

Automotive Industry

Back to the future 4Q:23 – So long 2023, hello 2024 outlooks

Price Objective Change

Strong finish to '23, but volume outlook, EVs & mix key

4Q:23 is poised to be strong due to US sales, a robust increase in global production, and solid pricing. However, results to still be weighed down by the UAW strike. The greatest focus to be on EV expectations since sentiment on electrification has quickly soured in 4Q. Secondly, the outlook for production volumes should be key with consensus expectations for a flat-to-slightly down 2024. Although we believe there is upside of at least a few percent, we expect companies to lean on this consensus, thereby providing conservative outlooks. Mix to be a key focus and is likely to deteriorate through 2024+.

OEMs: Strike effects linger in 4Q, EV outlook key topic

GM and Ford are likely to post a lighter finish to 2023 given pressures from the UAW strike, which impaired production. They also face a balancing act between the core truck business and EVs, but we don't expect major updates on this topic, especially from GM given the upcoming investor day in March. TSLA will likely continue to face headwinds from pricing actions (although lower lithium prices may be beneficial) and questions of how it will support growth until its entry level/mass market vehicle arrives in late 2025/2026. RIVN and LCID's sluggish ramp will likely delay the path to profitability although lower battery costs could be a plus. We expect attention to be focused on electrification commentary with variation across companies.

Suppliers: 4Q benefits from (+) volumes, but outlook is “?”

For suppliers, we expect a solid quarter as global production volumes roared back in 4Q, particularly in China and North America. This is likely to translate into stronger earnings driven by volume leverage. In addition, since production has normalized, we expect productivity gains to boost profitability. We flag that benefits from freight and raw material deflation are largely exhausted. Although the quarter still suffered the UAW strike effects (in particular AXL), we see the aforementioned factors to largely neutralize them. Most attention to be directed towards outlooks, specifically to 2024 production volumes which consensus very conservatively expects to decline slightly. Commentary on EVs will be an important factor for suppliers, especially for BWA, APTV, and tangentially MGA.

Dealers: pricing remains strong, but incentives creep up

As for the dealers, vehicle pricing has held up during the quarter although incentives have inched up both YoY and QoQ. This should bite into gross profit per unit (GPUs) together with some mix degradation. Sustainability of SG&A leverage remains a key focus. FIPVR could be an item of interest in light of the discussion of potential rate cuts. As the industry continues on its path towards “normalization” the integration of past acquisitions should also draw more attention. We expect P&S to deliver robust results.

Estimate changes: Suppliers (+), tweak OEMs, Dealers (~=)

We adjust estimates across our coverage universe. For GM we raise 4Q:23 estimates to reflect a less meaningful impact from the UAW strike than we had previously projected. For TSLA, we slightly increase our 4Q:23 estimate to reflect fewer price cuts during the quarter. For RIVN and LCID, we slightly adjust estimates based on reported deliveries. For suppliers, we revise our 4Q estimates upward to account for the robust production figures in 4Q:23. Exceptions for suppliers are AXL, where we lower our PO from \$8 to \$7 as we expect challenges in the business to persist, and VC where our PO moves from \$180 to \$165 based on our latest estimates. Dealer estimates remain largely unchanged.

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Exhibit 1: 4Q:23 Estimate & PO changes

Ratings/PO and 4Q EPS BofAe vs. consensus

	Rating	PO	BofAe	Cons
OEMs				
F	B-1-7	\$19	\$0.11	\$0.13
GM	B-1-7	\$75	\$1.05	\$1.14
RACE	B-1-7	\$456	\$1.38	\$1.49
EV OEMs				
LCID	C-2-9	\$7	(\$0.32)	(\$0.29)
RIVN	C-1-9	\$40	(\$1.40)	(\$1.32)
TSLA	C-2-9	\$290	\$0.73	\$0.73
Suppliers				
ADNT	C-1-9	\$50	\$0.68	\$0.53
APTV	C-1-9	\$125	\$1.35	\$1.32
AXL	C-3-9	\$7	(\$0.16)	(\$0.21)
BWA	B-1-7	\$52	\$0.98	\$0.93
GNTX	B-2-7	\$34	\$0.44	\$0.44
LAZR	C-2-9	\$4	(\$0.20)	(\$0.19)
LEA	B-1-7	\$220	\$3.02	\$3.11
MGA	B-1-7	\$77	\$1.55	\$1.46
MBLY	C-3-9	\$22	\$0.27	\$0.27
VC	C-1-9	\$165	\$1.71	\$2.07
Dealers				
ABG	B-1-9	\$350	\$7.64	\$7.64
AN	B-1-9	\$255	\$4.85	\$4.98
GPI	C-1-7	\$455	\$10.41	\$10.50
LAD	C-1-7	\$440	\$8.25	\$8.27
PAG	B-1-7	\$200	\$3.70	\$3.71
SAH	C-3-7	\$60	\$1.78	\$1.84
KAR	C-3-9	\$16	\$0.13	\$0.13

Source: BofA Global Research estimates, Bloomberg
Note: ADNT 4Q:23 = fiscal 1Q:24

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Global production shows solid growth YoY

S&P Global estimates call for solid growth in global production in 4Q:23 at +9.1% YoY. This is an upward revision from its initial estimates calling for a ~3% YoY increase entering the quarter. Of the three largest + regions, Greater China leads with +18.8% growth, followed by Japan/Korea (+7.6%), Europe (+6.6%) and North America (+5.1%). On a global basis we think mix should improve YoY, as projections have strengthened through the quarter, mainly driven by improvement in China. Light truck share in China is expected to increase 430bps YoY to 61.2% and in Europe increase 20bps YoY to 61.3%. Meanwhile, light truck mix in North America is expected to decline 110bps YoY to 79.1%.

Exhibit 2: Progression of S&P/IHS/CSM forecasts for 4Q:23: Global LV production by region

From September '23 to December '23, S&P/IHS/CSM's 4Q:23 global production forecast increased (+700bp), driven by stronger China (+1,590bp), North America (+1,070bp), Japan/Korea (+390bp), South America (+20bp). Recall, North America strong estimate revision is largely due to the UAW strike expectations, which artificially lowered September and October estimates. South Asia and Middle East/Africa partially offset the stronger projections.

	4Q:22	IHS 4Q:23 Forecast				
	Actual	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24
Europe	4,316,247	4,621,842	4,581,081	4,490,474	4,561,752	4,599,374
YoY% Change		7.1%	6.1%	4.0%	5.7%	6.6%
Greater China	7,274,526	7,485,080	7,847,065	8,022,730	8,387,835	8,641,503
YoY% Change		2.9%	7.9%	10.3%	15.3%	18.8%
Japan/Korea	3,115,098	3,232,504	3,318,295	3,318,578	3,368,186	3,353,156
YoY% Change		3.8%	6.5%	6.5%	8.1%	7.6%
Middle East/Africa	446,099	515,390	523,402	512,887	499,004	495,976
YoY% Change		15.5%	17.3%	15.0%	11.9%	11.2%
North America	3,552,293	3,355,630	3,240,426	3,606,059	3,681,880	3,734,055
YoY% Change		-5.5%	-8.8%	1.5%	3.6%	5.1%
South America	732,848	702,349	724,738	707,107	702,242	703,664
YoY% Change		-4.2%	-1.1%	-3.5%	-4.2%	-4.0%
South Asia	2,467,746	2,456,867	2,442,979	2,391,006	2,396,258	2,374,710
YoY% Change		-0.4%	-1.0%	-3.1%	-2.9%	-3.8%
Global	21,904,857	22,369,662	22,677,986	23,048,841	23,597,157	23,902,438
YoY% Change		2.1%	3.5%	5.2%	7.7%	9.1%

Source: S&P Global; Note: Red shading indicates forecast of mix deteriorated over the measurement period; green shading indicates forecast of mix improved.

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Exhibit 3: Progression of S&P/IHS/CSM forecasts of 4Q:23 production mix for major regions

Mix is expected to improve in Europe and China on a YoY basis as light truck volume is expected to outpace car production. NA is expected to be less rich than last year from a mix perspective. On a global basis, mix projections have strengthened throughout the quarter, mainly driven by improvement in China.

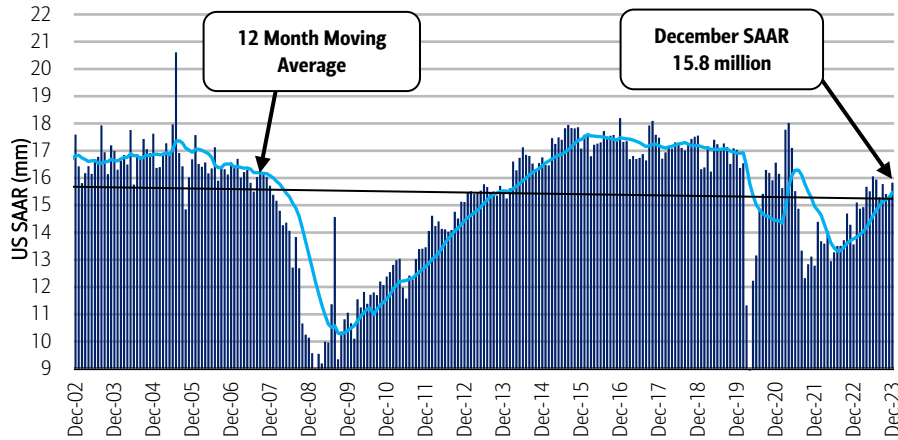
	4Q:22	IHS 4Q:23 Forecast				
	Actual	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24
Europe Car	1,680,230	1,765,527	1,752,771	1,732,782	1,753,499	1,779,551
Europe Truck	2,636,017	2,856,315	2,828,310	2,757,692	2,808,253	2,819,823
% of Car	38.9%	38.2%	38.3%	38.6%	38.4%	38.7%
% of Truck	61.1%	61.8%	61.7%	61.4%	61.6%	61.3%
North America Car	703,584	734,119	722,493	755,787	765,778	779,712
North America Truck	2,848,709	2,621,511	2,517,933	2,850,272	2,916,102	2,954,343
% of Car	19.8%	21.9%	22.3%	21.0%	20.8%	20.9%
% of Truck	80.2%	78.1%	77.7%	79.0%	79.2%	79.1%
Greater China Car	3,137,858	2,978,535	3,143,246	3,205,581	3,267,501	3,353,691
Greater China Truck	4,136,668	4,506,545	4,703,819	4,817,149	5,120,334	5,287,812
% of Car	43.1%	39.8%	40.1%	40.0%	39.0%	38.8%
% of Truck	56.9%	60.2%	59.9%	60.0%	61.0%	61.2%
Global Car	7,734,466	7,557,254	7,760,012	7,788,128	7,881,619	7,993,655
Global Truck	14,170,391	14,812,408	14,917,974	15,260,713	15,715,538	15,908,783
% of Car	35.3%	33.8%	34.2%	33.8%	33.4%	33.4%
% of Truck	64.7%	66.2%	65.8%	66.2%	66.6%	66.6%

Source: S&P Global; Note: Red shading indicates forecast of mix deteriorated over the measurement period; green shading indicates forecast of mix improved.

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Exhibit 4: US Seasonally Adjusted Annualized Rate (SAAR)

US light vehicle sales increased 7% YoY in 4Q:23 for a SAAR of 15.5mm units, versus 14.2mm in 4Q:22.

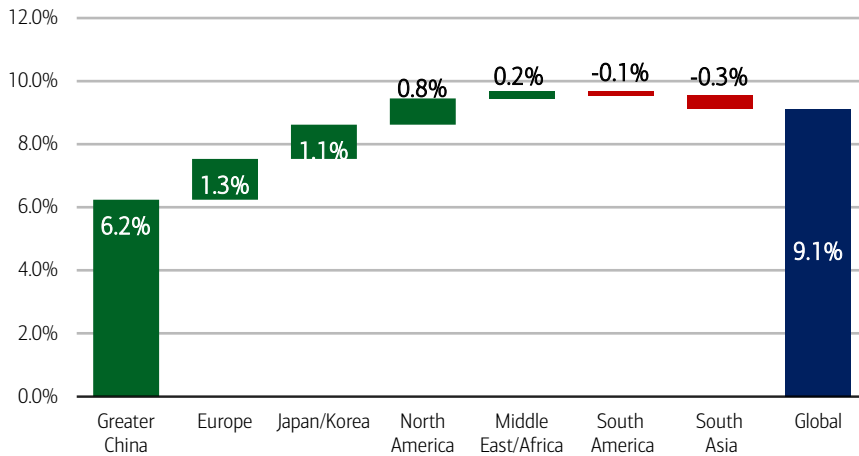


Source: WardsAuto InfoBank

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Exhibit 5: S&P/IHS/CSM forecast for 4Q:23 contribution to global LV production growth by region

4Q23 is expected to have global growth of 9.1% YoY. China is the major driver of the YoY improvement.

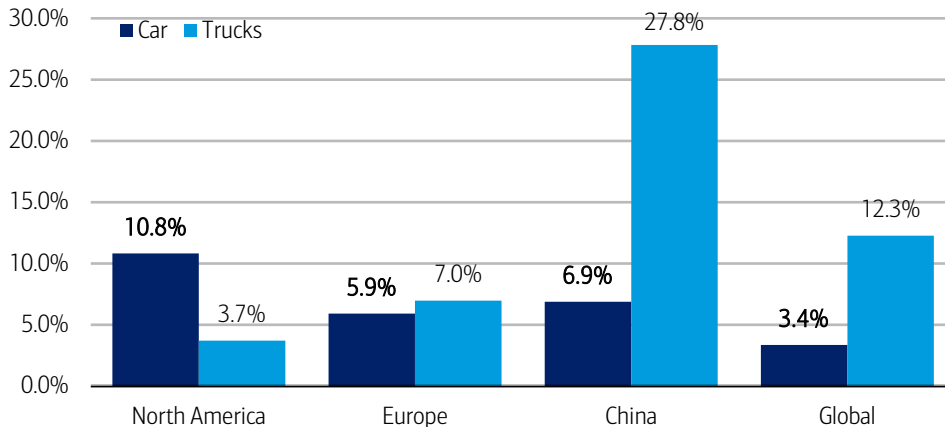


Source: S&P Global

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Exhibit 6: 4Q:23 YoY production growth by segment in major regions

As of January 2024, S&P/IHS/CSM projections indicate that light truck production increased 12.3% YoY globally. Projections call for light truck production to outperform cars by 890bps.



Source: S&P Global

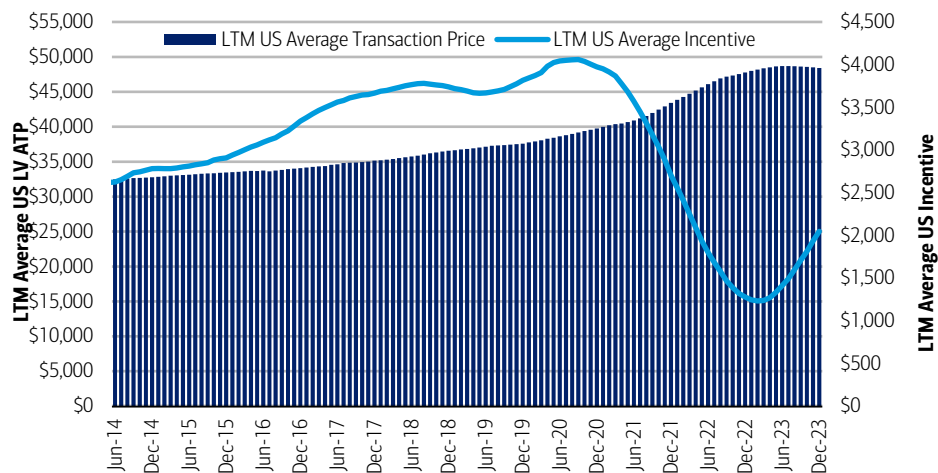
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Used prices decline, New prices fall from record highs as Incentives climb

As for industry pricing, Used vehicles prices continued to decline on YoY basis in 4Q:23 (-6%), the decline was slightly less severe on a QoQ basis (-3%) as the supply of one- to three-year-old vehicle inventory remains constrained. According to Kelley Blue Book, New vehicle prices faced some pressure in 4Q:23, declining -1.8% YoY. Despite falling from record highs, average New vehicle prices have remained in the ~\$48k range. At the same time incentives have been marching higher but are still ~30% below 2019 levels. 4Q:23 industry average incentives climbed 117% compared to 4Q:22 and were up 10% sequentially. Electric vehicles continued their decline on a YoY basis (-20%) driven mostly by Tesla price cuts (TSLA ATP down 22% YoY to ~\$52k in 4Q:23). EV pricing on a sequential basis was more stable, down ~1% QoQ, as Tesla kept pricing relatively steadier in 2H23. Electric vehicles are now closer to sticker price parity with the industry average (~\$48k industry average vs. ~\$52k EV average in 4Q:23).

Exhibit 7: US light vehicle average incentives and average transaction prices

US average transaction prices decreased -1.8% YoY in 4Q:23 but were up +0.5% QoQ. Incentives climbed 117% YoY and +10% sequentially, but we note that incentives are still ~30% below 2019 levels.

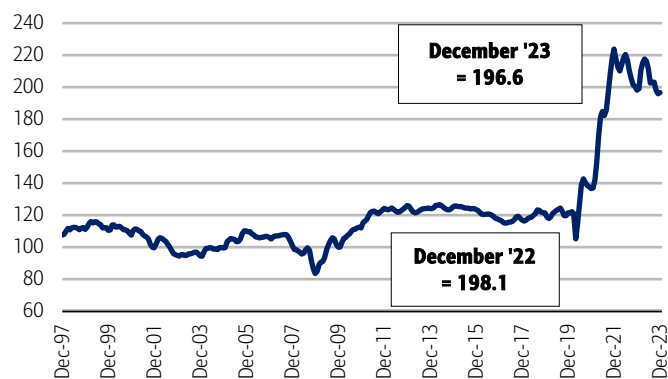


Source: Kelley Blue Book (ATPs do not include applied incentives), AutoData

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Exhibit 8: NADA Used Vehicle Price Index

NADA Used Vehicle Price Index was down 1.5% YoY in 4Q:23 and decreased 2.9% on a QoQ basis. The data are currently only available through Nov. '23. The index is approaching the interim trough reached at the end of 2022.

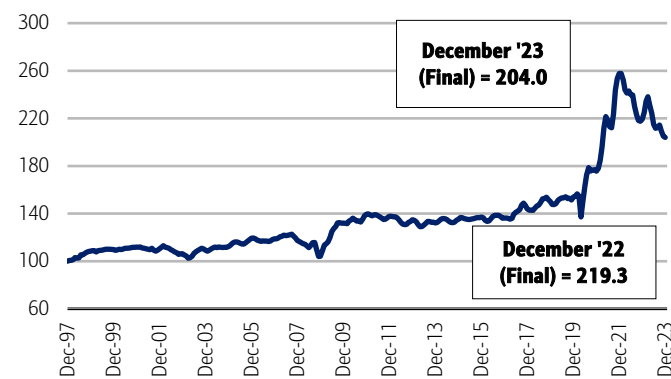


Source: NADA

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Exhibit 9: Manheim Used Vehicle Value Index

Manheim Used Vehicle Value Index was down 5.6% YoY in 4Q:23 and down 3.1% sequentially. Note that the index remains ~35% above 2019 levels, and short supply of new vehicles is a pressure point for the used vehicle market.



Source: Manheim

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Supply chain better but labor a headwind; Red Sea disruption impact is minimal

Raw materials costs declined by about 2% YoY in 4Q:23, driven by declining aluminum and plastics prices, partially offset by slightly higher steel and copper prices. At the same time, ATPs (average transaction prices) also declined about 2% YoY. On its own this is largely neutral for suppliers and OEMs. We expect labor be a headwind as labor supply remains constrained and there will be an increase in labor cost following the ratification of the new UAW contract. Global supply chains have generally improved although production materials lead times remain elevated relative to history. As the situation currently stands, we don't see a major impact from the ongoing disruptions in the Red Sea. European operations for Tesla and Volvo have been affected but the impact on North America is minimal (see: [A supply chain shock of a different color and magnitude.](#))

Exhibit 10: BofA Global Research raw material indicator for a typical US light vehicle

Our commodity price indicator suggests that raw material prices for the average vehicle decreased about 2% YoY from 4Q:22 to 4Q:23 and are largely flat on a QoQ basis.



Source: BofA Global Research estimates

The indicator identified as the raw materials indicator for a typical US light vehicle above is intended to be an indicative metric only and may not be used for reference purposes or as a measure of performance for any financial instrument or contract, or otherwise relied upon by third parties for any other purpose, without the prior written consent of BofA Global Research. This indicator was not created to act as a benchmark.

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Exhibit 11: \$ cost of raw materials in average vehicle as a % of average transaction price

Raw materials costs as a percentage of ATP in 4Q:23 have remained flat YoY at ~8%, as both ATPs and raw materials have declined about 2% YoY.

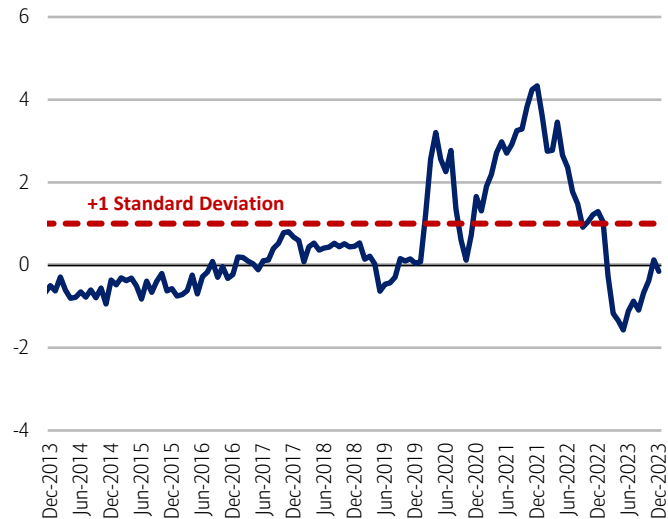


Source: BofA Global Research, TrueCar, Kelley Blue Book

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Exhibit 12: Global Supply Chain Pressure Index

The Federal Reserve's Global Supply Chain Pressure Index has improved meaningfully since the same time last year and is currently at the historical average after being several standard deviations above during 2020-2022.

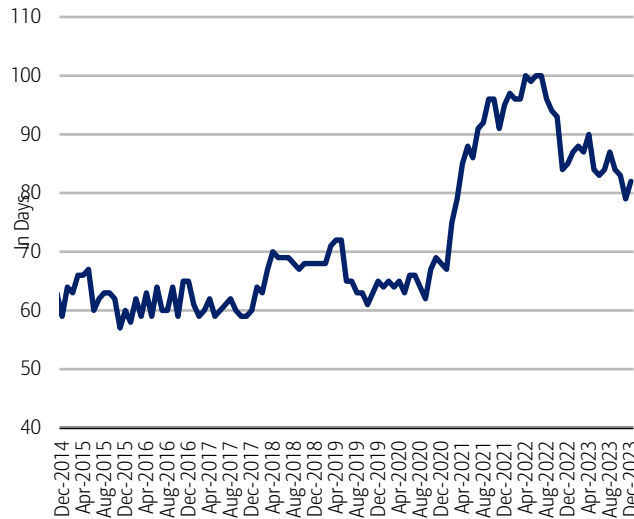


Source: Federal Reserve Bank of New York

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Exhibit 13: Lead Times: Production Materials

Despite some significant supply chain normalization, lead times for production material remain elevated. This suggests that disruptions have generally abated, but operating conditions haven't fully normalized yet.

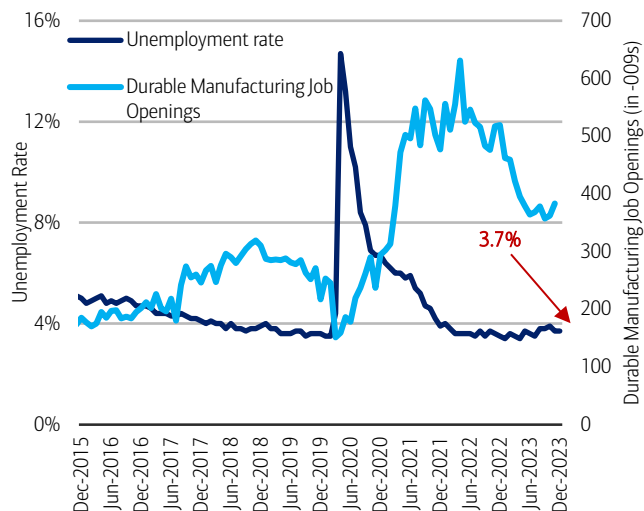


Source: Institute for Supply Management

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Exhibit 14: Unemployment Rate and Job Openings in Durable Manufacturing

Labor demand in manufacturing remained stable sequentially in 4Q:23 while at the same time job openings are significantly below 2022 peaks. Labor supply remains constrained as the unemployment rate is near record lows.

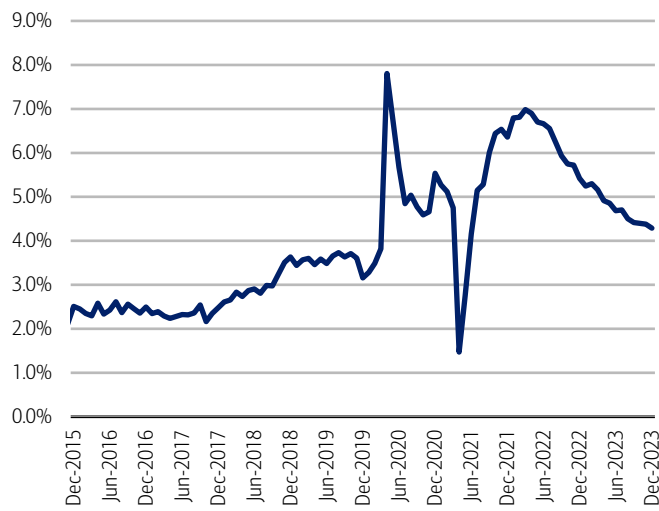


Source: US Bureau of Labor Statistics

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Exhibit 15: Average Hourly Earnings of Production and Nonsupervisory Employees

Wage growth slowed slightly in 4Q:23, as the tight labor market & general inflation continue to push wages higher across the manufacturing economy. We continue to expect higher labor costs and hourly wages to be a headwind.



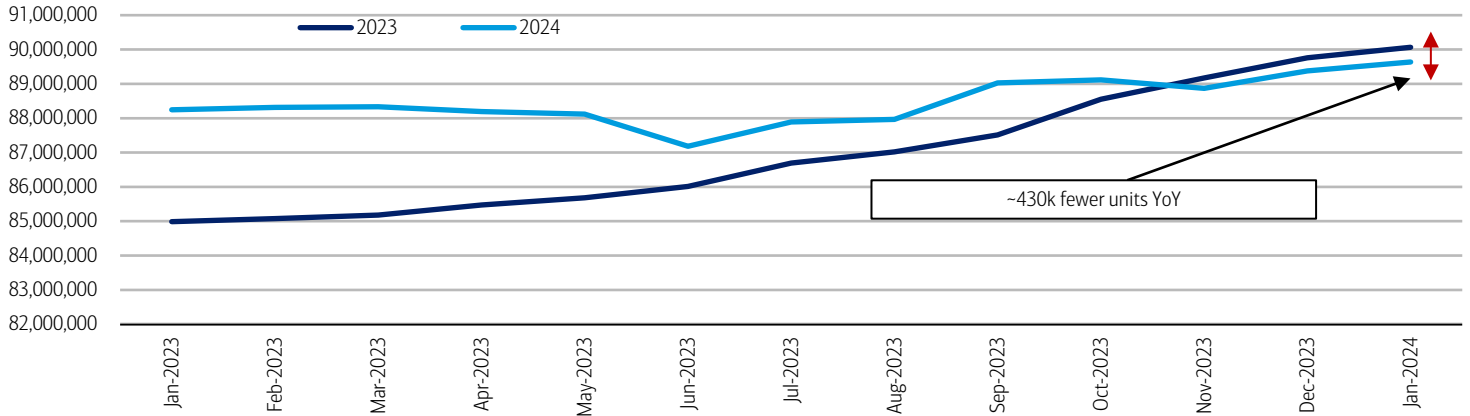
Source: US Bureau of Labor Statistics

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Production Estimates: 2024 vs 2023

Exhibit 16: Global Production Estimates

Global production estimates for 2023 and 2024 moved higher throughout the past year. Since November 2023, IHS estimates imply decline in units, -0.5% YoY.

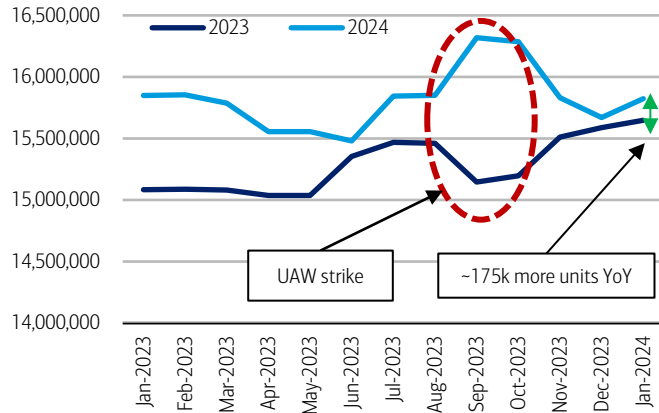


Source: IHS

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Exhibit 17: North America Production Estimates

Since Jan '23, IHS estimates imply units in North America to be up 1.1% YoY.

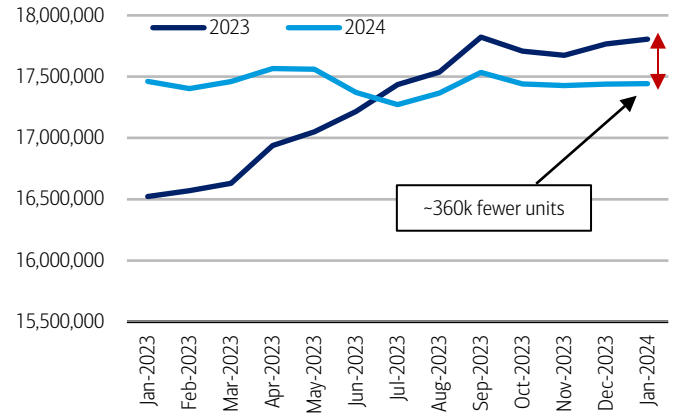


Source: IHS

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Exhibit 18: Europe Production Estimates

Since July 2023, IHS estimates imply a decline in units in Europe, -2.0% YoY.

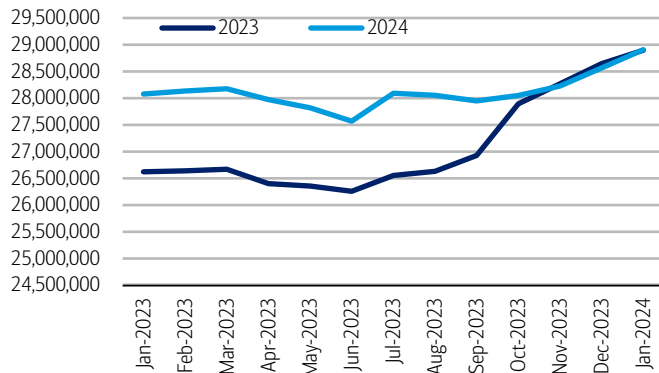


Source: IHS

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Exhibit 19: China Production Estimates

Since October 2023, IHS estimates imply flat YoY volumes in China.

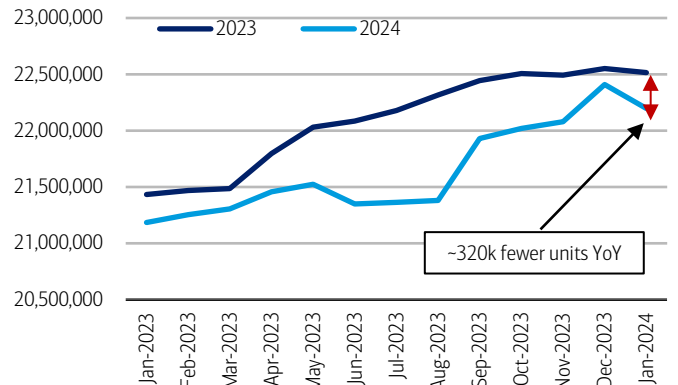


Source: IHS

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Exhibit 20: APAC (ex-China) Production Estimates

Since Jan '23, IHS estimates imply a decline in units in Europe, -1.4% YoY.



Source: IHS

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Estimates and POs revisions

For GM, we raise 4Q:23 estimates to reflect a lower impact from the UAW strike than previously projected. For TSLA, we slightly increase our 4Q:23 estimate to reflect fewer price cuts during the quarter, although deliveries were lower than modeled. For RIVN and LCID, we slightly adjust estimates to reflect reported deliveries. For suppliers, we revise our 4Q estimates upward to account for the robust production figures in 4Q:23.

Exceptions to our revision include for AXL, primarily given its exposure to US OEMs and, therefore, ramifications related to the UAW strike. VC is also an exception and related to its exposure to EVs. We lower our PO on AXL from \$8 to \$7 as we expect underlying challenges in the business to persist and we lower our PO on VC from \$185 to \$165 based on our latest estimates. Dealer estimates are largely unchanged.

Exhibit 22: Price Objective Changes

In the table below we outline changes to price objectives for selected companies under coverage

Ticker	Market Price	Q-R-Q	Rating	Potential Upside / Downside	Prior PO	Updated PO	% change	Valuation Metric
OEMs								
F	\$11.20	B-1-7	Buy	70%	\$19	\$19	-	4x EV/EBITDAP on CY2024, implying 11x P/E
GM	\$35.51	B-1-7	Buy	111%	\$75	\$75	-	4x EV/EBITDAP on CY2024, implying 9x P/E
RACE	\$349.41	B-1-7	Buy	31%	\$456	\$456	-	31x EV/EBITDA on CY2024, 12x EV/Sales
LCID	\$2.71	C-2-9	Neutral	158%	\$7	\$7	-	6x EV/Sales on CY2025
RIVN	\$15.48	C-1-9	Buy	158%	\$40	\$40	-	3x EV/Sales on CY2025
TSLA	\$212.19	C-2-9	Neutral	37%	\$290	\$290	-	8.5x EV/Sales and 48x EV/EBITDA on CY2024
Suppliers								
ADNT	\$33.13	C-1-9	Buy	51%	\$50	\$50	-	6x EV/EBITDA on FY2024
APTV	\$79.00	C-1-9	Buy	58%	\$125	\$125	-	12x EV/EBITDA on CY2024
AXL	\$7.52	C-3-9	U/P	-7%	\$8	\$7	-13%	4x EV/EBITDA on CY2024
BWA	\$32.87	B-1-7	Buy	58%	\$52	\$52	-	7x EV/EBITDA on CY2024
GNTX	\$32.34	B-2-7	Neutral	5%	\$34	\$34	-	10x EV/EBITDA on CY2024
LAZR	\$2.21	C-2-9	Neutral	81%	\$4	\$4	-	4x EV/Sales on CY2025
LEA	\$130.21	B-1-7	Buy	69%	\$220	\$220	-	7x EV/EBITDA on CY2024
MGA	\$54.56	B-1-7	Buy	41%	\$77	\$77	-	6x EV/EBITDA on CY2024
MBLY	\$28.34	C-3-9	U/P	-22%	\$22	\$22	-	5.5x EV/Sales on CY2025
VC	\$116.46	C-1-9	Buy	55%	\$180	\$165	-8%	10x EV/EBITDA on CY2024
Dealers								
ABG	\$204.46	B-1-9	Buy	71%	\$350	\$350	-	11x P/E on CY2024
AN	\$140.59	B-1-9	Buy	81%	\$255	\$255	-	11x P/E on CY2024
GPI	\$273.92	C-1-7	Buy	66%	\$455	\$455	-	11x P/E on CY2024
LAD	\$296.74	C-1-7	Buy	48%	\$440	\$440	-	11x P/E on CY2024
PAG	\$151.45	B-1-7	Buy	32%	\$200	\$200	-	12x P/E on CY2024
SAH	\$50.82	C-3-7	U/P	18%	\$60	\$60	-	9x P/E on CY2024
KAR	\$14.05	C-3-9	U/P	14%	\$16	\$16	-	8x EV/EBITDA on CY2024
CRMT	\$62.93	C-3-9	U/P	-13%	\$55	\$55	-	15x P/E on FY2025
KMX	\$69.15	C-3-9	U/P	-36%	\$44	\$44	-	12x P/E on FY2025

Source: BofA Global Research estimates, Bloomberg as of 1/19/24

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Exhibit 23: BofA estimate revisions – 2023 quarterly estimates

In the table below we outline changes to quarterly estimates for selected companies under our coverage universe

EPS Ticker	1Q23E			2Q23E			3Q23E			4Q23E		
	Old	New	Change	Old	New	Change	Old	New	Change	Old	New	Change
OEMs												
F	0.63	0.63	0.0%	0.73	0.73	0.0%	0.39	0.39	0.0%	0.11	0.11	0.0%
GM	2.21	2.21	0.0%	1.91	1.91	0.0%	2.28	2.28	0.0%	0.75	1.05	40.0%
RACE	1.62	1.62	0.0%	1.83	1.83	0.0%	1.82	1.82	0.0%	1.38	1.38	0.0%
LCID	(0.43)	(0.43)	0.0%	(0.40)	(0.40)	0.0%	(0.28)	(0.28)	0.0%	(0.35)	(0.32)	n/a
RIVN	(1.25)	(1.25)	0.0%	(1.08)	(1.08)	0.0%	(1.18)	(1.18)	0.0%	(1.36)	(1.40)	n/a
TSLA	0.85	0.85	0.0%	0.91	0.91	0.0%	0.66	0.66	0.0%	0.70	0.73	4.3%
Suppliers												
ADNT	0.32	0.32	0.0%	0.98	0.98	0.0%	0.51	0.51	0.0%	0.40	0.68	70.0%
APTV	0.91	0.91	0.0%	1.25	1.25	0.0%	1.30	1.30	0.0%	1.28	1.35	5.5%
AXL	(0.01)	(0.01)	0.0%	0.12	0.12	0.0%	(0.11)	(0.11)	0.0%	(0.16)	(0.16)	0.0%
BWA	0.83	0.83	0.0%	1.05	1.05	0.0%	0.98	0.98	0.0%	0.90	0.98	8.9%
GNTX	0.42	0.42	0.0%	0.47	0.47	0.0%	0.45	0.45	0.0%	0.42	0.44	4.8%
LAZR	(0.24)	(0.24)	0.0%	(0.21)	(0.21)	0.0%	(0.19)	(0.19)	0.0%	(0.20)	(0.20)	0.0%
LEA	2.78	2.78	0.0%	3.33	3.33	0.0%	2.87	2.87	0.0%	2.85	3.02	6.0%
MGA	1.11	1.11	0.0%	1.50	1.50	0.0%	1.46	1.46	0.0%	1.37	1.55	13.1%
MBLY	0.14	0.14	0.0%	0.17	0.17	0.0%	0.22	0.22	0.0%	0.27	0.27	0.0%
VC	1.25	1.25	0.0%	1.18	1.18	0.0%	2.35	2.35	0.0%	1.81	1.71	-5.5%
Dealers												
ABG	8.37	8.37	0.0%	8.95	8.95	0.0%	8.12	8.12	0.0%	7.54	7.64	1.3%
AN	6.05	6.05	0.0%	6.29	6.29	0.0%	5.54	5.54	0.0%	4.85	4.85	0.0%
GPI	10.93	10.93	0.0%	11.73	11.73	0.0%	12.07	12.07	0.0%	10.41	10.41	0.0%
LAD	8.44	8.44	0.0%	10.91	10.91	0.0%	9.25	9.25	0.0%	8.25	8.25	0.0%
PAG	4.31	4.31	0.0%	4.41	4.41	0.0%	3.92	3.92	0.0%	3.70	3.70	0.0%
SAH	1.33	1.33	0.0%	1.83	1.83	0.0%	2.02	2.02	0.0%	1.78	1.78	0.0%
KAR	0.12	0.12	0.0%	0.25	0.25	0.0%	0.18	0.18	0.0%	0.13	0.13	0.0%

Source: BofA Global Research estimates, company filings

BofA GLOBAL RESEARCH

Exhibit 24: 2023 quarterly estimates: BofAe versus Consensus

In this table, we compare our latest quarterly forecasts for 4Q:23 to consensus estimates

EPS Ticker	1Q23			2Q23			3Q23			4Q23		
	Cons.	BofAE	Variance	Cons.	BofAE	Variance	Cons.	BofAE	Variance	Cons.	BofAE	Variance
OEMs												
F	0.63	0.63	0.0%	0.73	0.73	0.0%	0.39	0.39	0.0%	0.13	0.11	-15.7%
GM	2.21	2.21	0.0%	1.91	1.91	0.0%	2.28	2.28	0.0%	1.14	1.05	-7.5%
RACE	1.62	1.62	0.0%	1.83	1.83	0.0%	1.82	1.82	0.0%	1.49	1.38	-7.8%
LCID	(0.43)	(0.43)	0.0%	(0.40)	(0.40)	0.0%	(0.28)	(0.28)	0.0%	(0.29)	(0.32)	-12.3%
RIVN	(1.25)	(1.25)	0.0%	(1.08)	(1.08)	0.0%	(1.18)	(1.18)	0.0%	(1.32)	(1.40)	-5.8%
TSLA	0.85	0.85	0.0%	0.91	0.91	0.0%	0.66	0.66	0.0%	0.73	0.73	0.2%
Suppliers												
ADNT	0.32	0.32	0.0%	0.98	0.98	0.0%	0.51	0.51	0.0%	0.53	0.68	29.3%
APTV	0.91	0.91	0.0%	1.25	1.25	0.0%	1.30	1.30	0.0%	1.32	1.35	2.6%
AXL	(0.01)	(0.01)	0.0%	0.12	0.12	0.0%	(0.11)	(0.11)	0.0%	(0.21)	(0.16)	22.0%
BWA	0.83	0.83	0.0%	1.05	1.05	0.0%	0.98	0.98	0.0%	0.93	0.98	5.9%
GNTX	0.42	0.42	0.0%	0.47	0.47	0.0%	0.45	0.45	0.0%	0.44	0.44	0.6%
LAZR	(0.24)	(0.24)	0.0%	(0.21)	(0.21)	0.0%	(0.19)	(0.19)	0.0%	(0.19)	(0.20)	-6.0%
LEA	2.78	2.78	0.0%	3.33	3.33	0.0%	2.87	2.87	0.0%	3.11	3.02	-3.1%
MGA	1.11	1.11	0.0%	1.50	1.50	0.0%	1.46	1.46	0.0%	1.46	1.55	6.6%
MBLY	0.14	0.14	0.0%	0.17	0.17	0.0%	0.22	0.22	0.0%	0.27	0.27	1.8%
VC	1.25	1.25	0.0%	1.18	1.18	0.0%	2.35	2.35	0.0%	2.07	1.71	-17.4%
Dealers												
ABG	8.37	8.37	0.0%	8.95	8.95	0.0%	8.12	8.12	0.0%	7.64	7.64	0.1%
AN	6.05	6.05	0.0%	6.29	6.29	0.0%	5.54	5.54	0.0%	4.98	4.85	-2.5%
GPI	10.93	10.93	0.0%	11.73	11.73	0.0%	12.07	12.07	0.0%	10.50	10.41	-0.8%
LAD	8.44	8.44	0.0%	10.91	10.91	0.0%	9.25	9.25	0.0%	8.27	8.25	-0.2%
PAG	4.31	4.31	0.0%	4.41	4.41	0.0%	3.92	3.92	0.0%	3.71	3.70	-0.2%
SAH	1.33	1.33	0.0%	1.83	1.83	0.0%	2.02	2.02	0.0%	1.84	1.78	-3.1%
KAR	0.12	0.12	0.0%	0.25	0.25	0.0%	0.18	0.18	0.0%	0.13	0.13	-0.9%

Source: BofA Global Research estimates, Bloomberg, company filings

BofA GLOBAL RESEARCH



Exhibit 25: BofA estimate revisions – 2023-2025 yearly estimates

In this table, we outline estimate changes to annual estimates for select companies in our coverage universe

EPS Ticker	2023E			2024E			2025E		
	Old	New	Change	Old	New	Change	Old	New	Change
OEMs									
F	1.85	1.85	0.0%	1.95	1.94	-0.5%	2.25	2.24	-0.4%
GM	7.16	7.46	4.2%	7.80	7.75	-0.6%	8.85	8.85	0.0%
RACE	6.65	6.65	0.0%	7.30	7.00	-4.1%	8.15	7.95	-2.5%
LCID	(1.43)	(1.40)	n/a	(1.15)	(1.10)	n/a	(0.80)	(0.80)	n/a
RIVN	(4.88)	(4.91)	n/a	(2.25)	(2.50)	n/a	(0.30)	(0.40)	n/a
TSLA	3.12	3.15	1.0%	4.10	3.60	-12.2%	4.90	4.60	-6.1%
Suppliers									
ADNT	2.15	2.15	0.0%	2.88	3.12	8.3%	4.85	4.82	-0.6%
APTV	4.75	4.81	1.3%	6.50	6.00	-7.7%	8.00	7.50	-6.3%
AXL	(0.16)	(0.16)	0.0%	0.70	0.12	-82.9%	1.00	0.80	-20.0%
BWA	3.76	3.85	2.4%	4.20	4.30	2.4%	4.85	4.85	0.0%
GNTX	1.77	1.79	1.1%	2.15	2.15	0.0%	2.55	2.52	-1.2%
LAZR	(0.84)	(0.84)	n/a	(0.65)	(0.75)	n/a	(0.50)	(0.60)	n/a
LEA	11.84	12.00	1.4%	18.00	16.00	-11.1%	21.80	20.85	-4.4%
MGA	5.45	5.63	3.3%	7.20	7.10	-1.4%	9.20	9.25	0.5%
MBLY	0.81	0.81	0.0%	0.36	0.36	0.0%	0.85	0.85	0.0%
VC	6.60	6.49	-1.7%	8.90	8.20	-7.9%	11.40	10.35	-9.2%
Dealers									
ABG	33.00	33.10	0.3%	32.00	31.95	-0.2%	32.80	32.75	-0.2%
AN	22.80	22.80	0.0%	23.25	23.15	-0.4%	23.50	23.40	-0.4%
GPI	46.05	46.05	0.0%	41.40	41.40	0.0%	42.05	42.05	0.0%
LAD	36.85	36.85	0.0%	40.00	40.20	0.5%	43.65	43.85	0.5%
PAG	16.35	16.35	0.0%	16.35	16.35	0.0%	17.35	17.35	0.0%
SAH	6.95	6.95	0.0%	6.65	6.65	0.0%	6.40	6.40	0.0%
KAR	0.68	0.68	0.0%	0.80	0.80	0.0%	1.05	1.05	0.0%

Source: BofA Global Research estimates, company filings

BofA GLOBAL RESEARCH

Exhibit 26: 2023-2025 yearly estimates: BofAe versus Consensus

In the table below we compare BofA revised estimates with consensus

EPS Ticker	2023			2024			2025		
	Cons.	BofAE	Variance	Cons.	BofAE	Variance	Cons.	BofAE	Variance
OEMs									
F	1.87	1.84	-1.7%	1.69	1.94	14.7%	1.69	2.24	32.9%
GM	7.51	7.46	-0.6%	7.61	7.75	1.8%	7.83	8.85	13.1%
RACE	6.72	6.65	-1.0%	7.67	7.00	-8.7%	8.54	7.95	-7.0%
LCID	(1.36)	(1.40)	-2.9%	(1.08)	(1.10)	-2.1%	(0.88)	(0.80)	9.1%
RIVN	(4.85)	(4.91)	-1.2%	(3.53)	(2.50)	29.3%	(2.09)	(0.40)	80.9%
TSLA	3.08	3.15	2.2%	3.82	3.60	-5.7%	5.24	4.60	-12.2%
Suppliers									
ADNT	2.23	2.15	-3.4%	3.02	3.12	3.5%	4.40	4.82	9.5%
APTV	4.79	4.81	0.5%	5.83	6.00	2.9%	7.31	7.50	2.6%
AXL	(0.21)	(0.16)	23.1%	0.33	0.12	-63.4%	0.47	0.80	69.5%
BWA	3.89	3.85	-1.0%	4.29	4.30	0.3%	4.82	4.85	0.6%
GNTX	1.78	1.79	0.6%	2.16	2.15	-0.6%	2.49	2.52	1.2%
LAZR	(0.85)	(0.84)	1.6%	(0.61)	(0.75)	-23.6%	(0.29)	(0.60)	-104.8%
LEA	12.08	12.00	-0.7%	15.82	16.00	1.1%	19.69	20.85	5.9%
MGA	5.49	5.63	2.5%	6.72	7.10	5.6%	8.00	9.25	15.7%
MBLY	0.80	0.81	1.3%	0.47	0.36	-22.9%	0.93	0.85	-8.5%
VC	6.84	6.49	-5.2%	9.11	8.20	-10.0%	11.15	10.35	-7.1%
Dealers									
ABG	33.13	33.10	-0.1%	31.77	31.95	0.6%	38.86	32.75	-15.7%
AN	22.90	22.80	-0.4%	20.38	23.15	13.6%	19.94	23.40	17.4%
GPI	45.33	46.05	1.6%	40.39	41.40	2.5%	40.62	42.05	3.5%
LAD	37.01	36.85	-0.4%	35.90	40.20	12.0%	40.81	43.85	7.5%
PAG	16.37	16.35	-0.1%	15.34	16.35	6.6%	14.77	17.35	17.4%
SAH	6.96	6.95	-0.1%	6.86	6.65	-3.1%	7.36	6.40	-13.0%
KAR	0.68	0.68	0.1%	0.78	0.80	3.2%	1.05	1.05	0.0%

Source: BofA Global Research estimates, Bloomberg, company filings

BofA GLOBAL RESEARCH

Stocks mentioned

Prices and ratings for stocks mentioned in this report

BofA Ticker	Bloomberg ticker	Company name	Price	Rating
ADNT	ADNT US	Adient Plc	US\$ 33.13	C-1-9
AXL	AXL US	American Axle	US\$ 7.52	C-3-9
CRMT	CRMT US	America's Car-Mart	US\$ 62.93	C-3-9
APTV	APTV US	Aptiv PLC	US\$ 79	C-1-9
ABG	ABG US	Asbury Auto	US\$ 204.46	B-1-9
AN	AN US	AutoNation, Inc.	US\$ 140.59	B-1-9
BWA	BWA US	BorgWarner	US\$ 32.87	B-1-7
KMX	KMX US	CarMax	US\$ 69.15	C-3-9
RACE	RACE US	Ferrari	US\$ 349.41	B-1-7
XJHKF	RACE IM	Ferrari	EUR 319.5	B-1-7
F	F US	Ford Motor	US\$ 11.2	B-1-7
GM	GM US	General Motors	US\$ 35.51	B-1-7
GNTX	GNTX US	Gentex	US\$ 32.34	B-2-7
GPI	GPI US	Group 1 Auto	US\$ 273.92	C-1-7
LEA	LEA US	Lear Corp.	US\$ 130.21	B-1-7
LAD	LAD US	Lithia Motors A	US\$ 296.74	C-1-7
LCID	LCID US	Lucid Group	US\$ 2.71	C-2-9
LAZR	LAZR US	Luminar	US\$ 2.21	C-2-9
MGA	MGA US	Magna Intl	US\$ 54.56	B-1-7
YMG	MG CN	Magna Intl	C\$ 73.19	B-1-7
MBLY	MBLY US	Mobileye	US\$ 28.34	C-3-9
KAR	KAR US	OPENLANE	US\$ 14.05	C-3-9
PAG	PAG US	Penske Auto Group	US\$ 151.45	B-1-7
RIVN	RIVN US	Rivian Automotive	US\$ 15.48	C-1-9
SAH	SAH US	Sonic Automotive	US\$ 50.82	C-3-7
TSLA	TSLA US	Tesla	US\$ 212.19	C-2-9
VC	VC US	Visteon Corp	US\$ 116.46	C-1-9

Source: BofA Global Research

Price objective basis & risk**Adient Plc (ADNT)**

Our price objective of \$50 for ADNT is based on an EV/EBITDA multiple of roughly 6.0x on our FY2024 estimates, slightly above the historical average of roughly 5.5x as the company successfully completed debt refinancing and secured its capital structure, and continues to improve in performance with its turnaround efforts.

Downside risks: 1) inability to win sufficient and profitable new business, expand the backlog, and reaccelerate top line growth, 2) inability to complete restructuring programs or cost rationalization initiatives, 3) decline in new vehicle production, 4) inability to consistently execute financially, 5) raw material cost inflation, 6) inability to handle OEM price downs, 7) failure to maintain a lean cost structure, 8) new program/platform launch risk.

Upside risks: 1) ADNT successfully wins back business, expands its backlog and reaccelerates its top line growth, 2) better than expected operating leverage from



continued growth in global auto production, 3) significant progress made on restructuring programs and cost rationalization actions, 4) material market share gains in China market, 5) wind-down of non-recurring items boosts ongoing cash flow power.

American Axle (AXL)

Our price objective of \$7 is based on an EV/EBITDA multiple of roughly 4x on our 2024 estimates, which is somewhat lower than the historical average of roughly 4.5x, but in range of recent trading ranges and reflective of the forthcoming US/NA and Global production volume recovery.

Upside risks: 1) Continued strength in large truck volume growth, 2) resolution of plant issues, 3) labor cost inflation doesn't materialize

Downside risks: 1) a slowdown in large truck volume growth, particularly at key customers, 2) failure to diversify its customer base, geographic, and product exposure, 3) expansion into new segments could significantly reduce operating margins, 4) continued sharp rise in raw material and labor costs, 5) loss of business at key customers, and 6) disruption at AXL's suppliers.

America's Car-Mart, Inc. (CRMT)

Our price objective of \$55 is based on a P/E multiple of approximately 15x on our FY2025 (CY2024) EPS estimates, which is about in line with an average through-cycle multiple. We believe this is appropriate given emerging macroeconomic headwinds to CRMT's business including tight inventory in the used vehicle market and weakening of lower-income consumers.

Upside risks: 1) economic conditions improve and income disparity narrows, providing an outsized benefit to CRMT's lower-income bracket consumers, 2) interest rates remain high, used vehicle prices decline and CRMT resumes its role as a lender of last resort as competitive pressures abate, 3) used vehicle supply improves, 4) greater cost containment and operating leverage than forecast, 5) credit metrics improve (collections, defaults, loss rate, etc.)

Downside risks: 1) stalled economic improvement, particularly in rural markets where CRMT is overexposed, 2) interest rates decline quickly and used vehicle values rise, keeping competitive pressure from dealers and lenders high, 3) Inflation remains elevated, 4) used vehicle supply remains restricted, 5) inability to cover fixed costs and achieve operating leverage, 6) deterioration of credit metrics (collections, defaults, loss rate, etc.) and 7) increasing scrutiny by state legislators and/or the CFPB.

Aptiv PLC (APTIV)

Our PO of \$125 for APTIV is based on an EV/EBITDA multiple of roughly 12x on our 2024 estimates. Our assumed valuation metrics are in line with the average historical trading multiple, but well above the traditional automotive suppliers, which trade in ranges of 3x to 6x. We believe a valuation premium to the group is warranted, as APTIV is more of a pure-play electrification / autonomy / connectivity / mobility-centric company, unencumbered by factor risks from other non-future tech businesses/products. However, we see the stock trading in line with its historical average given the hurdles on the semiconductor supply front, which are not completely resolved yet.

Downside risks: 1) sustained volatility in international markets, 2) a longer than expected decline or flatline in US/global automotive volumes, 3) a continued rise in raw material costs and semiconductors disruptions, 4) loss of key customers or suppliers, 5) inability to win new business, 6) competitive pricing pressure.

Upside risks: 1) strength in global auto production volumes, particularly in North America, 2) increased business wins as a result of Safe, Green, Connected portfolio that

continue to support growth above market, 3) shareholder-friendly actions, including accretive M&A and share repurchases, support earnings and the stock.

Asbury Auto (ABG)

Our price objective of \$350 is based on a P/E multiple of roughly 11x on our 2024 estimates, which is about in line with an average dealer through-cycle multiple. We believe this is appropriate in light of the ongoing recovery in the US/NA automotive cycle following the COVID-induced trough in 2020, which should translate into revenue and earnings growth across the dealer vertical over our forecast period.

Downside risks: 1) a swift and/or material downturn in US sales, 2) market share losses by the brands to which ABG is overexposed, 3) higher interest rate environment causes material demand deterioration and/or repossessions, 4) consumer dissatisfaction with auto retailing, and 5) the potential for franchise law and/or consumer finance law changes.

Upside risks: 1) US/North America cycle recovers and plateaus at a high level of sales, continues growing, or even declines less than expected, 2) ABG is able to gain back and/or maintain some gross profit per unit in its new and used vehicles businesses, 3) used vehicle focus drives demand, top line and earnings growth beyond the peak in new vehicle sales, and 4) interest rates decline quicker than expected, stimulating demand in 2H23.

AutoNation, Inc. (AN)

Our price objective of \$255 is based on a P/E multiple of roughly 11x on our 2024 estimates, which is about in-line with an average dealer through-cycle multiple. We believe this is appropriate in light of the ongoing recovery in the US/NA automotive cycle following the COVID-induced trough in 2020, which should translate into revenue and earnings growth across the dealer vertical over our forecast period.

Downside risks: 1) a swift and/or material downturn in US sales, 2) poorer-than-expected cost performance and margin compression, 3) a stoppage in share repurchase activity or material sell-off by key shareholders, 4) higher interest rate environment causes material demand deterioration and/or repossessions 5) consumer dissatisfaction with auto retailing, and 6) the potential for franchise law and/or consumer finance law changes.

Upside risks: 1) US/NA cycle recovers and plateaus at a high level of sales, continues growing, or even declines less than expected, 2) AN is able to gain or even just maintain gross profit per unit in its new and used vehicles businesses, 3) standalone used vehicle stores capture some demand and drives top line and earnings growth beyond the peak in new vehicle sales, and 4) interest rates decline quicker than expected, stimulating demand in 2H23.

BorgWarner (BWA)

Our price objective of \$52 is based on an EV/EBITDA multiple of roughly 7.0x on our 2024 estimates, which we believe reflects the higher growth trajectory on which the company positioned itself after the spin-off of the Fuel Systems and Aftermarket segments in July 2023.

Downside risks: 1) relaxed fuel-efficiency regulations, 2) increased competition in the turbocharger industry, 3) a longer than expected decline or flatline in US/global automotive volumes, 4) a continued rise in raw material costs, 5) slower electric vehicle adoption.

Upside risks: 1) strength in global auto production volumes, particularly in North America, 2) faster adoption of electric and hybrid vehicles, 3) BWA regains lost investor confidence through continued execution and performance.



CarMax, Inc. (KMX)

Our price objective of \$44 is based on a P/E multiple of roughly 12x on our FY2025 (CY2024) estimates, which is the lower end of the average P/E multiple historical range, which we view as appropriate as it reflects challenges presented by the short supply of used vehicles.

Upside risks: 1) used vehicle pricing remains range bound as supply increases and KMX effectively manages its inventory to drive total profits, 2) reversal in the trend of consumers opting for new vehicles rather than late-model used, 3) greater than anticipated store growth, 4) increase in customer interaction/footprint through online presence.

Downside risks: 1) extreme fluctuations in used vehicle pricing, which would have a big impact on sentiment towards the stock, 2) an extensive trend of customers opting for new vehicles rather than late-model used, 3) deterioration in credit availability and decline in the ABS market, 4) disruption from newer tech-oriented entrants, 5) potential demand destruction stemming from macro pressures.

Ferrari (RACE / XJHKF)

Our \$456 PO for RACE US (EUR416 for RACE IM) is based on an adj. EV/EBITDA multiple of roughly 31x on our 2024 estimates, which is a slight premium to RACE's current trading level due to ongoing volume, sales, and earnings growth. This valuation is also supported by a DCF analysis. The multiples used for our valuation framework are a premium to the current trading range of a number of luxury companies we classify as RACE's peer group, but warranted, in our view, given RACE's outsized growth opportunity and stability.

Downside risks: 1) devaluation of the brand due to overproduction or licensing expansion, 2) a decline in the wealth/size of the HNWI community, 3) degradation in perceived vehicle quality or performance, 4) impairment of its Formula 1 reputation or perceived racing pedigree, 5) F-1 losses persist or accelerate, 6) deterioration in adjacent businesses, 7) intensifying competition in the luxury vehicle market, 8) dependence on certain large volume suppliers, 9) significant rise in raw material costs, 10) significant voting power and control attributable to Piero Ferrari & Exor S.p.A.

Upside risks: 1) modest volume expansion, 2) an upward bias on pricing, 3) growth in adjacent businesses, 4) gradual brand and licensing extension, 5) moderation or rationalization of F-1 losses, 6) execution & cost efficiency realization, and 7) management commitment to preserving the exclusive luxury culture.

Ford Motor (F)

Our price objective of \$19 is based on an EV/EBITDAP multiple (EV/EBITDA adjusted for pension) of roughly 4x on our 2024 estimates. This valuation methodology reflects a multiple within Ford's historical range (3-6x). We believe a multiple at this level is warranted considering the timing of the cycle and as the company is on the verge of executing something analogous to our Core to Future transition framework, by which it will strengthen its core business pillars to fund its future business.

Downside risks: 1) a more swift and/or material downturn in US auto sales, 2) a sharp and sustained rise in input costs, 3) disruption in the supply base, 4) significant increase in gas prices, 5) new vehicle pricing deteriorates, 6) market share losses pressure results, 7) unwillingness of dealers to shoulder inventory risk, 8) suppliers gain significant pricing power, 9) stress in capital markets makes borrowing more expensive, 10) Incremental execution risk as management ramps up.

Upside risks: 1) continued strength in US auto cycle, 2) growth in China remains robust, which Ford is able to leverage with product launches, 3) mix and pricing remain

favorable, 4) capital allocation is directed towards shareholder returns (special dividend, etc.).

General Motors Company (GM)

Our price objective of \$75 is based on an EV/EBITDAP multiple (EV/EBITDA adjusted for pension) of roughly 4x on our 2024 estimates. This valuation methodology reflects a multiple within GM's historical range (3-6x). We believe a multiple at this level is warranted considering the timing of the cycle and as GM's Core business is being well managed even amidst a choppy macro, while the accelerating focus on Future-proofing the business with the development of the necessary components of the future of mobility services, including an autonomous electric vehicle fleet (Cruise Anywhere) and connectivity (OnStar), may provide upside.

Downside risks: 1) a more swift and/or material downturn in US auto sales, 2) a sharp and sustained rise in input costs, 3) disruption in the supply base, 4) significant increase in gas prices, 5) new vehicle pricing deteriorates, 6) market share losses pressure results, 7) unwillingness of dealers to shoulder inventory risk, 8) suppliers gain significant pricing power, 9) stress in capital markets makes borrowing more expensive, 10) key members of management leave.

Upside risks: 1) continued strength in US auto cycle, 2) growth in China remains robust, which benefits GM through its established market position, 3) mix and pricing remain favorable, 4) capital allocation is directed towards shareholder returns (share repurchases, etc.).

Gentex (GNTX)

Our \$34 price objective on GNTX shares is based on an EV/EBITDA multiple of roughly 10x on our 2024 estimates, which reflects a well above average supplier multiple, and in line with the company's historical trading range. However, we believe a lower multiple could be applied given longer-term structural headwinds for its core products unless new product lines are added to the portfolio.

Upside risks: 1) new program wins that drive higher-than-expected shipment growth, 2) a successful launch of new technology that allows the company to avoid losing market share and re-accelerate growth, 3) stronger-than-expected positive operating leverage, and 4) any regaining of pricing power with the automakers.

Downside risks: 1) a further slowdown in global auto shipments, 2) softer-than-expected operating leverage, 3) a continued rise in raw materials costs, and 4) increased competition from other suppliers 5) risk of management pursuing large and potentially dilutive M&A.

Group 1 Auto (GPI)

Our price objective of \$455 is based on a P/E multiple of roughly 11x on our 2024 estimates, which is about in-line with an average dealer through-cycle multiple. We believe this is appropriate in light of the ongoing recovery in the US/NA automotive cycle following the COVID-induced trough in 2020, which should translate into revenue and earnings growth across the dealer vertical over our forecast period.

Downside risks: 1) weaker demand than expected in the US, and/or UK, 2) the loss of key management, 3) the possibility that GPI is unable to achieve the operating leverage we forecast, 4) higher interest rate environment causes material demand deterioration and/or repossessions, 5) consumer dissatisfaction with auto retailing, and 6) the potential for franchise law and/or consumer finance law changes.

Upside risks: 1) US/NA cycle recovers and plateaus at a high level of sales, continues growing, or even declines less than expected, 2) GPI is able to gain back some gross

profit per unit in its new and used vehicles businesses, 3) growth in international markets helps to offset weakness in the US market, and 4) interest rates decline quicker than expected, stimulating demand in 2H23.

Lear Corp. (LEA)

Our \$220 price objective on LEA shares is based on an EV/EBITDA multiple of roughly 7.0x on our 2024 estimates. This multiple is a slight premium to the company's historical average since we believe adjustment to a lower volume environment and the company's vertical integration will bolster already strong cash flow that is being returned to shareholders through dividends and growing share buybacks.

Downside risks: 1) a slower or further decline in US/global automotive volume growth, 2) disruption from the re-emergence in the Seating market of LEA's largest competitor (ADNT), 3) increased pricing pressure from OEM customers, 4) loss of business at key customers, 5) fierce competition in the automotive supply base, 6) a new rise in raw material costs, 7) execution risk of restructuring, operations, and acquisitions.

Upside risks: 1) faster recovery than expected in global auto production volumes, 2) continued execution and progress on margin expansion, 3) shareholder-friendly actions including accretive M&A and share repurchases support earnings and the stock.

Lithia Motors A (LAD)

Our price objective of \$440 is based on a P/E multiple of roughly 11x on our 2024 estimates, which is a slight premium to an average dealer through-cycle multiple. We believe this is appropriate in light of the company's track record of strong earnings and recent strong execution of M&A growth actions.

Downside risks: 1) a swift and/or material downturn in US sales, 2) slower improvement in operating leverage than forecast, 3) substantial market share loss by domestic brands, to which LAD is exposed, 4) higher interest rate environment causes material demand deterioration and/or repossessions, 5) consumer dissatisfaction with auto retailing, and 6) the potential for franchise law and/or consumer finance law changes.

Upside risks: 1) acquisition activity above current forecasts, 2) continued recovery in US auto sales beyond current estimates, 2) LAD is able to gain back/maintain some gross profit per unit in its new and used vehicles businesses, and 3) interest rates decline quicker than expected, stimulating demand in 2H23.

Lucid Group (LCID)

Our price objective of \$7 is based on 6x EV/Sales on our 2025 estimates, which implies roughly 0.5x EV/Sales and 3x EV/EBITDA on pro-forma capital-induced 2030 estimates. Our valuation framework for LCID is relatively consistent with TSLA and includes the following steps: 1) What the current stock price affords to LCID in incremental plants/units. 2) What the incremental units translates into in incremental revenue/profits. 3) What the incremental revenue/profits translates into in terms of multiples on theoretical pro-forma 2030 metrics.

Downside risks: 1) inability to continue to raise low cost capital to fund business ventures, 2) inability to convert refundable reservations into contracted orders, unit sales, and revenue, 3) greenfield/clean-sheet approach to EV manufacturing introduces risk of successful execution, 4) direct-to-consumer sales and service model may create challenges for business to scale, 5) inability to reach sustainable positive EBITDA/FCF.

Upside risks: 1) significant and better than expected customer traction for introduced/unveiled products, 2) successful execution of go-to-market strategy via direct-to-consumer sales and service model, 3) better than expected progress on start and ramp of production with clean-sheet manufacturing approach, 4) breakthrough in

advanced battery technology to drive ICE/EV parity, 5) incremental government/regulatory support/stimulus for EV market.

Luminar Technologies (LAZR)

Our PO of \$4 is based on an EV/Sales multiple of 4.0x on our 2025 estimates. This is somewhat lower than the average EV/Sales multiple of 4.5-5x for the Auto/Tech companies we include in LAZR's peer group, reflecting concerns about growth for ADAS and autonomous vehicle technology.

Upside risks: 1) Continued strong execution on securing series production contracts, 2) Progress on Level 2+ autonomous driving and market penetration may be faster than projected, 3) Technological breakthrough on Level 4+ autonomous capabilities and systems, 4) Market consolidation eases competitive pressures and leaves more room expansion, 5) Better than expected cost reduction and quicker scaling of operation, 5) Prices hold up better-than expected.

Downside risks: 1) Slower pace of securing series production contracts, 2) Progress on Level 2+ autonomous driving and market penetration may be slower than projected, 3) Pushout of Level 4+ autonomous capabilities and systems, 4) Necessity for LIDAR at varying levels of autonomy could change as new technology is developed, and preferences may shift to alternative sensors, 5) Inability to establish or maintain technological leadership over competition, 6) Inability to drive down cost effectively to preserve margins as ASPs decline with volume, 7) Macro/market volatility could impact customer demand and launch schedules, 8) LAZR may need to raise additional capital.

Magna Intl (MGA / YMG)

Our \$77 price objective on MGA US (CAD105.49 for MG CN) is based on an EV/EBITDA multiple of roughly 6x on our 2024 estimates, above the historical average of roughly 5.0x, which we believe reflects MGA's superior long-term positioning, and expertise of the complete vehicle/components that provides the company with a competitive advantage amid the ongoing industry evolution and technological advancement (Big Bang).

Downside risks: 1) a flatline or decline in the US SAAR and NA production volumes for longer than expected, 2) inability to deliver on projected growth targets in emerging markets, 3) stress at key customers, most notably the Detroit Three.

Upside risks: 1) strength in global auto production volumes, particularly in North America, 2) expansion into China market, 3) continued execution and progress on restructuring programs and margin expansion, 4) shareholder-friendly actions including accretive M&A and share repurchases support earnings and the stock.

Mobileye (MBLY)

Our PO of \$22 is based on 5.5x EV/Sales on 2025E, which is below the average of its four closest peers (NVDA, QCOM, LAZR, AMBA) and lower than the range of the two Tier 2+ ADAS/AV hardware companies in the comp set. This reflects our slower growth outlook, specifically following the company's initial guidance for 2024.

Downside risks: 1) Market penetration of Level 2+ ADAS may take longer than expected and pathway/timing of Level 4+ autonomous vehicle (AV) capabilities is unclear, 2) inability to maintain technological leadership over competition, 3) standardization of ADAS/AV technology could make it challenging to maintain gross and operating margins, 4) macro/market volatility could impact demand and product launches, 5) export control limitations of key semiconductor technology and restriction of US citizens/greencard holders from working in certain Chinese entities, 6) lack of liquidity in the stock and/or future stock sales.

Upside risks: 1) Mega-trend towards ADAS & autonomy, 2) timing and go-to-market strategy of MBLY's Level 4+ offerings could exceed expectations, 3) MBLY may be more successful in winning new customers/contracts, 4) barriers to entry could prove more formidable, 5) industry consolidation in ADAS/AV, 6) better operating performance and/or changes to strategy.

OPENLANE (KAR)

Our price objective of \$16 is based on an adjusted EV/EBITDA multiple of roughly 8x on our 2024 estimates. Although KAR's longer-term historical average EV/EBITDA multiple range is somewhat illustrative, it is not directly applicable because of significant changes in the company since it was last public. We believe recent management changeover will catalyze a broader turnaround effort and result in more sustainable improved operating performance. However, the lack of wholesale vehicle supply in the short term may usurp management's best efforts.

Upside risks: 1) supply of wholesale vehicles bounces back faster than currently expected, 2) execution of a large, transformational acquisition, 3) development of relationships with new suppliers and customers.

Downside risks: 1) supply of new vehicles does not recover or further declines 2) failure to maintain relationships with key customers, 3) failure to maintain key managers.

Penske Auto Group (PAG)

Our price objective of \$200 is based on a P/E multiple of roughly 12x on our 2024 estimates, which is about in line with an average dealer through-cycle multiple. We believe this is appropriate in light of the ongoing recovery in the US/NA automotive cycle following the COVID-induced trough in 2020, which should translate into revenue and earnings growth across the dealer vertical over our forecast period.

Downside risks: 1) the loss of Roger Penske's leadership, 2) a swift and/or material downturn in US sales, 3) slower recovery in Europe sales, 4) higher interest rate environment causes material demand deterioration and/or repossessions 5) unfavorable foreign exchange rates, 6) consumer dissatisfaction with auto retailing, and 7) the potential for franchise law and/or consumer finance law changes.

Upside risks: 1) acquisition activity above current forecasts, 2) continued recovery in US auto sales beyond current estimates, 3) significant improvement in cost leverage beyond our estimates. 4) interest rates decline quicker than expected, stimulating demand in 2H23.

Rivian Automotive (RIVN)

Our price objective of \$40, based on 3x EV/Sales on our 2025 estimates, implying 0.5x EV/Sales and 3x EV/EBITDA on pro-forma capital-induced 2030 estimates. Our valuation framework for RIVN is relatively consistent with its peer and includes the following steps: 1) What the current stock price affords to RIVN in incremental plants/units. 2) What the incremental units translates into in incremental revenue/profits. 3) What the incremental revenue/profits translates into in terms of multiples on theoretical pro-forma 2030 metrics.

Downside risks: 1) inability to continue to raise low cost capital to fund business ventures, 2) inability to convert pre-orders and orders into unit sales, revenue, and eventually earnings, 3) termination of or amendment to sales and service agreement with anchor customer, 4) direct-to-consumer sales and service model may create challenges for business to scale, 5) inability to reach sustainable positive EBITDA/FCF with investment across numerous business areas.

Upside risks: 1) significant and better than expected customer traction for

introduced/unveiled products, 2) successful execution of go-to-market strategy via direct-to-consumer sales and service model, 3) better than expected progress ramp of production and successful build-out of incremental capacity, 4) breakthrough in advanced battery technology to drive ICE/EV parity, 5) incremental government/regulatory support/stimulus for EV market.

Sonic Automotive (SAH)

Our price objective of \$60 is based on a P/E multiple of roughly 9x on our 2024 estimates, which is just below an average dealer through-cycle multiple. We believe this is appropriate in light of the somewhat stalled recovery in the US/NA automotive cycle following the COVID-induced trough in 2020, as well as SAH's over exposure to the Used market via its standalone EchoPark stores.

Upside risks are 1) prolonged upside in the US cycle beyond our forecasts, 2) material accretive M&A activity, 3) market share gains as a result of successful initiatives. 4) interest rates decline quicker than expected, stimulating demand in 2H23.

Downside risks are 1) a swift and/or material downturn in US sales, 2) higher interest rate environment causes material demand deterioration and/or repossessions, 3) consumer dissatisfaction with auto retailing, and 4) the potential for franchise law and/or consumer finance law changes.

Tesla Motors (TSLA)

Our price objective of \$290 is based on 8.5x EV/Sales and 48x EV/EBITDA on our 2024 estimates, which implies roughly 3x EV/Sales and 22x EV/EBITDA on pro-forma capital-induced 2025 estimates. Our valuation framework for TSLA includes the following steps: 1) What the current stock price affords to TSLA in incremental plants/units. 2) What the incremental units translates into in incremental revenue/profits. 3) What the incremental revenue/profits translates into in terms of multiples on theoretical pro-forma 2025 metrics.

Downside risks: 1) inability to continue raising low-cost capital to fund business ventures, 2) inability to generate positive earnings/FCF, 3) slower ramp in electric vehicle demand, 4) setbacks or lack of advancements in battery technology, 5) fierce competition from incumbent OEMs, 6) inability to execute efficiently with higher volume, 7) low gasoline prices, and 8) loss of management.

Upside risks: 1) better execution and cost containment, 2) a sharp/sustained rise in gasoline prices, 3) a breakthrough in advanced battery technology, 4) increase in federal or state incentives, 5) short covering.

Visteon (VC)

Our PO of \$165 is based on an EV/EBITDA multiple of 10x on our 2024 estimates, which is consistent with a P/E multiple of roughly 20x. This is slightly above the mid-point of where the stock has traded (6-12x) since 2016, excluding the Covid-19 period. Our assumed multiple is a premium to the current trading multiple of 7x for the suppliers in our coverage and our average assumed multiple of 8x underlying our POs, given VC's growth-over-market is above most suppliers and in consideration of its exposure to key mega-trends.

Downside risks: 1) Competition is intense and likely to heat up further as suppliers aggressively position their product portfolio to benefit from high growth markets, 2) Inability to maintain a technological edge amidst the rapidly evolving auto sector, 3) Inability to win new business across its product lines, or gain higher content per vehicle on new business wins, 4) Inability to drive growth-over-market and margin expansion as expected, 5) UAW strike poses a near-term risk to volumes and earnings.

Upside risks: 1) Stronger than expected recovery in automotive sales/production, 2) Higher-than-expected content per vehicle across newer product areas, 3) Market share gains with new product launches, 4) Successfully achieve 2026 growth and margin targets, 5) Shareholder-friendly actions like M&A and share repurchases.

Analyst Certification

We, John Murphy, CFA and John P. Babcock, hereby certify that the views each of us has expressed in this research report accurately reflect each of our respective personal views about the subject securities and issuers. We also certify that no part of our respective compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

Special Disclosures

BofA Securities is currently acting as financial advisor to Intel Corp in connection with its sale of a minority stake in IMS Nanofabrication GmbH to Taiwan Semiconductor Manufacturing Co Ltd, which was announced on September 12, 2023.

US - Automotives Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
BUY				
	Adient Plc	ADNT	ADNT US	John Murphy, CFA
	Aptiv PLC	APTV	APTV US	John Murphy, CFA
	Asbury Auto	ABG	ABG US	John Murphy, CFA
	AutoNation, Inc.	AN	AN US	John Murphy, CFA
	BorgWarner	BWA	BWA US	John Murphy, CFA
	Ferrari	RACE	RACE US	John Murphy, CFA
	Ferrari NV	XJHKF	RACE IM	John Murphy, CFA
	Ford Motor	F	F US	John Murphy, CFA
	General Motors Company	GM	GM US	John Murphy, CFA
	Group 1 Auto	GPI	GPI US	John Murphy, CFA
	Lear Corp.	LEA	LEA US	John Murphy, CFA
	Lithia Motors A	LAD	LAD US	John Murphy, CFA
	Magna Intl	MGA	MGA US	John Murphy, CFA
	Magna Intl	YMG	MG CN	John Murphy, CFA
	Penske Auto Group	PAG	PAG US	John Murphy, CFA
	Rivian Automotive	RIVN	RIVN US	John Murphy, CFA
	Visteon	VC	VC US	John P. Babcock
NEUTRAL				
	Gentex	GNTX	GNTX US	John Murphy, CFA
	Lucid Group	LCID	LCID US	John Murphy, CFA
	Luminar Technologies	LAZR	LAZR US	John P. Babcock
	Tesla Motors	TSLA	TSLA US	John Murphy, CFA
UNDERPERFORM				
	American Axle	AXL	AXL US	John Murphy, CFA
	America's Car-Mart, Inc.	CRMT	CRMT US	John Murphy, CFA
	CarMax, Inc.	KMX	KMX US	John Murphy, CFA
	Mobileye	MBLY	MBLY US	John Murphy, CFA
	OPENLANE	KAR	KAR US	John Murphy, CFA
	Sonic Automotive	SAH	SAH US	John Murphy, CFA
RVW				
	Fisker	FSR	FSR US	John P. Babcock

Disclosures

Important Disclosures

Equity Investment Rating Distribution: Autos Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	67	55.83%	Buy	39	58.21%
Hold	30	25.00%	Hold	15	50.00%
Sell	23	19.17%	Sell	12	52.17%

Equity Investment Rating Distribution: Distributors Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	5	71.43%	Buy	2	40.00%
Hold	0	0.00%	Hold	0	0.00%
Sell	2	28.57%	Sell	1	50.00%

Equity Investment Rating Distribution: Global Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	1895	53.62%	Buy	1083	57.15%
Hold	832	23.54%	Hold	454	54.57%
Sell	807	22.84%	Sell	383	47.46%

^{R1} Issuers that were investment banking clients of BofA Securities or one of its affiliates within the past 12 months. For purposes of this Investment Rating Distribution, the coverage universe includes only stocks. A stock rated Neutral is included as a Hold, and a stock rated Underperform is included as a Sell.

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Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster ^{R2}
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

^{R2}Ratings dispersions may vary from time to time where BofA Global Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

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