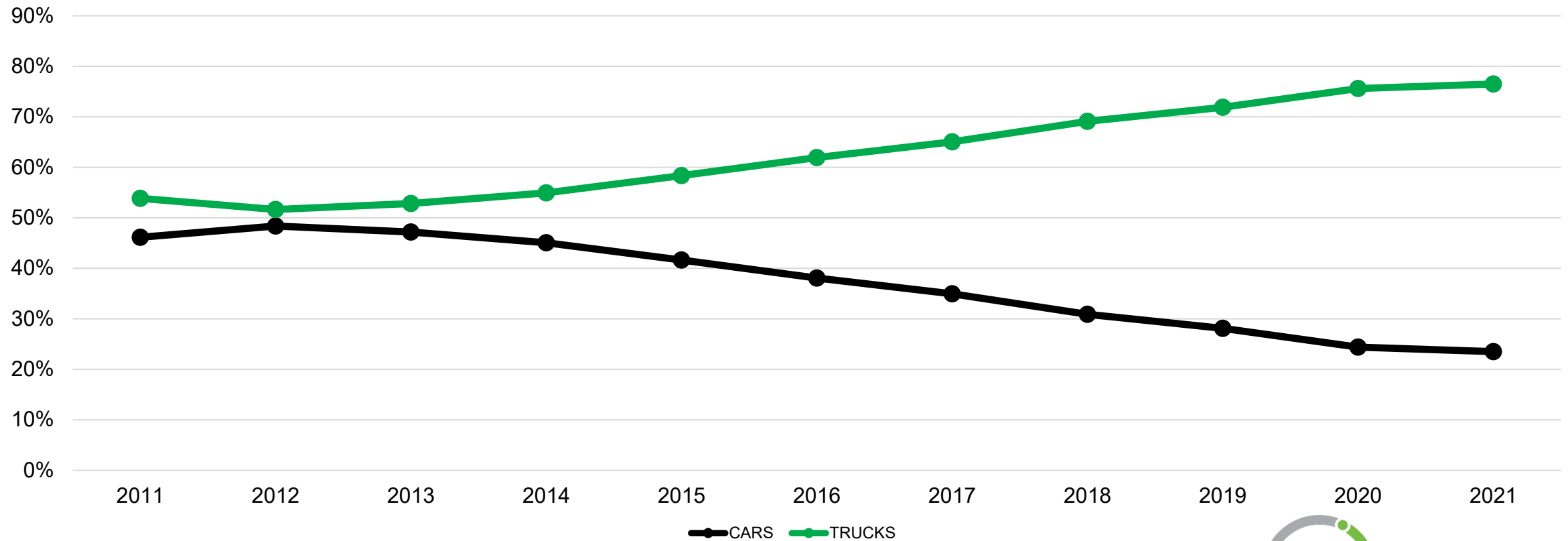
Passenger Cars and Light Trucks Combined
 Source: S&P Global Mobility, VIO Dated January 2022

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2. Used Vehicles		Next 12 – 16 Months	
Effect	For the most part temporary, but loan value to vehicle value could invert if used vehicle values decline rapidly		
Summary	Increased residual values changing the decisions to repair or replace existing vehicles. Consumers may get used to higher mileage vehicles over time.		

Ongoing Trend: Shifting vehicle preferences

New Vehicle sales continue to favor Light Trucks

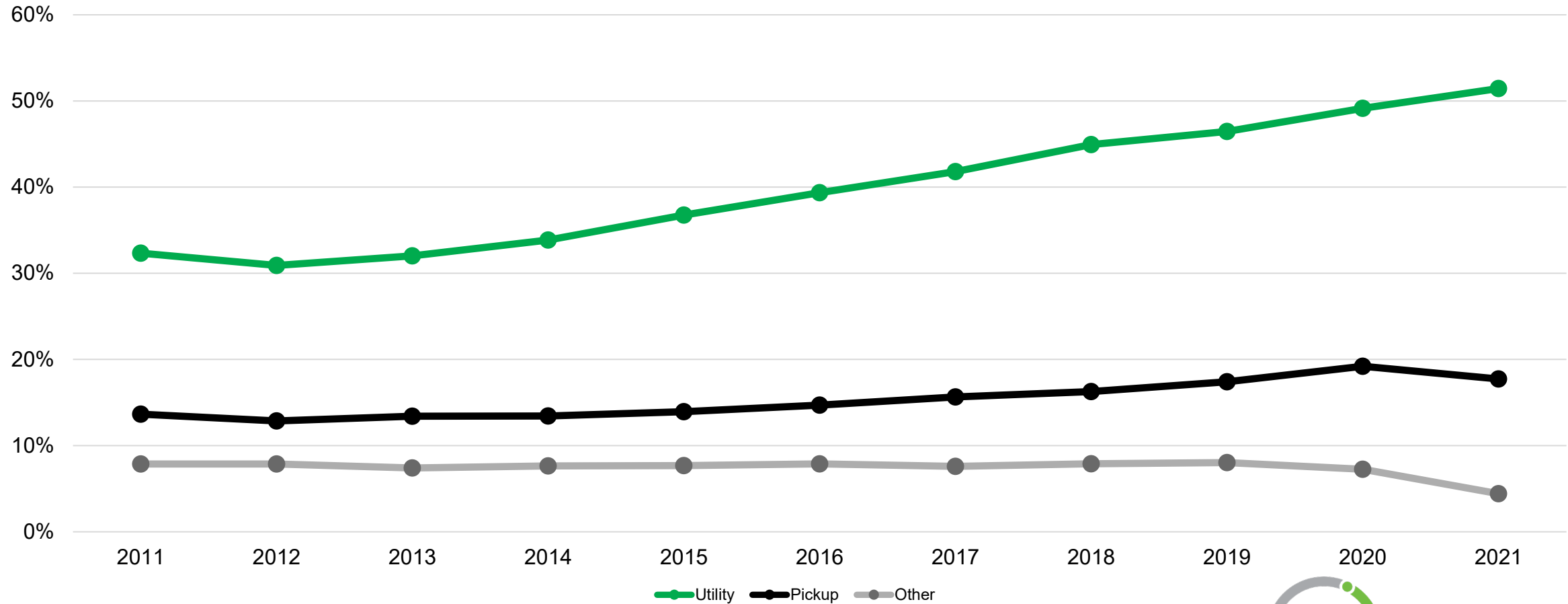
Share of annual New Registrations by Vehicle Type



Source: S&P Global Mobility

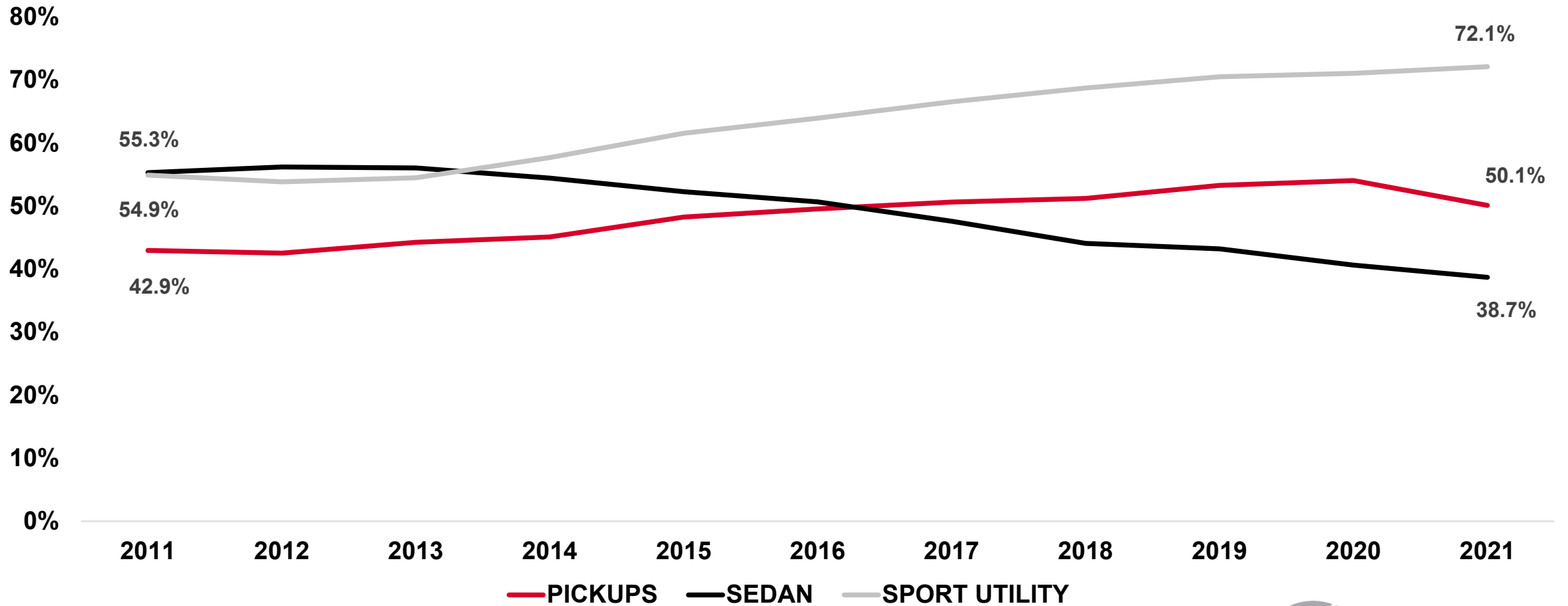
CUV body style is driving Light Truck growth

Light Truck Body Styles by share of New Sales






Source: S&P Global Mobility

SUV/CUV loyalty is world-class while sedans fade



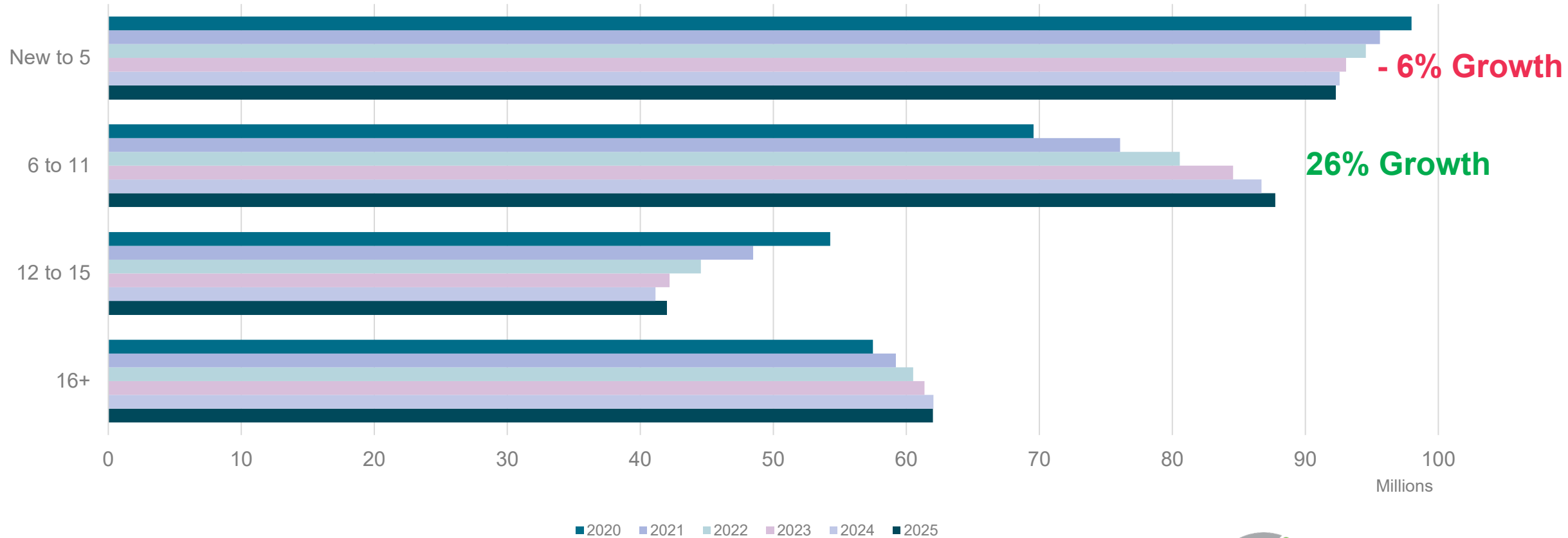
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3. Shifting vehicle preferences		Ongoing	
Effect	Make up of the fleet is ever changing , current trend is toward CUV's but that could level off		
Summary	Different mix of vehicles coming into the repair bay, both body styles, propulsion and makes		

Ongoing Trend: Aging fleet (sweetspot growth)

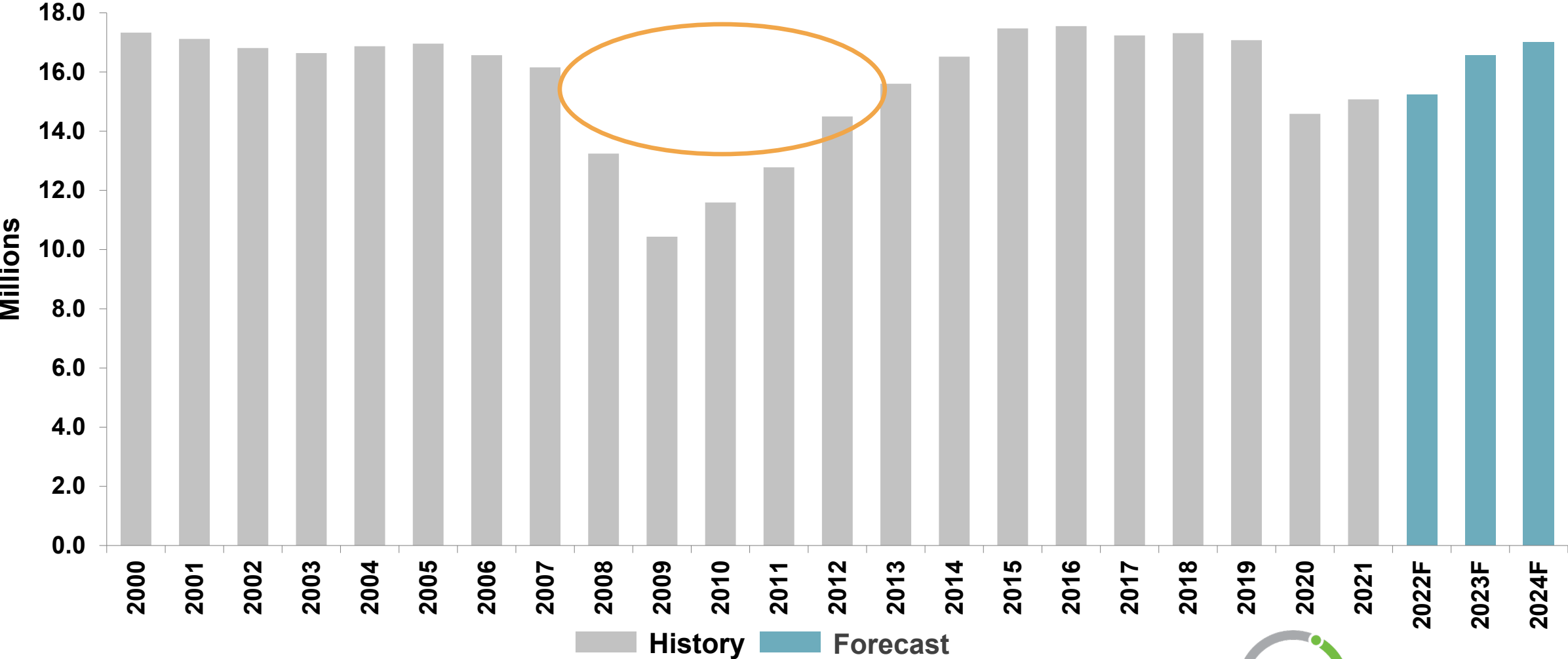
Favorable age mix coming for the aftermarket through first half of 2020's

Annual VIO by vehicle age group



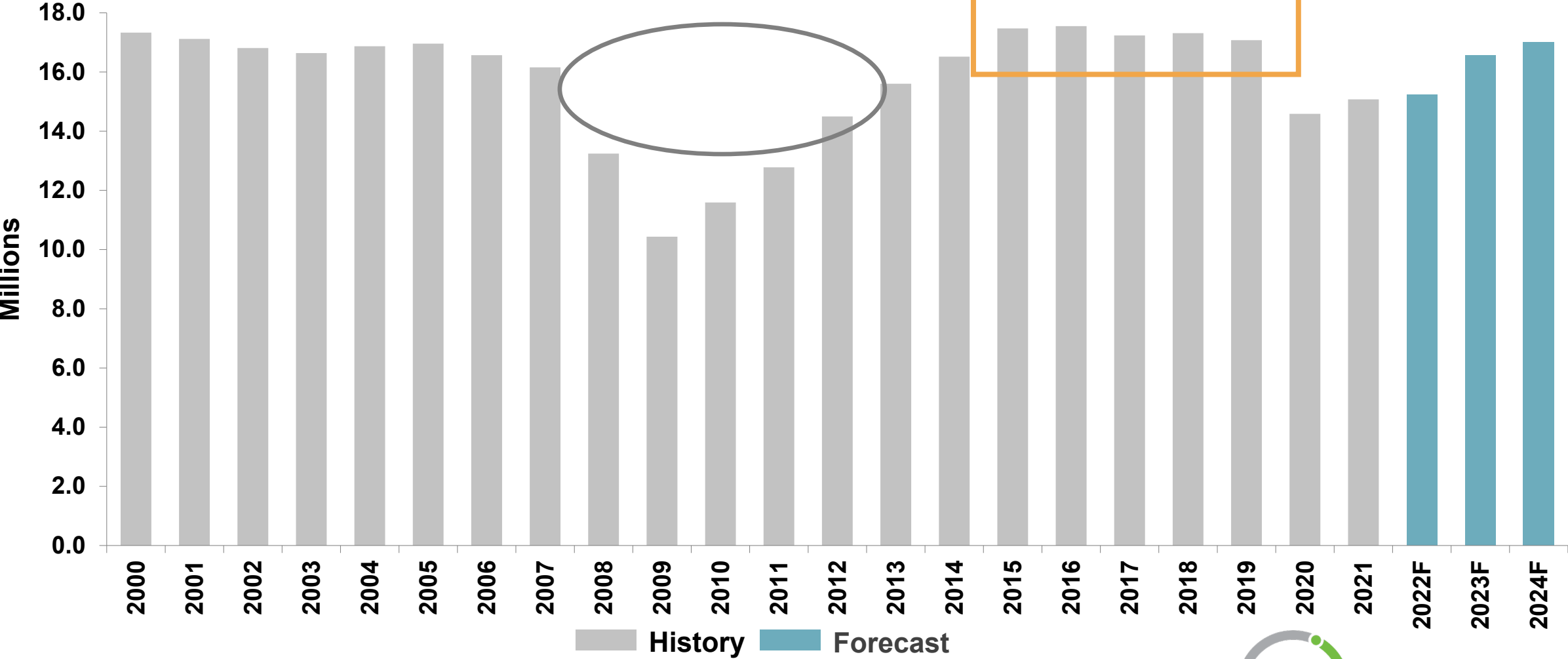
Passenger Cars and Light Trucks Combined
Source: S&P Global Mobility

Soft new vehicle registration years exiting sweet-spot



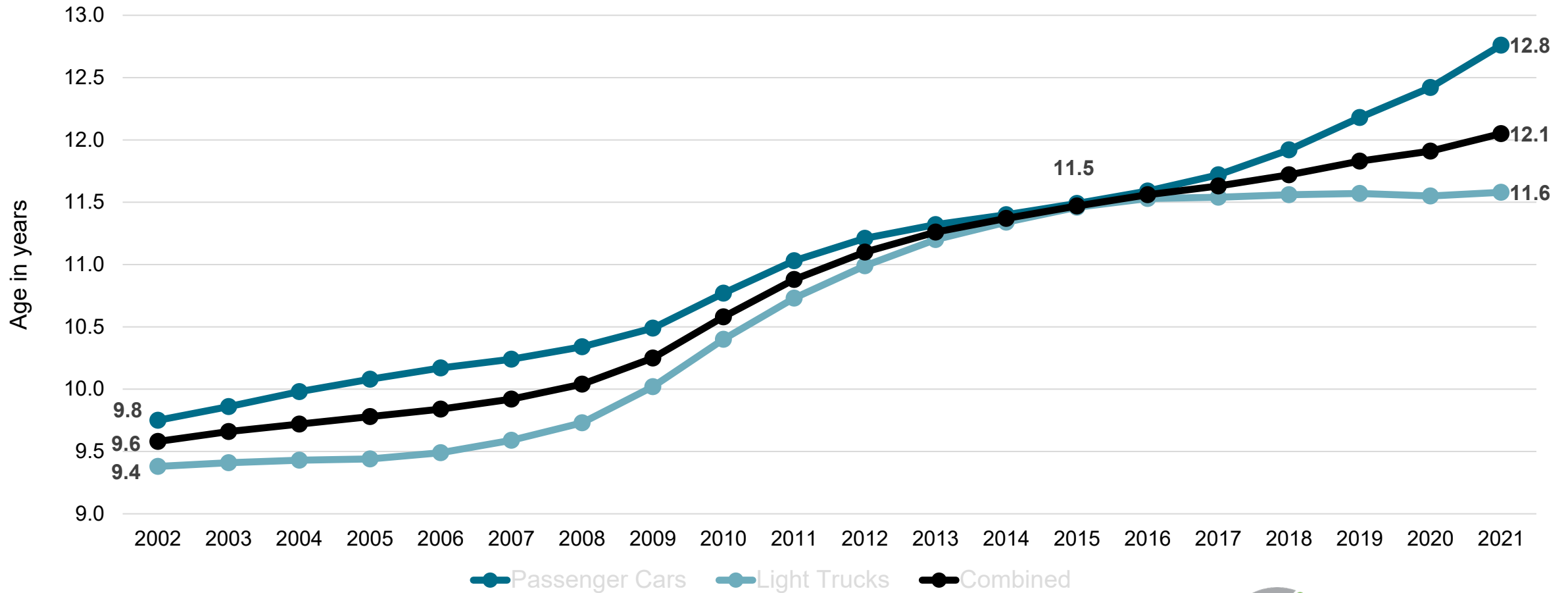
Source: S&P Global Mobility

5 years of 17+M new vehicles now entering the aftermarket sweet-spot



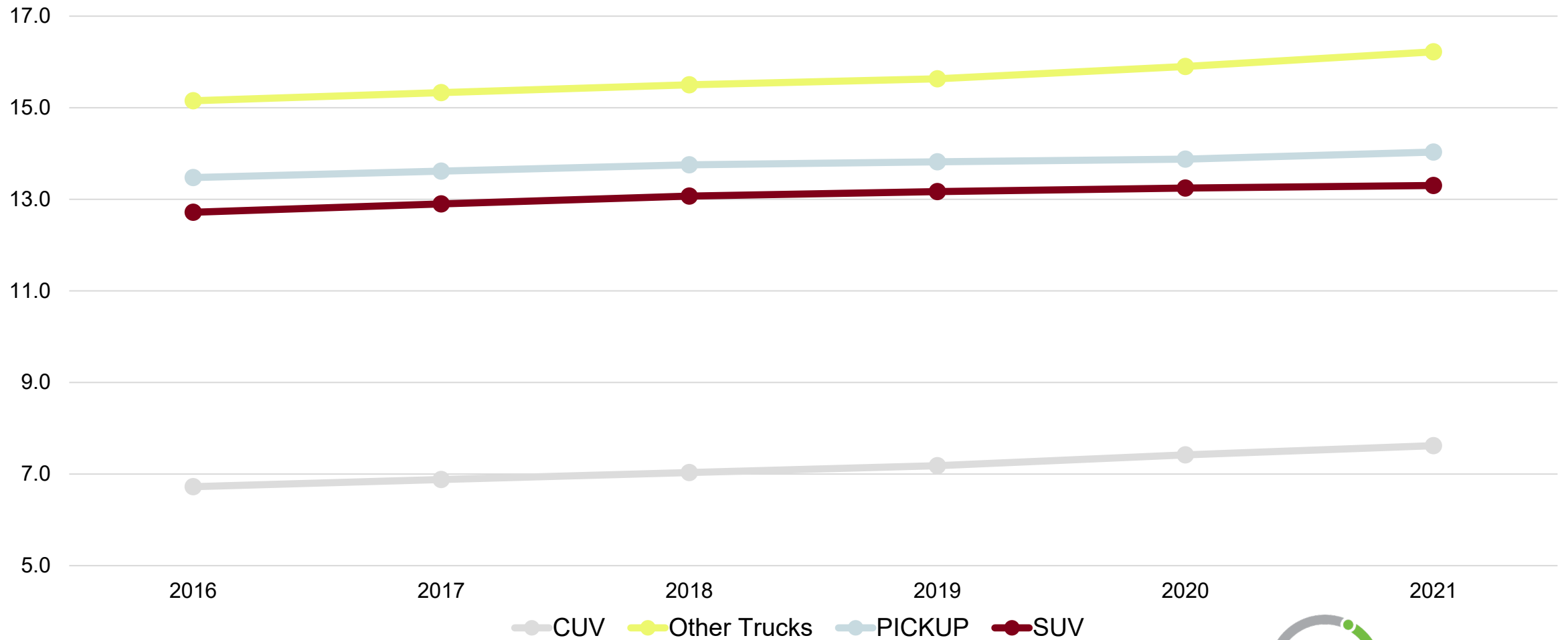
Source: S&P Global Mobility

Average Age by vehicle type continue to diverge



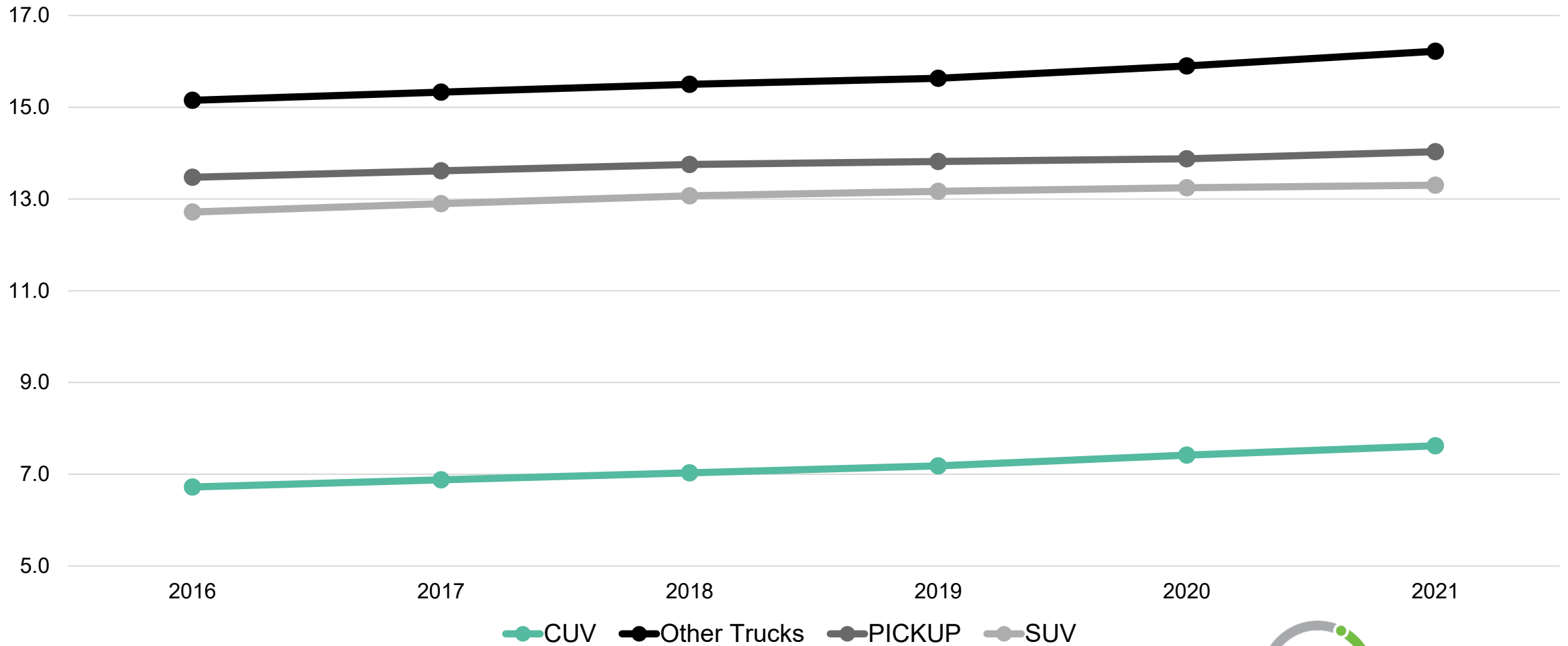
Source: S&P Global Mobility

Traditional Light Truck stalwarts – Pickups, SUVs and Vans are aged







Source: S&P Global Mobility

Light Truck Average age moderated by CUV's

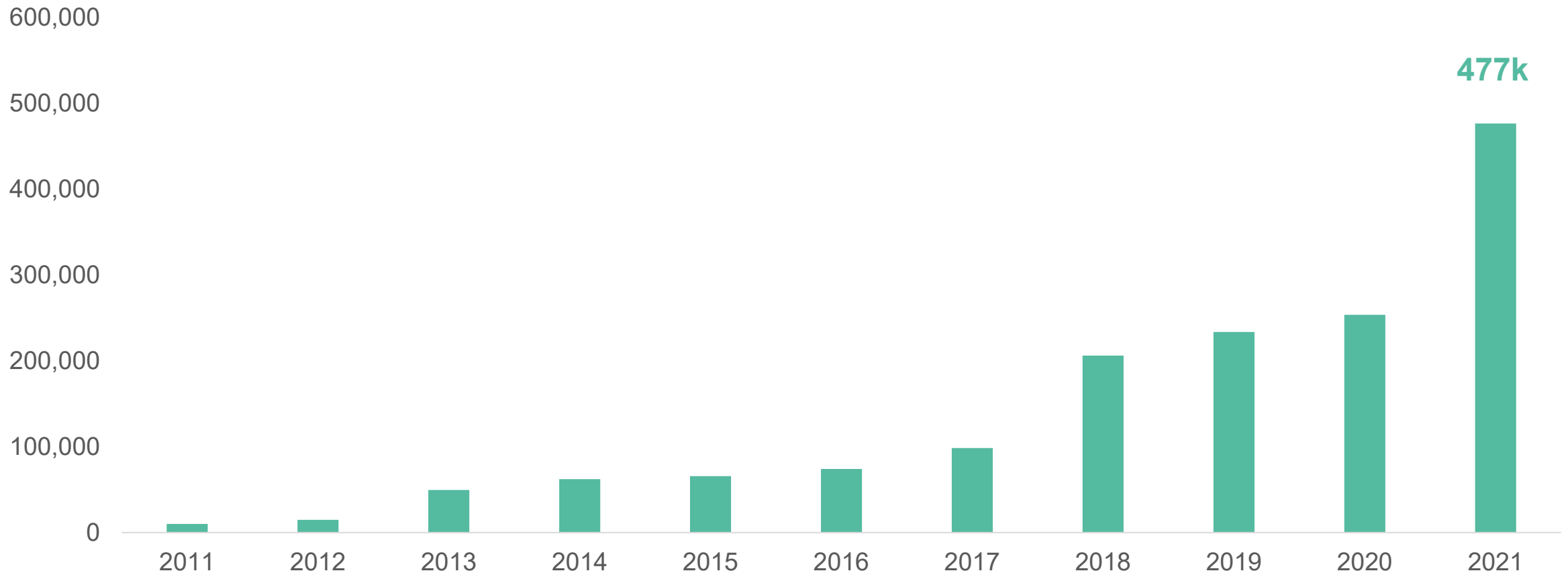


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Summary	Different mix of vehicles coming into the repair bay, both body styles, propulsion and makes		
4. Aging Fleet (sweet spot growth)		Ongoing, but early 2020's will be very positive	
Effect	For the most part average age is relatively stable , but some body styles are changing more rapidly		
Summary	The longer vehicles stay on the road, the more repair and maintenance they need, 5 years of 17+M new sales are coming into the sweet spot in the first half of the 2020's		

Long Term Trend: Impact of Electric Vehicles

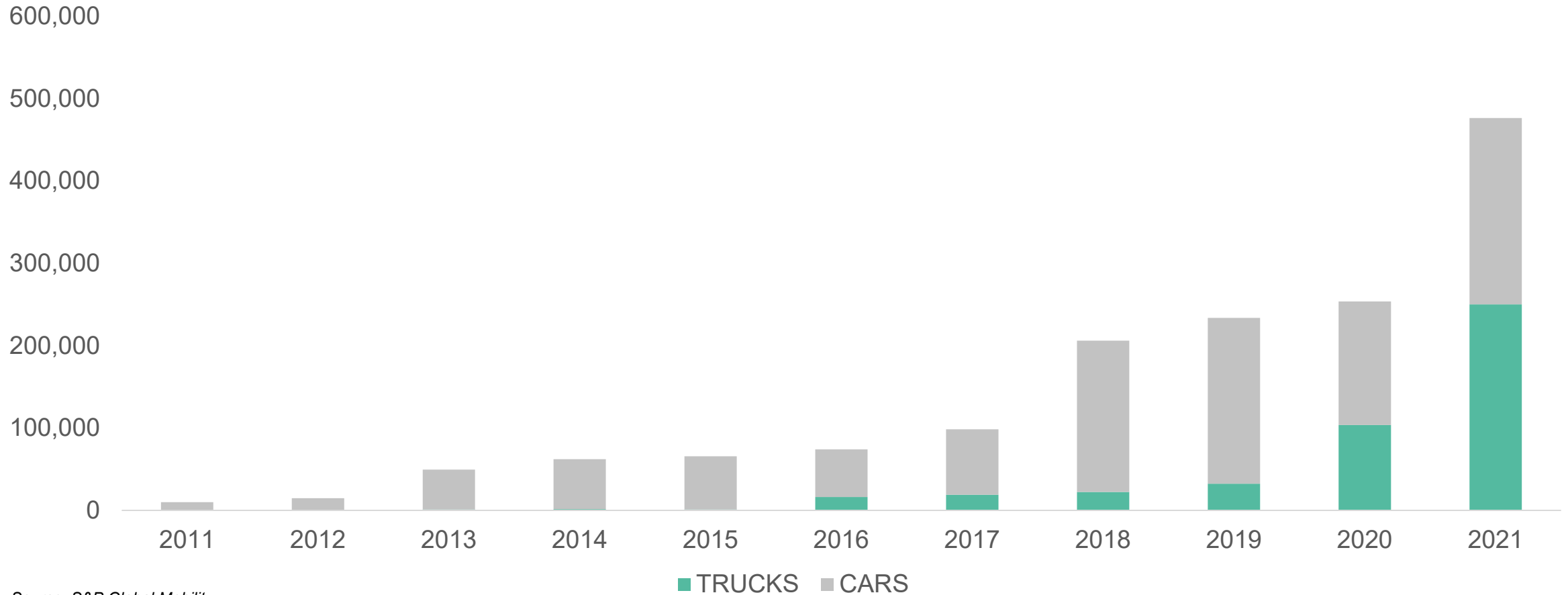
Electric Vehicle New Registrations continue to grow



Source: S&P Global Mobility

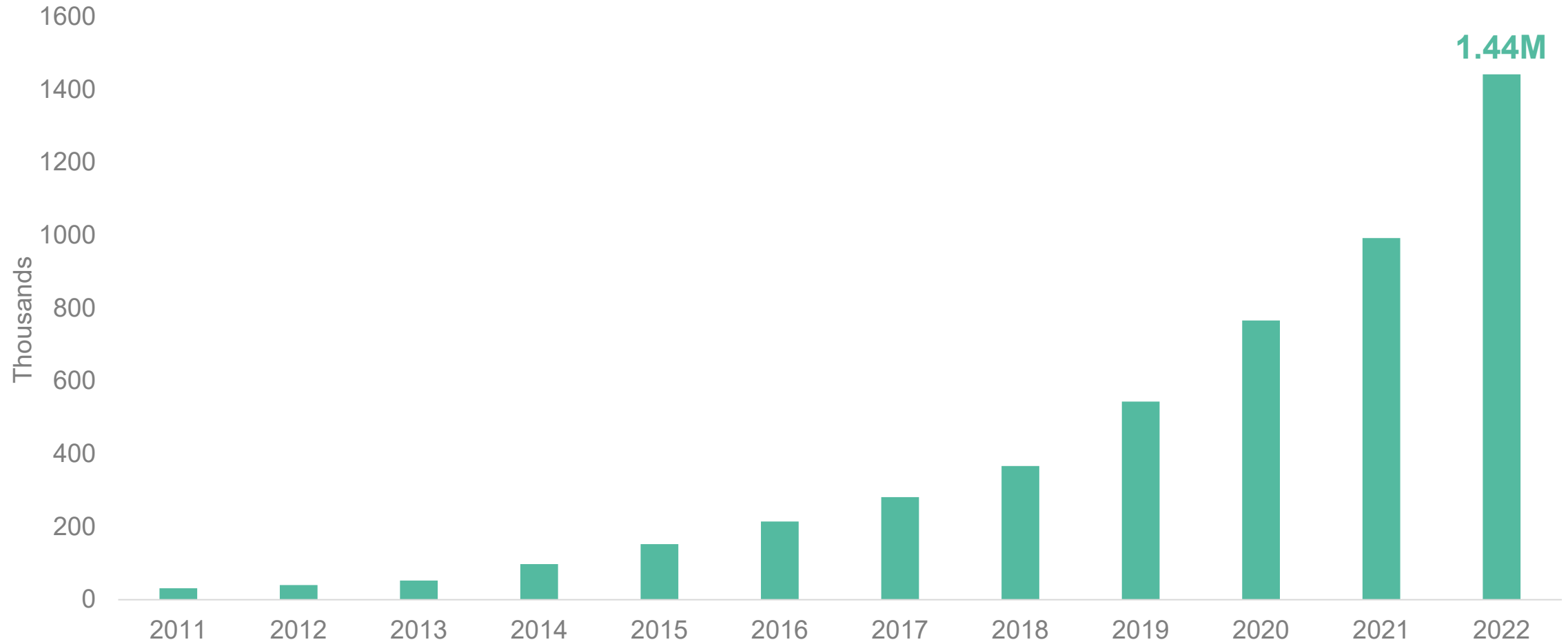
Truck body style EV's boosting registrations

New Registrations by Vehicle Type



Source: S&P Global Mobility

Volume of Electric Vehicles in Operation is growing too



Vehicles in operation as of January 1
Source: S&P Global Mobility

EV Ownership behavior delaying aftermarket activity

2021 Metric	Electric Vehicles	Gasoline Vehicles
Still owned by original owner (2011 – 2021 Model Years)	82%	51%

Source: S&P Global Mobility WorldView VIO, Catalyst New and Used Registration January 1, 2022



Lackluster EV loyalty a headwind to EV growth

2021 Metric	Electric Vehicles	Gasoline Vehicles
Still owned by original owner (2011 – 2021 Model Years)	82%	51%
Return to Market Loyalty	60%	89%

Source: S&P Global Mobility WorldView VIO, Catalyst New and Used Registration January 1, 2022; Loyalty Analytics Tool November 1, 2021



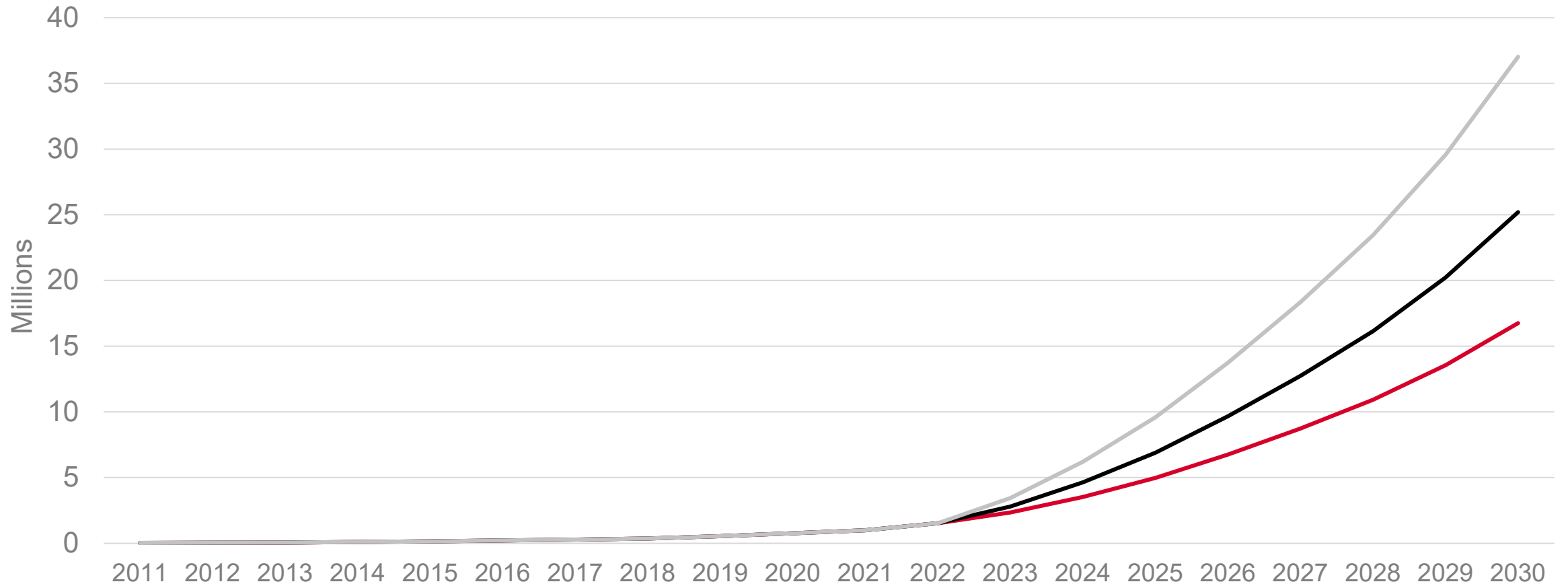
Sustainability of Electric Vehicles are beginning to normalize to gasoline vehicles

2021 Metric	Electric Vehicles	Gasoline Vehicles
Still owned by original owner (2011 – 2020 Model Years)	82%	51%
Return to Market Loyalty	60%	89%
Sustainability*	93%	94%

*Sustainability - how many vehicles are still on the road at the end of 2021 compared to New Registration 2011 – 2021
Source: S&P Global Mobility WorldView VIO, Catalyst New and Used Registration January 1, 2022;
Loyalty Analytics Tool November 1, 2021



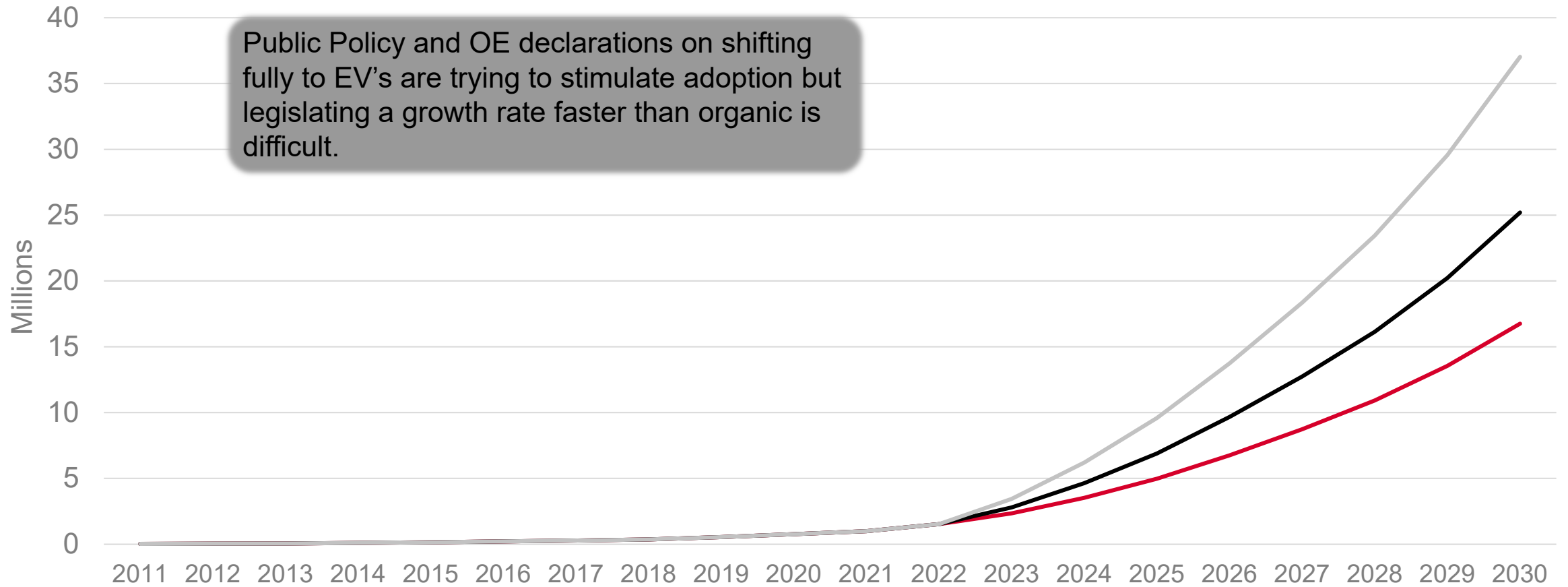
EV volume in VIO outlook



Vehicles in operation as of January 1
Source: S&P Global Mobility






— Conservative — 34% New Vehicles in 2030 — 50% New Vehicles in 2030

EV volume in VIO outlook



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Summary	The longer vehicles stay on the road, the more repair and maintenance they need, 5 years of 17+M new sales are coming into the sweet spot in the first half of the 2020's		
5. Impact of Electric Vehicles		2030's or later (likely < 10% VIO share in 2030)	
Effect	Eventually will transform the fleet and aftermarket repair and maintenance significantly		
Summary	The time is now to be educated and stay abreast of the EV market, but large volume of repairs are still far off on the horizon.		

Wrap up

Aftermarket outlook is positive through at least the middle of the decade

The Trends	When	Aftermarket Impact
1. Supply Chain Challenges	Next 12 – 16 Months	+
2. Used Vehicles	Next 12 – 16 Months	+
3. Shifting vehicle preferences	Ongoing	+
4. Aging Fleet (sweet spot growth)	Ongoing, but early 2020's will be very positive	+
5. Impact of Electric Vehicles	2030's or later (likely < 10% VIO share in 2030)	?

As covered in the trends – the aftermarket is expected to **outperform** channel forecast expectations in 2021 and 2022

Vehicles are being driven again, **VMT is strong**

Vehicles in Operation is growing despite new vehicle sales challenges – **vehicles returning to the fleet are more favorable to the aftermarket**

The sweet-spot is in for 5 years of robust growth, as years of 17+M sales begin to age into the sweet-spot

EV's are coming but be pragmatic

Right to Repair is more critical than every before, EV's and connected cars in general amplify the need for access to data

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Thank you

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