

European Automobiles

Global LVP tracker: Crouching tiger, hidden dragon

Industry Overview

S&P raises its outlook again but regional mix a dampener

S&P continued on the same trend as in 2023, raising its forecasts and passing backward-looking adjustments. 2023 global production was revised higher by c255k units, rounding off the year at 90.3m units (+9.7% y/y). Upward revisions were mainly led by China (+c150k units; +0.5ppts) to 28.8m units (+10%/y/y), contributing 32% of global output. N. America was also raised slightly by +35k units to c15.7m (to +9.7% y/y), as was Europe by 56k units to c17.8m (to +12.9% y/y). The 2024 forecast was raised by c315k to 90m but still implies a y/y decline of -0.4% (prior: -0.5%/y/y), albeit from a higher 2023 base. By region, the 2024 forecast for Europe is -0.5ppts, China +2.8ppts, N. America -0.3ppts and S. America -3.6ppts, reflecting the impact of rising Chinese exports and high inventories. Regional mix implications for European Auto suppliers now point towards a c2ppt headwind in 2024, reflecting higher output in China than Europe (prior: -0.4%, 2023: +1%).

Constructive on LVP in China and N. America, cautious EU

Our global LVP forecast for 2024 is unchanged at 91.2m units, implying c1% growth y/y versus S&P's 90m (-0.4%/y/y). We remain constructive on China, N. America and Japan/Korea. However, after the latest raise, S&P's China forecast is in now broadly in line with ours for 29.3m units, +1.8% y/y, reflecting the BofA Global Research China Auto team's 2024 outlook for wholesales growth of 3.7%/y/y. This is supported mainly by exports (+17.5%/y/y to 5.7m), which continue to encroach on international markets and are likely to be a key theme rising to prominence in 2024. In N. America, the BofA Global Research [US Auto team](#) still sees pent-up demand from the past year's production constraints and expects the next US market peak to occur in 2028. Accordingly, its LVP outlook is for 16.6m units (+5.7%/y/y) versus S&P's 15.8m (+0.6%/y/y). This is also somewhat supported by Ford's and GM's guidance for a US SAAR of ≥16m units. We are also ahead on Japan (BofAe: 8.5m, -1.3%/y/y; S&P: 8.0m, -6.5%/y/y), more in line with the BofA Global Research Japan Auto team's view for +5% y/y domestic sales growth.

Crouching tiger hidden dragon – China ascending

The macro development in China has been weak in the past 2 years, with stimulus measures having limited success. However, this has not dampened LVP (Exhibit 1). In 2023, output grew by +2.6m units, following +1.6m units in 2022. The former is +c1m units (+3%) versus the 2017 pre-pandemic peak. However, domestic LV sales have not kept pace, and the delta (inventories and exports) continue to rise. S&P data reflects a decline in the delta in 2024E (Exhibit 2), but this is out of line with recent trends and the export ambitions of OEMs, such as BYD, SAIC (MG brand) Xpeng, Nio, Li Auto and Leapmotor. Accordingly, we would not be surprised to see further upward revisions to Chinese LVP in 2024.

EV production forecasts seem too bullish excluding China

S&P still forecasts BEV production growth of 17% q/q in Q1'24 despite Germany's sudden halt to subsidies in December 2023 (see the report, [European Automobiles: Electric Vehicles: Sudden stop of German subsidies, significant price cuts ahead](#)) – also out of line with various supplier comments on BEV output possibly being flat in 2024.

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Refer to important disclosures on page 13 to 15.

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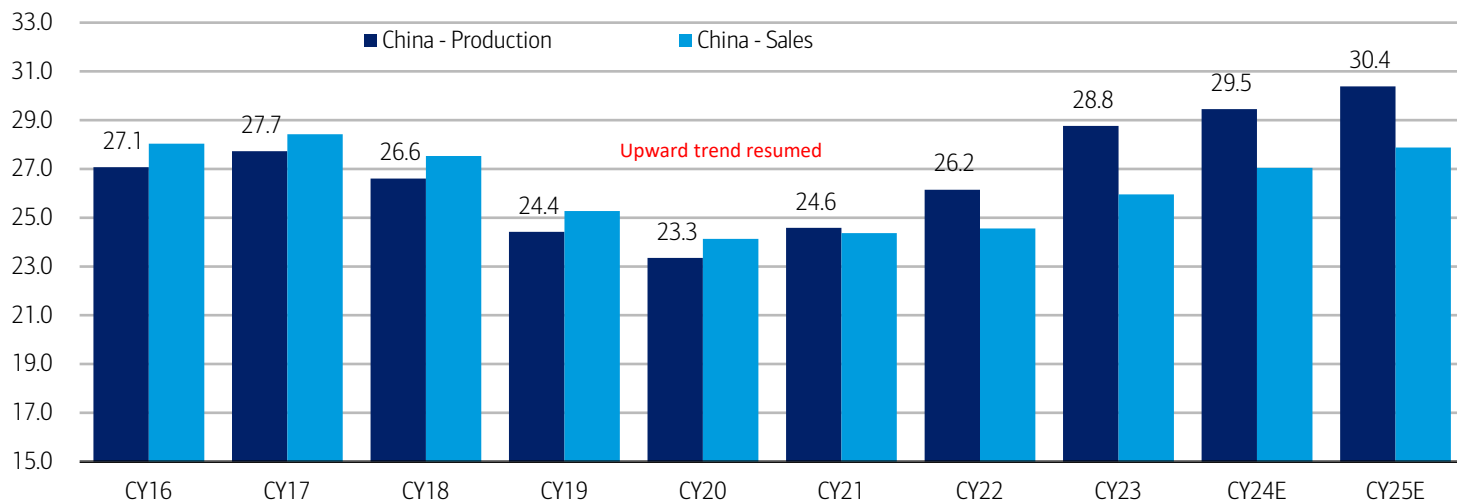
Title: Subtitle	Date Published
Global Automobiles: EV tracker: Record Dec drive 10m BEV sales in 2023: Special: PHEV boom ahead?	05 February 2024
Global Automobiles: LVS tracker Dec-23: Volume recovery continues, price war unfolds in EU	24 January 2024
European Automobiles: Limited impact of Red Sea on EU Autos, positive impact on EU Tires	17 January 2024

Crouching tiger, hidden dragon

Macro development in China has been weak in the past 24 months, with various stimulus measures having limited success. However, this has not put a dampener on LV production (Exhibit 1). In 2023, LVP grew by +2.6m units, following +1.6m units in 2022. Measured against the pre-pandemic peak in 2017, this is +c1m units (+3%). However, domestic LV sales have not kept up, and the delta (exports) continues to rise. We think that S&P data potentially underestimates this rise in 2024 and beyond (Exhibit 2) as OEMs – including BYD, SAIC (MG brand), Xpeng, Nio, Li Auto and Leapmotor – expand sales outside of China.

Exhibit 1: China LV sales vs. LV production (m units)

Chinese LV production exceeded the pre-pandemic peak in 2023

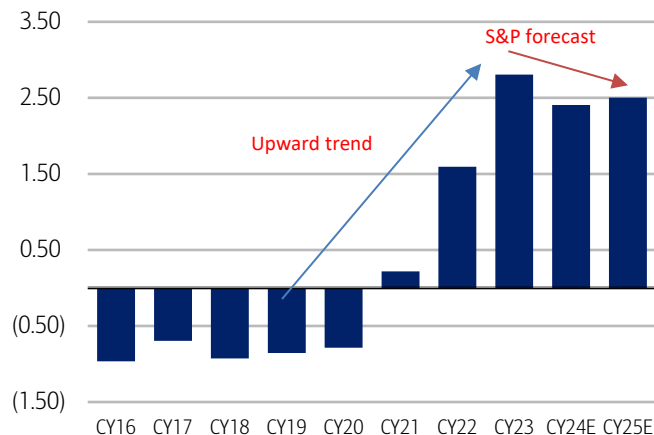


Source: BofA Global Research, S&P data

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Exhibit 2: China: delta in LV production less domestic LV sales (m units)

China produced 2.8m units more LVs than it sold in 2023. S&P factors in a decline in this delta in 2024, but could this be incorrect?

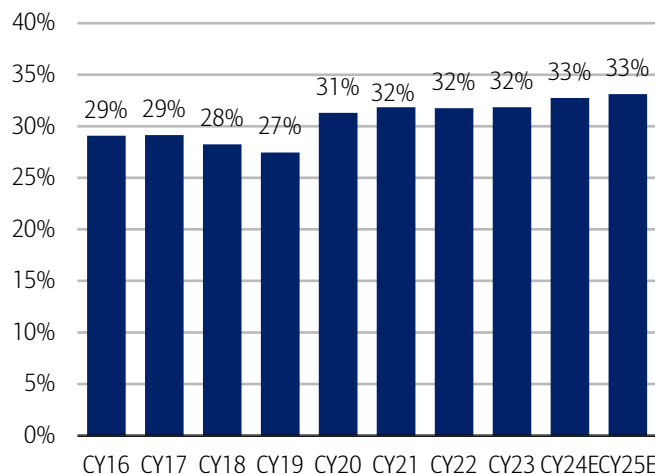


Source: BofA Global Research, S&P data

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Exhibit 3: China share of global LV production

China's share of LVP stood at 32% in 2023, 4ppts vs. pre-pandemic.



Source: BofA Global Research, S&P data

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Tracking BEV production against a softening demand backdrop

EV production recovers in Europe in Q4, albeit 'slightly'

Back in Q3'23, EV production in Europe slowed sequentially for the first time, falling from 530k units to 479k units (Exhibit 5). While some of this was explained by seasonal effects of summer shutdowns, strong production in 1H'23 was not met with robust enough EV demand in Q3. BEV production in Europe bounced back slightly in Q4'23 to 508k units (+3.5%y/y) but remains below Q1 and Q2 levels. We expect that Q1'24 could be weighed down by the sudden discontinuation of subsidies in Germany in December 2023, although there may be some offset from the French leasing scheme, which offers consumers access to entry-level EVs for €100/month or less. This may see French brands increase production more than their German peers. Indeed, we observed the first sign of this in 4Q'23 as Stellantis and Renault ramped production by 6% and 4%, q/q, respectively (Exhibit 4). Volkswagen, Ford and Toyota, however, curtailed BEV production in Q4 (-c0.8%, -c14.7%, -c7.1% q/q, respectively). S&P, however, still seems to expect a very strong rebound in Q1'24 for Europe and a decline for China, which we think this is rather unlikely given the risks flagged above and momentum in China.

Accordingly, we think that tracking monthly BEV sales trends by brand is critical to understand how the competitive landscape is developing (see our latest BEV sales tracker, [EV tracker: Record Dec drive 10m BEV sales in 2023: Special: PHEV boom ahead?](#)).

N. America BEV LVP recovery tepid, China leaps up

Sequential production trends were similar in N. America, with EV output rising to 281k units from 270k in Q3 (Exhibit 7). Sentiment in the US towards EVs has soured of late, and a number of US auto's companies have walked back targets, including GM and BorgWarner. However, in China, the picture is vastly different. BEV production rose by c430k units sequentially and reached a new record of 2.3m units in Q4 (Q3: 1.9m), growing by +26% y/y (Exhibit 9). This appears to be led strongly by exports, which suggests that Chinese-made BEVs could further encroach on international markets in 2024 and are likely to be an important theme for the year and beyond.

Exhibit 4: BEV Quarterly production and sales of Light Vehicles (units)

OEM exposure; all the OEMs appear to have over-produced in Q4'23 vs. sales, except for BMW, Renault, Volkswagen, GM and Tesla.

BEV		Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023
BMW	Production	40,282	58,292	62,699	90,430	83,993	96,569	106,792	124,636
	Sales	37,372	41,821	50,726	89,014	65,206	89,782	93,939	128,681
Mercedes-Benz	Production	40,881	36,620	51,354	77,847	98,811	97,703	78,585	84,903
	Sales	31,997	33,510	35,682	52,616	45,762	61,160	66,801	73,928
Renault	Production	27,081	44,004	53,150	57,093	44,326	47,298	33,023	34,464
	Sales	29,770	37,618	38,133	55,637	38,143	37,676	39,840	44,543
Stellantis	Production	61,225	73,460	68,620	84,120	90,820	92,610	79,915	84,970
	Sales	62,116	79,653	70,228	89,626	75,193	95,202	93,286	77,360
Volkswagen	Production	95,486	148,406	165,362	208,638	221,117	216,182	185,935	184,408
	Sales	99,470	119,182	151,283	208,462	137,262	179,751	206,456	234,584
Ford	Production	25,052	27,782	34,790	40,366	26,110	55,440	47,574	40,559
	Sales	17,462	24,477	29,376	34,274	18,501	24,659	33,829	37,192
General Motors	Production	6,038	18,675	30,093	29,831	30,677	44,748	58,102	71,725
	Sales	15,322	22,346	38,950	36,197	31,556	40,282	60,204	79,006
Toyota	Production	24,615	23,829	16,347	35,528	40,773	39,730	35,879	33,325
	Sales	4,461	5,013	4,013	11,817	19,674	29,303	28,963	26,460
Tesla	Production	305,407	258,580	365,923	439,701	440,808	479,700	430,488	469,920
	Sales	310,173	255,084	343,893	405,320	422,742	466,012	435,176	484,722

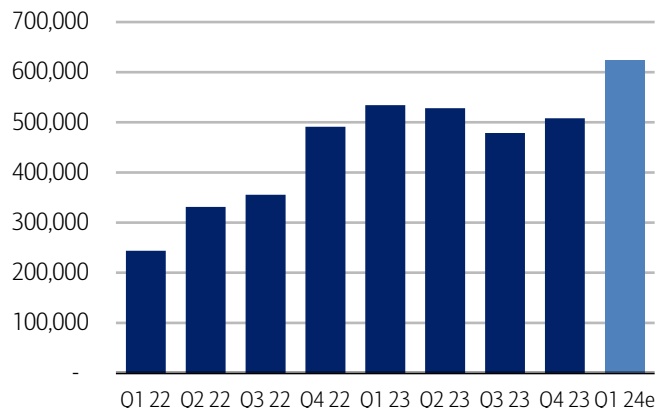
Source: S&P, EV Volumes

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BEV quarterly production progression by region

Exhibit 5: Europe BEV LV quarterly production progression

BEV unit production grew to 508k units in Q4 '23 from 479k in Q3 '23

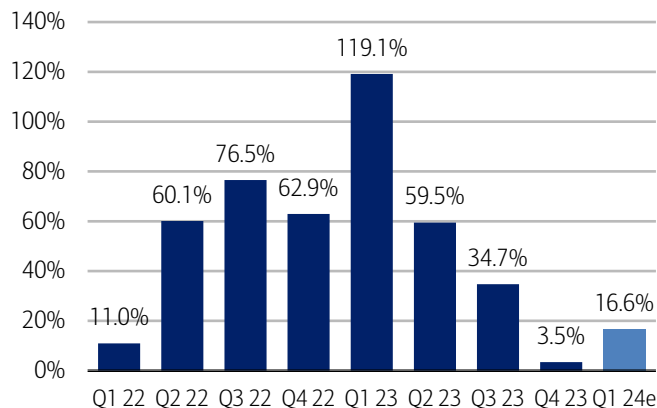


Source: S&P

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Exhibit 6: Europe BEV LV quarterly growth rates (y/y %)

BEV unit production grew 35% y/y in Q3 '23 and 4% y/y in Q4 '23

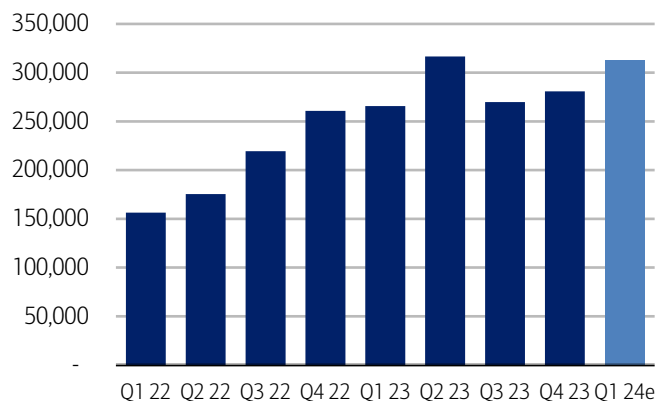


Source: S&P

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Exhibit 7: N. America BEV LV quarterly production progression

BEV unit production grew slightly to 281k units in Q4 '23 from 270k in Q3

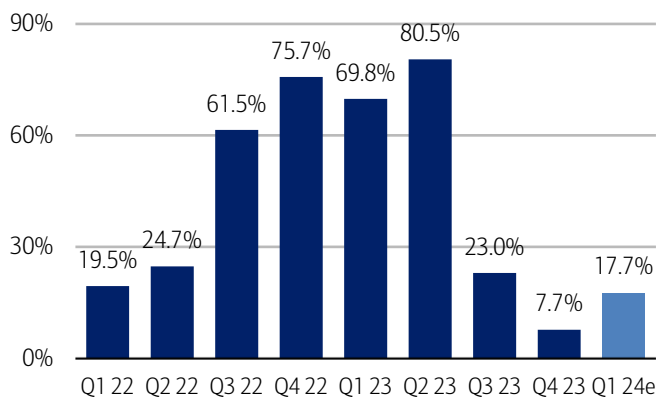


Source: S&P

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Exhibit 8: N. America BEV LV quarterly growth rates (y/y)

BEV unit production grew 23% y/y in Q3 '23 and 8% y/y in Q4 '23

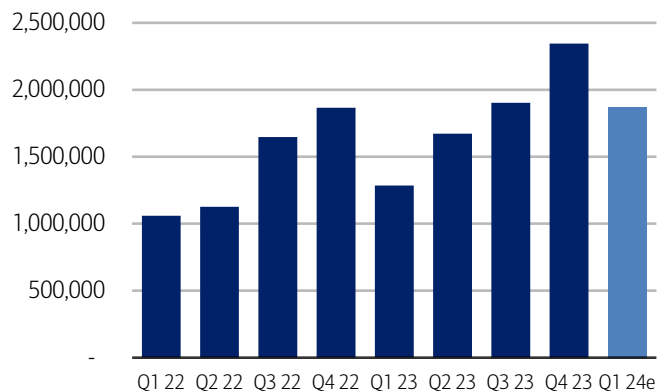


Source: S&P

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Exhibit 9: China BEV LV quarterly production progression

BEV unit production to increase to 2.3m units in Q4 '23 from 1.9m in Q3 '23

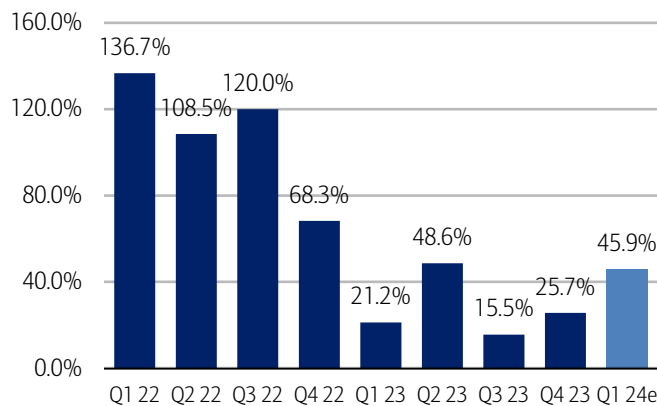


Source: S&P

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Exhibit 10: China BEV LV quarterly growth rates (y/y %)

BEV unit production increased 16% y/y in Q3 '23 and +26% y/y in Q4 '23



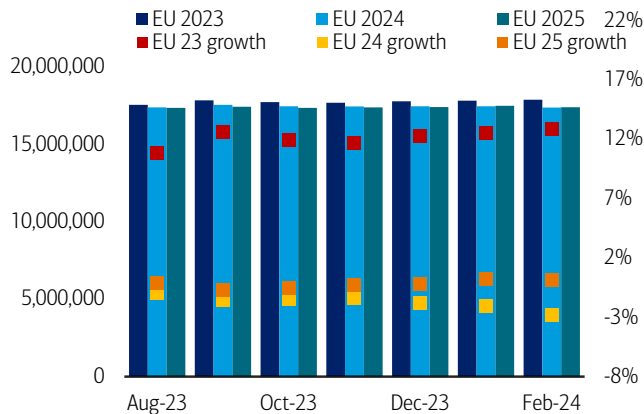
Source: S&P

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Global LVP: 2023-25E revised up

Exhibit 11: Latest Europe (S&P) annual LVP estimate for 2023-25

2023 estimate revised up by 0.3% vs. Jan 2024 forecast to 17.9m, 2024 (-0.5%)

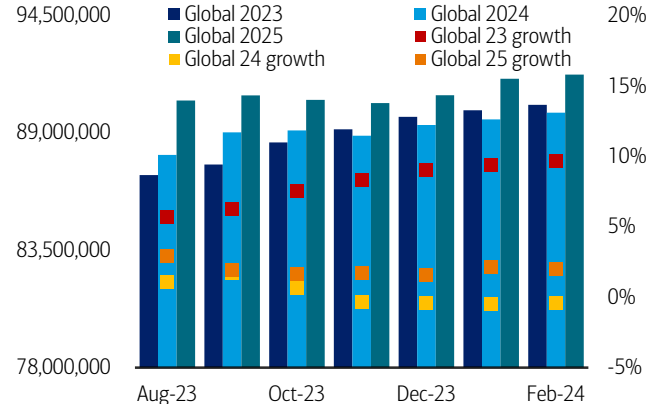


Source: BofA Global Research, S&P

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Exhibit 12: Latest Global LVP (S&P) annual estimates for 2023-25E

2023 LVP up at 90.3m (prev: 90.1m); 2024 up at 90m (prev: 89.6m)

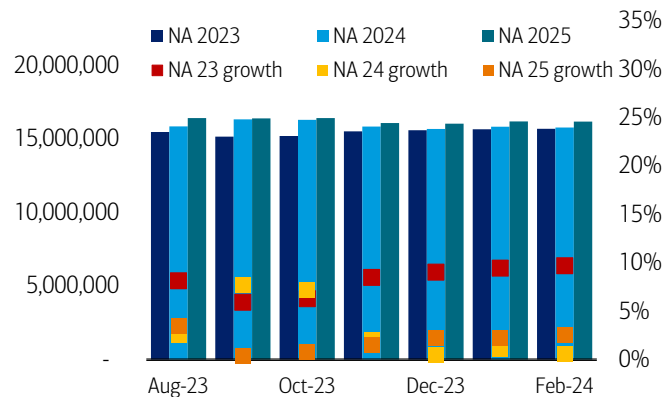


Source: BofA Global Research, S&P

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Exhibit 13: Latest N. America (S&P) annual estimates for 2023-25

2023 up slightly +0.2% at 15.7m but 2024 down (-0.3%) at 15.8m

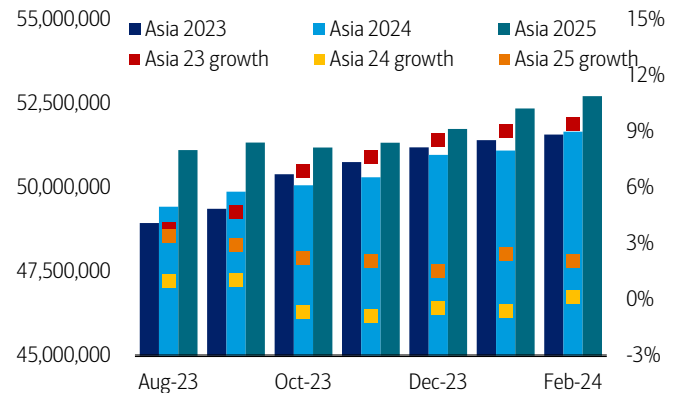


Source: BofA Global Research, S&P

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Exhibit 14: Latest Asia (S&P) annual estimates for 2023-25

2023 up at 51.6m (prior: 51.4m), 2024 up to 51.7m (prior: 51.1m)

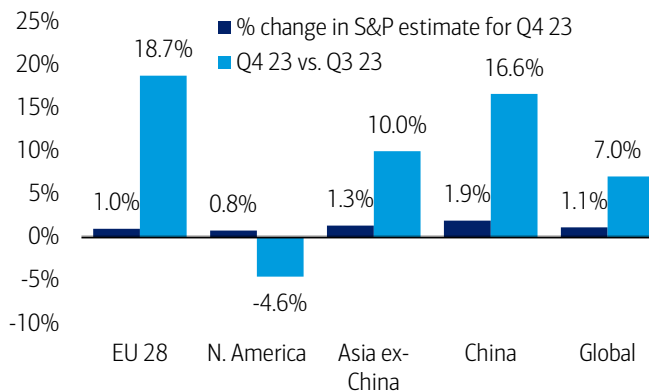


Source: BofA Global Research, S&P

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Exhibit 15: Sequential change in LVP: 4Q'23 vs. 3Q'23

Global LVP run rate increased by 7%q/q in 4Q'23 vs. 3Q'23

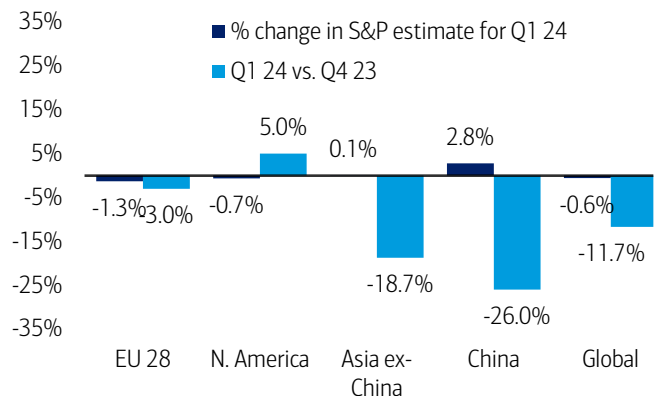


Source: BofA Global Research, S&P

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Exhibit 16: Sequential change in LVP: Q1 24 vs. Q4 23

S&P forecast for 1Q'24 suggests a sequential -11.7%q/q, -26% in China

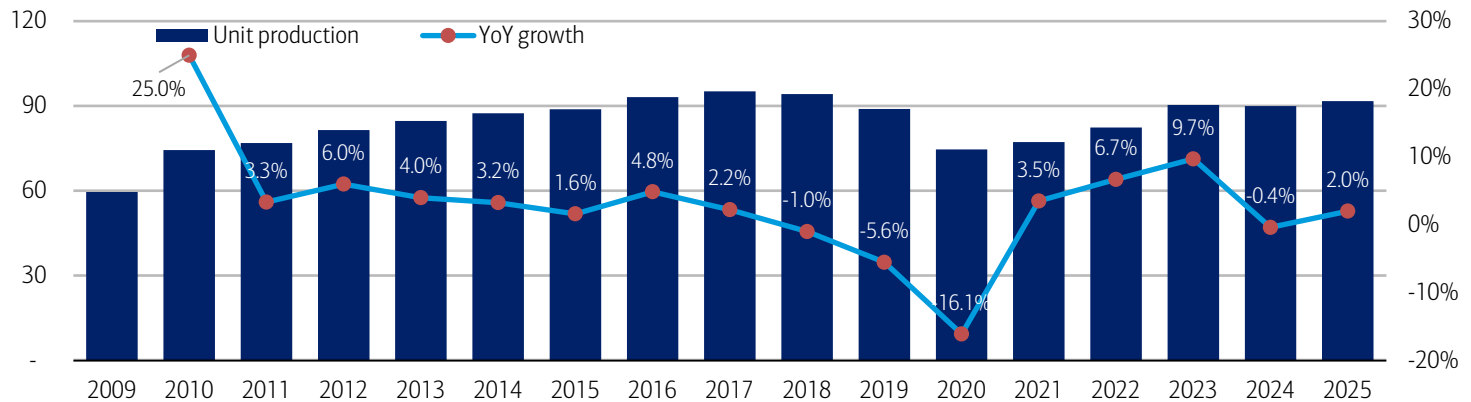


Source: BofA Global Research, S&P

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Exhibit 17: Global annual light vehicle production (m units) and % annual growth (rhs)

S&P forecasts 90.3m units for 2023, +9.7% vs. 2022, and 2024 is forecast to reach 90m units (-0.4%/y/y)

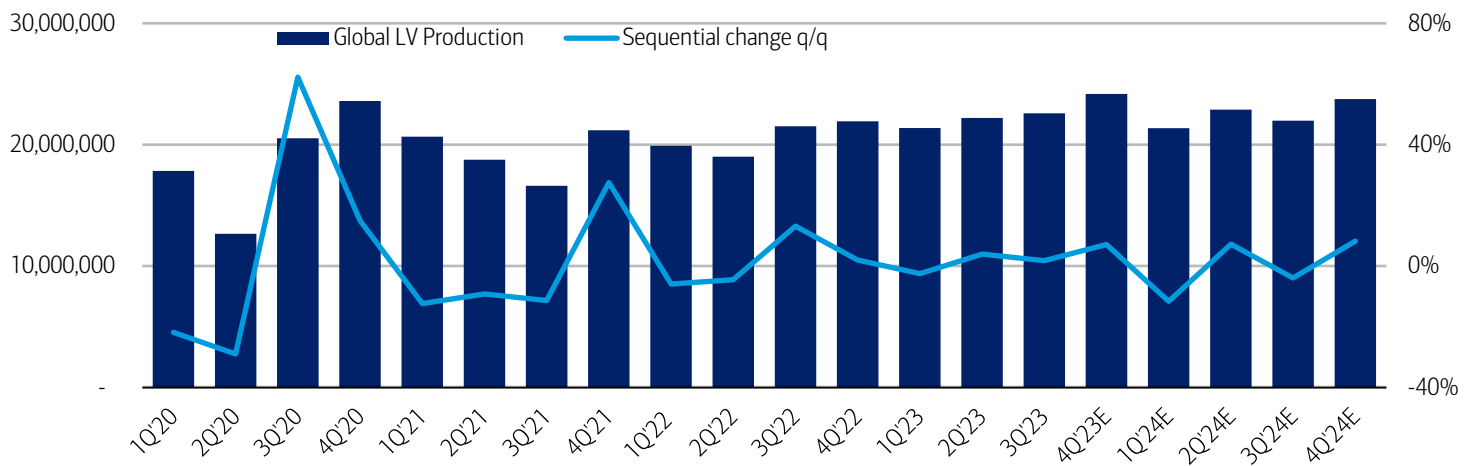


Source: BofA Global Research, S&P

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Exhibit 18: Global quarterly light vehicle production (units) and % sequential change (rhs)

S&P forecasts a sequential incline of +5.8% in LVP in Q4 '23, whilst it sees -10.1% q/q deceleration in Q1'24; this equates to +9%/+0.5%/y/y

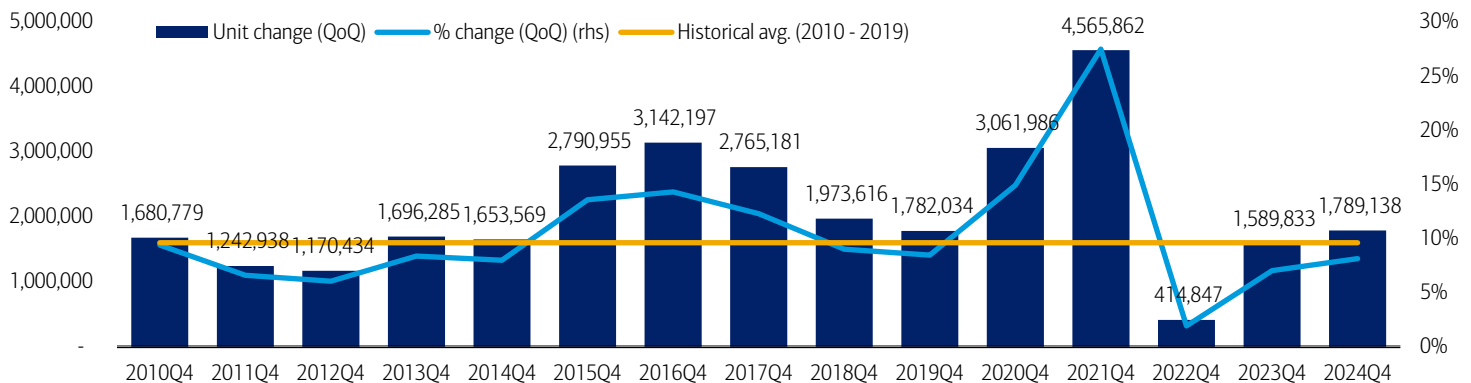


Source: BofA Global Research, S&P

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Exhibit 19: Global sequential light vehicle production on a Q4 basis vs. Q3 (m units) and % change q/q (rhs)

For 4Q'23, S&P expects a +7% volume incline vs. 3Q'23, below the historical pattern of +9.6%

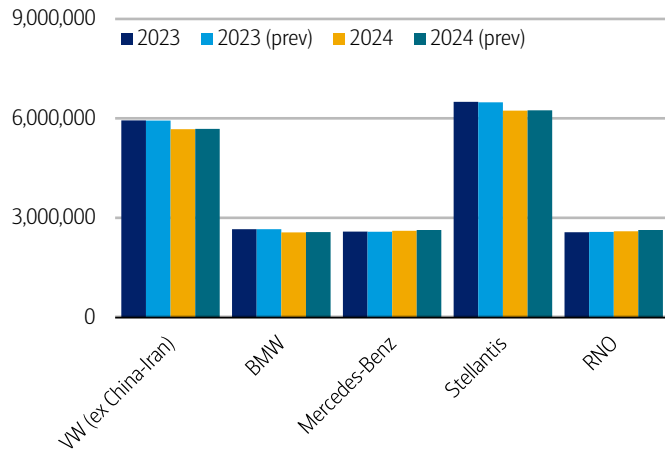


Source: BofA Global Research, S&P

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Exhibit 20: S&P global LVP by OEM for 2023 & 2024

RNO is raised most for 2023 (by +1.7%), MBC revised down (-1.2%)

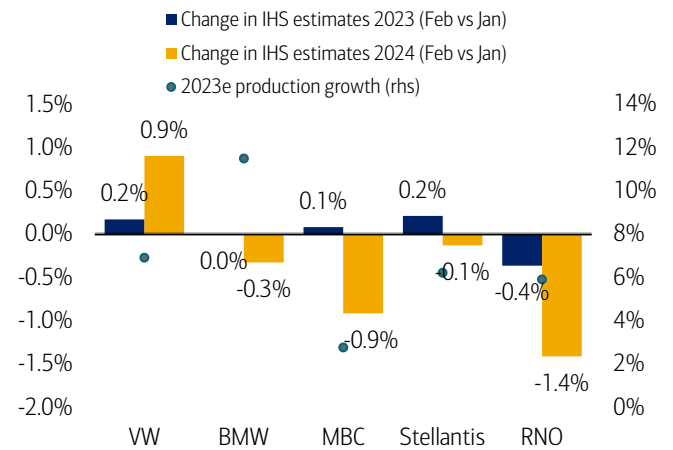


Source: BofA Global Research, S&P

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Exhibit 21: S&P global LVP estimates by EU OEM for CY23 and CY24

Upgrade for VW 2023 and 2024 (+0.2% and +0.9%), -1.4% downgrade for RNO 2024

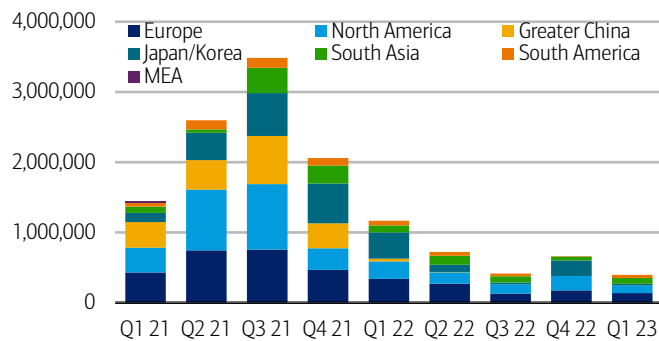


Source: BofA Global Research, S&P, *MBC = Mercedes-Benz

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Exhibit 22: LVP losses caused by the Semi's shortage by region (units)

According to S&P, lost production in Q1'23 is now near Q3'22 levels

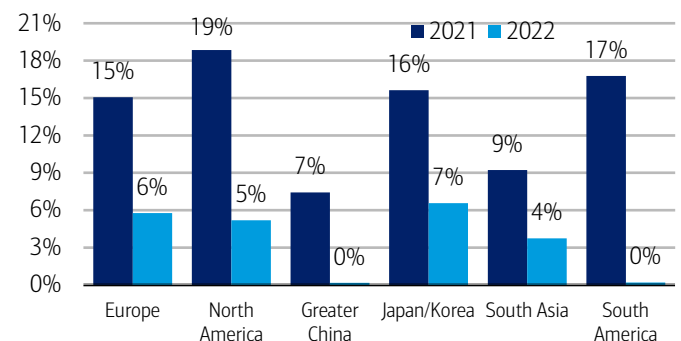


Source: BofA Global Research, S&P

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Exhibit 23: LVP losses by region for 2021 and 2022

Most regions still suffered LVP losses in 2022, except for China

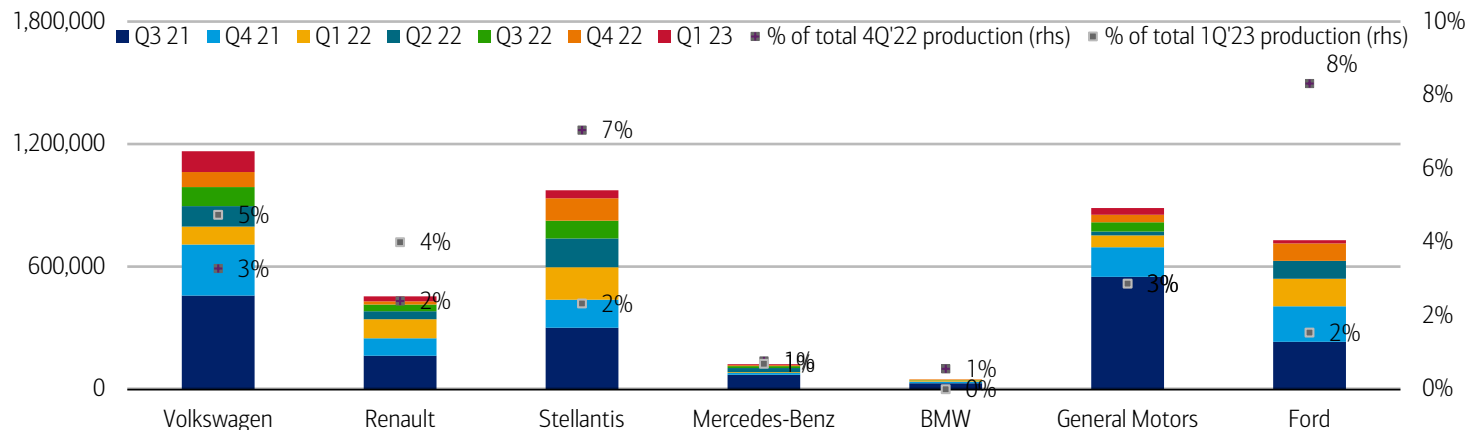


Source: BofA Global Research, S&P

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Exhibit 24: Semiconductor shortage impact by OEM: number of light vehicles not produced from Q3 21-Q1 23

Volkswagen and Renault were hit the hardest in Q1'23, according to S&P, losing 5/4% of production, respectively

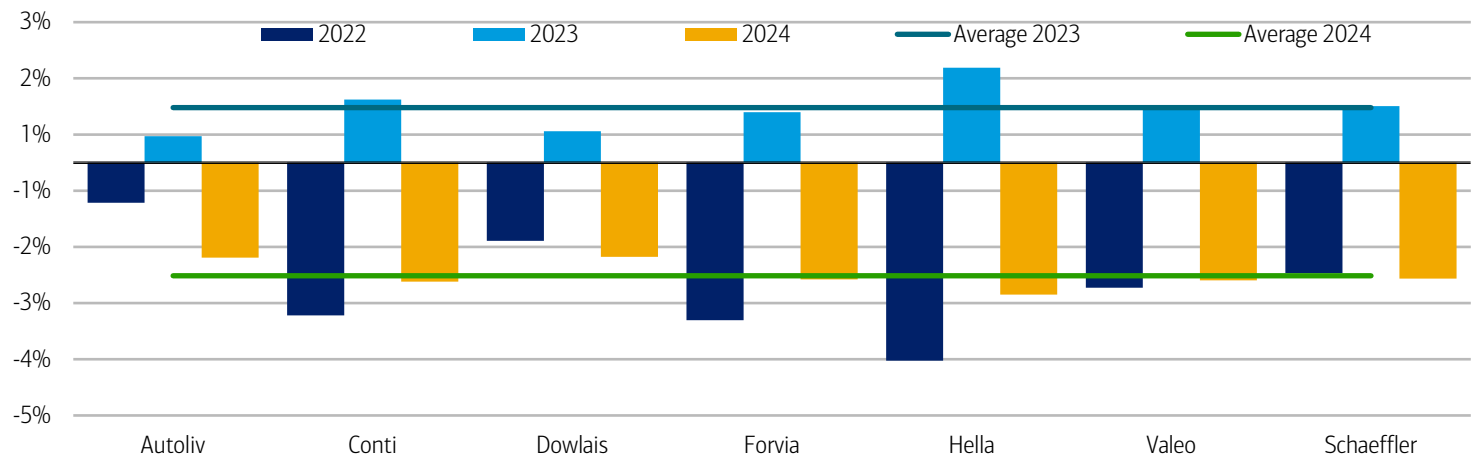


Source: BofA Global Research, S&P

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Exhibit 25: Regional mix impact for European parts suppliers vs. S&P global LV production (February 2024)

Regional mix impact remains positive at 1.0% on average for 2023 and negative at -2% for 2024



Source: BofA Global Research estimates, S&P

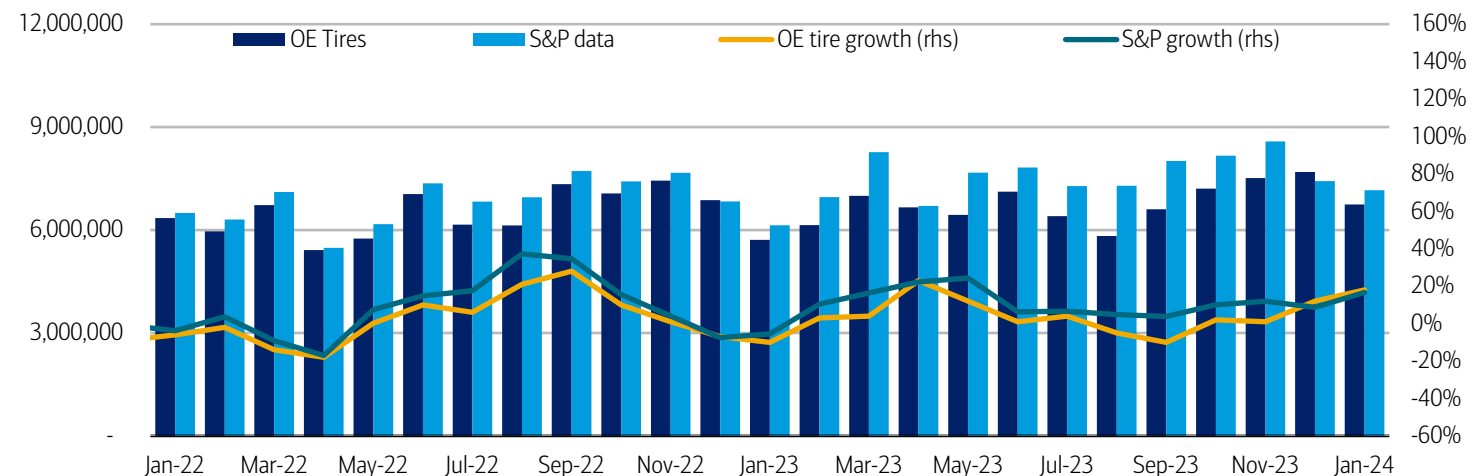
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LVP rates as implied by OE tire sales

As an independent data check, we calculate monthly global LVP using Michelin tire market sales into OEM channels. Given that tires are supplied before cars roll off the production floor, we believe that this data could provide some insight into the following month's production. January 2024 global OE tire sales run rated broadly in line with production (Exhibit 26).

Exhibit 26: Global monthly Light Vehicle Production (January 2024) implied by OE tire market growth rates

Tire sales into OE channels are run rating broadly in line with S&P production forecasts in January 2024

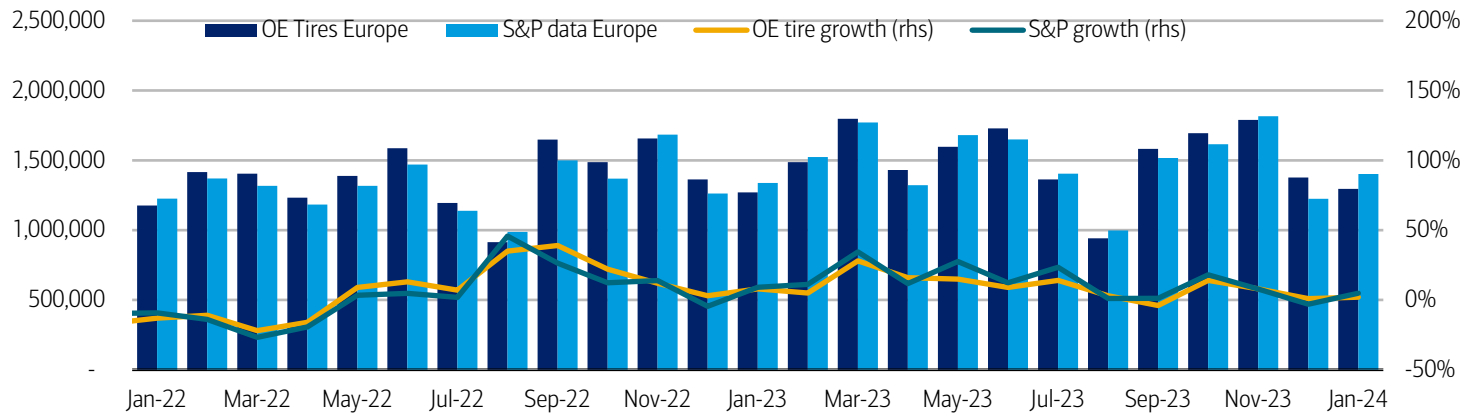


Source: BofA Global Research, Michelin Tire data

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Exhibit 27: Europe monthly Light Vehicle Production (January 2024) implied by tire market growth

Tire sales into OE channels in Europe are run rating broadly in line with S&P production forecasts in January 2024

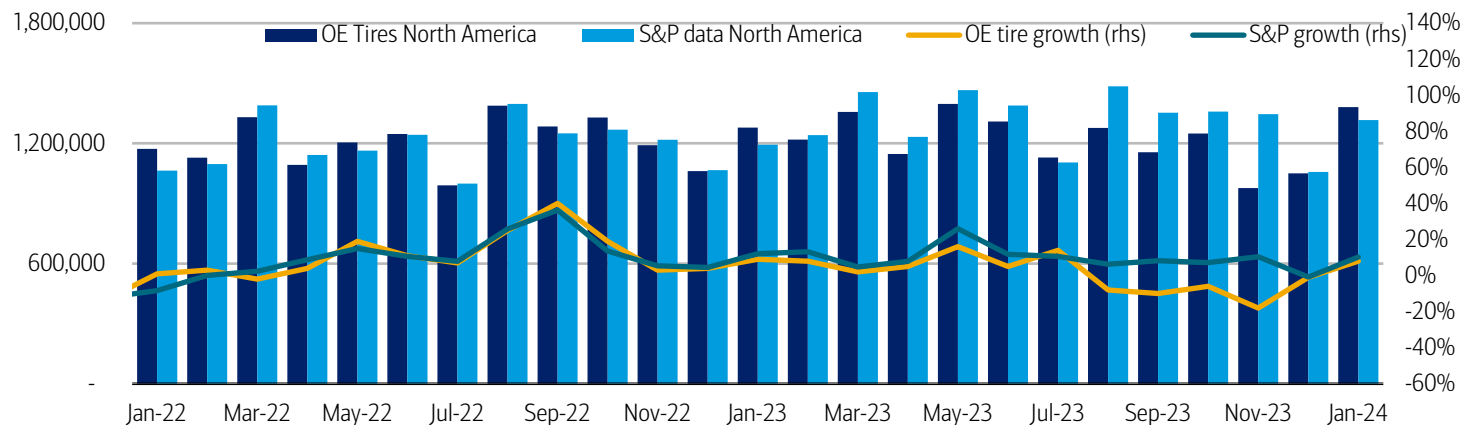


Source: BofA Global Research, Michelin Tire data

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Exhibit 28: North America monthly Light Vehicle Production (January 2024) implied by tire market growth

Tire sales into OE channels in North America are run rating broadly in line with S&P production forecasts in January 2024

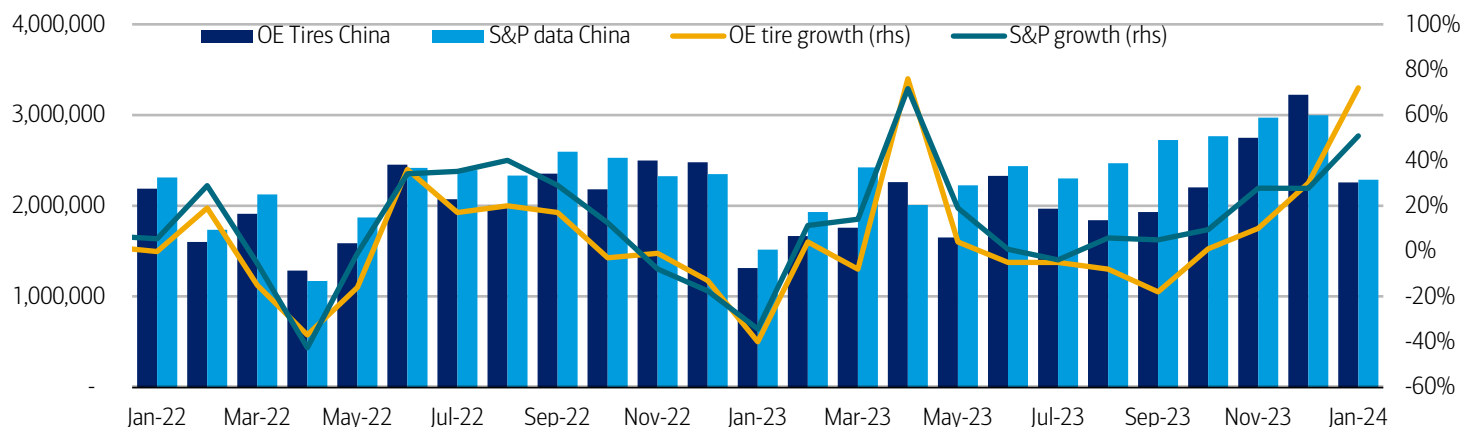


Source: BofA Global Research, Michelin Tire data

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Exhibit 29: China monthly Light Vehicle Production (January 2024) implied by tire market growth

Tire sales into OE channels in China are now run rating ahead of S&P production forecasts in January 2024



Source: BofA Global Research, Michelin Tire data

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S&P LV production estimates

Exhibit 30: Changes in S&P LV production forecasts in February 2024 vs. January 2024

S&P global production forecasts revised upwards for 2023e by +0.3% and up 0.4% for 2024e and up 0.9% for 2025e

Changes in S&P Forecasts	2023			2024			2025		
	New	Old	% Change	New	Old	% Change	New	Old	% Change
Western Europe	11,181,347	11,162,444	0.2%	10,776,000	10,884,014	-1.0%	10,804,668	10,910,483	-1.0%
Growth	13.1%	12.9%		-3.6%	-2.5%		0.3%	0.2%	
Central & Eastern Europe	6,680,983	6,643,400	0.6%	6,588,025	6,558,939	0.4%	6,579,485	6,563,647	0.2%
Growth	12.5%	11.8%		-1.4%	-1.3%		-0.1%	0.1%	
Total Europe	17,862,330	17,805,844	0.3%	17,364,025	17,442,953	-0.5%	17,384,153	17,474,130	-0.5%
Growth	12.9%	12.5%		-2.8%	-2.0%		0.1%	0.2%	
North America	15,682,812	15,647,830	0.2%	15,771,346	15,822,871	-0.3%	16,174,121	16,181,231	0.0%
Growth	9.7%	9.5%		0.6%	1.1%		2.6%	2.3%	
China	28,764,452	28,621,233	0.5%	29,451,359	28,656,899	2.8%	30,382,211	29,867,491	1.7%
Growth	10.0%	9.4%		2.4%	0.1%		3.2%	4.2%	
Asia ex-China	22,815,609	22,790,340	0.1%	22,214,606	22,446,541	-1.0%	22,339,003	22,487,590	-0.7%
Growth	8.6%	8.5%		-2.6%	-1.5%		0.6%	0.2%	
South America	2,912,479	2,912,479	0.0%	2,890,614	2,999,823	-3.6%	3,086,505	3,172,330	-2.7%
Growth	3.1%	3.1%		-0.8%	3.0%		6.8%	5.8%	
Middle East	1,097,036	1,097,036	0.0%	1,135,020	1,135,020	0.0%	1,187,932	1,187,932	0.0%
Growth	-6.6%	-6.6%		3.5%	3.5%		4.7%	4.7%	
Africa	1,186,691	1,190,868	-0.4%	1,124,981	1,133,065	-0.7%	1,180,180	1,170,742	0.8%
Growth	11.2%	11.6%		-5.2%	-4.9%		4.9%	3.3%	
World	90,321,409	90,065,630	0.3%	89,951,951	89,637,172	0.4%	91,734,105	91,541,446	0.2%
Growth	9.7%	9.4%		-0.4%	-0.5%		2.0%	2.1%	

Source: BofA Global Research estimates, S&P

BofA GLOBAL RESEARCH

Exhibit 31: Global LV production by quarter and by region and percentage sequential change (q/q)

S&P revision shows global growth of 10.3% in Q4'23 y/y and 7% q/q and -0.1% and -11.7% respectively for Q1'24

	2022Q4	QoQ	2023Q1	QoQ	2023Q2	QoQ	2023Q3	QoQ	2023Q4	QoQ	2024Q1	QoQ
Western Europe	2,729,159	21.2%	3,026,940	10.9%	2,959,223	-2.2%	2,375,585	-19.7%	2,819,599	18.7%	2,761,061	-2.1%
Growth	16.7%		25.8%		18.4%		5.5%		3.3%		-8.8%	
Central Europe	942,586	7.0%	1,060,950	12.6%	1,078,364	1.6%	896,907	-16.8%	1,066,158	18.9%	1,007,096	-5.5%
Growth	10.4%		24.4%		12.1%		1.8%		13.1%		-5.1%	
EU 28	3,671,745	17.2%	4,087,890	11.3%	4,037,587	-1.2%	3,272,492	-18.9%	3,885,757	18.7%	3,768,157	-3.0%
Growth	15.0%		25.4%		16.6%		4.5%		5.8%		-7.8%	
Eastern Europe	644,447	30.8%	545,347	-15.4%	616,256	13.0%	646,896	5.0%	770,105	19.0%	631,476	-18.0%
Growth	-22.3%		-16.7%		21.0%		31.3%		19.5%		15.8%	
Total Europe	4,316,192	19.1%	4,633,237	7.3%	4,653,843	0.4%	3,919,388	-15.8%	4,655,862	18.8%	4,399,633	-5.5%
Growth	7.3%		18.4%		17.2%		8.1%		7.9%		-5.0%	
North America	3,552,294	-2.6%	3,891,034	9.5%	4,086,557	5.0%	3,942,916	-3.5%	3,762,305	-4.6%	3,948,981	5.0%
Growth	7.9%		9.6%		15.2%		8.1%		5.9%		1.5%	
China	7,202,394	-1.6%	5,867,454	-18.5%	6,670,318	13.7%	7,491,139	12.3%	8,735,541	16.6%	6,466,462	-26.0%
Growth	-5.5%		-4.9%		22.2%		2.3%		21.3%		10.2%	
Asia	12,857,370	0.7%	11,649,186	-9.4%	12,130,876	4.1%	13,239,352	9.1%	14,560,647	10.0%	11,832,096	-18.7%
Growth	1.8%		3.2%		18.4%		3.7%		13.2%		1.6%	
South America	732,848	-7.5%	666,937	-9.0%	757,960	13.6%	783,918	3.4%	703,664	-10.2%	588,487	-16.4%
Growth	4.0%		14.1%		6.1%		-1.1%		-4.0%		-11.8%	
Middle East	186,010	-52.8%	240,940	29.5%	286,616	19.0%	392,043	36.8%	177,437	-54.7%	277,321	56.3%
Growth	-33.3%		-24.9%		4.7%		-0.5%		-4.6%		15.1%	
Africa	276,089	-0.2%	284,375	3.0%	281,127	-1.1%	306,827	9.1%	314,362	2.5%	301,909	-4.0%
Growth	9.3%		11.5%		8.3%		10.9%		13.9%		6.2%	
World - Passenger	18,404,917	2.4%	17,780,646	-3.4%	18,516,251	4.1%	19,073,722	3.0%	20,440,233	7.2%	17,881,714	-12.5%
World - LCV	3,515,886	-0.7%	3,585,063	2.0%	3,680,728	2.7%	3,510,722	-4.6%	3,734,044	6.4%	3,466,713	-7.2%
World	21,920,803	1.9%	21,365,709	-2.5%	22,196,979	3.9%	22,584,444	1.7%	24,174,277	7.0%	21,348,427	-11.7%
Growth	3.5%		7.3%		16.8%		5.0%		10.3%		-0.1%	

Source: BofA Global Research estimates, S&P

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Our (BofA) Global LV production forecasts

Exhibit 32: Summary of BofA LV production forecasts (units)

We maintain our LVP forecast at a growth rate of +9.7%/y for 2023. For 2024e, we forecast +1% growth (S&P: -0.4%)

Region	2020	2021	2022	2023	2024E	S&P 2024E	2025E	2026E	2027E
Western Europe	10,050,263	9,420,503	9,886,735	11,181,347	10,829,594	10,776,000	10,583,169	10,407,820	10,347,811
Growth	-25.2%	-6.3%	4.9%	13.1%	-3.1%	-3.6%	-2.3%	-1.7%	-0.6%
Central Europe	3,533,335	3,407,964	3,638,830	4,102,379	3,986,412	4,027,270	3,811,295	3,749,625	4,025,564
Growth	-18.7%	-3.5%	6.8%	12.7%	-2.8%	-1.8%	-4.4%	-1.6%	7.4%
EU 28	13,583,598	12,828,467	13,525,565	15,283,726	14,816,006	14,803,270	14,394,463	14,157,444	14,373,375
Growth	-23.6%	-5.6%	5.4%	13.0%	-3.1%	-3.1%	-2.8%	-1.6%	1.5%
Eastern Europe	2,987,443	3,062,886	2,301,114	2,578,604	2,493,736	2,560,755	2,634,477	2,696,851	2,697,536
Growth	-11.6%	2.5%	-24.9%	12.1%	-3.3%	-0.7%	5.6%	2.4%	0.0%
Total Europe	16,571,041	15,891,353	15,826,679	17,862,330	17,309,742	17,364,025	17,028,940	16,854,295	17,070,911
Growth	-21.7%	-4.1%	-0.4%	12.9%	-3.1%	-2.8%	-1.6%	-1.0%	1.3%
North America	13,024,058	13,047,059	14,296,207	15,682,812	16,569,340	15,771,346	17,228,897	18,001,663	18,092,115
Growth	-20.2%	0.2%	9.6%	9.7%	5.7%	0.6%	4.0%	4.5%	0.5%
China	23,349,584	24,585,919	26,150,230	28,764,452	29,287,351	29,451,359	28,239,713	28,751,521	29,326,319
Growth	-4.4%	5.3%	6.4%	10.0%	1.8%	2.4%	-3.6%	1.8%	2.0%
Asia ex-China	17,625,994	19,011,783	21,005,000	22,815,609	22,863,710	22,214,606	22,021,165	22,066,724	22,144,209
Growth	-19.1%	7.9%	10.5%	8.6%	0.2%	-2.6%	-3.7%	0.2%	0.4%
South America	2,245,570	2,606,481	2,824,287	2,912,479	2,954,826	2,890,614	3,140,607	3,263,676	3,403,650
Growth	-31.4%	16.1%	8.4%	3.1%	1.5%	-0.8%	6.3%	3.9%	4.3%
Middle East	938,512	1,064,127	1,174,304	1,097,036	1,100,969	1,135,020	1,176,053	1,246,140	1,292,682
Growth	24.8%	13.4%	10.4%	-6.6%	0.4%	3.5%	6.8%	6.0%	3.7%
Africa	841,021	988,536	1,067,465	1,186,691	1,110,404	1,124,981	1,159,035	1,295,787	1,355,022
Growth	-33.1%	17.5%	8.0%	11.2%	-6.4%	-5.2%	4.4%	11.8%	4.6%
World	74,595,780	77,195,258	82,344,172	90,321,409	91,196,342	89,951,951	89,994,409	91,479,808	92,684,909
Growth	-16.1%	3.5%	6.7%	9.7%	1.0%	-0.4%	-1.3%	1.7%	1.3%

Source: BofA Global Research estimates

BofA GLOBAL RESEARCH

BofA Global Research auto teams' views for 2024

Table 1: List of our global autos teams' Year Ahead reports

List of our autos teams year ahead report from Europe, US and APAC

BofA Global Research Reports

Title: Subtitle	Primary Author	Date Published
European Automobiles: Year ahead: 5 themes & 5 conviction stocks... "go for the gap that exists"	Horst Schneider	13 December 2023
Automotive Industry: Year Ahead 2024: Five Auto themes & top stock picks as volatility remains	John Murphy, CFA	09 January 2024
Greater China Auto, EV and EV battery: Year Ahead 2024 – look for bottom-up investment opportunity in a gloomy market	Ming Hsun Lee, CFA	10 January 2024
Japan Automobiles/Auto Parts: Year Ahead 2024: "Normalization" with blurred visibility. 4 themes and stock picks	Kei Nihonyanagi	15 January 2024
APAC Automobile: Year Ahead 2024: Two offshoots from BEV slowdown - HEV sales growth, BEV export	Kei Nihonyanagi	10 January 2024

Source: BofA Global Research

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Abbreviations used in this report

aka: also known as

BYD: Build Your Dreams

c: circa

EM: Emerging market

EU: Europe GM: General Motors

IRA: Inflation Reduction Act

k: thousand

LV: Light vehicles

LVP: LV production

LVS: LV sales

MG: Morris Garages

N. America/S. America: North America/South America

NEV: New Energy Vehicle

OEM: Original equipment manufacturer

p.a.: Per annum

PC: Passenger Car

prev: previously

SAAR: seasonally adjusted annualised rate

STLA: Stellantis

UAW: United Auto Workers

vs. versus

Disclosures

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Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster ^{R1}
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Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

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