

RIVERON



APSC
AUTOMOTIVE PARTS SUPPLIERS CONFERENCE

Industry Update
September 11, 2024



A BRIEF LOOK AT THE HISTORICAL EVENTS THAT NEGATIVELY AFFECTED AUTOMOTIVE PARTS SUPPLIERS

The last 3 to 4 years have presented extraordinary challenges, one after another, to the automotive and industrials supply base:



Unprecedented Challenges

- ▶ General Motors strike
- ▶ Global pandemic
- ▶ Auto industry shutdown in Q2 2020
- ▶ Microchip shortage
- ▶ Significant commodity cost increases and shortages (metal, seat foam, rubber, resin, etc.)
- ▶ Ship blockage in the Suez canal
- ▶ Unusual weather: ice storm in Texas, snow in Mexico
- ▶ Trucker freedom convoy blockade
- ▶ Original Equipment Manufacturers (OEMs) significantly revising terms and conditions; then some reversing course
- ▶ Shipping port gridlock and delays
- ▶ Labor shortages and premiums associated with attracting and retaining talent
- ▶ The Great Resignation and navigating or migrating to working remotely
- ▶ Vaccine mandates / Covid-19 flare-ups and variants
- ▶ Accelerated pace of expected automotive evolution through electric vehicles requiring supply base investment / preparedness
- ▶ Russia / Ukraine war
- ▶ Inflation and rising interest rates
- ▶ Three years of depressed volumes
- ▶ Consumer frustration with vehicle prices and availability; demand destruction
- ▶ 2023 UAW Strike
- ▶ EV optimism fading, with continued launch delays and sluggish volumes

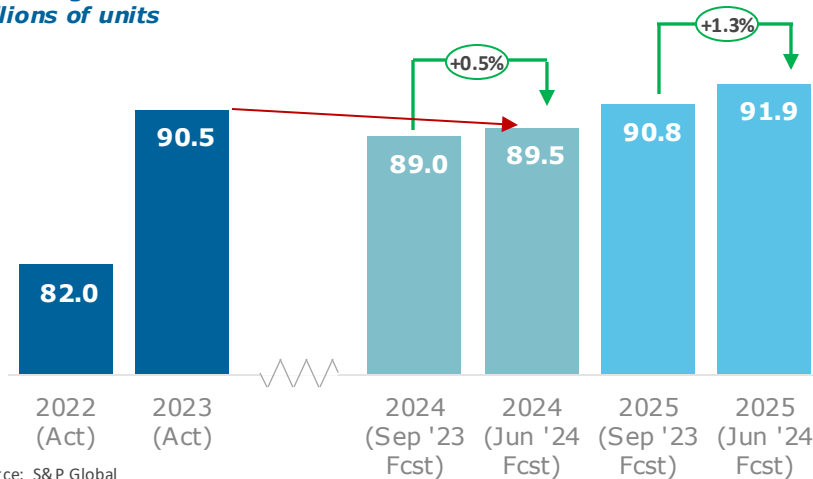
 **The cumulative impacts of these events have created financial challenges for automotive suppliers.**

LIGHT VEHICLE PRODUCTION OUTLOOK



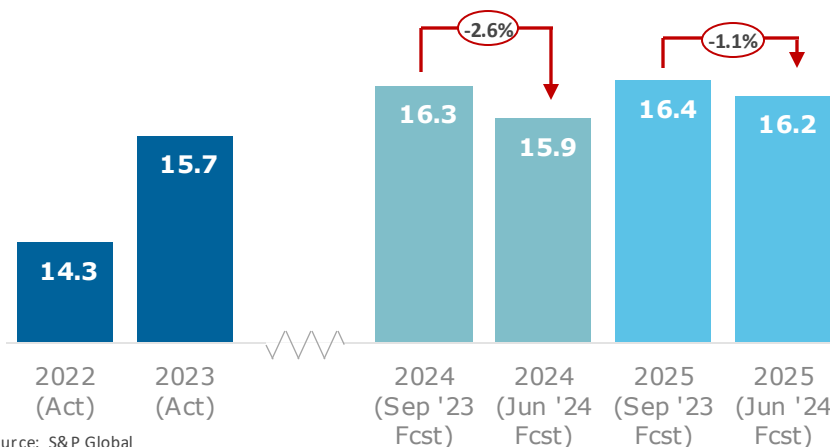
Latest production volume forecasts are a mixed bag exhibiting declining production volume trends from last year or recent forecasts

Global Light Vehicle Production Forecast
millions of units



Source: S&P Global

North American Light Vehicle Production Forecast
millions of units



Source: S&P Global

- ▶ Global production volumes increased Y-o-Y from 2022-2023, however, 2024 now shows a decline from 2023 in overall production. Moreover, levels have declined M-o-M by (0.9M) and (0.3M) units, respectively.
- ▶ Additionally, **North American production volume forecasts have been downgraded in 2024 (2.6%)**, including a M-o-M reduction from May to June (0.1M).
- ▶ We will continue to monitor the production volume outlook, as:
 - ▶ Questions remain around vehicle demand and affordability concerns (elevated vehicle prices, interest rates still high, tighter credit conditions).
 - ▶ EV optimism is fading; EV volume reduction largely accounted for the downward revision from May to June.
 - ▶ US Inventory levels higher at almost 2.7M units (50-day supply), with Detroit 3 at a 75-day supply.
 - ▶ Supplier distress has increased and will continue to be monitored.

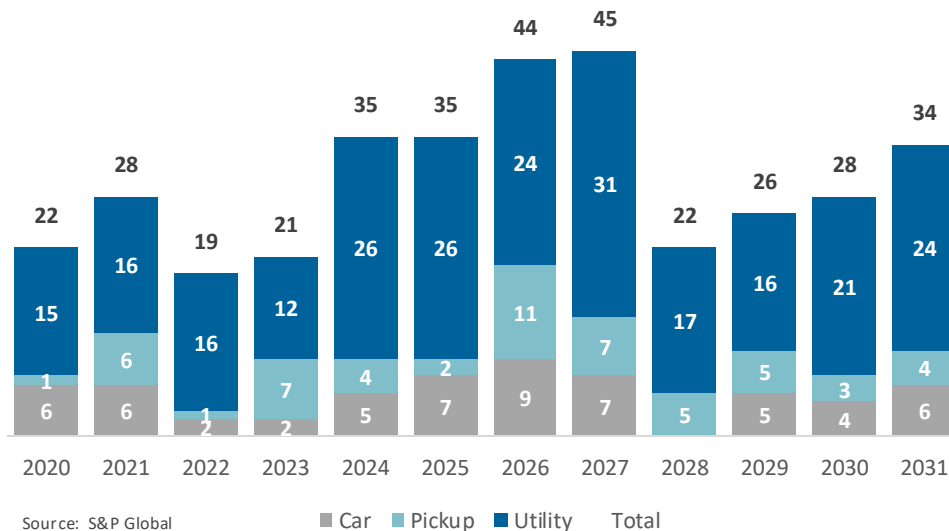
NORTH AMERICAN LIGHT VEHICLE PRODUCTION LAUNCHES BY VEHICLE TYPE

Capital Needs Intensify with New Launches; Massive Activity Over the Next 4 Years

North America Total Light Vehicle Production Launches

	2023	2024	2025	2026	2027	2028	2029	2030	2031
EV Launches	11	18	25	30	30	13	21	22	24
<i>% of Total</i>	<i>52%</i>	<i>51%</i>	<i>71%</i>	<i>68%</i>	<i>67%</i>	<i>59%</i>	<i>81%</i>	<i>79%</i>	<i>71%</i>

Projected EV launches during 2024-2026 are now 12% lower than the prior year forecast (during the same time period)



Key Items:

- ▶ Entering a period of significant launch activity with all-new BEV models and refreshed ICE offerings.
- ▶ Potential for high degree of variability in timings as automakers balance capital spending, technology deployment, sourcing, etc.
- ▶ Watch for extensions to current vehicle programs – more minor/moderate facelifts to prolong lifecycles.
- ▶ BEV activity: 49% or 7.8 million units of North American production by 2030.
- ▶ Product redundancy – model count grows on new BEV launches with legacy ICE programs serving as a hedge.
- ▶ However, recent launch delays occurring and need to be monitored

The Detroit News

Ford delays EV launches, will offer full hybrid lineup by 2030.

Launch of 3-row vehicles at Oakville Assembly Plant will be in 2027 instead of the previously expected 2025.

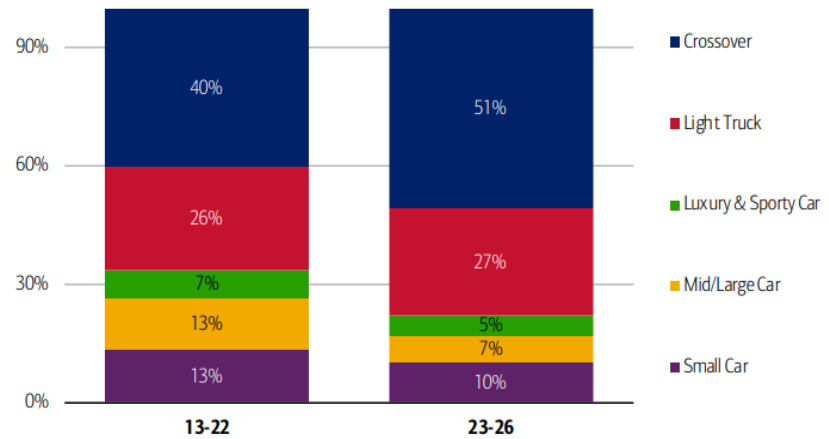
Deliveries of the new F-150 Lightning to be built at Blue Oval City have been delayed from 2025 to 2026.

MIX MATTERS

- ▶ Almost 80% of current new models/launches are Crossovers and Light Trucks
- ▶ The mix profile will likely continue to advance
- ▶ Passenger car portfolio is likely shrinking annually

Exhibit 6: MY2023-2026E new vehicle launch mix vs. MY2013-2022

New model launch mix over MY2023-26 is 51% CUV, 27% Light Truck, and 22% Small/Mid/Large/Luxury Car

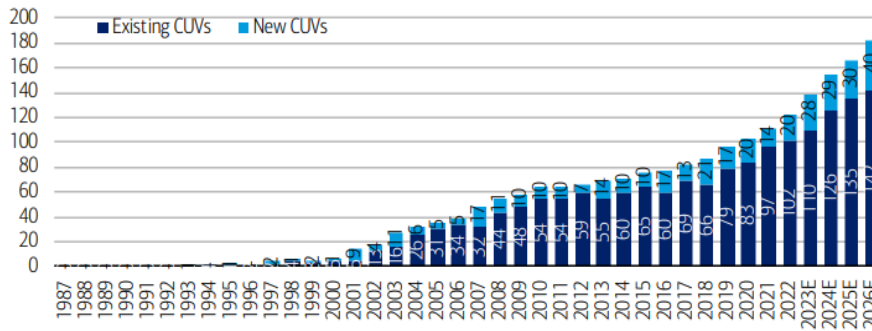


Source: BofA Global Research, Based on company announcements, auto show visits, trade publications, enthusiast magazines, supply chain relationships, and others

BofA GLOBAL RESEARCH

Exhibit 11: New & existing CUV nameplates – MY1987-2026E

Number of total CUV nameplates is set to increase from 122 in MY2022 to 181 in MY2026



Source: BofA Global Research, Based on company announcements, auto show visits, trade publications, enthusiast magazines, supply chain relationships, and others

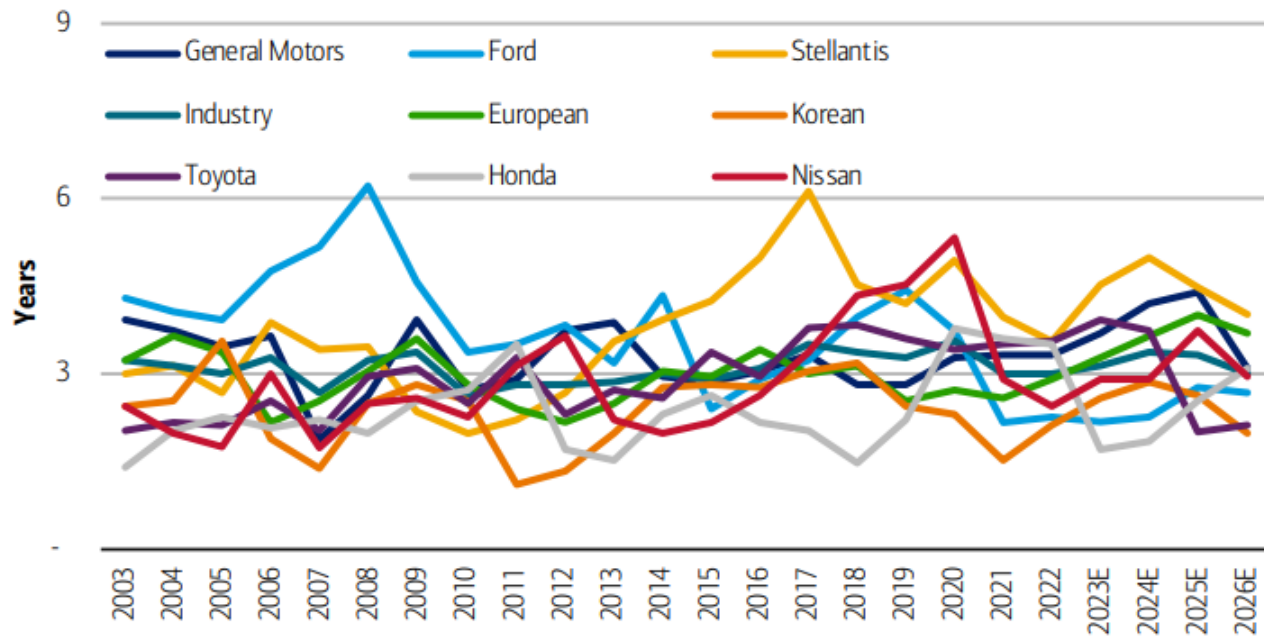
BofA GLOBAL RESEARCH

AGE OF THE MODELS IN THE DEALERSHIP MATTERS

- ▶ GM and Stellantis have, and are forecasted to have, aging models on the showroom floor. This will impact consumer buying patterns as new vehicles tend to attract new customers into the brands.

Exhibit 15: Average showroom age by OEM (years) – MY2003-2026E

Average age should converge to 3 over our forecast period, with outliers Stellantis (high) and Korean (low)









Source: BofA Global Research, Based on methodology detailed on page 4

BofA GLOBAL RESEARCH

ACCELERATING VEHICLE TRANSITION



The BEV tidal wave is approaching fast; ICE vs BEV co-existence presents challenges and opportunities.

	2021	2030
Tesla share of US EV Sales	71% 	19% 
California Share of US EV Sales	36% 	16% 
Top 90% Brands of US EV Volume		
# of EV Models	26	300+
Charging Infrastructure (Private, Public, Semi-public)	0.9M	13.4M

Source: S&P Global

ELECTRONIC VEHICLE (“EV”) CHALLENGES

Despite accelerated growth in recent years, several issues must be addressed as the EV industry progresses

Adoption / Demand	<ul style="list-style-type: none">▶ Demand for EVs has slowed as OEMs look for appeal beyond the early adopters with consumers focused on charging infrastructure, availability and affordability leading to OEM strategy realignment
ICE Changeover	<ul style="list-style-type: none">▶ Auto manufacturers transitioning from internal combustion engines (“ICE”) to battery electric vehicles (“BEV”) are challenged by compressed development timescales, high costs, technology churn and tightening regulatory limits
Access to Capital	<ul style="list-style-type: none">▶ Following the SPAC boom of 2020-2021, EV adoption hurdles, delayed timelines and rising costs have slowed investment from capital providers creating liquidity constraints across the industry
Timing Delays	<ul style="list-style-type: none">▶ Unforeseen mismatch between capital and people investments required to ramp up production led to less than expected revenue/profits, timing issues and liquidity shortfalls
Economic Headwinds	<ul style="list-style-type: none">▶ The current inflationary and higher interest rate environment was not present during periods of higher EV investment leading to margin compression and erosion issues
Supply Chain	<ul style="list-style-type: none">▶ Existing automotive supply chain challenges are exacerbated by raw material (i.e., battery) shortages, high production costs, shipping delays and inefficient production processes
Regulatory	<ul style="list-style-type: none">▶ Grid connection, interoperability, and dynamic pricing issues stem from ever changing regulatory environments and lack of coordination amongst various levels of government

MOST EVS ARE BIG LOSERS FOR OEMS PROFITS – FOR NOW

- ▶ The average input costs for EVs vis-à-vis ICE vehicles is approximately \$10k more!
- ▶ Component \$CPV for US ICE vehicle vs. EV - \$34,725 in EV Content

\$USD	Global Traditional ICE Vehicle	US ICE Vehicle - Increased in line with RPU	US Battery Electric Vehicle	
Average \$ Revenue per Unit	\$31,922	\$44,557	\$55,338	
Component Content Cost				
Steering	\$420	\$590	\$590	
Passenger Restraints	\$380	\$530	\$530	
Exhaust	\$335	\$470	\$0	
Wheels & Tires	\$345	\$485	\$485	
Body Glass	\$155	\$215	\$215	
Interior	\$1,480	\$2,070	\$2,070	
Body & Structural	\$3,325	\$4,655	\$5,585	
Suspension	\$650	\$910	\$910	
Axles, Driveshafts, & Components	\$1,060	\$1,485	\$1,115	
Climate Control & Engine Cooling	\$850	\$1,190	\$1,670	
Audio & Telematics	\$415	\$580	\$815	
Fuel System	\$415	\$580	\$0	
Braking	\$515	\$720	\$1,120	
Transmission	\$1,695	\$2,375	\$0	
Engine	\$3,350	\$4,690	\$0	
Electronics & Electrical	\$2,385	\$3,340	\$3,340	
Sub-Total	\$17,775	\$24,885	\$18,445	
EV Electrical Architecture			\$1,325	
Electric Motor / Drive / Transmission			\$1,200	
Power Electronics / Other			\$1,520	
Battery Cell / Pack			\$12,235	\$16,280
			\$34,725	\$9,840

Source: BofA Global research, Intellcosting LLC

SUPPLIERS ARE FACING FINANCIAL HEALTH CONCERNS FROM RISING WAGES, HIGHER INTEREST RATES, AND DECREASING PROFITABILITY



Larger Suppliers:

Larger suppliers have benefited from the "amend and extend" approach by banks on working capital lines, allowing them to navigate liquidity challenges over the past few years. The softer approach by the lenders may be fading in 2024.



Labor Issues:

Higher labor costs influenced by the new UAW contract and heightened worker expectations, are making their way into the supply base. This will impact both union and non-union companies.



Smaller Suppliers:

Small suppliers are exhibiting signs of deteriorating profitability, with impending challenges related to labor inflation yet to be factored in. Low profitability erodes liquidity and leverage metrics and can lead to working capital loan covenant violations.



Higher Interest Rates:

Tightened credit standards and higher interest rates further erode cash, impacting the ability to operate and fund growth

U.S. Prime Rate  **8.50%**
5.50% May 2024
Feb 2019



Tier 1 Suppliers Squeezed:











OEMs will seek cost reductions to offset their higher labor costs. With sub-supplier's bankability likely to drop in 2024 based on recent data, increased insolvencies seem likely. Thus, Tier 1s will see margin pressure from both OEMs and sub-tiers in 2024.



Transition from ICE to BEV:

EV optimism is fading and the pace of transition from ICE to BEV is slowing. OEMs have recently delayed EV program launches and taken down volumes on existing programs. This is further straining suppliers who have invested heavily in BEV.

RECENT FINANCIAL TENSIONS IN THE SUPPLY CHAIN HAVE LED TO INTENSE NEGOTIATIONS, RESULTING IN LITIGATION

Plaintiff	Defendant	Case Context	Outcome	Takeaway
 Tier 1 Customer	 Tier 2 Supplier	Pricing dispute where MSSC claimed AirBoss was bound by a long-term requirements contract, while AirBoss argued it wasn't due to lack of a definite quantity term.	The Michigan Supreme Court ruled in favor of AirBoss, stating that "blanket" did not constitute a definite quantity term necessary for an enforceable contract.	Clear and definite quantity terms are essential for enforceable contracts.
 Tier 2 Supplier	 Tier 1 Customer	Higuchi sought increased pricing, which Autoliv refused, leading to a dispute over whether the term "requirements" in Autoliv's purchase orders was a sufficiently definite quantity term to create an enforceable requirements contract under the UCC.	The district court ruled in favor of Autoliv, stating that the term "requirements" in the purchase orders was a definite quantity term. Higuchi has appealed.	This case will clarify if the term "requirements" alone is sufficient for enforceable contracts.
 OEM Customer	 Tier 1 Supplier	Data breach caused Yanfeng to miss shipments, and Stellantis issued a \$26 million debit. Yanfeng suspended shipments until the debit was reversed.	The court granted Stellantis a preliminary injunction, requiring Yanfeng to continue supplying parts despite the data breach.	Courts may issue injunctions to maintain supply chains despite force majeure claims.
 OEM Customer	 Tier 1 Supplier	KAMAX threatened to stop supplying parts unless Stellantis agreed to price increases. KAMAX argued that Stellantis' purchase orders did not sufficiently state a quantity term.	The court granted Stellantis an injunction to continue supply at existing prices while the case is pending.	Injunctions can be granted to maintain supply chains during disputes.
 OEM Customer	 Tier 1 Supplier	MacLean-Fogg sought a price increase, and when Stellantis refused, MacLean-Fogg threatened to stop shipping parts. Stellantis sought an injunction to compel supply.	The court denied Stellantis' request for an injunction, finding that Stellantis' purchase orders were likely enforceable but that the fears of supplier revolt were speculative.	Courts may require stronger evidence of harm before granting injunctions.

Source: Warner Norcross & Judd

OEM SUPPLIER RATINGS AND SCORECARDS

- ▶ The ideal process for Supplier Risk Management includes:
 - Visibility into risk in the supply chain
 - Day-to-day SRM team is an integral part of OEMs
 - Common scoring and evaluation process
 - Include multi-faceted risk factors in the supplier evaluation process
 - Prioritized first actions with distressed suppliers – mix of proactive and reactive
 - Expanded cross-functional team/structure to handle all situations
 - Defined process, countermeasures, and escalation protocols for the various levels of distressed situations
 - Focus on executing the strategic plan while ensuring continuity of supply
- ▶ Most OEMs use an outside, third party rating agency to rate/rank supplier performance, and ultimately use the output for short and long term sourcing decisions






“We bring accuracy and efficiency to credit teams’ fingertips, from origination to the ongoing monitoring of the changing risk of counterparties. With our help, organizations can extend and price credit, identify potential opportunities for new or expanded business, and perform enterprise-wide historical and predictive analysis beyond 12 months on their entire counterparty portfolio”.

ECOVADIS SCORES AND OEM SOURCING DECISIONS

EcoVadis is a rating platform that assesses corporate social responsibility and sustainable procurement. Major companies have mandated that their suppliers complete EcoVadis assessments to support their own commitments to a sustainable supply chain.

**Large or Small, Public or Private:
We Are the Only Universal
Sustainability Ratings Provider**

EcoVadis helps you manage your network both upstream and downstream, either by sharing your performance with your stakeholders or monitoring the performance of your own upstream value chain.

 100,000+ Companies	 175+ Countries	 200+ Industries
---	---	--

- Respondents are assigned a score from 1 to 100 across four key topic areas
- Companies receive a scorecard highlighting strengths and areas for improvement.
- Results can then be benchmarked against industry averages