Automotive Industry

Total recall 4Q:23 – Mixed results, conservative outlooks, softer EV demand

Price Objective Change

29 February 2024

Equity
United States
Autos/Car Manufacturers

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OK finish to 2023 and varying outlooks

4Q results were mixed compared to our expectations. We note that during the quarter there was a fair amount of noise in below-the-line items in P&Ls, which muddled operating performances. Regardless, attention was on company outlooks, which were robust for GM and Ford (F), but below expectations for suppliers and EV (electric vehicles) OEMs. We believe suppliers took a prudent approach to 2024 outlooks since volumes expectations are soft (flat-to-down), which we view as conservative. However, uncertainty about EVs is real given flagging demand from retail and fleet customers.

OEM: Legacy OEMs full throttle, EV OEMs lose charge

4Q23 was a watershed moment for OEMs: EV OEMs delivered underwhelming results and outlooks while legacy automakers printed another quarter of near-record profits, which was especially impressive given the UAW strike. For 2024, GM and Ford management anticipate some mix degradation and potential price erosion, but profits are projected to remain robust. On EVs, F and GM commentary suggests that EV demand is weaker than expected and hybrids are likely at least an interim solution, if not much more. TSLA's (Tesla) 4Q23 results were slightly below consensus expectations and the outlook was relatively uninspiring, and the stock meaningfully underperformed. Recall that TSLA does not release a detailed outlook, but the tone of the call and the assumption on production of future models imply 2024+ to be lighter years for the company. RIVN (Rivian) and LCID (Lucid) delivered a disappointing quarters characterized by heavy losses. The stocks meaningfully underperformed on the volume ramp outlook, which is not much in 2024. RIVN continues to guide 4Q24 as the quarter in which moderate gross profit margin will be reached. RACE (Ferrari) delivered another strong quarter and sees '24 as another strong year, which we expect will be the story for some time to come give its unique positioning.

Suppliers: conservative outlooks, EV exposure hurts stocks

Suppliers reported respectable results for 4Q:23, but execution was overshadowed by uninspiring 2024 outlooks, which we think are conservative. Stock price reactions were particularly negative for those suppliers whose growth targets are intertwined with electrification. Specifically, APTV (Aptiv), BWA (BorgWarner), and MGA (Magna) financial targets look less certain that they did six months ago as the EV narrative has soured. Seating suppliers continued to deliver improving results and we think companies incorporated conservative production volumes in 2024 outlooks. GNTX (Gentex) was the top performer, as it is on track to recover part of the profitability lost during COVID and mix fuels revenue growth. AXL (American Axle) continues to lag despite largely resolving micro operating issues. Lastly, suppliers levered toward autonomous (MBLY (Mobileye) and LAZR (Luminar)) are flagging a bit.

Dealers: environment "normalizes" but bang for the buck

4Q results were mostly below expectations for the group as the auto retail environment normalizes, specifically with new pricing and grosses. In addition, some cracks in the SG&A leverage story are appearing as cost inflation took hold, but this appears more transitory than declining/normalizing new vehicle GPU (gross profit per unit). We fully agree that earnings per vehicle and rooftop will remain under [***continued on page 2]***

Exhibit 1: Ratings and old/new POs for autos coverage universe

Below we show POs and ratings

	Rating	Old PO	New PO
OEMs			
F	B-1-7	$21	$21
GM	B-1-7	$75	$75
RACE	B-1-7	$458	$458
LCID	C-2-9	$4.50	$4.50
RIVN	C-1-9	$25	$25
TSLA	C-2-9	$280	$280
Suppliers			
ADNT	C-1-9	$50	$50
APTV	C-1-9	$115	$115
AXL	C-3-9	$7	$7
BWA	B-1-7	$50	$50
LAZR	C-2-9	$4	$3.50
LEA	B-1-7	$210	$210
MGA	B-1-7	$70	$70
MBLY	C-3-9	$22	$22
VC	C-1-9	$165	$160
Dealers			
ABG	B-1-9	$340	$340
AN	B-1-9	$220	$220
GPI	C-1-7	$425	$425
LAD	C-1-7	$440	$380
PAG	B-1-7	$175	$175
SAH	C-3-7	$60	$55
KAR	C-3-9	$16	$16
KMX	C-3-9	$44	$50

Source: BofA Global Research

pressure as pricing normalizes relative to costs. However, strong free cash flow remains and will be utilized for accretive actions (acquisitions or buybacks), which when accounted for indicate that dealer stocks are bargains, at least in our opinion. Used car dealers/processors remain in a difficult position given the sticky lack of used vehicles that most likely won't fade until 2025+.

Update estimates and POs post 4Q reporting

We adjust our estimates and POs for the last reporters of 4Q earnings season. With this report we update estimates and POs for AXL, LAD (from $440 to $380), LAZR (from $4 to $3.50), KAR (OPENLANE), KMX (CarMax, from $44 to $50), SAH (Sonic Automotive, from $60 to $55), and VC (Visteon, from $165 to $160).

4Q:23 quick take on overall results

Overall, 4Q results were mixed, with OEMs largely beating expectations while suppliers and dealers came in a bit weaker. Performance for the automakers was led by robust results from GM, F and RACE, while TSLA missed. New EV entrants RIVN and LCID beat expectations on EPS but provided much lower-than-expected production outlooks, resulting in significant underperformance. Supplier results were mixed, partially due to below-the-line items that resulted in noise to the bottom line results. Dealer results showed the first sign of cracking with the majority of Franchised Groups missing expectations. New GPUs remain resilient, but used and P&S (parts & service) were soft and SG&A performance slipped across the board.

Exhibit 2: 4Q:23 earnings results summary

In the table below we show 4Q:23 earnings results across the automotive value chain compared to BofA and consensus expectations.

Ticker	Earnings Date	Actual 4Q23	BofAe 4Q23	Consensus 4Q23	% Beat (Miss) vs Consensus	Actual 4Q22	YoY % Δ
OEMs							
F	2/6/2024	0.27	0.11	0.13	**104.3%**	0.51	-46.9%
GM	1/30/2024	1.24	1.05	1.16	**7.2%**	2.12	-41.5%
LCID	2/23/2024	(0.29)	(0.35)	(0.29)	**0.1%**	(0.28)	3.4%
RACE	2/1/2024	1.62	1.38	1.49	**9.1%**	1.21	34.6%
RIVN	2/23/2024	(1.36)	(1.40)	(1.33)	**2.0%**	(1.73)	-21.4%
TSLA	1/25/2024	0.71	0.73	0.73	**-2.8%**	1.19	-40.3%
Suppliers							
ADNT	2/7/2024	0.31	0.46	0.49	**-36.4%**	0.34	-8.9%
APTV	1/31/2024	1.40	1.35	1.33	**5.4%**	1.27	10.4%
AXL	2/16/2024	(0.09)	(0.16)	(0.19)	**-54.9%**	(0.07)	25.6%
BWA	2/8/2024	0.89	0.98	0.94	**-4.6%**	0.82	8.6%
GNTX	1/26/2024	0.50	0.44	0.44	**13.5%**	0.37	35.0%
LAZR	2/28/2024	(0.20)	(0.20)	(0.19)	**7.0%**	(0.26)	-21.6%
LEA	2/6/2024	3.03	3.02	3.13	**-3.2%**	2.81	7.6%
MGA	2/9/2024	1.33	1.50	1.47	**-9.0%**	0.94	41.6%
MBLY	1/24/2024	0.28	0.27	0.27	**3.6%**	0.27	3.3%
VC	2/20/2024	13.01	1.71	2.09	**523.0%**	1.32	882.9%
Dealers							
ABG	2/8/2024	7.12	7.64	7.99	**-10.8%**	9.12	-21.9%
AN	2/13/2024	5.02	4.85	4.93	**1.9%**	6.37	-21.2%
GPI	1/31/2024	9.50	10.41	10.46	**-9.2%**	10.86	-12.6%
LAD	2/14/2024	8.24	8.25	8.23	**0.1%**	9.05	-9.0%
PAG	2/7/2024	3.45	3.70	3.66	**-5.8%**	4.21	-18.1%
SAH	2/14/2024	1.63	1.78	1.82	**-10.3%**	2.61	-37.5%
KAR	2/20/2024	0.16	0.13	0.13	**21.5%**	0.33	-51.3%

Source: Company filings, Bloomberg, BofA Global Research estimates

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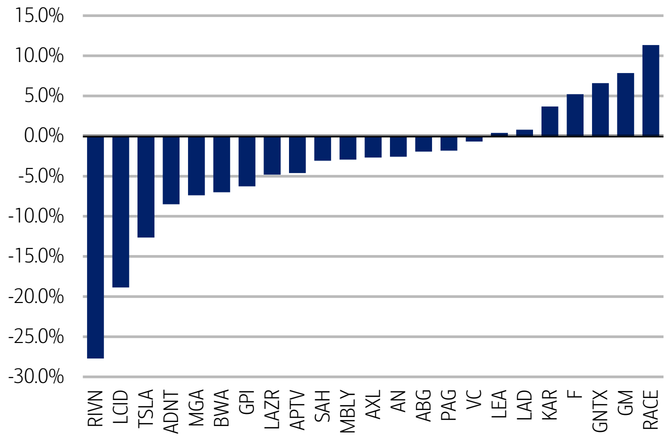
Stock Performance

There was meaningful share price underperformance on earnings announcement days for many companies with fewer outperformers. RACE, GM, GNTX, and F strongly outperformed the index on strong outlooks while stocks exposed to electrification and autonomous driving (RIVN, LCID, MBLY, TSLA, MGA) suffered meaningful declines given a less positive perspective on secular trends.

Exhibit 3: Stock performance on the earnings day
Stocks performance on the earnings day were skewed to the negative side. We note that companies exposed to EVs experienced large sell offs.



Source: Bloomberg

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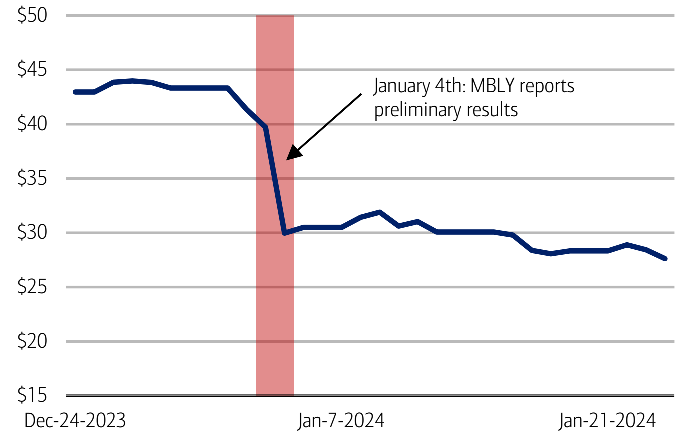
Exhibit 4: MBLY stock performance
MBLY reported disappointed preliminary results in early January, which triggered a steep stock price decline (-25% on the day of the announcement)



Source: Bloomberg, BofA Global Research

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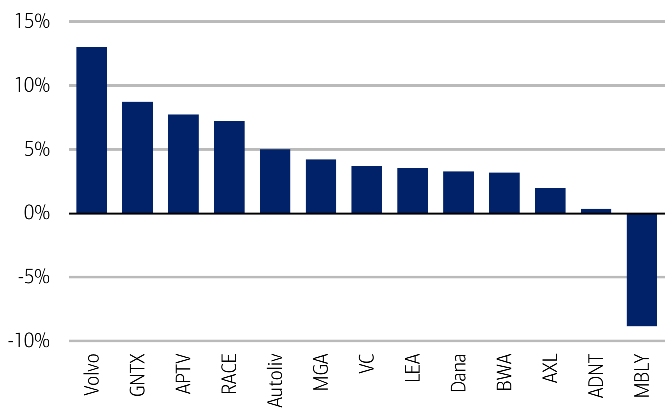
2024 Outlooks good, but conservative

Taking a broader view that includes companies outside our coverage, we note that auto companies expect their 2024 top lines to grow 5% on average (ex-MBLY). From our back-of-the-envelope calculations, the auto industry expects average operating margin expansion of ~40bps (ex-MBLY).

Exhibit 5: FY24e revenue growth (m/p) for selected companies
Ex-MBLY, the industry expects moderate revenue growth for FY24 (~+5%)



Source: Company filings, BofA Research

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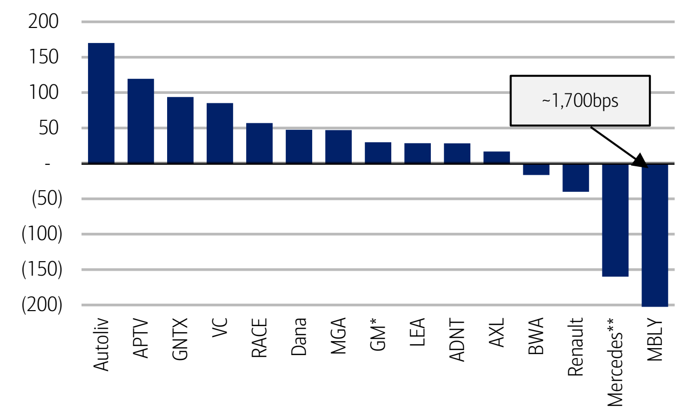
Exhibit 6: FY24e op. margin change (m/p) for selected companies
Ex-MBLY, companies expect margins expansion, with suppliers leading



Source: Company filings, BofA Research
Note: MBLY operating margin in FY24 is expected to contract ~1,700bps at the midpoint
*North America, ** Cars
Calculated on adjusted EBITDA margin for: ADNT, AXL, Dana, Visteon

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Adjusting estimates and POs

We made estimate and price objective (PO) revisions for the companies in our coverage universe that have reported earnings. A summary of the changes is included in Exhibit 7, Exhibit 9, and Exhibit 11 below.

Exhibit 7: BofA new estimates for 2024, 2025, 2026

In the table below, we show our updated estimates for the companies in our coverage that have reported CY4Q:23 earnings

EPS		2024			2025			2026	
Ticker	**Old**	**New**	**Change**	**Old**	**New**	**Change**	**Old**	**New**	**Change**
OEMs									
F	1.95	2.05	5.1%	2.25	2.30	2.2%	2.65	2.70	1.9%
GM	7.75	9.35	20.6%	8.85	10.85	22.6%	9.65	12.30	27.5%
LCID	(1.10)	(1.30)	-18.2%	(0.80)	(1.00)	-25.0%	(0.65)	(0.95)	-46.2%
RACE	7.00	7.60	8.6%	7.95	8.25	3.8%	9.10	9.20	1.1%
RIVN	(2.50)	(4.00)	-60.0%	(0.40)	(1.00)	-150.0%	0.70	-	nm
TSLA	3.60	3.30	-8.3%	4.60	4.10	-10.9%	5.25	4.70	-10.5%
Suppliers									
ADNT	3.07	2.85	-7.2%	4.80	5.10	6.3%	5.55	6.30	13.5%
APTV	6.00	5.80	-3.3%	7.50	6.85	-8.7%	9.15	8.90	-2.7%
AXL	0.12	0.61	408.3%	0.80	0.95	18.8%	1.28	1.35	5.5%
BWA	4.30	4.10	-4.7%	4.85	4.60	-5.2%	5.55	5.10	-8.1%
GNTX	2.15	2.18	1.4%	2.52	2.55	1.2%	2.97	3.00	1.0%
LAZR	(0.75)	(0.80)	-6.7%	(0.60)	(0.60)	0.0%	(0.50)	(0.50)	0.0%
LEA	16.00	15.50	-3.1%	20.85	21.30	2.2%	25.10	27.50	9.6%
MGA	7.10	6.30	-11.3%	9.25	8.10	-12.4%	11.10	9.90	-10.8%
MBLY	0.36	0.40	11.1%	0.85	0.65	-23.5%	na	1.00	na
VC	8.20	8.50	3.7%	10.35	10.45	1.0%	12.85	13.25	3.1%
Dealers									
ABG	31.95	30.75	-3.8%	32.75	31.30	-4.4%	36.35	32.30	-11.1%
AN	23.15	20.00	-13.6%	23.40	21.30	-9.0%	23.90	22.65	-5.2%
GPI	41.40	38.50	-7.0%	42.05	37.25	-11.4%	42.75	37.75	-11.7%
LAD	40.20	34.46	-14.3%	43.85	37.20	-15.2%	48.25	40.55	-16.0%
PAG	16.35	14.50	-11.3%	17.35	15.30	-11.8%	18.65	16.45	-11.8%
SAH	6.65	6.10	-8.3%	6.40	6.20	-3.1%	6.90	6.50	-5.8%
KAR	0.80	0.83	3.7%	1.06	0.99	-6.6%	1.33	1.32	-0.8%
KMX	2.87	2.92	1.7%	3.70	5.00	10.8%	4.80	6.63	4.2%

Source: BofA Global Research estimates

Note: The "Old" column reports BofA estimates prior January 23rd, 2024

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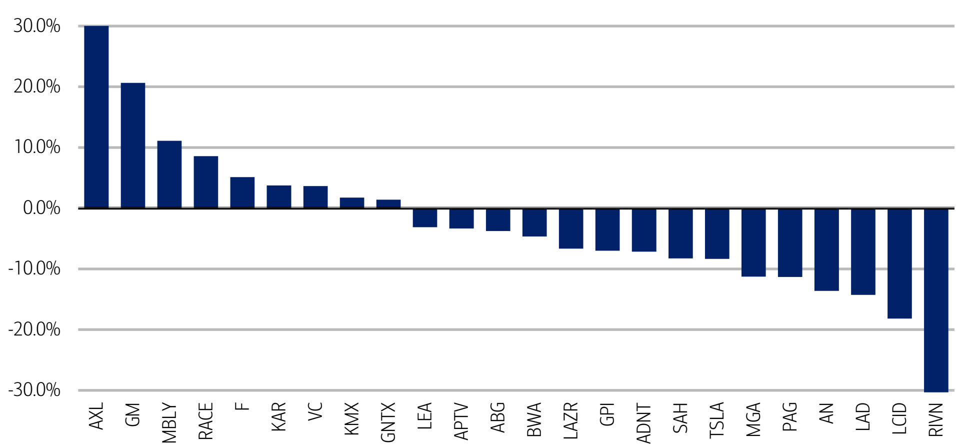
Exhibit 8: 2024 New BofA estimates versus Old

In the chart below we show how new BofA estimates screen versus Old estimates



Source: BofA Global Research estimates

Note: The "Old" column reports BofA estimates prior January 23rd, 2024, AXL is 408%, KMX is 43%, RIVN is -60%

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Exhibit 9: BofA new estimates versus Bloomberg consensus estimates for 2024, 2025, 2026
In the table below, we compare BofA updated estimates for the companies in our coverage with Bloomberg consensus estimates

EPS		2024			2025			2026	
Ticker	Cons.	BofA	Variance	Cons.	BofA	Variance	Cons.	BofA	Variance
OEMs									
F	1.81	2.05	13.6%	1.79	2.30	28.6%	1.83	2.70	47.2%
GM	8.68	9.35	7.7%	8.85	10.85	22.7%	9.37	12.30	31.3%
RACE	7.70	7.60	-1.3%	8.63	8.25	-4.4%	9.50	9.20	-3.1%
LCID	(1.11)	(1.30)	-17.1%	(0.95)	(1.00)	-5.3%	(0.59)	(0.95)	-60.5%
RIVN	(3.96)	(4.00)	-1.0%	(2.36)	(1.00)	57.6%	(1.95)	-	nm
TSLA	3.08	3.30	7.3%	4.07	4.10	0.7%	5.28	4.70	-10.9%
Suppliers									
ADNT	2.83	2.85	0.6%	4.20	5.10	21.5%	5.32	6.30	18.4%
APTV	5.70	5.80	1.7%	7.18	6.85	-4.6%	8.88	8.90	0.2%
AXL	0.21	0.61	186.4%	0.39	0.95	146.8%	0.75	1.35	79.5%
BWA	3.94	4.10	4.1%	4.36	4.60	5.6%	4.61	5.10	10.7%
GNTX	2.14	2.18	1.9%	2.46	2.55	3.8%	2.73	3.00	9.8%
LAZR	(0.62)	(0.80)	-30.1%	(0.29)	(0.60)	-104.8%	0.04	(0.50)	nm
LEA	14.30	15.50	8.4%	18.41	21.30	15.7%	21.52	27.50	27.8%
MGA	6.07	6.30	3.8%	7.46	8.10	8.6%	8.64	9.90	14.6%
MBLY	0.40	0.40	1.0%	0.79	0.65	-17.3%	1.22	1.00	-18.2%
VC	8.54	8.50	-0.5%	10.56	10.45	-1.0%	12.85	13.25	3.1%
Dealers									
ABG	31.70	30.75	-3.0%	32.65	31.30	-4.1%	42.04	32.30	-23.2%
AN	19.29	20.00	3.7%	20.00	21.30	6.5%	23.12	22.65	-2.0%
GPI	39.79	38.50	-3.2%	40.70	37.25	-8.5%	42.66	37.75	-11.5%
LAD	35.74	34.46	-3.6%	40.53	37.20	-8.2%	47.38	40.55	-14.4%
PAG	14.87	14.50	-2.5%	14.79	15.30	3.5%	14.67	16.45	12.2%
SAH	6.43	6.10	-5.1%	7.19	6.20	-13.7%	10.89	6.50	-40.3%
KAR	0.81	0.83	3.0%	0.99	0.99	-0.3%	na	1.32	na
KMX	3.01	2.92	-3.1%	3.49	4.10	17.6%	4.31	5.00	16.1%

Source: Bloomberg, BofA Global Research estimates

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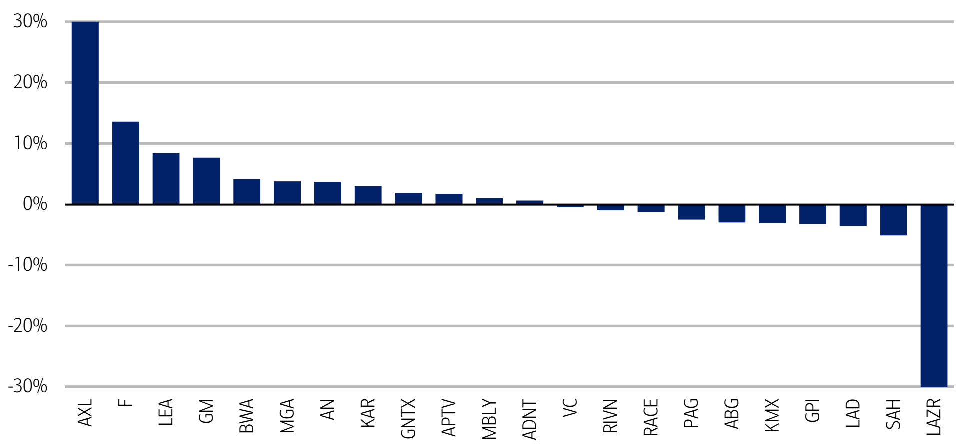
Exhibit 10: 2024 BofA estimates versus Bloomberg consensus estimates
In the chart below we show how BofA estimates screen versus Bloomberg consensus



Source: Bloomberg, BofA Global Research estimates
Note: AXL is 186%, KMX is 36%, LAZR is -30%

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Exhibit 11: Price Objective changes and potential upside/downside
In the table below, we show how our price objectives are changing post 4Q23 earnings and potential upside/downside

Ticker	Market Price	Q-R-Q	Rating	Potential Upside / Downside	Prior PO	Updated PO	% change	Valuation Metric
OEMs								
F	$12.30	B-1-7	Buy	71%	$21	**$21**	-	4x EV/EBITDAP on CY2024, implying 11x P/E
GM	$40.63	B-1-7	Buy	85%	$75	**$75**	-	4x EV/EBITDAP on CY2024, implying 9x P/E
RACE	$428.56	B-1-7	Buy	7%	$458	**$458**	-	31x EV/EBITDA on CY2024, 12x EV/Sales
LCID	$3.23	C-2-9	Neutral	39%	$4.50	**$4.50**	-	6x EV/Sales on CY2025
RIVN	$11.30	C-1-9	Buy	121%	$25	**$25**	-	3x EV/Sales on CY2025
TSLA	$202.15	C-2-9	Neutral	39%	$280	**$280**	-	8.5x EV/Sales and 48x EV/EBITDA on CY2024
Suppliers								
ADNT	$33.67	C-1-9	Buy	49%	$50	**$50**	-	6x EV/EBITDA on FY2024
APTV	$78.77	C-1-9	Buy	46%	$115	**$115**	-	11x EV/EBITDA on CY2024
AXL	$6.62	C-3-9	U/P	6%	$7	**$7**	-	4x EV/EBITDA on CY2024
BWA	$30.78	B-1-7	Buy	62%	$50	**$50**	-	7x EV/EBITDA on CY2024
LAZR	$2.38	C-2-9	Neutral	47%	$4	**$3.50**	-13%	4x EV/Sales on CY2025
LEA	$136.62	B-1-7	Buy	54%	$210	**$210**	-	7x EV/EBITDA on CY2024
MGA	$54.85	B-1-7	Buy	28%	$70	**$70**	-	6x EV/EBITDA on CY2024
MBLY	$26.10	C-3-9	U/P	-16%	$22	**$22**	-	5.5x EV/Sales on CY2025
VC	$112.55	C-1-9	Buy	42%	$165	**$160**	-3%	10x EV/EBITDA on CY2024
Dealers								
ABG	$208.29	B-1-9	Buy	63%	$340	**$340**	-	11x P/E on CY2024
AN	$144.42	B-1-9	Buy	52%	$220	**$220**	-	11x P/E on CY2024
GPI	$261.70	C-1-7	Buy	62%	$425	**$425**	-	11x P/E on CY2024
LAD	$290.49	C-1-7	Buy	31%	$440	**$380**	-14%	11x P/E on CY2024
PAG	$151.34	B-1-7	Buy	16%	$175	**$175**	-	12x P/E on CY2024
SAH	$51.24	C-3-7	U/P	7%	$60	**$55**	-8%	9x P/E on CY2024
KAR	$15.04	C-3-9	U/P	6%	$16	**$16**	-	8x EV/EBITDA on CY2024
CRMT	$66.88	C-3-9	U/P	-18%	$55	**$55**	-	15x P/E on FY2025
KMX	$76.71	C-3-9	U/P	-35%	$44	**$50**	14%	12x P/E on FY2025

Source: Bloomberg priced as of 2/28/24, BofA Global Research estimates
***LCID valuation: ~6x EV/Sales on 2025e, implies roughly 0.5x EV/Sales and 3x EV/EBITDA on pro-forma capital-induced 2030 est.
** RIVN valuation: ~3x EV/Sales on 2025e, implying 0.5x EV/Sales and 3x EV/EBITDA on pro-forma capital-induced 2030 est.
*TSLA valuation: ~8.5x EV/Sales; 50x EV/EBITDA on '24e, implying 3.0x EV/Sales, 22x EV/EBITDA on pro-forma capital-induced 2025 est

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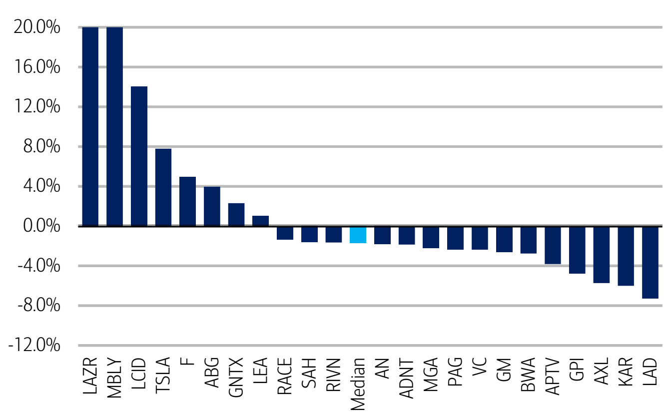
4Q23 earnings key metrics

Exhibit 12: 4Q23 Revenue: Quarter over Quarter change
On a QoQ basis, LAZR had the largest revenue growth across the reporters while AXL experienced a decline partially due to the UAW strike



Source: Company filings, BofA Global Research
Note: LAZR was +30%

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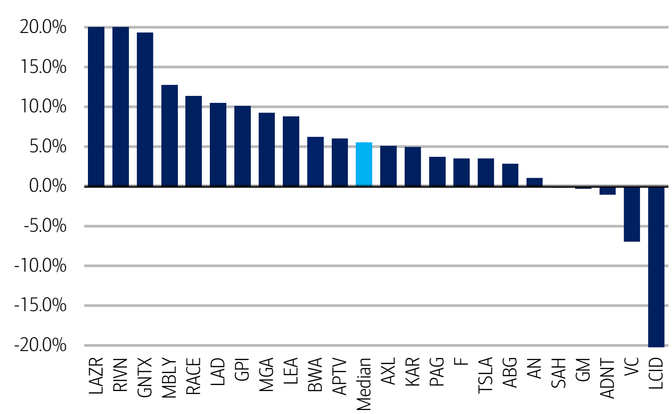
Exhibit 13: 4Q23 Revenue: Year over Year change
On a YoY basis, LAZR and RIVN had the strongest revenue growth, while LCID saw the largest revenue decline in our coverage.



Source: Company filings, BofA Global Research
Note: LAZR was +99%, RIVN +98%, LCID was -39%

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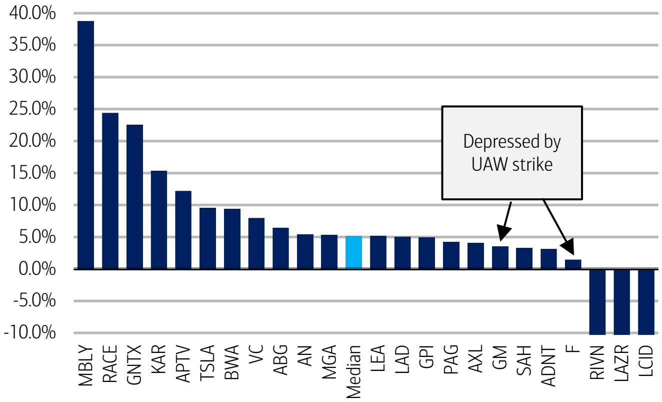
Exhibit 14: 4Q23 Adjusted operating margin

MBLY remains the company with the highest margin in our coverage. However, given company outlook margins will resemble traditional suppliers'.



Source: Company filings, BofA Global Research

Note: RIVN was -120%, LAZR -376%, LCID -469%

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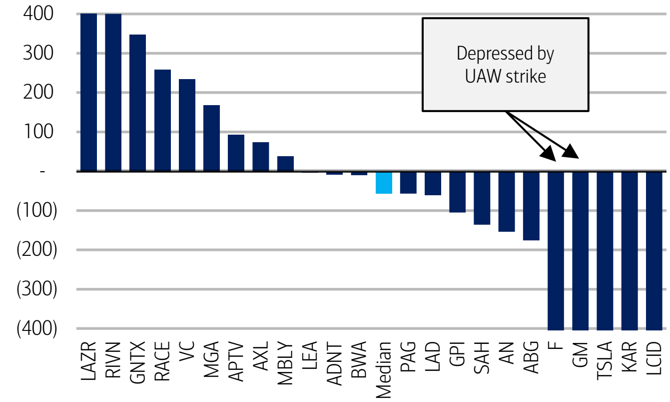
Exhibit 15: Adjusted operating income margin change YoY

On a YoY basis, LAZR and RIVN register the largest improvement of margins although they remain vastly unprofitable. TSLA suffered from price cuts.



Source: Company filings, BofA Global Research

Note: LAZR was 47,000bps, RIVN was 15,050bps, F was -490bps, GM was -520bps, TSLA was -800bps, KAR was -1,000bps, LCID was -17,800bps

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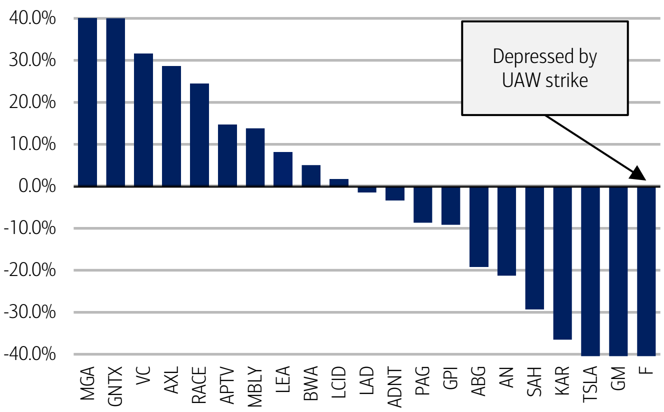
Exhibit 16: Adjusted operating income YoY change

On a YoY basis, MGA and GNTX registered the largest growth of adjusted operating income driven by operational improvements. TSLA decline reflected the effect of price cuts while GM and F suffered from the strike.



Source: Company filings, BofA Global Research

Note: MGA was +59%, GNTX was +41%, TSLA was -44%, GM was -60%, F was -76%. Note that RIVN, LCID, and LAZR are not meaningful in this context

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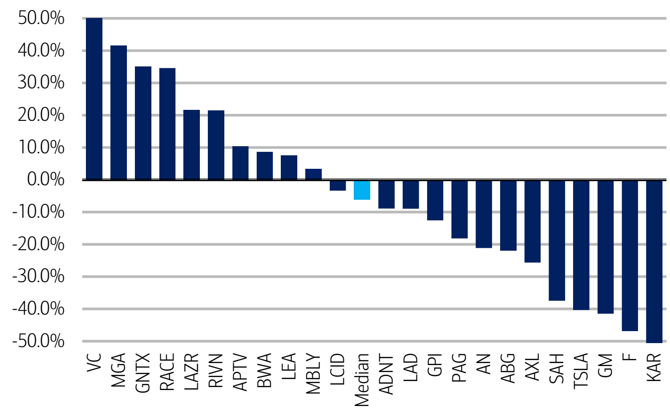
Exhibit 17: Adjusted EPS YoY change

Adjusted EPS YoY change largely reflected the operating results during the quarter. We note that dealers and GM's EPS growth benefitted from share buybacks while TSLA's was negatively affected by share compensation.



Source: Company filings, BofA Global Research

Notes: VC was +883%, KAR was -51%

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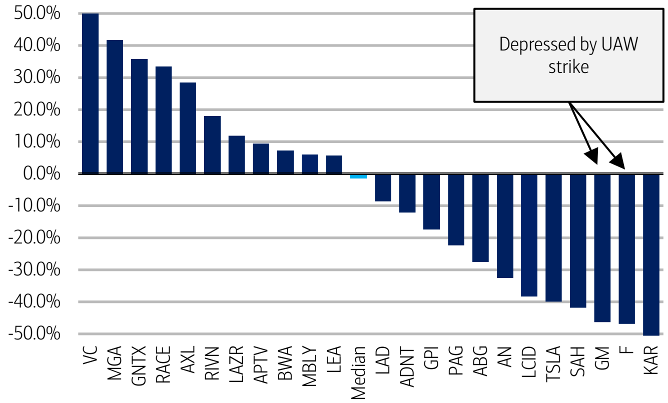
Exhibit 18: YoY Adjusted Net Income change
On a YoY basis, MGA, GNTX and RACE saw the strongest net income growth.



Source: Company filings, BofA Global Research
Note: VC was +865%, KAR was -67%
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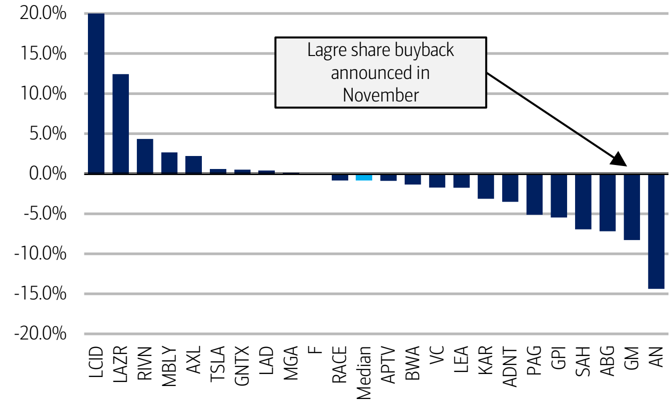
Exhibit 19: YoY change in Diluted Shares Outstanding
Strong FCF generation allowed GM and dealers to buy back shares.



Source: Company filings, BofA Global Research
Note: LCID was +34%
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Global Auto Industry Snapshot

1Q:24 Global Production Outlook Improves

The global production outlook for 4Q:23 has improved progressively since June 2023. We observe that expectations for Japan/Korea, South America, Europe and Greater China have improved, +1,000bps, +480bps, +420bps, and +330bps, respectively. On the other hand, Middle East/Africa, North America, and South Asia estimates have been revised downwards by -1,820bps, -900bps, and -150bps, respectively.

Exhibit 20: 1Q24E Production Schedule
S&P Global/CSM forecasts 1Q:24 global production to decline 0.1% YoY (as of its latest Feb. '24 estimate). Production schedules for 1Q24 have deteriorated over the past few months, driven primarily by negative revisions for Japan/Korea, Europe, South America. This is partially offset by positive revisions for China and North America.

	1Q:23	IHS 1Q:24 Forecast				
	Actual	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24
Europe	4,633,237	4,520,010	4,503,108	4,478,776	4,446,983	4,399,633
YoY% Change		*-2.4%*	*-2.8%*	*-3.3%*	*-4.0%*	*-5.0%*
Greater China	5,932,993	6,559,921	6,567,180	6,346,722	6,353,209	6,531,435
YoY% Change		*10.6%*	*10.7%*	*7.0%*	*7.1%*	*10.1%*
Japan/Korea	3,156,427	3,167,803	3,169,688	3,223,173	3,041,660	2,860,755
YoY% Change		*0.4%*	*0.4%*	*2.1%*	*-3.6%*	*-9.4%*
Middle East/Africa	525,315	584,160	586,170	583,712	587,724	579,230
YoY% Change		*11.2%*	*11.6%*	*11.1%*	*11.9%*	*10.3%*
North America	3,891,034	4,109,872	3,989,577	3,936,837	3,976,057	3,948,981
YoY% Change		*5.6%*	*2.5%*	*1.2%*	*2.2%*	*1.5%*
South America	666,937	651,081	658,147	665,136	643,260	588,487
YoY% Change		*-2.4%*	*-1.3%*	*-0.3%*	*-3.6%*	*-11.8%*
South Asia	2,559,766	2,406,236	2,418,983	2,443,339	2,429,841	2,439,906
YoY% Change		*-6.0%*	*-5.5%*	*-4.5%*	*-5.1%*	*-4.7%*
Global	**21,365,709**	**21,999,083**	**21,892,853**	**21,677,695**	**21,478,734**	**21,348,427**
YoY% Change		*3.0%*	*2.5%*	*1.5%*	*0.5%*	*-0.1%*

Source: S&P Global
Note: red shading indicates forecast deteriorated over the measurement period; green shading indicates forecast improved.
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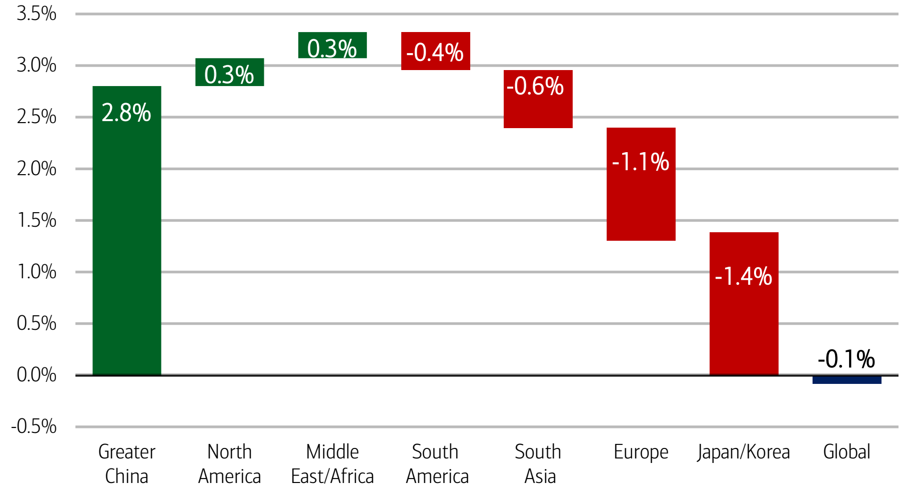
Exhibit 21: S&P Global/CSM forecast for 4Q:23 contribution to global LV production by region

S&P Global/CSM estimates that most of the 0.1% YoY decline in global LV production in 1Q:24 is expected to be driven by Japan/Korea and Europe, partially offset by China and North America.



Source: S&P Global, BofA Global Research

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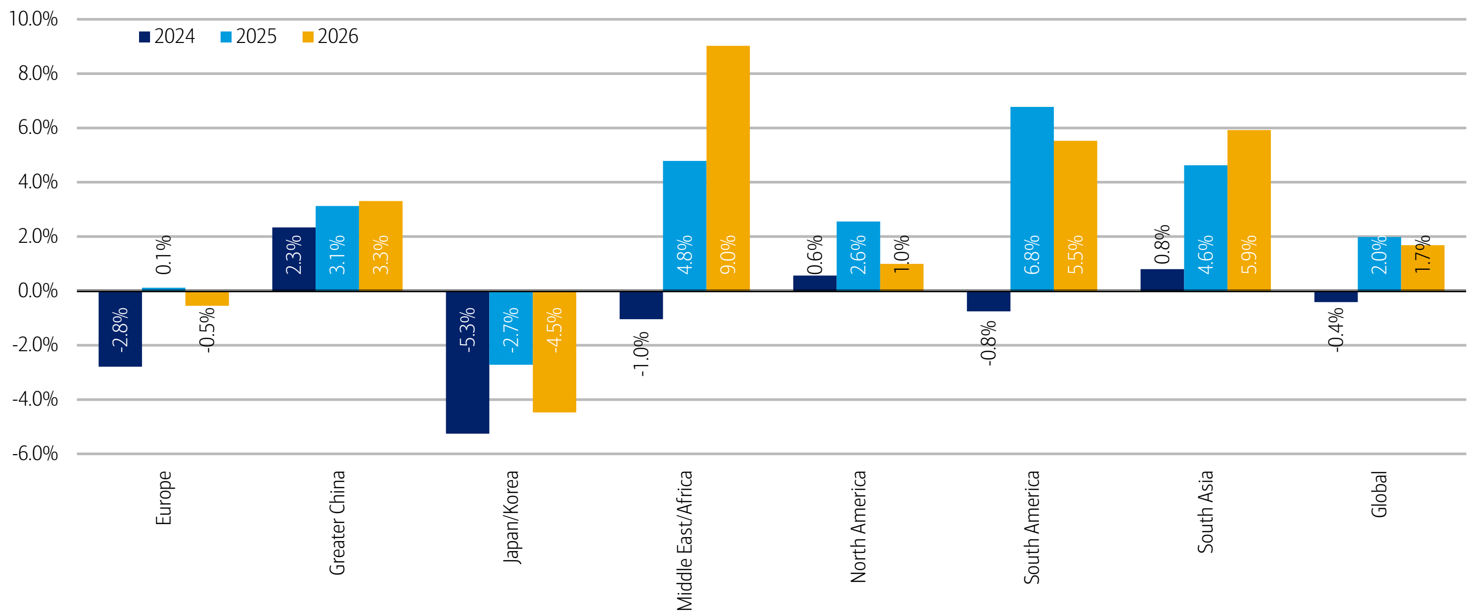
2024-2026 Production Outlook

We look at expectations on refreshed production estimates for the next few years, both globally and regionally. On a global basis, 2024 estimates have improved since October 2023 on a global basis due to improvement in the China outlook but are still expected to decline. Other regions are expected to come in weaker than prior estimates. Production expectations post 2024 are expected to return to growing mildly, driven primarily by China and to a lesser extent North America.

Exhibit 22: YoY Production Growth 2024E-2026E

IHS forecasts 2024-2026 global production to increase at a 1.1% CAGR (as of its latest February '24 estimate). Of the major regions, China is expected to deliver the largest production growth, followed by South Asia and North America while Europe and Japan/Korea are expected to decline.



Source: S&P Global

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Exhibit 23: Production Schedule forecast change: 2024E, 2025E, 2026E

IHS forecasts for 2024, 2025, and 2026 strengthened since October on a global basis +0.9%, +1.3%, and +1.2% respectively. China was the only region that saw a positive estimate revision for 2024.

	2024			2025			2026		
Region	**October 2023**	**February 2024**	**% change**	**October 2023**	**February 2024**	**% change**	**October 2023**	**February 2024**	**% change**
Europe	17,440,919	17,364,025	-0.4%	17,337,408	17,384,153	0.3%	17,283,254	17,288,689	0.0%
Greater China	28,051,448	29,722,521	6.0%	29,290,114	30,651,328	4.6%	30,797,099	31,665,066	2.8%
Japan/Korea	12,137,233	12,093,535	-0.4%	11,664,203	11,764,444	0.9%	11,060,117	11,237,906	1.6%
Middle East/Africa	2,296,536	2,260,001	-1.6%	2,372,934	2,368,112	-0.2%	2,519,104	2,581,759	2.5%
North America	16,286,667	15,771,346	-3.2%	16,409,299	16,174,121	-1.4%	16,328,044	16,334,677	0.0%
South America	3,022,125	2,890,614	-4.4%	3,235,817	3,086,505	-4.6%	3,410,678	3,257,162	-4.5%
South Asia	9,882,501	9,849,909	-0.3%	10,241,622	10,305,442	0.6%	10,801,534	10,915,911	1.1%
Global	**89,117,429**	**89,951,951**	**0.9%**	**90,551,397**	**91,734,105**	**1.3%**	**92,199,830**	**93,281,170**	**1.2%**

Source: S&P Global

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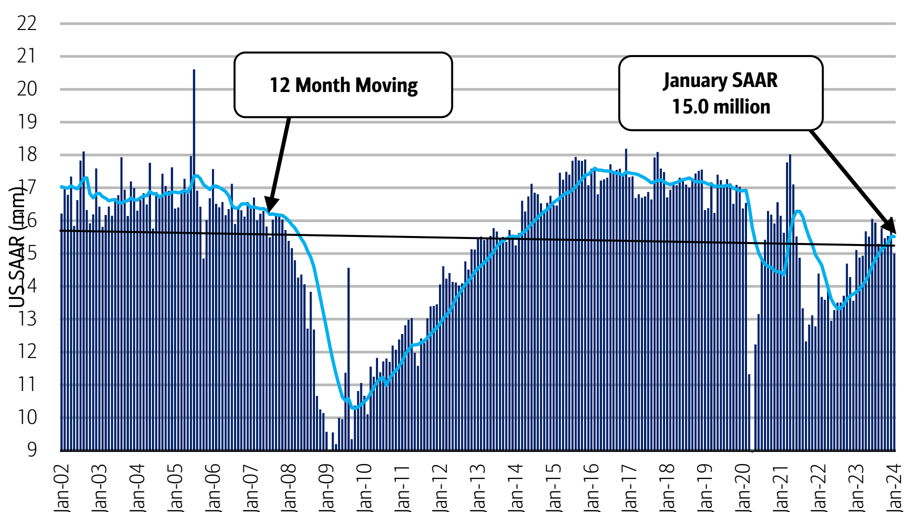
US Auto Industry Snapshot

Overall the trend in US auto sales continues to be encouraging, although January sales came in weaker, potentially because of weather events. We see US auto sales growing to 16.1m in 2024. However, risks including macro uncertainty, inflation, higher rates, affordability, and weak consumer confidence that could hold back volume growth.

Exhibit 24: US Seasonally Adjusted Annual Rate (SAAR)

January 2024 US light vehicle sales decline -1.3% YoY (SD-adjusted) for a SAAR of 15.0mm, which tracks below our full year forecast.



Source: WardsAuto InfoBank

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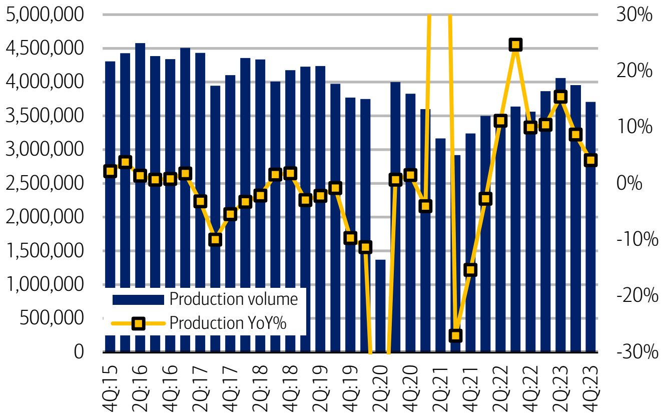
Exhibit 25: NA light vehicle quarterly production

In 4Q:23, NA production increased from 4Q:22 levels, registering +4% YoY. On a QoQ basis production decreased 6%, the sequential decline is largely due to production downtime caused by the UAW strike.



Source: WardsAuto InfoBank, BofA Global Research estimates

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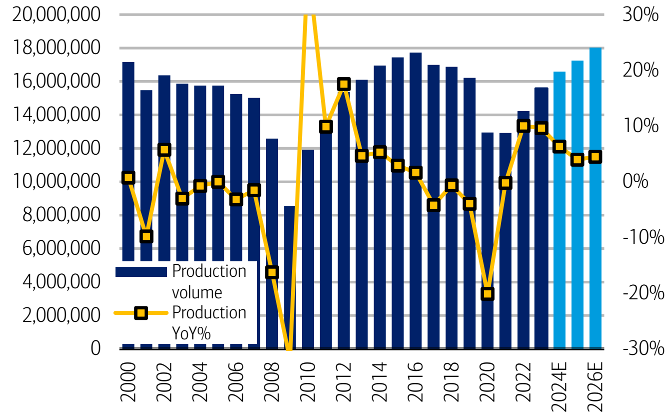
Exhibit 26: NA light vehicle yearly production

We expect 2024 NA production to increase +6% as supply chain and production schedules have largely normalized. We expect fleet and a return of mass market to be incremental drivers in 2024.



Source: WardsAuto InfoBank, BofA Global Research estimates

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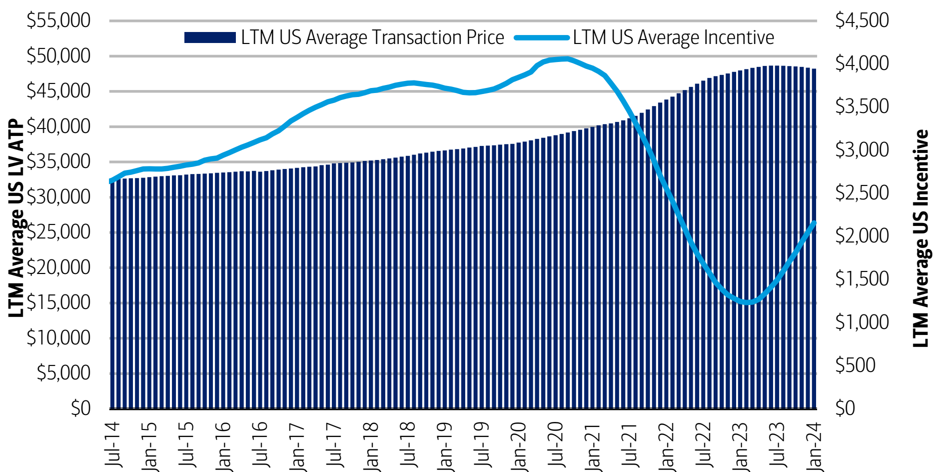
Exhibit 27: US light vehicle average incentives and average transaction prices

Average US transaction prices declined -1.9% YoY but were up 0.4% QoQ in 4Q:23, while incentives grew quickly, increasing +10% QoQ and 117% YoY.



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

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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.

Aptiv PLC (APTV)
Our PO of $115 for APTV is based on an EV/EBITDA multiple of roughly 11x 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 APTV 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 $340 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 dries 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 $220 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 $50 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 $50 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 $458 PO for RACE US (EUR426 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 $21 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.).

Group 1 Auto (GPI)
Our price objective of $425 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 $210 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 $380 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 $4.50 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 $3.50 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 $70 price objective on MGA US (CAD95 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 $175 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 $25, 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 $55 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 $280 is based on 8.5x EV/Sales and 50x 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 $160 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) intense competition that is 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 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, such as M&A and share repurchases.

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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

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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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