

Global Automobiles

Valuation & Consensus trends in EU & rest of the world – January 2024

Industry Overview

EU Autos: Sentiment less negative but slight de-rating

Autos remains (with Chemicals) the most unloved sector in EU, with c-26% of participants in our Fund Manager Survey (FMS) underweight the sector in Dec-23, an improvement from the -41% registered in Nov-23 (Exhibit 21). We think this is due to the fact that the SXAP fell 3% in the past month, underperforming the Stoxx600 (-0.2%), which is explained by a 12m fwd PE de-rating of the Auto sector of -c3.4% vs re-rating of the index of +0.2%. The SXAP remains the cheapest sector in EU on a 12m fwd PE base (Exhibit 17) and c15% of FMS participants view it as undervalued as trades below its 12m fwd PE historical average (6.1x vs 1y avg. of 6.4x).

EU Autos: Weaker BEV outlook; OEMs weaker vs suppliers

Japanese and US OEMs outperformed European OEMs in the past month. Within Europe, suppliers performed better than OEMs (in terms of share price and valuation development). We think this comes on the back of lower EV subsidies in Germany and increasing BEV price pressure. A more negative pricing implies that OEM earnings have more downside risks than supplier earnings. Consensus expects supplier EPS to grow in 2024/25e but expects OEM earnings to decline. This pattern makes a re-rating of OEMs vs suppliers very difficult. Particularly tire makers have the chance to outperform the sector in 2024 against that background (see also: [EU Year Ahead 2024](#)).

EU Autos: Highlights by stock (from Exhibit 1 & 2)

1) P911, AML and Ferrari share price fell the most in the past month (c-6-11%) mainly on valuation concerns (resulting in de-ratings). **Ferrari** consensus rating dropped and is now amongst the least favoured EU OEMs alongside Volvo Cars and BMW. At **Porsche**, the EPS consensus is also coming down. **2) MBG** seems to have digested the negative earnings revisions and shares have re-rated. **3) VW's** EPS revisions have been negative in the last 3 months but this was more than compensated by a positive re-rating. A positive sign! **4) Forvia** has caught up some of its weak performance & outperformed Valeo strongly. **5) Schaeffler** is still one of the cheapest suppliers globally but has re-rated by 10% in the last month. **6) Pirelli** finally outperformed **Michelin**. Better earnings revisions triggered some re-rating and share price outperformance.

Global autos: OEMs better vs suppliers, BYD, Ford/GM

1) OEMs vs suppliers: It strikes us that OEMs performed better than suppliers in Japan/Korea and also the US (opposite to Europe). We think this is due to the fact that the car pricing outlook outside Europe is healthier. **2) The Mobileye** warning seems to have dragged down other mobility start-ups by applying a higher risk premium to those names. **3) BYD** has de-rated by c30% in the last 3 months and its 12m fwd PE stands only anymore at 13.5x, while it remains amongst the most loved auto stocks around the world. **4) GM vs Ford:** Consensus looks more positive at GM post the share buyback announcement, but Ford's share price performs similarly positive to GM.

15 January 2024

Equity
Global
Autos/Car Manufacturers

Horst Schneider >>
Research Analyst
BofA Europe (Frankfurt)
+49 69 5899 5080
horst.schneider@bofa.com

Michael Jacks, CFA >>
Research Analyst
MLI (UK)
+44 20 7996 1085
michael.jacks@bofa.com

Niccolo Serra >>
Research Analyst
MLI (UK)
+44 20 7996 8139
niccolo.serra@bofa.com

John Murphy, CFA
Research Analyst
BofAS
johnj.murphy@bofa.com

Ming Hsun Lee, CFA >>
Research Analyst
Merrill Lynch (Hong Kong)
minghsun.lee@bofa.com

Kei Nihonyanagi >>
Research Analyst
BofAS Japan
kei.nihonyanagi@bofa.com

KJ Hwang >>
Research Analyst
Merrill Lynch (Seoul)
kj.hwang@bofa.com

Gunjan Prithyani >>
Research Analyst
BofAS India
gunjan.prithyani@bofa.com

Menka Bajaj >>
EMEA ESG Strategist
MLI (UK)
menka.bajaj@bofa.com

James De Chastelain >>
Research Analyst
MLI (UK)
james.de_chastelain@bofa.com

See glossary p.25 for abbreviations.

>> Employed by a non-US affiliate of BofAS and is not registered/qualified as a research analyst under the FINRA rules.

Refer to "Other Important Disclosures" for information on certain BofA Securities entities that take responsibility for the information herein in particular jurisdictions.

BofA Securities does and seeks to do business with issuers covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

Refer to important disclosures on page 27 to 28.

12645433

Timestamp: 15 January 2024 12:30AM EST

Contents

Valuation/ Cons trend highlights by region	3
Summary statistics for OEMs	5
Summary statistics for suppliers	6
Cons rating, & valuation/sh price changes	7
European market valuation & positioning	11
FactSet consensus revision for OEMs	13
FactSet consensus revision for suppliers	14
Global auto & supplier share price perf	15
Consensus P&L figures for OEMs	17
Consensus P&L figures for suppliers	18
Cons profitability metrics for OEMs	19
Cons profitability metrics for suppliers	20
EU OEM earnings momentum charts	21
EU OEM 1-year historical valuation	22
EU suppliers earnings momentum charts	23
EU supplier 1-year historical valuation	24
Glossary	25

Valuation/ Cons trend highlights by region

Europe: Key consensus trends & dislocations

Loved by the Street cons: Stellantis, Mercedes, Renault Forvia, CIE, Pirelli

NOT loved by the street cons: Volvo Cars, Nokian Tires, BMW, Vitesco, Continental

Suppliers vs OEMs: Suppliers slightly outperformed OEM's in the last months. They de-rated a bit less since earnings revisions have been also less negative vs OEMs. The key difference between remains for us that suppliers are expected to grow EPS in 2024/25, whereas EPS of most OEMs should decline.

VW: Turning the corner? Shares have finally re-rated (in terms of 12m fwd PE) by 2% in the last month and even by c13% in the last 3 months. This more than compensated negative EPS revisions.

P911: Share price has declined by c7% in the last month and by c16% in the last three months, amongst the worst performers in European Autos by that. EPS consensus revisions turned negative. The stock has de-rated by c10% in the last 3 months but still trades at a 12m fwd PE of c13x vs BMW/MBG at 5-6x (and Ferrari at >40x).

Mercedes: Negative estimate revisions seem to have been digested. We have observed some downgrades by the Street in terms of rating, but the overall rating pattern remains very positive. The shares have re-rated by 3% in the last 3 months.

Renault: Street consensus likes the stock and expects earnings to grow in FY24/25. At a 12m fwd PE of 2.7x, Renault is currently the cheapest auto stock in the world, but the shares have de-rated by c5% in the last 3 months despite the positive earnings revisions.

Ferrari: Still the highest valued auto stock in Europe (by far at >40x 12m fwd PE), but Ferrari has underperformed the other European auto names the last month. There has been some de-rating and some downgrades by the sell side, probably just because the stock has been up by c50% in the last 12 months. Estimate revisions continue to be slightly positive.

Volvo Cars: Positive earnings revisions vs a very negative share price performance in the last 3 months and consensus ratings remain rather negative for the stock. Keep in mind that Geely's owner Li Shufu sold shares in December and the news flow on BEVs turned negative. Maybe the negative share price was also driven by a very negative share price performance of Polestar (Volvo Cars has a 48% stake in the company).

Forvia vs Valeo: Forvia is still one of the most loved suppliers around the globe and the most popular in Europe. Share price has again recovered recently and re-rated/outperformed significantly vs Valeo. The 12m fwd PE is by now at 5.9x but was in our November 23 update just at 4.7x. In contrast, we have seen a stronger de-rating of Valeo (c10% in the last month) and the shares trade now at a 12m fwd PE of 6.7x.

Pirelli vs Michelin: Pirelli outperformed Michelin across the board in the last 3 months. The stock re-rated more, earnings revisions have been higher and share price was better.

Schaeffler re-rated the most in the last month as the Vitesco takeover has been completed. It remains though amongst the cheapest suppliers globally at a 12m fwd PE of 5.3x (vs BorgWarner at 8.0x).

Continental: Positive EPS revisions post the CMD on 04 Dec, but the shares de-rated slightly.



Global ex EU: Key consensus trends & dislocations

OEMs: Loved by the Street cons: GM, BYD, Li Auto, Hyundai, Kia, Suzuki, Geely

OEMs: NOT loved by the Street cons: Ford, Honda, Nissan, Subaru, Dongfeng, SAIC, Tesla

Suppliers: Loved by the Street cons: BYD, Li Autos, Hyundai, Kia, Suzuki, Geely

Suppliers: NOT loved by the Street cons: Autoliv, American Axle, Dana, Adient, Aisin, Bridgestone, Yokohama Tires

Suppliers vs OEMs: It strikes that OEMs outperformed suppliers in the rest of the world (in terms of share price performance and 12m fwd PE change) whereas it was the opposite in Europe. This holds true for the US, Japan and also Korea.

Mobileye: Following the warning beginning of the year, EPS revisions have been in the magnitude of -80% (worst around the world) but the shares have re-rated.

EV pure plays underperform: Maybe led by the Mobileye warning, all EV pure plays de-rated further (i.e., Fisker, Rivian, Lucid but also Tesla).

BYD vs Tesla: Worth flagging that the Chinese BEV leader de-rated by c30% in the last 3 months. The stock now trades at a 12m fwd PE of 13.5x (vs Tesla at >60x). BYD remains much more loved by the Street than Tesla. For both stocks though the Street got a bit more bearish in its ratings.

GM vs Ford: It's interesting to see that both stocks performed fairly similar the last month, despite GM announced a massive share buy-back program, EPS revisions have been more positive, and the Street got more positive on GM.

Chinese OEMs remained in de-rating mode in the last 3 months, except Nio & DongFeng.

Japanese Autos: Very steady the last three months, not much change in valuation or EPS revisions.

Fund manager survey (FMS)

Positioning less bearish: In the November Fund Manager Survey ([FMS Europe](#) & [Global FMS](#)), over 40% of managers were underweight EU Autos. This has improved in Dec and just c25% of fund managers were still underweight the sector (see Exhibit 21 & 24). 15% of fund managers now believe EU Autos are undervalued (vs fairly valued in Nov 23). We guess this view has changed on the back of the relative underperformance of Autos in the last 3 months, which made the sector look cheaper vs most others in Europe.

Summary statistics for OEMs

Exhibit 1: Key statistics for OEMs, sorted by 1-month share price change

Conditional formatting is applied within a region, with greener tones implying a more favourable metric relative to peers

OEM	Momentum Metrics						Static Metrics				
	Share price	Share price	12m fwd	12m fwd	EPS revision		12m	Revenue	NI Growth	EBIT margin	Consensus
	% change	% change	PE	PE	1-m	3-m		Growth 24-	24-25e	24-25e	
	1-m	3-m	1-m	3-m			fwd PE	25e			rating
MBG	-1.3%	-4.1%	-1.5%	3.9%	0.2%	-7.6%	5.3	2.8%	3.8%	11.1%	2.06
STLA	-1.9%	8.8%	-1.6%	8.5%	-0.3%	0.3%	3.8	2.8%	1.1%	11.3%	2.40
VW	-2.1%	3.6%	1.5%	11.0%	-3.6%	-6.7%	3.8	4.0%	8.3%	6.9%	1.97
BMW	-2.8%	0.0%	-2.6%	4.0%	-0.2%	-3.9%	6.0	2.6%	1.6%	9.7%	1.72
P911	-5.8%	-14.2%	-4.7%	-12.3%	-1.2%	-2.2%	12.9	6.7%	8.8%	18.0%	2.00
RNO	-6.5%	-5.2%	-6.7%	-8.1%	0.2%	3.2%	2.7	5.2%	8.8%	6.9%	2.14
Ferrari	-7.5%	9.0%	-7.7%	2.9%	0.2%	6.0%	41.6	7.9%	11.0%	28.6%	1.94
AML	-10.6%	-18.2%			-32.2%	-46.7%		7.6%	-215.4%	6.3%	2.00
Volvo C	-12.9%	-34.2%	-13.9%	-35.7%	1.2%	2.2%	5.1	10.6%	38.4%	5.3%	1.40
EU OEM	-5.7%	-6.0%	-4.6%	-3.2%	-4.0%	-6.2%	10.2	5.6%	-14.8%	11.6%	1.96
GM	6.8%	15.8%	6.6%	5.8%	0.2%	9.5%	4.6	1.1%	4.8%	6.4%	2.20
Ford	5.8%	-4.4%	5.2%	0.0%	0.6%	-4.4%	6.6	0.8%	-2.1%	5.5%	1.78
US OEM	6.3%	5.7%	5.9%	2.9%	0.4%	2.5%	5.6	0.9%	1.4%	5.9%	1.99
Kia	3.0%	6.2%	2.5%	3.4%	-1.1%	1.1%	4.0	4.0%	1.0%	10.5%	2.64
Hyundai	0.9%	-1.3%	1.3%	-2.7%	-1.0%	1.0%	4.0	4.1%	-0.1%	8.4%	2.56
Korea OEM	1.9%	2.4%	1.9%	0.3%	-1.0%	1.0%	4.0	4.1%	0.5%	9.4%	2.60
Mazda	11.0%	7.5%	8.3%	-11.9%	0.3%	19.3%	5.1	2.8%	0.7%	5.7%	1.80
Suzuki	10.9%	7.2%	10.6%	-0.9%	1.6%	9.6%	10.6	5.3%	6.2%	8.8%	2.43
SUBARU	10.5%	0.8%	10.3%	-16.0%	-0.6%	19.2%	6.3	2.0%	-1.1%	9.5%	1.66
Toyota	5.1%	7.3%	3.9%	-6.8%	0.9%	14.8%	9.1	3.8%	3.0%	10.7%	2.07
Honda	5.0%	-6.4%	5.8%	-9.5%	-1.1%	3.1%	7.3	2.2%	2.8%	6.7%	2.00
Nissan	1.1%	-7.9%	-0.2%	-18.2%	-0.3%	10.7%	5.1	2.1%	2.5%	4.8%	1.71
Mitsubishi	1.0%	-19.8%	3.6%	-23.6%	-2.1%	5.4%	4.8	4.0%	4.0%	7.2%	1.65
Jap OEM	6.4%	-1.6%	6.1%	-12.4%	-0.2%	11.7%	6.9	3.2%	2.6%	7.6%	1.90
Geely	5.4%	-10.4%	-2.8%	-25.8%	7.3%	19.4%	9.6	19.4%	43.6%	2.9%	2.25
Guangzhou	1.8%	-7.0%	1.8%	-1.4%	-0.1%	-5.6%	5.1	11.1%	13.1%	-1.8%	2.22
BAIC Motor	-4.1%	-9.0%	-11.8%	-16.8%	7.8%	8.4%	3.7	-13.0%	-34.2%	10.3%	1.06
SAIC Motor	-4.4%	-9.7%	-5.1%	-3.6%	0.4%	-6.8%	9.4	3.6%	11.6%	3.2%	1.87
Great Wall Motor	-8.4%	4.8%	-10.9%	-23.3%	3.4%	37.4%	8.1	14.7%	22.5%	4.7%	2.25
Dongfeng	-13.2%	12.1%	40.1%	69.1%	-39.3%	-35.1%	7.9	-3.1%	-4.4%	-2.8%	1.50
Chongqing Changan	-22.3%	3.0%	-24.8%	-1.3%	2.0%	3.0%	15.6	18.7%	26.9%	4.6%	2.28
China OEM	-6.4%	-2.3%	-1.9%	-0.4%	-2.6%	3.0%	8.5	7.3%	11.3%	3.0%	1.92
Bajaj Auto	18.7%	44.1%	15.6%	33.1%	2.4%	7.8%	25.6	12.2%	12.5%	19.2%	1.76
Tata Motors	13.2%	28.7%	9.3%	15.2%	3.7%	11.8%	15.0	8.4%	18.1%	7.6%	2.29
M&M	-1.3%	4.7%	-3.4%	-1.7%	1.4%	5.8%	18.5	9.5%	9.1%	9.7%	2.59
Maruti Suzuki	-5.0%	-3.9%	-5.0%	-11.5%	-0.2%	8.4%	22.8	9.9%	9.7%	9.7%	2.14
India OEM	6.4%	18.4%	4.1%	8.8%	1.8%	8.5%	20.5	10.0%	12.4%	11.5%	2.20
BYD	2.0%	-11.9%	-1.2%	-28.0%	2.6%	21.4%	13.7	17.6%	25.8%	6.5%	2.56
NIO	0.9%	-14.2%			-6.6%	-2.1%		37.6%	-49.7%	-12.6%	2.10
Vinfast	0.6%	-16.7%			0.1%			68.4%	-8.0%	-40.4%	3.00
Rivian	-0.8%	-3.0%			-2.2%	-4.1%		63.9%	-24.5%	-49.9%	2.10
Li Auto	-4.9%	-4.9%	-12.0%	-20.7%	4.1%	15.5%	18.0	36.5%	59.3%	6.7%	2.55
Tesla	-5.2%	-13.6%	-4.8%	-3.5%	-0.4%	-10.5%	59.7	24.3%	35.7%	12.3%	1.69
Xpeng	-17.3%	-24.5%			-2.8%	2.7%		37.2%	-52.3%	-9.9%	1.84
Polestar	-19.3%	-35.0%			-1.7%	-3.6%		95.6%	-66.6%	-9.6%	1.64
Lucid	-29.3%	-39.0%			-2.1%	-13.9%		178.9%	-24.7%	-119.6%	1.43
Fisker	-31.1%	-83.3%			-6.7%	40.9%		75.8%	-93.8%	-6.4%	1.42
Pure EV	-10.4%	-24.6%	-6.0%	-17.4%	-1.6%	5.2%	30.4	63.6%	-19.9%	-22.3%	2.0

Source: FactSet, BofA Global Research *Note: Historical performance and revisions are pulled using FactSet Actual Month criteria, which in terms of days calculated takes the last X trading days from the latest completed date. **Note: the "Consensus" rating in this report is the inverse scale of FactSet's consensus rating scale. The average rating is calculated by splitting the consensus' brokers recommendations in five broad categories to which is attached a numerical score between 1 and 3. In our standardized scale, this is as follows: i) Buy: 3 ii) Overweight: 2.5 iii) Hold: 2 iv) Underweight: 1.5 v) Sell: 1. A higher score entails a higher share of "Buy" ratings, with a maximum score of 3 for stocks with 100% buy recommendations (and inversely 1 for 100% sell recommendations).

BofA GLOBAL RESEARCH

Summary statistics for suppliers

Exhibit 2: Key statistics for suppliers, sorted by 1-month share price change (colour formatting applied within regions)

EU suppliers remain cheaper than their peers on a 12m fwd PE basis

Suppliers	Momentum Metrics						Static Metrics				
	Share price % change 1-m	Share price % change 3-m	12m fwd PE % change 1-m	12m fwd PE % change 3-m	EPS revision 1-m	EPS revision 3-m	12m fwd PE	Revenue Growth 24-25e	NI Growth 24-25e	EBIT margin 24-25e	Consensus rating
Schaeffler AG	12.2%	4.2%	10.8%	2.7%	1.3%	1.4%	5.2	5.3%	11.6%	7.5%	1.80
Pirelli	10.5%	19.1%	8.6%	15.5%	1.7%	3.1%	9.3	3.4%	12.8%	15.0%	2.29
Nokian	3.4%	9.6%	-1.3%	20.6%	4.7%	-9.1%	20.1	11.9%	45.1%	8.2%	1.45
Forvia	2.9%	11.8%	0.7%	4.4%	2.2%	7.0%	5.8	5.6%	29.8%	6.2%	2.43
Continental AG	0.6%	11.9%	-1.6%	10.6%	2.2%	1.2%	8.0	4.0%	20.8%	7.1%	1.86
TI Fluid Systems	-1.4%	15.2%	-4.5%	16.8%	3.2%	-1.4%	6.6	3.7%	13.0%	7.1%	2.31
Plastic Omnium	-3.2%	-20.7%	-2.7%	0.2%	-0.5%	-20.8%	7.4	5.2%	27.4%	4.1%	1.80
Dowlaes	-3.4%	-4.5%	-4.2%	-6.4%	0.8%	2.1%	5.6	4.3%	583.8%	7.3%	2.18
Michelin	-3.7%	5.2%	-3.9%	1.9%	0.2%	3.2%	9.2	2.8%	6.3%	12.4%	1.82
CIE Automotive, S.A.	-5.7%	-2.9%	-6.0%	-4.9%	0.3%	2.1%	8.4	3.5%	6.5%	13.4%	2.36
Gestamp	-5.7%	-15.3%	-4.4%	-13.0%	-1.4%	-2.6%	5.1	4.8%	15.5%	6.0%	2.05
Valeo SE	-5.8%	-8.0%	-9.3%	-2.4%	3.8%	-5.7%	6.6	7.2%	45.2%	4.8%	1.92
Vitesco Technologies	-12.4%	-9.0%	-14.1%	-15.4%	2.0%	7.6%	10.1	5.6%	33.3%	5.6%	1.50
EU suppliers	-0.9%	1.3%	-2.4%	2.4%	1.6%	-0.9%	8.3	5.2%	65.5%	8.1%	2.0
American Axle & Manufacturing	4.8%	12.9%	10.3%	69.2%	-5.0%	-33.3%	18.7	0.8%	40.9%	3.8%	1.62
Aptiv PLC	3.7%	-15.5%	1.8%	-17.0%	1.8%	1.8%	14.0	8.9%	23.1%	12.1%	2.33
Autoliv	3.7%	8.1%	1.7%	-2.9%	1.9%	11.4%	10.7	5.7%	16.4%	11.3%	1.75
BorgWarner	2.4%	-14.8%	1.5%	-15.6%	0.9%	1.0%	7.9	8.8%	13.7%	9.8%	2.11
Magna International	2.0%	2.6%	1.0%	-5.2%	1.0%	8.2%	8.3	3.3%	17.9%	6.3%	1.90
Adient	0.9%	-9.0%	-2.9%	-4.1%	3.9%	-5.1%	9.6	3.1%	42.5%	4.4%	1.57
Lear	0.1%	-3.6%	-1.1%	-9.2%	1.2%	6.1%	8.4	5.0%	20.2%	6.0%	1.90
Dana	-3.7%	-3.2%	-7.2%	-4.0%	3.8%	0.8%	9.8	5.7%	46.8%	4.8%	1.67
Visteon	-6.0%	-13.7%	-7.8%	-17.1%	2.0%	4.2%	12.6	8.1%	18.5%	8.9%	1.92
Mobileye	-24.4%	-16.1%	39.1%	53.2%	-45.7%	-45.2%	67.8	49.4%	92.9%	23.8%	2.24
NA suppliers	-1.7%	-5.2%	3.6%	4.7%	-3.4%	-5.0%	16.8	9.9%	33.3%	9.1%	1.9
LG Energy	-3.0%	-15.5%	2.9%	1.5%	-6.3%	-17.3%	41.0	33.8%	71.2%	10.7%	2.34
Hankook	-4.4%	16.8%	-5.2%	-5.2%	0.6%	22.9%	5.8	2.4%	-3.9%	13.1%	2.69
Hyundai Mobis	-4.8%	-7.3%	-5.2%	-9.8%	-0.3%	2.1%	5.4	7.7%	7.6%	4.6%	2.35
SK Innovation	-6.0%	-11.3%	-5.1%	-16.7%	-2.6%	4.8%	7.4	6.0%	53.0%	5.1%	2.32
Nexen Tire	-6.6%	3.3%	-6.5%	-17.5%	2.0%	27.6%	4.4	5.9%	11.6%	9.0%	2.47
Samsung SDI	-6.6%	-18.5%	-6.8%	-14.8%	-1.9%	-6.3%	12.4	20.6%	26.2%	9.2%	2.47
Korean suppliers	-5.3%	-5.4%	-4.3%	-10.4%	-1.4%	5.6%	12.7	12.7%	27.6%	8.6%	2.4
DENSO	5.3%	-4.0%	6.3%	-7.8%	-1.0%	4.1%	12.7	4.8%	8.6%	9.9%	2.37
Yokohama	4.4%	14.5%	1.0%	6.4%	2.8%	7.0%	7.4	4.3%	6.3%	10.2%	1.85
Aisin	3.3%	-4.0%	1.2%	-12.3%	1.7%	9.1%	8.7	3.8%	7.9%	5.0%	1.67
Toyota Gosei	3.3%	-8.7%	1.6%	-19.6%	1.2%	13.0%	8.3	4.1%	11.1%	6.4%	2.40
Toyota Boshoku	3.0%	-7.8%	1.7%	-17.8%	-2.2%	8.3%	7.9	2.4%	3.8%	4.8%	1.67
Panasonic	1.9%	-9.5%	0.6%	-10.4%	-1.5%	-1.7%	8.6	4.2%	16.9%	5.9%	2.30
Bridgestone	0.3%	1.6%	0.2%	0.6%	-0.4%	0.4%	10.8	4.0%	7.9%	12.8%	1.91
Jap suppliers	3.1%	-2.5%	1.8%	-8.7%	0.1%	5.7%	9.2	4.0%	8.9%	7.9%	2.0
CATL	-6.4%	-20.5%	-8.3%	-18.0%	2.0%	-3.2%	12.4	22.8%	25.5%	12.6%	2.6

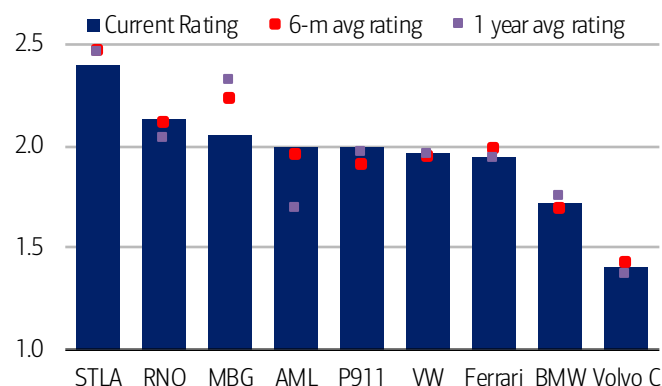
Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Cons rating, & valuation/sh price changes

Exhibit 3: EU OEM FactSet rating

MBG and STLA have been downgraded the most relative to past ratings

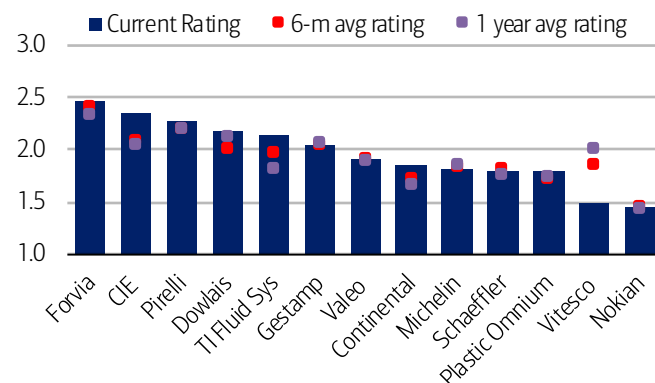


Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 4: EU supp FactSet rating

Forvia is the most favoured by cons and also among the cheapest (see Exh 8)

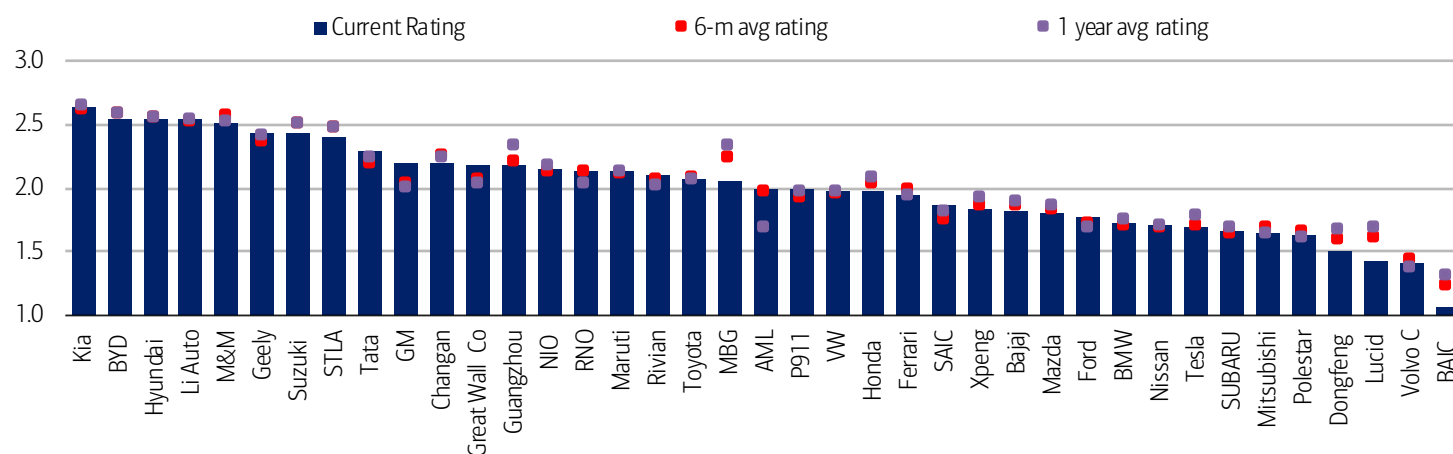


Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 5: Global OEMs' FactSet rating (sorted by current consensus rating)

APAC OEMs are preferred by consensus over Western OEMs as Kia/BYD tops consensus favourite stock. STLA is the favourite EU OEM

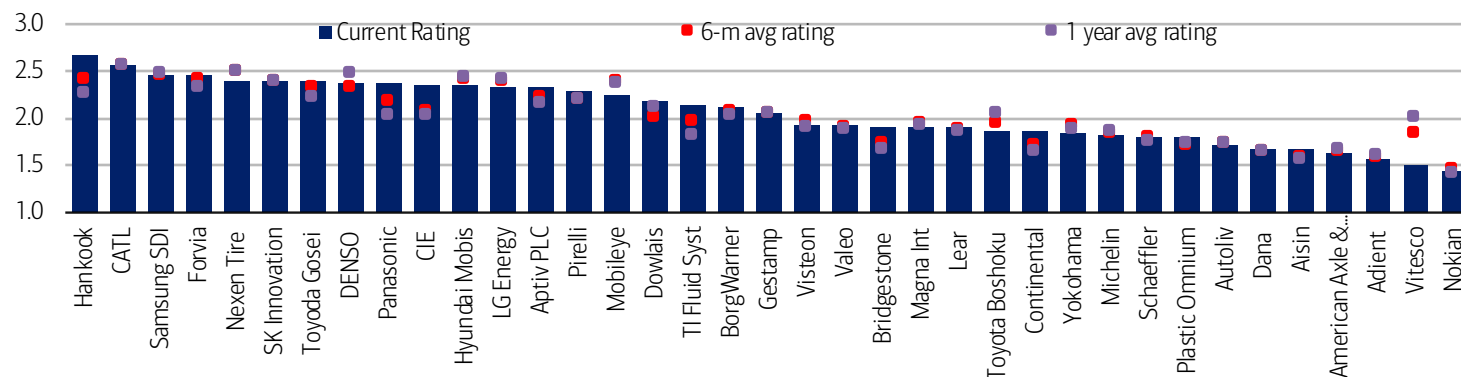


Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 6: Global suppliers' FactSet rating (sorted by current consensus rating)

Asian suppliers are the most popular in terms of consensus rating, as battery suppliers are favoured

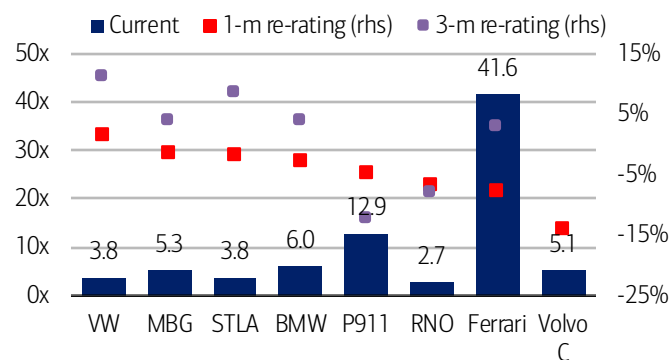


Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 7: EU OEMs 12m fwd PE (sorted by 1-month PE change)

EU OEMs de-rated in the past month, particularly in ultra-luxury names

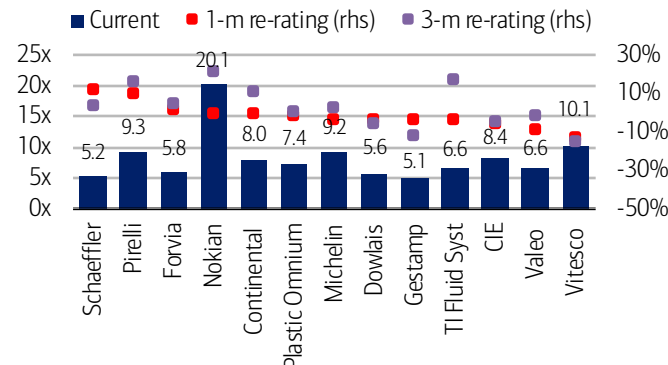


Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 8: EU suppliers 12m fwd PE a (sorted by 1-month PE change)

EU Supp de-rated less than OEMs, with Schaeffler re-rating continuing

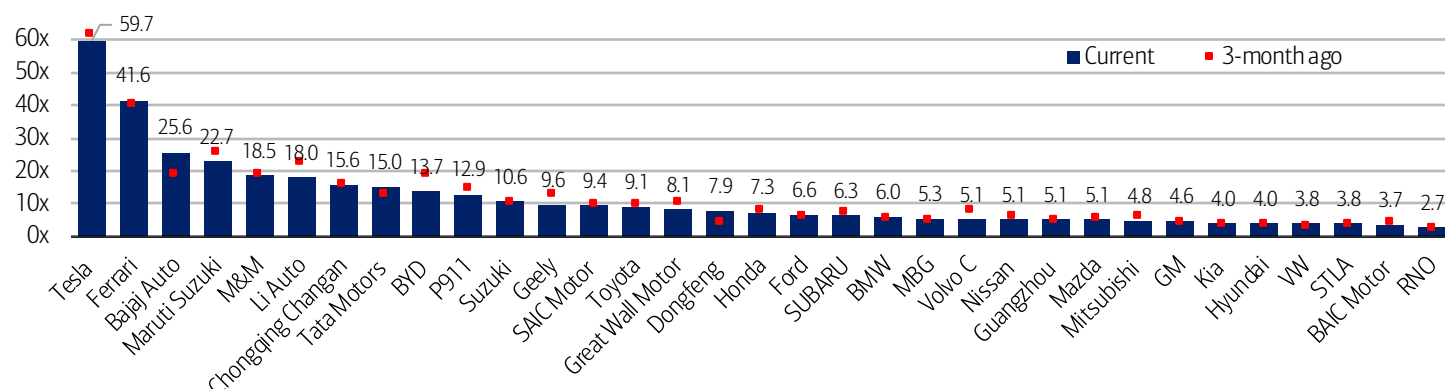


Source: Factset, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 9: Global OEMs 12m fwd PE

Tesla and Ferrari are the most expensive stocks; Li Auto de-rated significantly; EU and Korean mass market OEMs remain cheapest stocks in the sector

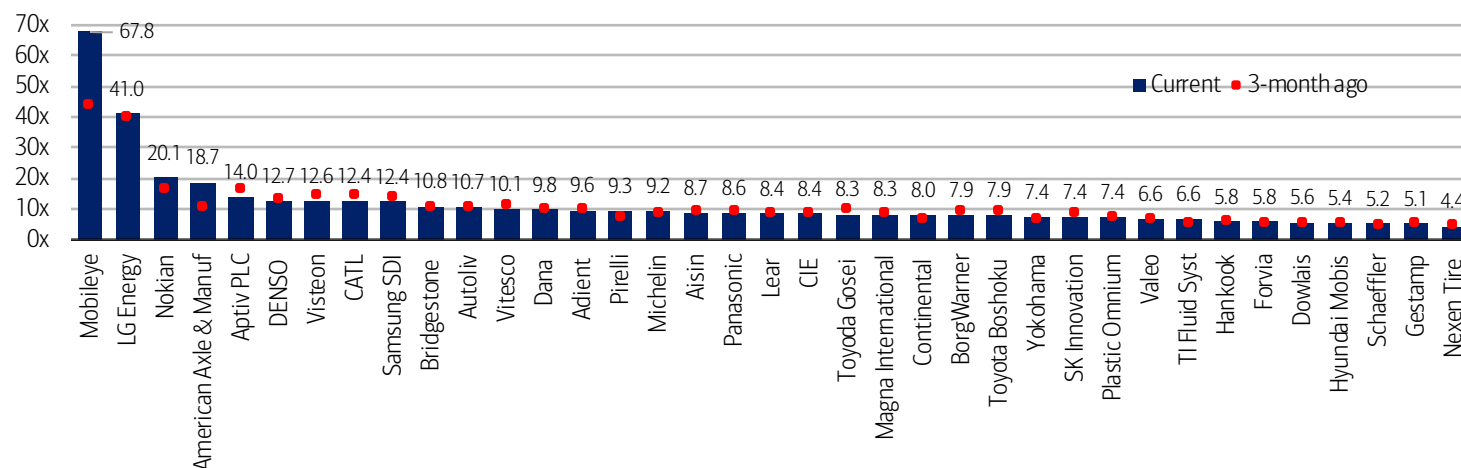


Source: FactSet, BofA Global Research, Note: Tesla 12m fwd PE = 63.2

BofA GLOBAL RESEARCH

Exhibit 10: Global suppliers 12m fwd PE

Autonomous driving and Battery suppliers remain much higher valued (e.g., Mobileye & LG Energy) relative to more traditional suppliers

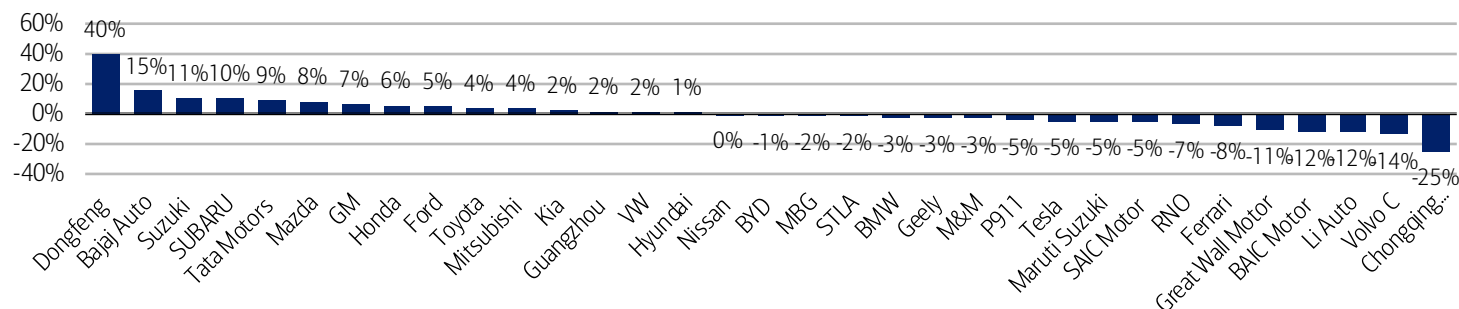


Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 11: Global OEMs 12m fwd PE changes (1-month)

US legacy OEMs re-rated while Chinese OEMs (ex Dongfeng) generally de-rated

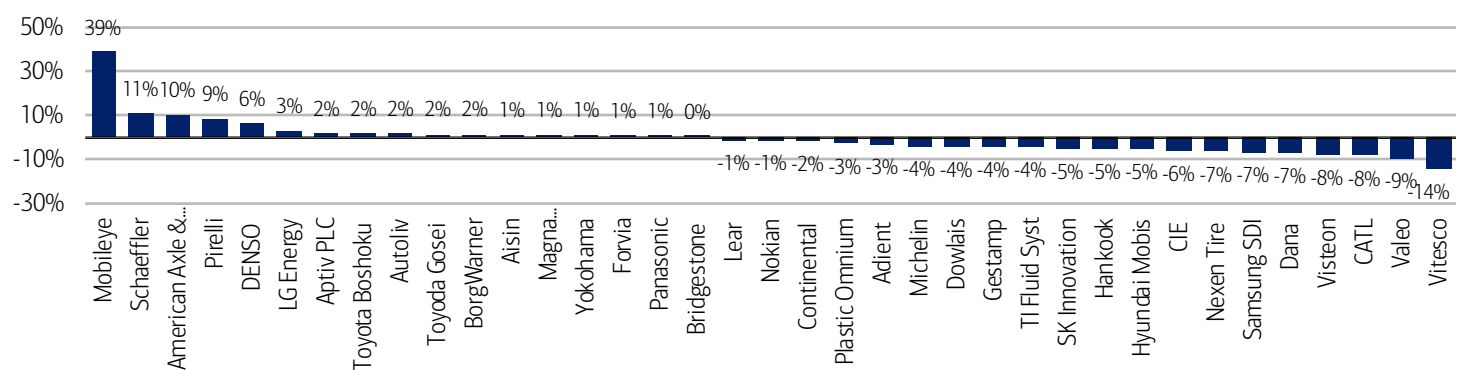


Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 12: Global suppliers 12m fwd PE change (1-month)

EU suppliers exposed to legacy players have overall re-rated

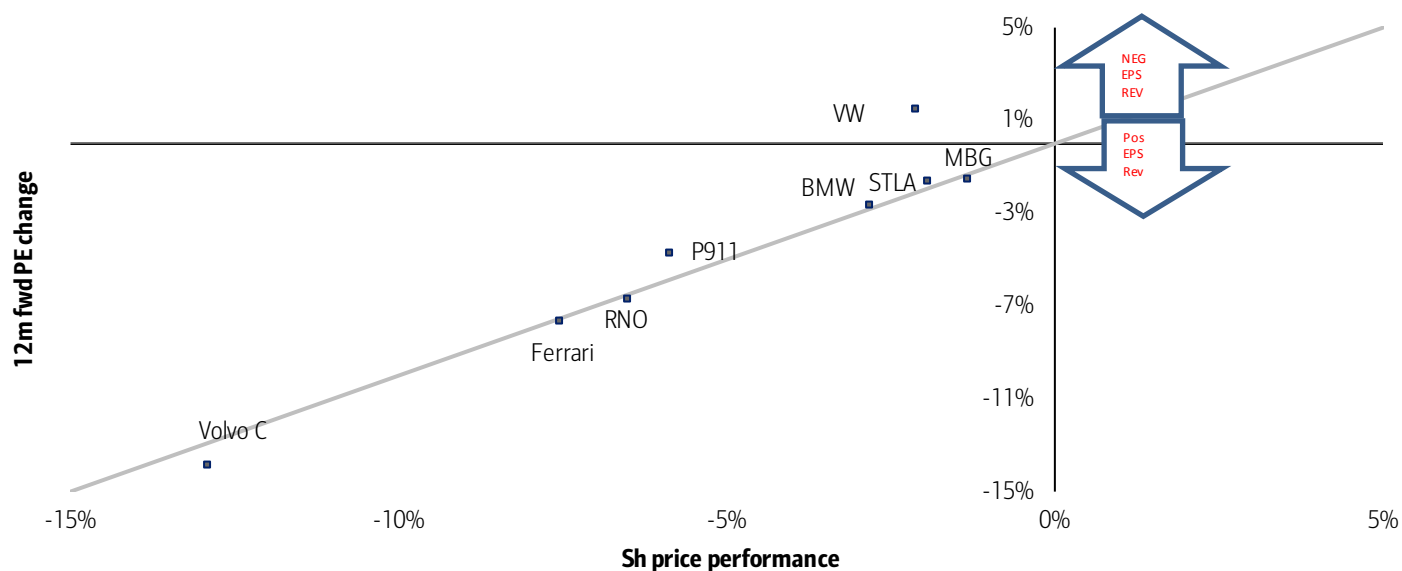


Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 13: EU OEMs share price performance vs 12m fwd PE multiple change (1 month)

RNO, Ferrari and Volvo Cars are the only EU OEMs that saw positive EPS revision in the past month

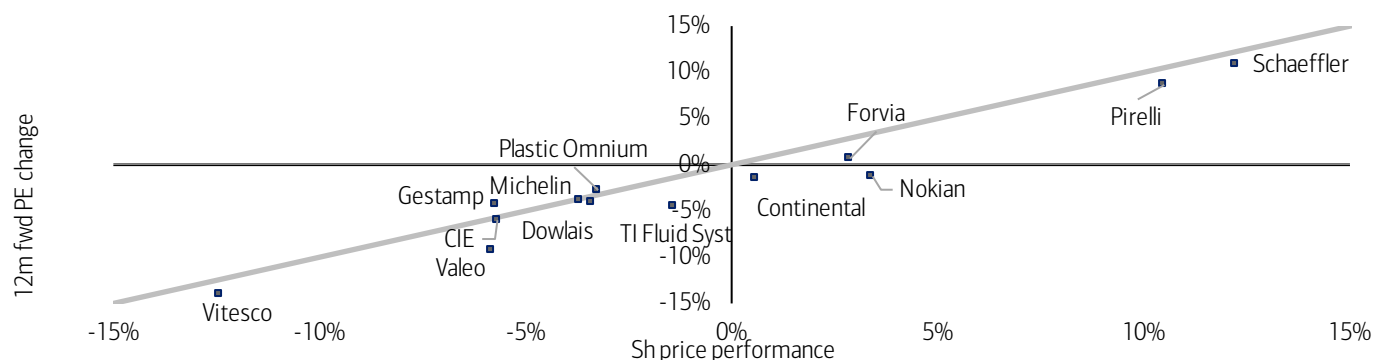


Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 14: EU suppliers share price performance vs 12m fwd PE multiple change (1 month)

Most EU Suppliers enjoyed positive EPS revisions, except Gestamp and Plastic Omnium

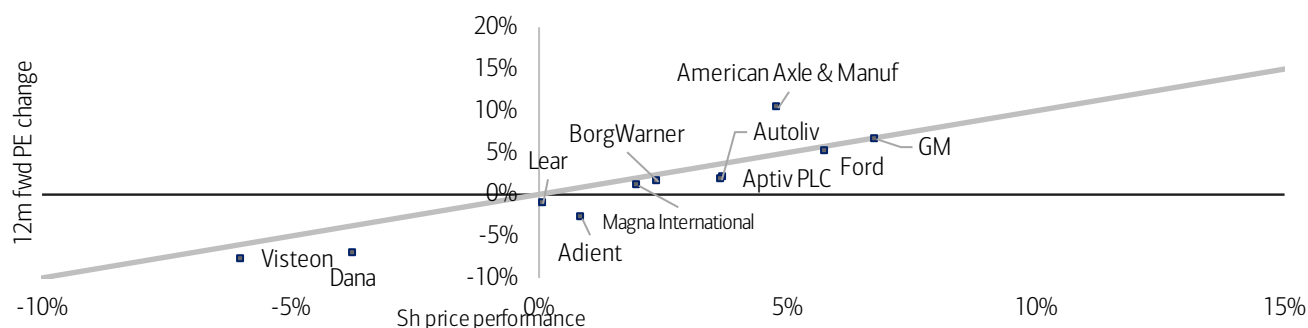


Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 15: US OEMs and Suppliers share price performance vs 12m fwd PE multiple change (1 month)

The earnings outlook improved for US auto related stocks, with positive performance across most names as well as positive earnings revisions

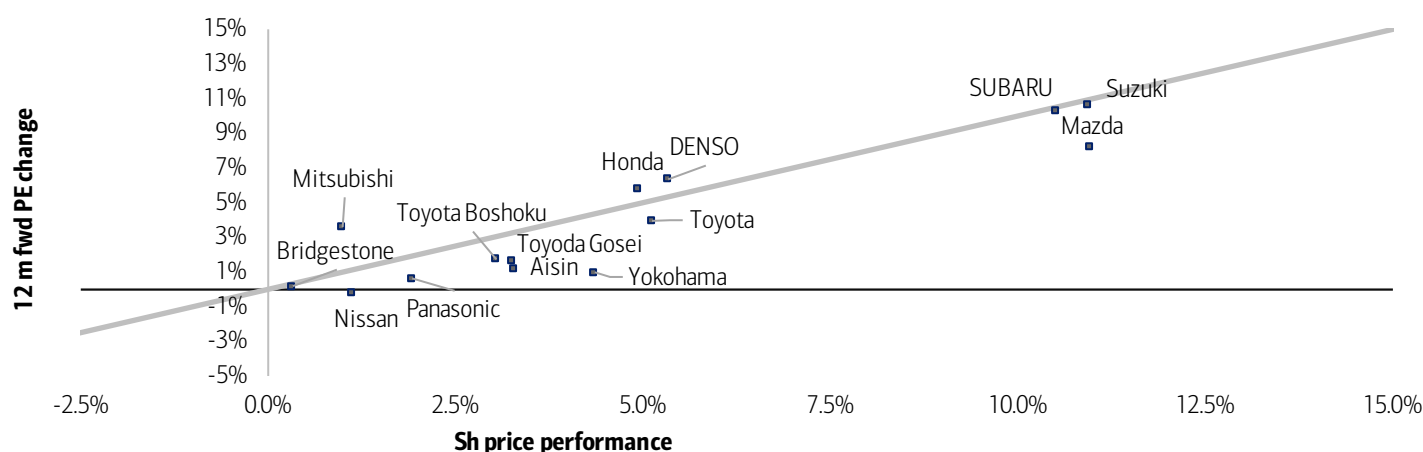


Source: FactSet, BofA Global Research, Note: Mobileye (-24%; 39%)

BofA GLOBAL RESEARCH

Exhibit 16: Japanese OEMs and Suppliers: Share price performance vs 12m fwd PE multiple change (1 month)

Japanese Auto related stocks performance was broad, with performance led by some of the more domestically exposed OEMs



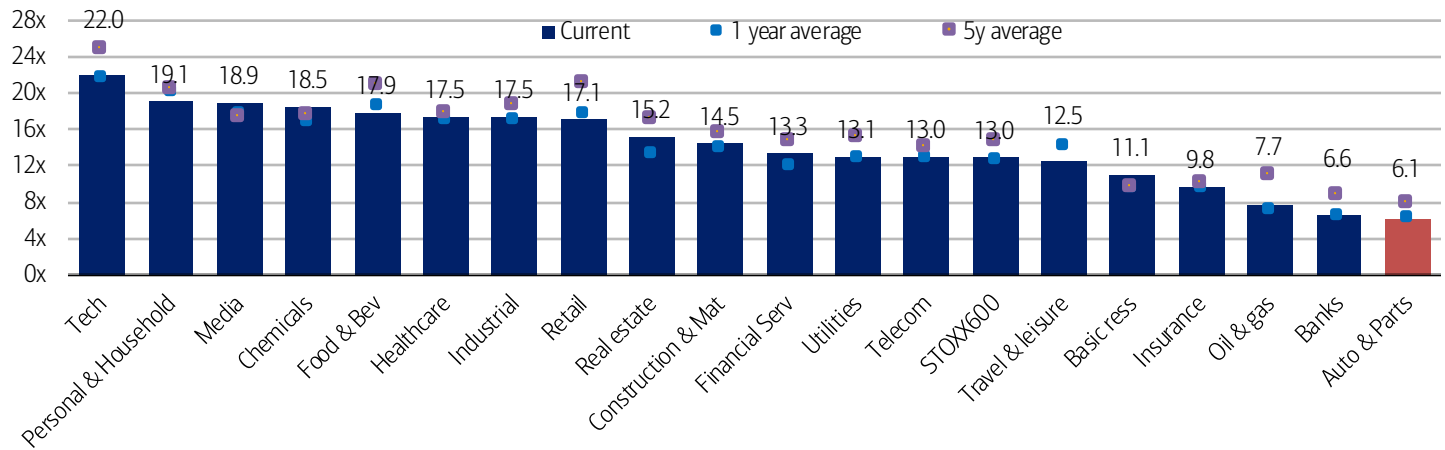
Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

European market valuation & positioning

Exhibit 17: (Europe) Stoxx 600 sector 12m fwd PE

EU auto and suppliers are the cheapest industry in Europe and is trading below the 1 & 5-year historical PE

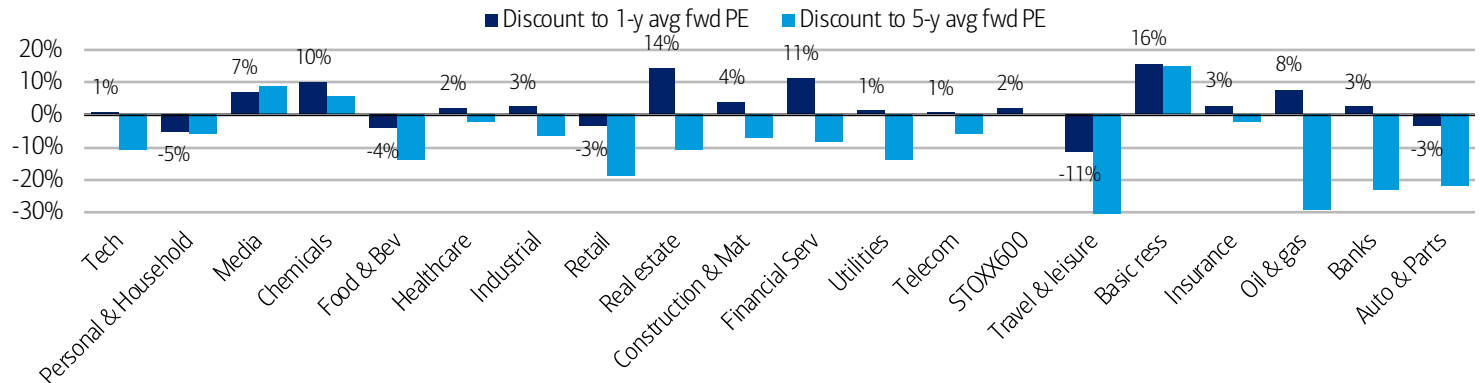


Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 18: (Europe) 12m fwd discount vs historical average for Stoxx 600 industries

The Auto & Parts index is one of the sectors that has de-rated the most in the past year

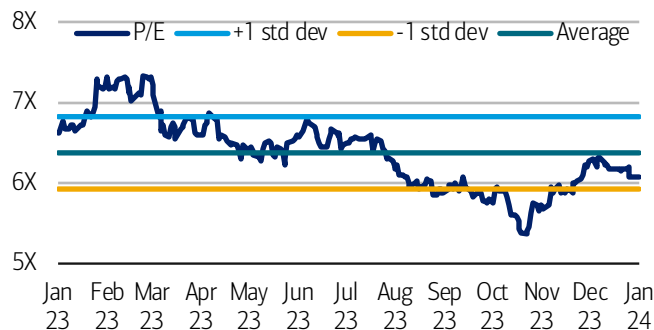


Source: FactSet, BofA Global Research. Note: Travel & Leisure trading at -89% relative to 5-year average PE

BofA GLOBAL RESEARCH

Exhibit 19: SXAP (EU Auto index) 12m fwd PE

The SXAP de-rated resumed its de-rating in December

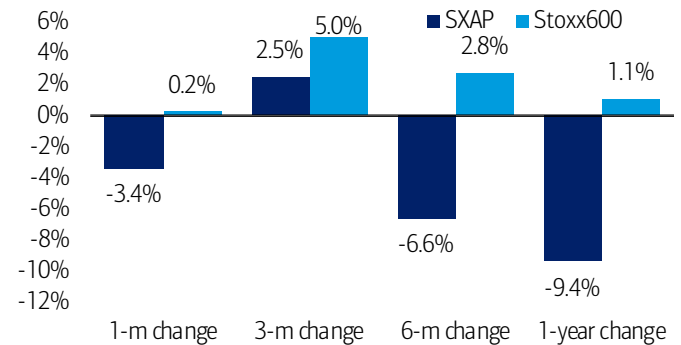


Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 20: SXAP and Stoxx600 12m fwd PE change

The SXAP de-rated in the past month while the broad market re-rated

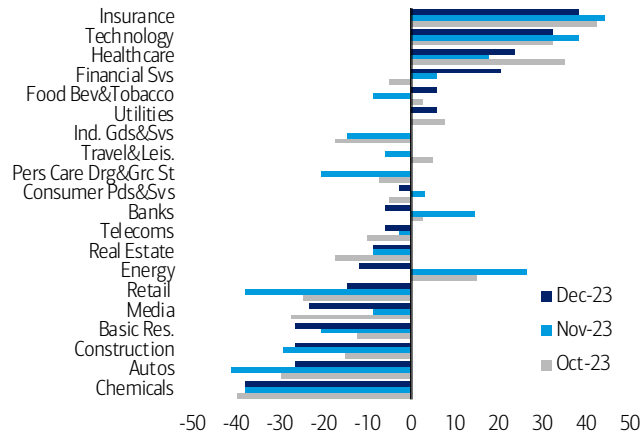


Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 21: EU sector positioning (% saying over/under-weight)

Autos remains one of the most underweight sector in Europe

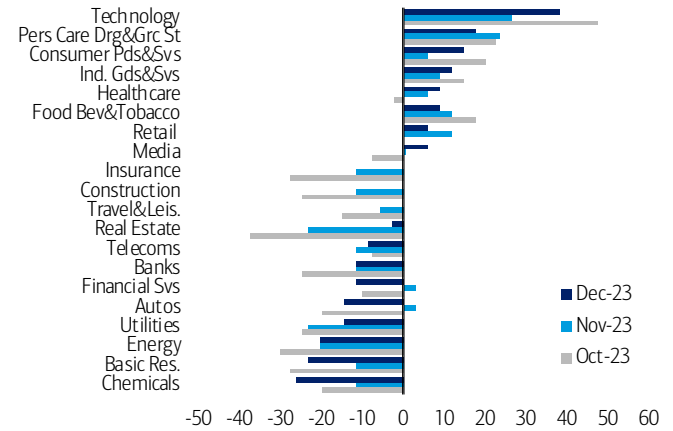


Source: BofA European Fund Manager Survey

BofA GLOBAL RESEARCH

Exhibit 22: European sector valuation (% saying over/under-valued)

But investors believe Autos are undervalued

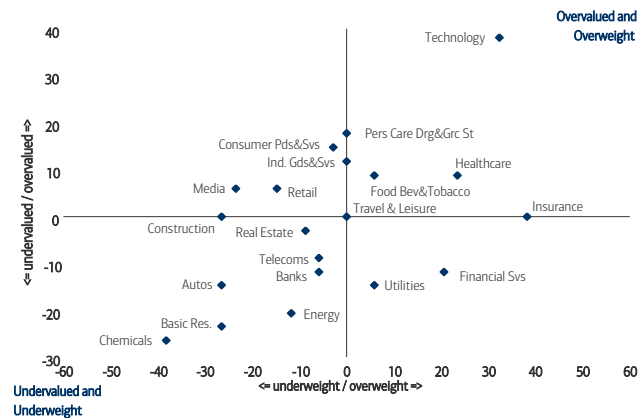


Source: BofA European Fund Manager Survey

BofA GLOBAL RESEARCH

Exhibit 23: European sectors net valuation versus net positioning

Sentiment on autos is poor but valuation appears reasonable

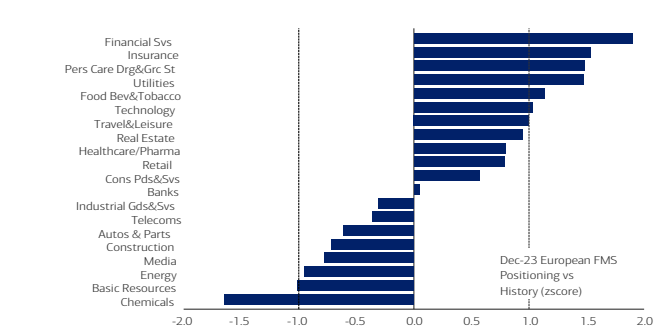


Source: BofA European Fund Manager Survey

BofA GLOBAL RESEARCH

Exhibit 24: Current EU sectors positioning relative to history (z-scores)

Autos positioning is very bearish relative to history

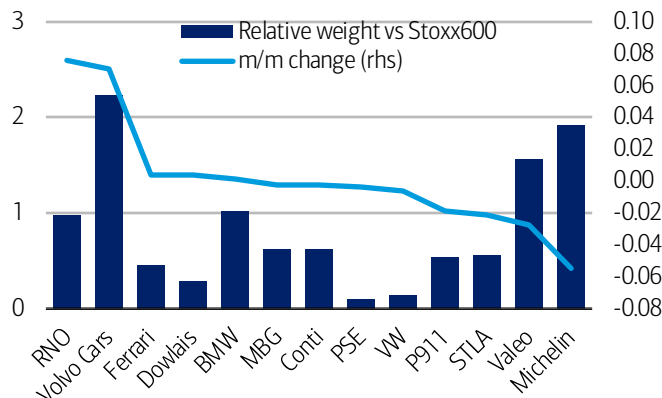


Source: BofA European Fund Manager Survey. Note: z-score based on full time series. Sector history since 2003, except: Consumer Gds & Svs (Personal&& HH Gds), Chemicals, Construction, Financial Svs, Travel & Leisure since 2006, Real estate since 2008, Personal care, drug & grocery stores since Oct 2020

BofA GLOBAL RESEARCH

Exhibit 25: Rel weight of ESG funds vs Stoxx 600, as of 11/30/23

Volvo Cars, Valeo and Michelin are SXAP ESG darlings

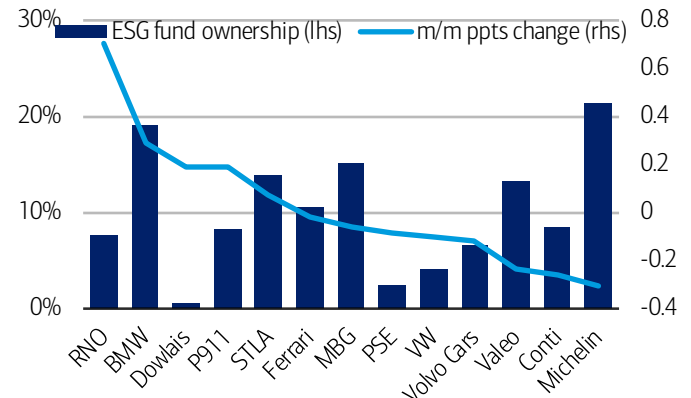


Source: BofA Global Research, FactSet Ownership. See [European ESG Overview](#) for methodology

BofA GLOBAL RESEARCH

Exhibit 26: Number of European ESG funds holding EU Auto stocks

EU-domiciled ESG funds with geo focus as Europe or Global, 11/30/23



Source: BofA Global Research, FactSet Ownership. See [European ESG Overview](#) for methodology

BofA GLOBAL RESEARCH

FactSet consensus revision for OEMs

Exhibit 27: Consensus P&L items revision for OEMs (sorted by 2024 EBIT 1-month revision)

Most negative earnings revisions for Chinese OEMs but positive ones EV pure play OEMs

	1-month revision						3-month revision					
	23 Rev	24 Rev	23 EBIT	24 EBIT	23 NI	24 NI	23 Rev	24 Rev	23 EBIT	24 EBIT	23 NI	24 NI
BMW	0.2%	0.3%	0.5%	0.5%	-1.0%	-1.3%	1.7%	1.2%	4.1%	0.1%	1.1%	-3.3%
Mercedes Car	-0.2%	-0.1%	0.3%	0.0%	0.0%	-0.4%	-1.2%	-2.1%	-3.1%	-9.4%	-1.1%	-7.4%
Volvo Car	0.1%	-0.7%	1.6%	0.0%	0.7%	-1.3%	0.0%	-0.2%	-1.6%	-0.5%	-2.3%	-1.7%
Stellantis	0.1%	0.0%	-0.6%	-0.7%	0.1%	0.0%	0.1%	-0.6%	0.8%	-0.9%	2.8%	1.2%
Ferrari	0.0%	0.0%	0.1%	-1.0%	0.1%	-8.2%	-1.0%	-0.3%	21.9%	-2.3%	17.8%	21.3%
AML	-0.2%	-0.3%	-0.3%	-1.1%	-0.2%	-0.7%	1.4%	1.3%	1.4%	0.7%	2.9%	1.4%
VW Prefs	0.2%	0.0%	-0.6%	-2.4%	-1.2%	-3.1%	1.3%	0.3%	-4.7%	-5.7%	-4.7%	-5.7%
Porsche AG	0.0%	-1.2%	-1.3%	-2.9%	-0.3%	-1.8%	0.3%	-2.0%	-2.0%	-5.2%	-1.8%	-4.5%
Renault	0.1%	-0.3%	-4.7%	-4.0%	-2.5%	-1.4%	-0.5%	-0.8%	-2.5%	-4.1%	1.0%	-0.4%
Average EU OEMs	0.0%	-0.2%	-0.6%	-1.3%	-0.5%	-2.0%	0.2%	-0.3%	1.6%	-3.0%	1.7%	0.1%
Ford Motor	0.4%	-0.3%	0.0%	-0.6%	-0.8%	-1.6%	-1.1%	1.9%	-10.4%	-6.7%	-11.0%	-8.5%
General Motors	0.1%	-0.3%	-0.2%	-1.3%	0.0%	-0.3%	-1.8%	-1.2%	-5.9%	-4.9%	-3.0%	-4.5%
Average US mass market OEMs	0.2%	-0.3%	-0.1%	-1.0%	-0.4%	-1.0%	-1.4%	0.3%	-8.1%	-5.8%	-7.0%	-6.5%
Kia Corp.	-0.1%	-0.1%	-0.2%	-0.5%	-0.3%	-0.6%	1.3%	1.4%	2.2%	1.2%	3.0%	1.8%
Hyundai Motor	0.0%	-0.2%	-0.3%	-0.8%	-0.1%	-0.6%	1.6%	1.6%	3.9%	1.8%	4.7%	3.0%
Average Korean OEMs	-0.1%	-0.2%	-0.3%	-0.7%	-0.2%	-0.6%	1.4%	1.5%	3.0%	1.5%	3.8%	2.4%
Toyota Motor	0.3%	0.4%	0.8%	0.7%	0.8%	0.8%	4.3%	4.2%	14.0%	11.6%	16.2%	12.7%
Mazda Motor	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.0%	5.4%	19.5%	18.0%	14.7%	19.3%
Suzuki Motor	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%	2.3%	10.2%	8.3%	6.1%	5.6%
SUBARU CORP	-0.9%	0.2%	-0.1%	-0.2%	-0.3%	-0.3%	5.0%	5.3%	16.8%	17.1%	21.7%	18.4%
Honda Motor	0.1%	-0.2%	0.5%	-0.5%	-0.3%	-1.0%	3.3%	3.1%	3.0%	4.3%	2.0%	1.9%
Nissan Motor	0.2%	-0.1%	-0.3%	-0.8%	-0.4%	-1.4%	2.8%	2.7%	8.3%	7.2%	8.2%	7.9%
Mitsubishi Motors	-0.2%	-0.6%	-0.9%	-2.5%	-1.1%	-2.8%	0.3%	-0.6%	9.8%	2.4%	6.3%	3.2%
Average Japanese OEMs	-0.1%	0.0%	0.0%	-0.5%	-0.2%	-0.7%	3.4%	3.2%	11.7%	9.8%	10.7%	9.9%
Dongfeng Motor Group Class H	-1.6%	-5.0%	60.4%	32.8%	-36.7%	-39.5%	2.8%	-1.7%	149.4%	96.2%	-28.0%	-35.4%
SAIC Motor Class A	0.3%	0.1%	3.2%	3.6%	-1.7%	-1.6%	-2.9%	-4.2%	1.9%	-2.9%	-6.7%	-8.7%
Great Wall Motor Class H	0.5%	0.8%	5.7%	3.2%	2.7%	1.6%	3.9%	2.4%	42.2%	25.4%	37.8%	27.3%
Chongqing Changan Automobile Class A	0.5%	1.5%	-0.5%	1.4%	0.0%	3.1%	2.0%	4.2%	10.1%	-5.3%	16.5%	5.0%
BAIC Motor Class H	5.1%	2.1%	8.7%	0.9%	14.0%	8.7%	5.8%	1.1%	10.3%	-2.1%	24.8%	8.4%
Geely Automobile Holdings	4.2%	8.7%	-2.0%	-0.3%	-0.4%	7.4%	5.4%	11.3%	-3.2%	8.9%	5.2%	12.8%
Guangzhou Automobile Class H	-0.5%	-0.7%	2.6%	-7.6%	-1.3%	-0.2%	-1.0%	-3.0%	-15.4%	-28.2%	-8.8%	-7.5%
Average Chinese OEMs	1.2%	1.1%	11.2%	4.9%	-3.4%	-2.9%	2.3%	1.5%	27.9%	13.1%	5.8%	0.3%
Tata Motors Limited	0.0%	0.2%	-0.1%	1.1%	-0.1%	1.3%	-1.5%	-1.5%	9.5%	10.2%	7.3%	6.3%
Bajaj Auto	0.3%	0.5%	0.2%	0.5%	0.4%	0.7%	1.8%	2.4%	3.3%	4.6%	4.1%	4.3%
Mahindra & Mahindra	-0.2%	-0.1%	-0.3%	-0.4%	-0.4%	0.3%	0.8%	1.1%	-1.3%	-0.6%	6.3%	2.2%
Maruti Suzuki	-0.6%	-0.8%	-0.6%	-0.6%	-0.5%	-0.6%	0.8%	-0.1%	10.2%	7.1%	10.8%	8.5%
Average Indian OEMs	-0.1%	-0.1%	-0.2%	0.1%	-0.2%	0.4%	0.5%	0.4%	5.4%	5.3%	7.1%	5.3%
Li Auto	0.6%	1.5%	1.9%	2.1%	0.9%	2.4%	4.4%	9.4%	31.5%	6.7%	34.5%	8.7%
NIO	-0.5%	-1.7%	1.5%	1.0%	0.0%	0.7%	-7.7%	-15.9%	4.8%	20.6%	7.4%	16.0%
Fisker	-4.4%	-1.8%	0.2%	0.5%	1.4%	3.3%	-59.1%	-32.2%	37.3%	181.5%	31.7%	163.8%
Xpeng	0.4%	0.8%	1.2%	0.3%	1.3%	0.5%	-0.9%	8.9%	9.0%	7.4%	16.7%	11.8%
Rivian	0.0%	-0.2%	0.0%	0.0%	0.0%	0.0%	1.7%	-11.0%	-0.8%	5.6%	-0.9%	6.4%
Polestar	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-7.8%	-9.4%	3.9%	3.7%	-11.3%	2.4%
Lucid Group	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-21.2%	-30.4%	-0.9%	5.7%	-4.7%	2.2%
BYD	-0.1%	-0.3%	0.4%	0.0%	1.0%	0.9%	1.1%	2.1%	17.5%	12.5%	19.2%	14.0%
Vinfast	0.2%	-2.5%	0.3%	-1.7%	0.6%	-0.9%	4.5%	6.7%	3.8%	13.8%	-1.1%	-10.1%
Tesla Inc	0.0%	-1.3%	-0.7%	-2.7%	0.6%	-2.2%	-2.1%	-7.1%	-10.1%	-20.7%	-2.3%	-13.5%
Average pure EV players	-0.4%	-0.5%	0.5%	-0.1%	0.6%	0.5%	-8.7%	-7.9%	9.6%	23.7%	8.9%	20.2%

Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH



FactSet consensus revision for suppliers

Exhibit 28: Consensus P&L items revision for suppliers (sorted by 2024 EBIT 1-month revision)

Most significant positive earnings revisions for EU and US suppliers

	1 month revision						3 month revision					
	23 Rev	24 Rev	23 EBIT	24 EBIT	23 NI	24 NI	23 Rev	24 Rev	23 EBIT	24 EBIT	23 NI	24 NI
TI Fluid Systems plc	0.2%	0.2%	5.7%	1.8%	16.7%	5.8%	-0.5%	-0.7%	11.2%	5.1%	7.3%	-1.6%
Continental AG	0.0%	0.0%	0.5%	0.6%	-1.4%	0.7%	-1.3%	-1.9%	-1.1%	-2.1%	-3.0%	-4.0%
Cie Generale des Etablissements Michelin SA	0.0%	-0.1%	0.2%	0.6%	0.5%	0.6%	-0.5%	-0.4%	-0.2%	2.1%	-1.2%	2.1%
Pirelli & C. S.p.A.	0.0%	0.0%	0.5%	0.2%	1.1%	0.9%	-0.4%	-0.9%	0.7%	-1.5%	9.7%	0.1%
Dowlaais	-1.7%	-2.1%	4.2%	0.1%	16.0%	-24.4%	-1.3%	-1.2%	2.8%	-0.2%	57.7%	-26.5%
Nokian Renkaat Oyj	0.1%	0.1%	0.2%	0.1%	0.1%	0.0%	-13.1%	-9.5%	-34.9%	-14.9%	-53.7%	-18.7%
CIE Automotive, S.A.	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-1.0%	-1.0%	0.9%	-0.2%	1.2%	0.1%
Schaeffler AG	-0.1%	0.0%	-0.2%	-0.1%	0.6%	-1.3%	-0.8%	-1.0%	0.6%	-0.8%	0.6%	0.8%
Gestamp	0.0%	0.0%	-0.2%	-0.2%	-0.3%	-0.3%	-0.4%	-1.3%	-0.5%	-4.1%	-1.6%	-4.6%
Faurecia Societe europeenne	0.1%	0.0%	-1.2%	-0.9%	2.4%	1.3%	0.5%	0.0%	-2.3%	-3.8%	-1.3%	-6.1%
Vitesco Technologies Group AG	0.0%	0.2%	-0.6%	-1.2%	-1.1%	-2.7%	-0.6%	-0.4%	-0.3%	-0.5%	-16.0%	-3.4%
Valeo SE	-0.1%	-0.4%	0.7%	-1.4%	1.8%	-1.0%	-1.4%	-2.8%	-4.5%	-11.7%	-8.6%	-16.4%
Plastic Omnium	0.1%	-0.2%	-1.6%	-3.1%	0.3%	-2.5%	-0.8%	-1.3%	-14.4%	-22.6%	-19.2%	-27.9%
Average EU suppliers	-0.1%	-0.2%	0.6%	-0.3%	2.8%	-1.8%	-1.7%	-1.7%	-3.2%	-4.3%	-2.2%	-8.2%
Lear Corporation	0.1%	-0.2%	0.4%	0.7%	0.3%	-1.4%	1.3%	-0.2%	2.4%	0.5%	2.6%	-1.7%
Adient plc	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-0.3%	-2.1%	3.0%	-6.9%	1.3%	-14.6%
BorgWarner Inc.	0.1%	-0.1%	0.2%	0.0%	1.0%	-0.3%	-1.1%	-2.1%	-3.3%	-5.4%	-0.8%	-0.5%
Dana Incorporated	0.1%	0.0%	0.0%	-0.3%	0.1%	-1.0%	-1.2%	-1.4%	-4.1%	-4.9%	-6.1%	-8.9%
Aptiv PLC	0.1%	0.0%	0.0%	-0.5%	0.0%	-0.4%	0.1%	-1.2%	0.5%	-3.5%	0.4%	-4.0%
Magna International Inc.	-0.3%	-0.3%	-0.5%	-0.5%	-0.3%	-0.2%	0.5%	0.9%	4.3%	3.0%	5.4%	2.7%
Visteon	0.0%	0.1%	-0.1%	-0.6%	-0.1%	-0.7%	-2.0%	-3.2%	-2.2%	-4.4%	1.8%	-5.6%
Autoliv Inc.	0.0%	0.1%	-0.6%	-0.9%	-0.1%	-1.0%	1.1%	0.1%	-0.3%	-1.4%	9.7%	2.2%
American Axle & Manufacturing Holdings, Inc.	-0.7%	-1.6%	-1.7%	-5.3%	16.8%	-16.2%	-1.0%	0.3%	-33.3%	-17.4%	-161.1%	-46.8%
Mobileye	0.1%	-21.3%	3.9%	-47.9%	3.2%	-40.7%	-1.1%	-25.1%	11.1%	-50.8%	13.5%	-42.2%
Average North American suppliers	-0.1%	-2.3%	0.2%	-5.5%	2.1%	-6.2%	-0.4%	-3.4%	-2.2%	-9.1%	-13.3%	-11.9%
Nexen Tire Corp	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-2.7%	-3.0%	20.3%	17.4%	26.0%	17.1%
Hankook	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	2.1%	23.9%	26.2%	20.0%	18.5%
Hyundai Mobis Co., Ltd	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-1.1%	-2.7%	0.3%	-2.0%	4.0%	1.5%
SK Innovation	-0.1%	-0.9%	-1.6%	-0.9%	-4.1%	-3.2%	0.9%	-1.5%	30.4%	-2.8%	39.4%	-6.4%
Samsung SDI	-0.6%	-1.6%	-2.1%	-3.8%	-0.2%	-3.5%	-2.7%	-7.6%	-8.0%	-14.4%	-3.1%	-11.7%
LG Energy	-0.4%	-2.3%	-1.4%	-3.9%	-3.9%	-6.7%	-2.3%	-10.8%	-6.1%	-17.4%	-11.2%	-23.3%
Average Korean suppliers	-0.2%	-0.8%	-0.9%	-1.4%	-1.4%	-2.2%	-1.1%	-3.9%	10.1%	1.2%	12.5%	-0.7%
Yokohama	0.2%	0.5%	0.9%	1.5%	0.2%	2.8%	0.3%	0.3%	3.8%	2.9%	2.3%	4.7%
Aisin Corporation	0.4%	0.4%	0.2%	0.7%	-0.2%	0.5%	2.6%	2.2%	4.7%	4.9%	4.8%	5.7%
Toyoda Gosei Co., Ltd.	0.0%	0.0%	0.7%	0.2%	0.8%	-0.1%	1.5%	2.0%	7.7%	5.7%	12.4%	7.2%
Toyota Boshoku Corp.	0.0%	0.0%	0.0%	0.0%	0.0%	0%	4.5%	4.0%	10.6%	9.3%	17.3%	10%
Bridgestone Corporation	-0.7%	-0.6%	-0.9%	-0.5%	-1.4%	-1%	-0.6%	0.1%	-4.0%	-1.1%	-5.4%	-1%
DENSO CORPORATION	0.1%	0.1%	-1.2%	-0.9%	-1.1%	-1%	1.9%	1.6%	0.1%	2.3%	-0.1%	2%
Panasonic	-0.1%	0.1%	-0.6%	-1.2%	0.0%	-1%	-1.3%	-2.9%	-3.6%	-2.7%	0.3%	1%
Average Japanese suppliers	0.0%	0.1%	-0.1%	0.0%	-0.3%	0.1%	1.3%	1.0%	2.8%	3.0%	4.5%	4.2%
CATL	-0.2%	-0.6%	0.2%	0.1%	0.3%	0.2%	-5.5%	-8.2%	-5.3%	-10.9%	-5.0%	-8.5%

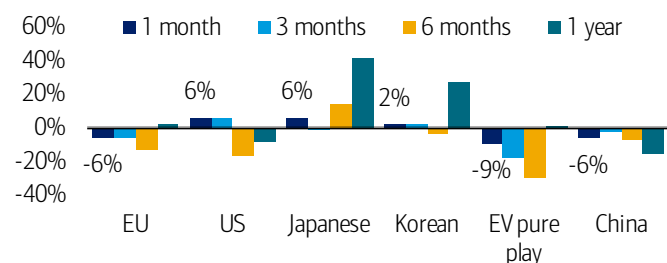
Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Global auto & supplier share price perf

Exhibit 29: Global OEM share price performance by region

US and Japanese OEMs outperformed in the past month

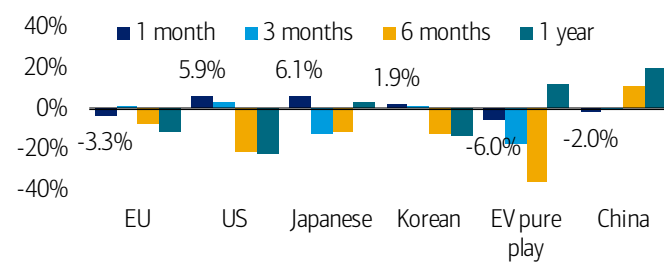


Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 30: Global OEM PE change by region

US and Japanese OEMs re-rated while EV pure play de-rated m/m



Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 31: Share price performance and PE change of global OEMs

Most of US and JAP OEMs 1-month share price performance can be explained by their re-rating

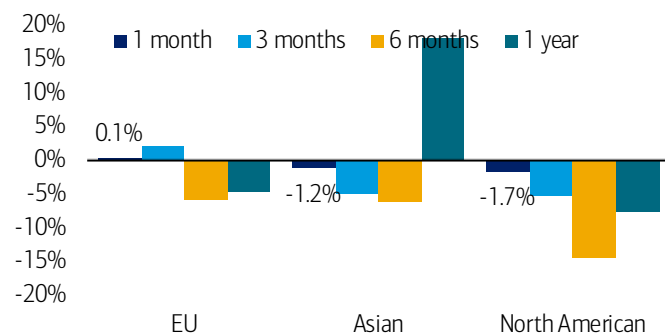
OEM	1 month		3 month		6 month		12 month	
	Sh p perf	PE re-rating	Sh p perf	PE re-rating	Sh p perf	PE re-rating	Sh p perf	PE re-rating
OEM	-1.3%	-1.5%	-4.1%	3.9%	-14.0%	-6.8%	-8.7%	-11.2%
MBG	-1.9%	-1.6%	8.8%	8.5%	26.1%	11.5%	40.7%	12.9%
STLA	-2.1%	1.5%	3.6%	11.0%	-7.7%	-0.1%	-11.4%	-18.6%
VW	-2.8%	-2.6%	0.0%	4.0%	-7.5%	-5.9%	7.3%	-9.2%
BMW	-5.8%	-4.7%	-18.2%	-12.3%	-39.2%	-30.3%	22.4%	-30.7%
P911	-6.5%	-6.7%	-5.2%	-8.1%	-6.6%	-19.5%	-4.1%	-38.6%
Ferrari	-7.5%	-7.7%	9.0%	2.9%	9.6%	-2.6%	46.6%	17.4%
AML	-10.6%		-14.2%		-31.3%		-24.8%	
Volvo C	-12.9%	-13.9%	-34.2%	-35.7%	-35.7%	-43.9%	-42.5%	-52.4%
EU Autos avg (Ex-AML)	-4.8%	-3.3%	-2.5%	1.4%	-8.8%	-7.7%	8.5%	-11.1%
GM	6.8%	6.6%	15.8%	5.8%	-10.3%	-21.6%	-5.2%	-29.7%
Ford	5.8%	5.2%	-4.4%	0.0%	-23.1%	-21.4%	-11.4%	-14.9%
US Autos avg	6.3%	5.9%	5.7%	2.9%	-16.7%	-21.5%	-8.3%	-22.3%
Mazda	11.0%	8.3%	7.2%	-11.9%	18.3%	-8.3%	48.5%	6.1%
Suzuki	10.9%	10.6%	0.8%	-0.9%	13.3%	0.8%	38.7%	20.3%
Subaru	10.5%	10.3%	-19.8%	-16.0%	-9.3%	-17.4%	-6.0%	1.4%
Toyota	5.1%	3.9%	7.3%	-6.8%	28.6%	-4.6%	54.8%	5.4%
Honda	5.0%	5.8%	-6.4%	-9.5%	12.5%	-5.3%	49.9%	11.5%
Nissan	1.1%	-0.2%	-7.9%	-18.2%	2.0%	-20.8%	35.1%	-11.9%
Mitsubishi	1.0%	3.6%	7.5%	-23.6%	31.3%	-23.4%	69.2%	-11.9%
Japanese Autos avg	6.4%	6.1%	-1.6%	-12.4%	13.8%	-11.3%	41.4%	3.0%
Kia	3.0%	2.5%	6.2%	3.4%	1.4%	-7.0%	39.7%	-4.0%
Hyundai	0.9%	1.3%	-1.3%	-2.7%	-9.7%	-18.3%	14.0%	-21.8%
Korean Autos avg	1.9%	1.9%	2.4%	0.3%	-4.2%	-12.7%	26.9%	-12.9%
BYD	2.0%	-1.2%	-11.9%	-28.0%	-19.5%	-40.3%	-2.1%	-38.3%
Nio	0.9%		-14.2%		-31.1%		-33.3%	
Rivian	-0.8%		-3.0%		-24.4%		10.0%	
Li Auto	-4.9%	-12.0%	-4.9%	-20.7%	-8.9%	-59.1%	49.1%	-82.0%
Tesla	-5.2%	-4.8%	-13.6%	-3.5%	-15.8%	-8.5%	84.4%	156.6%
Xpeng	-17.3%		-24.5%		-14.1%		25.5%	
Polestar	-19.3%		-35.0%		-61.7%		-67.9%	
Lucid	-29.3%		-39.0%		-59.9%		-58.9%	
EVs avg	-9.2%	-6.0%	-18.3%	-17.4%	-29.4%	-36.0%	0.9%	12.1%
Geely	5.4%	-2.8%	-10.4%	-25.8%	-16.2%	-31.8%	-32.2%	-35.1%
Guangzhou	1.8%	1.5%	-7.0%	-1.7%	-28.4%	-3.4%	-37.4%	16.7%
BAIC Motor	-4.1%	-11.8%	-9.0%	-16.8%	6.0%	14.8%	-8.6%	-7.1%
SAIC Motor	-4.4%	-5.1%	-9.7%	-3.6%	-8.0%	-1.9%	-7.3%	21.7%
Great Wall Motor	-8.4%	-11.0%	4.8%	-23.4%	-0.8%	-26.0%	-9.2%	3.4%
Dongfeng Motor	-13.2%	40.1%	12.1%	69.1%	-5.8%	122.6%	-25.4%	134.9%
Chongqing Changan	-22.3%	-24.8%	3.0%	-1.3%	3.3%	1.4%	13.0%	6.3%
Chinese Autos avg	-6.4%	-2.0%	-2.3%	-0.5%	-7.1%	10.8%	-15.3%	20.1%

Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 32: Global suppliers share price performance by region

North American suppliers underperformed all year

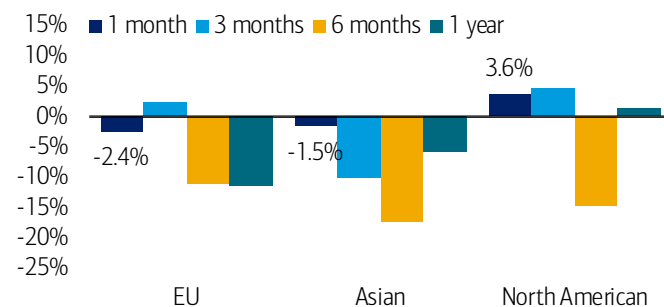


Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 33: Global OEM PE change by region

North American suppliers re-rated the most m/m



Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 34: Share price performance and PE change of global Suppliers

In Europe, Non-BEV exposed and Tire names performed the best on an improving backdrop

Table	1 month		3 month		6 month		12 month	
Suppliers	Sh p perf	PE re-rating	Sh p perf	PE re-rating	Sh p perf	PE re-rating	Sh p perf	PE re-rating
Schaeffler	12.2%	10.8%	4.2%	2.7%	4.2%	1.8%	-11.9%	-17.5%
Pirelli	10.5%	8.6%	19.1%	15.5%	17.5%	8.0%	16.7%	-0.2%
Nokian	3.4%	-1.3%	9.6%	20.6%	4.7%	11.4%	-21.6%	8.5%
Forvia	2.9%	0.7%	11.8%	4.4%	-11.1%	-21.1%	11.5%	-18.0%
Continental	0.6%	-1.6%	11.9%	10.6%	6.8%	-0.4%	12.2%	-1.3%
TI Fluid Syst	-1.4%	-4.5%	15.2%	16.8%	4.6%	-29.4%	5.8%	-23.8%
Plastic Omnium	-3.2%	-2.7%	-20.7%	0.2%	-32.3%	-11.6%	-25.8%	-10.5%
Dowlaiss	-3.4%	-4.2%	-4.5%	-6.4%	-16.7%	-26.0%		0.0%
Michelin	-3.7%	-3.9%	5.2%	1.9%	17.8%	9.3%	7.5%	-1.3%
CIE	-5.7%	-6.0%	-2.9%	-4.9%	-11.9%	-16.0%	-5.0%	-9.8%
Gestamp	-5.7%	-4.4%	-15.3%	-13.0%	-26.1%	-28.6%	-13.5%	-26.3%
Valeo	-5.8%	-9.3%	-8.0%	-2.4%	-33.2%	-30.5%	-31.1%	-35.7%
Vitesco	-12.4%	-14.1%	-9.0%	-15.4%	9.9%	-10.1%	33.6%	-13.5%
Average EU Suppliers	-0.9%	-2.4%	1.3%	2.4%	-5.1%	-11.0%	-1.8%	-11.5%
DENSO	5.3%	6.3%	-4.0%	-7.8%	-1.6%	-13.4%	36.9%	14.0%
Yokohama	4.4%	1.0%	14.5%	6.4%	12.9%	-5.5%	68.4%	15.9%
Aisin	3.3%	1.2%	-4.0%	-12.3%	18.8%	4.4%	49.6%	42.8%
Toyoda Gosei	3.3%	1.6%	-8.7%	-19.6%	4.0%	-17.1%	37.4%	8.3%
Toyota Boshoku	3.0%	1.7%	-7.8%	-17.8%	-2.0%	-19.4%	35.5%	-2.5%
Panasonic	1.9%	0.6%	-9.5%	-10.4%	-12.3%	-24.5%	31.5%	-10.7%
Bridgestone	0.3%	0.2%	1.6%	0.6%	6.3%	4.4%	28.5%	12.7%
LG Energy	-3.0%	2.9%	-15.5%	1.5%	-24.5%	-12.4%	-12.4%	-38.5%
Hankook	-4.4%	-5.2%	16.8%	-5.2%	19.6%	-13.9%	38.6%	-4.3%
Hyundai Mobis	-4.8%	-5.2%	-7.3%	-9.8%	-7.7%	-15.9%	-0.7%	-15.8%
SK Innovation	-6.0%	-5.1%	-11.3%	-16.7%	-21.9%	-23.6%	-16.3%	5.8%
CATL	-6.4%	-8.3%	-20.5%	-18.0%	-32.4%	-36.2%	-34.9%	-51.4%
Nexen Tire	-6.6%	-6.5%	3.3%	-17.5%	-6.3%	-33.9%	26.9%	-25.3%
Samsung SDI	-6.6%	-6.8%	-18.5%	-14.8%	-39.3%	-38.1%	-33.3%	-33.2%
Average Asian Suppliers	-1.2%	-1.5%	-5.1%	-10.1%	-6.2%	-17.5%	18.3%	-5.9%
American Axle & Manuf	4.8%	10.3%	12.9%	69.2%	-7.9%	28.6%	-6.7%	138.8%
Aptiv PLC	3.7%	1.8%	-15.5%	-17.0%	-24.3%	-32.9%	-15.8%	-33.9%
Autoliv	3.7%	1.7%	8.1%	-2.9%	16.6%	-5.9%	30.9%	-9.6%
BorgWarner	2.4%	1.5%	-14.8%	-15.6%	-25.2%	-18.8%	-11.1%	-11.4%
Magna International	2.0%	1.0%	2.6%	-5.2%	-1.9%	-19.1%	-8.9%	-20.4%
Adient	0.9%	-2.9%	-9.0%	-4.1%	-18.8%	-28.3%	-18.5%	-37.2%
Lear	0.1%	-1.1%	-3.6%	-9.2%	-10.6%	-21.7%	-1.3%	-20.4%
Dana	-3.7%	-7.2%	-3.2%	-4.0%	-24.9%	-41.7%	-22.8%	0.2%
Visteon	-6.0%	-7.8%	-13.7%	-17.1%	-24.3%	-31.1%	-17.6%	-33.2%
Mobileye	-24.4%	39.1%	-16.1%	53.2%	-24.0%	22.7%	-6.4%	41.3%
Average NA Suppliers	-1.7%	3.6%	-5.2%	4.7%	-14.5%	-14.8%	-7.8%	1.4%

Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Appendix

Consensus P&L figures for OEMs

Exhibit 35: Consensus P&L figures for OEMs (ranked by 2024 revenue growth)

Volvo Cars is the EU OEM (ex-AML) that is expected to grow the fastest in 24-25 while BMW should see the largest drop in EBIT & NI during that period

EURm	2022 Rev	23 Rev growth	24 Rev growth	25 Rev growth	2022 EBIT	23 EBIT growth	24 EBIT growth	25 EBIT growth	2022 NI	23 NI growth	24 NI growth	25 NI growth
Aston Martin	1,554	21.8%	18.4%	7.6%	-160	-47.0%	-218.1%	96.8%	-594	-59.9%	-82.3%	-215.4%
Volvo Cars	29,765	20.0%	8.7%	10.6%	1,482	27.5%	4.0%	21.9%	1,405	-10.5%	12.6%	38.4%
Ferrari	5,095	16.6%	8.6%	7.9%	1,227	30.3%	13.3%	11.8%	939	30.7%	13.1%	11.0%
Renault	46,391	15.0%	4.3%	5.2%	2,216	73.6%	-3.7%	13.1%	1,620	118.7%	-3.0%	8.8%
Porsche AG	37,630	9.3%	3.6%	6.7%	6,770	7.9%	3.8%	9.4%	4,951	7.7%	3.3%	8.8%
Mercedes-Benz	150,017	1.4%	1.3%	2.8%	20,458	-7.5%	-9.8%	2.9%	14,809	-6.8%	-10.1%	3.8%
BMW	142,610	6.7%	1.1%	2.6%	13,999	24.7%	-13.1%	-0.4%	17,941	-35.7%	-11.4%	1.6%
Stellantis	179,592	6.2%	0.7%	2.8%	23,323	2.9%	-9.2%	1.2%	16,779	10.9%	-10.2%	1.1%
VW	279,232	12.1%	0.7%	4.0%	22,124	0.0%	-2.6%	6.9%	15,836	-3.9%	-1.9%	8.3%
Average EU OEMs	96,876	12%	5%	6%	10,160	12%	-26%	18%	8,187	6%	-10%	-15%
Ford Motor	145,574	7.9%	4.1%	0.8%	9,592	-1.8%	-4.4%	-0.7%	7,016	-6.6%	-2.5%	-2.1%
General Motors Company	144,317	5.1%	2.7%	1.1%	13,327	-16.0%	-7.6%	-5.3%	10,169	-8.3%	-10.2%	4.8%
Average US mass market OEMs	144,945	7%	3%	1%	11,460	-9%	-6%	-3%	8,593	-7%	-6%	1%
Kia	64,846	8.2%	3.5%	3.8%	5,419	53.7%	-6.2%	-1.4%	4,052	60.1%	-4.3%	0.2%
Hyundai Motor	106,694	5.8%	3.0%	4.2%	7,351	44.6%	-5.9%	-1.6%	5,513	57.3%	-6.4%	-0.6%
Average Korean OEMs	85,770	7%	3%	4%	6,385	49%	-6%	-2%	4,782	59%	-5%	0%
Suzuki Motor	31,292	6.9%	6.4%	5.3%	2,363	19.8%	8.9%	6.3%	1,491	15.0%	9.9%	6.0%
Mazda Motor	25,869	18.9%	5.0%	2.7%	960	81.4%	7.8%	0.7%	965	28.1%	9.4%	0.4%
SUBARU	25,718	14.4%	4.9%	2.0%	1,823	54.6%	6.0%	-1.5%	1,366	55.3%	1.9%	-1.2%
Nissan Motor	72,099	14.1%	4.0%	2.1%	2,566	57.5%	3.1%	1.2%	1,510	70.3%	10.0%	2.6%
Honda Motor	115,038	11.4%	3.8%	2.2%	5,711	45.7%	7.6%	1.3%	4,731	35.5%	5.0%	2.8%
Toyota Motor Corp.	251,909	10.8%	3.5%	3.8%	18,476	62.7%	3.3%	3.1%	16,620	60.5%	-0.2%	2.9%
Mitsubishi Motors	16,666	7.6%	2.6%	4.0%	1,292	3.8%	-0.6%	4.2%	1,144	-20.5%	3.0%	4.0%
Average Japanese OEMs	76,941	12%	4%	3%	4,741	46%	5%	2%	3,975	35%	6%	2%
Chongqing Changan Automobile Company	16,042	20.9%	28.0%	18.4%	1,010	18.4%	-7.1%	28.9%	1,032	33.0%	-13.5%	26.8%
Geely Automobile Holdings Limited	19,984	14.8%	26.1%	23.2%	411	18.9%	62.9%	34.6%	710	-11.0%	55.7%	46.2%
Great Wall Motor Co	18,396	19.0%	21.8%	14.8%	1,067	-13.3%	30.3%	20.1%	1,107	-19.0%	30.1%	22.9%
Guangzhou Automobile Group Co.	14,656	18.0%	15.2%	11.6%	-888	-30.9%	-20.2%	-42.3%	1,054	-30.9%	15.1%	13.9%
SAIC Motor Corporation	97,279	-4.3%	4.1%	3.6%	1,127	148.0%	11.6%	10.6%	2,107	-5.5%	9.4%	12.2%
Dongfeng Motor Group Co	12,345	-1.6%	1.2%	-3.1%	-494	-23.3%	-6.7%	-10.8%	1,368	-65.6%	-9.8%	-4.4%
BAIC Motor Corporation	25,667	3.9%	0.3%	-13.0%	3,505	-6.3%	-10.2%	-23.8%	566	6.7%	-9.9%	-34.2%
Average Chinese OEMs	29,195	10%	14%	8%	820	16%	9%	2%	1,135	-13%	11%	12%
Bajaj Auto	4,050	17.3%	14.2%	11.7%	697	26.4%	17.4%	11.5%	626	25.7%	14.0%	12.2%
Maruti Suzuki	13,014	19.0%	11.3%	10.0%	906	62.4%	14.3%	8.9%	891	53.0%	12.6%	9.9%
Mahindra & Mahindra	9,611	13.9%	10.4%	9.5%	824	27.2%	13.0%	6.4%	741	49.4%	6.5%	8.9%
Tata Motors	38,762	21.9%	7.9%	8.5%	784	337.3%	10.8%	10.1%	306	546.6%	19.0%	19.4%
Average Indian OEMs	16,359	18%	11%	10%	803	113%	14%	9%	641	169%	13%	13%
Fisker Inc Class A	0	99970.2%	470.7%	75.8%	-500	-28.8%	-34.9%	-96.1%	-516	-30.7%	-38.5%	-93.8%
Lucid Group, Inc.	574	0.9%	109.6%	178.9%	-2,048	32.3%	-15.0%	-27.5%	-1,231	110.2%	-10.4%	-24.7%
Xpeng	3,669	9.1%	89.8%	37.2%	-1,190	26.7%	-28.4%	-45.9%	-1,249	17.0%	-33.9%	-52.3%
Polestar	2,320	7.4%	72.3%	95.6%	-859	5.3%	-15.2%	-84.9%	-439	79.9%	22.3%	-66.6%
Li Auto	6,133	151.1%	62.6%	36.6%	-496	-274.9%	82.9%	54.7%	-275	-499.1%	54.3%	59.0%
NIO	6,705	7.4%	39.8%	37.4%	-2,124	18.1%	-30.0%	-40.0%	-1,981	26.4%	-33.3%	-49.7%
Rivian Automotive	1,554	159.3%	39.0%	63.9%	-6,425	-22.9%	-20.7%	-30.5%	-6,327	-22.7%	-19.4%	-24.5%
BYD	56,852	40.7%	27.1%	17.5%	2,888	69.9%	31.0%	24.7%	2,375	65.0%	30.1%	25.6%
Tesla Inc	75,053	18.3%	20.5%	24.4%	12,582	-30.3%	37.3%	47.9%	13,005	-22.2%	22.9%	35.7%
Average pure EV players	16,984	11152%	104%	63%	203	-23%	1%	-22%	373	-31%	-1%	-21%

Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Consensus P&L figures for suppliers

Exhibit 36: Consensus P&L figures for suppliers (ranked by 2024 revenue growth)

Nokian and Vitesco are the EU suppliers that should grow EBIT the most in 24-25 with no EU supplier expected to shrink earnings in that period

	2022 Rev	23 Rev growth	24 Rev growth	25 Rev growth	2022 EBIT	23 EBIT growth	24 EBIT growth	25 EBIT growth	2022 NI	23 NI growth	24 NI growth	25 NI growth
Nokian	1,776	-33.5%	15.6%	11.9%	221	-75.7%	88.3%	35.3%	-176	-111.3%	161.8%	44.6%
Gestamp	11,043	10.6%	5.3%	5.1%	540	28.5%	9.3%	12.5%	260	22.4%	19.7%	16.4%
Valeo SE	20,037	10.5%	5.3%	7.2%	644	20.6%	27.8%	33.8%	230	34.1%	59.3%	45.2%
Forvia	25,458	7.2%	4.9%	5.6%	1,115	27.0%	19.3%	16.6%	-250	-254.6%	74.0%	30.1%
CIE Automotive, S.A.	3,839	3.5%	4.3%	3.5%	447	15.8%	6.4%	4.7%	300	8.1%	7.4%	6.5%
TI Fluid Systems	3,268	6.2%	4.2%	3.8%	100	130.6%	10.6%	9.8%	44	134.6%	15.8%	13.0%
Vitesco Technologies	9,070	4.0%	3.6%	5.6%	223	30.8%	68.1%	30.6%	24	428.2%	155.3%	33.4%
Schaeffler AG	15,809	4.2%	3.4%	5.3%	1,046	10.2%	8.7%	9.7%	557	10.8%	19.4%	11.6%
Dowla	5,902	3.5%	3.2%	4.3%	375	3.6%	13.8%	11.8%	-87	67.2%		583.8%
Continental AG	39,266	6.5%	3.2%	4.0%	1,951	24.9%	19.0%	16.4%	67	1994.7%	26.7%	20.8%
Plastic Omnium	8,538	20.3%	2.7%	5.2%	341	5.4%	12.6%	20.6%	168	3.1%	17.9%	28.4%
Pirelli	6,616	0.0%	2.3%	3.4%	978	-3.6%	5.4%	7.8%	436	10.9%	7.0%	12.8%
Michelin	28,590	0.0%	2.1%	2.7%	3,396	-0.8%	7.0%	4.5%	2,009	9.4%	7.1%	6.0%
Average EU suppliers	13,786	3%	5%	5%	875	17%	23%	16%	275	181%	36%	66%
Aptiv PLC	15,986	14.8%	8.3%	8.9%	1,449	33.6%	19.2%	17.9%	884	38.1%	23.1%	23.1%
BorgWarner	14,682	-11.5%	7.7%	8.8%	1,490	-17.3%	9.9%	11.8%	1,011	-19.9%	11.6%	13.7%
Visteon	3,519	4.0%	7.6%	8.1%	169	52.4%	30.2%	18.9%	142	24.2%	32.2%	18.5%
Magna International	35,442	11.8%	5.9%	3.4%	1,557	31.6%	21.9%	15.9%	1,119	29.3%	23.1%	18.0%
Autoliv	8,156	16.5%	5.6%	5.8%	552	47.6%	33.3%	14.4%	354	65.6%	24.6%	16.1%
Lear	19,096	11.1%	5.4%	5.0%	796	28.3%	24.7%	17.5%	478	36.6%	27.4%	20.2%
American Axle & Manufacturing	5,855	-5.9%	4.3%	0.8%	257	-46.1%	53.1%	4.4%	68	-129.8%	-305.7%	40.9%
Dana	9,506	1.5%	4.0%	5.7%	257	45.0%	20.4%	21.2%	51	108.3%	63.5%	46.8%
Adient	14,270	0.8%	-1.0%	2.7%	352	63.1%	1.3%	21.3%	11	1627.4%	34.2%	42.5%
Mobileye	1,722	10.1%	-2.3%	49.1%	631	-1.3%	-42.4%	123.3%	557	5.2%	-36.3%	87.5%
Average North American suppliers	12,823	5%	5%	10%	751	24%	17%	27%	468	178%	-10%	33%
LG Energy	18,640	26.9%	16.4%	32.9%	884	87.3%	65.2%	60.0%	558	109.7%	50.1%	64.8%
Samsung SDI	15,084	6.3%	11.6%	20.6%	1,355	-7.6%	23.9%	34.9%	1,463	-5.4%	11.2%	26.3%
Hyundai Mobis	38,650	8.0%	8.2%	7.9%	1,509	14.4%	17.2%	13.3%	1,851	32.7%	5.4%	7.6%
Nexen Tire	1,877	1.0%	6.1%	6.2%	-39	489341.5%	33.1%	11.1%	-20	-583.3%	31.7%	13.7%
Hankook	6,287	-1.0%	2.4%	2.3%	529	53.7%	6.8%	-5.4%	517	7.0%	16.6%	-4.8%
SK Innovation	58,152	-8.3%	2.4%	6.2%	2,918	-44.0%	46.1%	47.2%	1,240	-51.0%	102.6%	54.8%
Average Korean suppliers	23,115	5%	8%	13%	1,193	-81540%	32%	27%	935	-82%	36%	27%
Yokohama	6,007	5.7%	8.0%	4.3%	489	18995.9%	17.2%	6.0%	321	29.1%	12.3%	6.3%
Toyota Boshoku	10,727	11.5%	5.1%	2.1%	323	28393.4%	7.9%	4.9%	145	103.8%	27.1%	4.7%
DENSO	42,529	5.5%	4.8%	4.5%	2,885	22141.3%	13.0%	8.6%	2,077	36.6%	18.9%	8.6%
Toyoda Gosei	6,342	3.9%	4.6%	4.0%	237	26255.3%	9.2%	10.9%	123	78.1%	22.8%	11.1%
Bridgestone	28,692	-5.2%	4.5%	4.1%	3,369	15085.4%	9.7%	8.1%	2,097	5.7%	10.0%	7.9%
Aisin	29,473	4.4%	3.7%	3.3%	392	56605.5%	12.4%	7.7%	446	73.1%	31.9%	8.1%
Panasonic	57,091	-6.9%	2.8%	3.6%	1,966	31.8%	18.3%	15.1%	1,809	43.4%	-7.9%	16.6%
Average Japanese suppliers	25,837	3%	5%	4%	1,380	23930%	13%	9%	1,003	53%	16%	9%
CATL	44,139	19.1%	21.4%	22.8%	4,946	27.9%	25.8%	25.0%	4,128	35.4%	24.6%	25.5%

Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Cons profitability metrics for OEMs

Exhibit 37: Global OEMs profitability metrics (ranked by 2024 EBIT margin)

Consensus expects Ferrari & Porsche as well as Japanese and Chinese OEMs to keep or even increase their profitability in 2024

	2022 GM	2023 GM	2024 GM	2025 GM	2022 EBIT margin	2023 EBIT margin	2024 EBIT margin	2025 EBIT margin	2022 NI margin	2023 NI margin	2024 NI margin	2025 NI margin
Ferrari	48.4%	50.0%	50.9%	51.5%	24.1%	26.9%	28.1%	29.1%	18.4%	20.7%	21.5%	22.1%
Porsche AG	28.0%	28.5%	28.0%	28.1%	18.0%	17.8%	17.8%	18.2%	13.2%	13.0%	12.9%	13.2%
Stellantis	19.7%	21.2%	19.2%	18.6%	13.0%	12.6%	11.3%	11.2%	9.3%	9.8%	8.7%	8.6%
Mercedes-Benz	22.7%	22.8%	21.9%	22.0%	13.6%	12.4%	11.1%	11.1%	9.9%	9.1%	8.1%	8.1%
BMW	17.2%	21.2%	20.1%	19.5%	9.8%	11.5%	9.9%	9.6%	12.6%	7.6%	6.6%	6.6%
VW	18.7%	20.4%	20.2%	20.6%	7.9%	7.1%	6.8%	7.0%	5.7%	4.9%	4.7%	4.9%
Renault	19.9%	19.7%	18.5%	18.6%	4.8%	7.2%	6.6%	7.2%	3.5%	6.6%	6.2%	6.4%
Volvo Cars	18.3%	18.8%	18.6%	18.4%	5.0%	5.3%	5.1%	5.6%	4.7%	3.5%	3.6%	4.6%
Aston Martin	32.6%	38.3%	40.8%	40.4%	-10.3%	-4.5%	4.5%	8.2%	-38.2%	-12.6%	-1.9%	2.0%
Average EU OEMs	25.1%	26.8%	26.5%	26.4%	9.5%	10.7%	11.2%	11.9%	4.3%	6.9%	7.8%	8.5%
General Motors Company	16.4%	15.5%	15.0%	15.7%	9.2%	7.4%	6.6%	6.2%	7.0%	6.1%	5.4%	5.6%
Ford Motor	13.3%	12.9%	12.9%	12.4%	6.6%	6.0%	5.5%	5.4%	4.8%	4.2%	3.9%	3.8%
Average US mass market OEMs	14.9%	14.2%	13.9%	14.1%	7.9%	6.7%	6.1%	5.8%	5.9%	5.2%	4.6%	4.7%
Kia	20.8%	23.1%	22.3%	22.0%	8.4%	11.9%	10.8%	10.2%	6.2%	9.2%	8.5%	8.2%
Hyundai Motor	19.9%	21.0%	20.5%	20.3%	6.9%	9.4%	8.6%	8.1%	5.2%	7.7%	7.0%	6.7%
Average Korean OEMs	20.3%	22.1%	21.4%	21.2%	7.6%	10.6%	9.7%	9.2%	5.7%	8.5%	7.8%	7.5%
Toyota Motor Corp.	19.7%	21.5%	21.2%	20.9%	7.3%	10.8%	10.7%	10.7%	6.6%	9.6%	9.2%	9.1%
SUBARU	19.5%	21.2%	21.5%	21.1%	7.1%	9.6%	9.7%	9.3%	5.3%	7.2%	7.0%	6.8%
Suzuki Motor	24.8%	25.4%	25.3%	25.4%	7.6%	8.5%	8.7%	8.7%	4.8%	5.1%	5.3%	5.3%
Mitsubishi Motors	21.3%	20.5%	20.5%	20.0%	7.7%	7.5%	7.2%	7.3%	6.9%	5.1%	5.1%	5.1%
Honda Motor	21.1%	21.1%	21.5%	21.5%	5.0%	6.5%	6.7%	6.7%	4.1%	5.0%	5.1%	5.1%
Mazda Motor	20.9%	20.9%	20.7%	20.7%	3.7%	5.7%	5.8%	5.7%	3.7%	4.0%	4.2%	4.1%
Nissan Motor	16.2%	17.2%	17.2%	17.4%	3.6%	4.9%	4.9%	4.8%	2.1%	3.1%	3.3%	3.3%
Average Japanese OEMs	20.5%	21.1%	21.1%	21.0%	6.0%	7.6%	7.7%	7.6%	4.8%	5.6%	5.6%	5.5%
BAIC Motor Corporation	22.2%				13.7%	12.3%	11.0%	9.7%	2.2%	2.3%	2.0%	1.5%
Great Wall Motor Co	19.4%	18.6%	19.1%	19.2%	5.8%	4.2%	4.5%	4.7%	6.0%	4.1%	4.4%	4.7%
Chongqing Changan Automobile Company	20.5%	17.5%	18.6%	20.3%	6.3%	6.2%	4.5%	4.9%	6.4%	7.1%	4.8%	5.1%
SAIC Motor Corporation	11.8%	11.3%	12.1%	12.3%	1.2%	3.0%	3.2%	3.4%	2.2%	2.1%	2.2%	2.4%
Geely Automobile Holdings Limited	14.1%	14.4%	13.3%	11.4%	2.1%	2.1%	2.7%	3.0%	3.6%	2.8%	3.4%	4.0%
Guangzhou Automobile Group Co.	4.1%	5.6%	7.0%	7.8%	-6.1%	-3.6%	-2.5%	-1.3%	7.2%	4.2%	4.2%	4.3%
Dongfeng Motor Group Co	9.5%				-4.0%	-3.1%	-2.9%	-2.6%	11.1%	3.9%	3.5%	3.4%
Average Chinese OEMs	14.5%	13.5%	14.0%	14.2%	2.7%	3.0%	3.0%	3.1%	5.5%	3.8%	3.5%	3.6%
Bajaj Auto	28.5%	29.2%	29.5%	29.4%	17.2%	18.5%	19.0%	19.0%	15.4%	16.6%	16.5%	16.6%
Mahindra & Mahindra	24.0%	24.9%	25.2%	25.5%	8.6%	9.6%	9.8%	9.5%	7.7%	10.1%	9.8%	9.7%
Maruti Suzuki	26.6%	28.1%	28.1%	28.2%	7.0%	9.5%	9.8%	9.7%	6.8%	8.8%	8.9%	8.9%
Tata Motors	34.5%	36.3%	36.6%	36.1%	2.0%	7.3%	7.5%	7.6%	0.8%	4.2%	4.6%	5.0%
Average Indian OEMs	28.4%	29.7%	29.9%	29.8%	8.7%	11.2%	11.5%	11.4%	7.7%	9.9%	9.9%	10.1%
Tesla Inc	25.6%	18.9%	20.1%	21.7%	16.8%	9.9%	11.2%	13.4%	17.3%	11.4%	11.6%	12.7%
Li Auto	19%	21.5%	21.1%	21.2%	-8%	5.6%	6.3%	7.2%	-4%	7.1%	6.8%	7.9%
BYD	17.0%	19.2%	19.4%	19.9%	5.1%	6.1%	6.3%	6.7%	4.2%	4.9%	5.0%	5.4%
Fisker Inc Class A	11.5%	-2.5%	11.7%	18.3%	0.0%	-110.3%	-12.6%	-0.3%	0.0%	-110.8%	-11.9%	-0.4%
Xpeng	11.5%	2.4%	10.9%	14.3%	-32.4%	-37.7%	-14.2%	-5.6%	-34.0%	-36.5%	-12.7%	-4.4%
NIO	10.4%	7.3%	13.0%	16.7%	-31.7%	-34.8%	-17.5%	-7.6%	-29.6%	-34.8%	-16.6%	-6.1%
Polestar	4.9%	1.6%	7.0%	15.3%	-37.0%	-36.3%	-17.9%	-1.4%	-18.9%	-31.7%	-22.5%	-3.8%
Vinfast		-39.6%	-16.0%	-1.3%		-122.9%	-53.7%	-27.0%		-170.0%	-70.6%	-38.6%
Rivian Automotive	-188%	-43%	-5%	11%	-414%	-123%	-70%	-30%	-407%	-121%	-70%	-32%
Lucid Group, Inc.	-170.7%	-220.7%	-74.9%	-7.8%	-356.9%	-467.9%	-189.8%	-49.4%	-214.5%	-446.7%	-190.9%	-51.5%
Average pure EV players	-28.7%	-23.5%	0.7%	13.0%	-95.3%	-91.1%	-35.2%	-9.4%	-76.4%	-92.8%	-37.2%	-11.1%

Source: FactSet, BofA Global Research

GM = Gross Margin; NI = Net Income

BofA GLOBAL RESEARCH



Cons profitability metrics for suppliers

Exhibit 38: Global suppliers profitability metrics (ranked by 2024 EBIT margin)

Consensus still expects supplier profitability to increase y/y on average whereas most OEMs are expected to see flat or declining profitability

	2022 GM	2023 GM	2024 GM	2025 GM	2022 EBIT margin	2023 EBIT margin	2024 EBIT margin	2025 EBIT margin	2022 NI margin	2023 NI margin	2024 NI margin	2025 NI margin
Pirelli	43.0%	64.3%	66.5%	86.8%	14.8%	14.3%	14.7%	15.3%	6.6%	7.3%	7.6%	8.3%
CIE Automotive, S.A.	7.5%	40.0%	39.5%	40.4%	3.2%	13.0%	13.3%	13.5%	1.1%	8.2%	8.4%	8.6%
Michelin	26.4%	27.4%	27.3%	27.6%	11.9%	11.8%	12.3%	12.6%	7.0%	7.7%	8.1%	8.3%
Nokian	16.2%	24.7%	25.8%	27.0%	12.5%	4.5%	7.4%	8.9%	-9.9%	1.7%	3.8%	4.9%
Schaeffler AG	22.6%	23.5%	25.6%	25.8%	6.6%	7.0%	7.4%	7.7%	3.5%	3.7%	4.3%	4.6%
TI Fluid Systems	7.0%	18.0%	17.5%	17.4%	3.1%	6.7%	7.1%	7.5%	1.3%	2.9%	3.3%	3.6%
Dowlaits	25.0%	0.9%	3.2%	3.6%	6.3%	6.4%	7.0%	7.5%	-1.5%	-2.4%	0.2%	1.5%
Continental AG	21.2%	23.6%	25.0%	25.8%	5.0%	5.8%	6.7%	7.5%	0.2%	3.3%	4.1%	4.8%
Gestamp	32.6%	36.1%	35.8%	36.6%	4.9%	5.7%	5.9%	6.3%	2.4%	2.6%	3.0%	3.3%
Forvia	12.7%	13.9%	14.6%	15.2%	4.4%	5.2%	5.9%	6.5%	-1.0%	1.4%	2.3%	2.9%
Vitesco Technologies	12.8%	14.7%	17.2%	17.8%	2.5%	3.1%	5.0%	6.2%	0.3%	1.3%	3.3%	4.1%
Valeo SE	17.2%	17.3%	18.3%	19.6%	3.2%	3.5%	4.3%	5.3%	1.1%	1.4%	2.1%	2.9%
Plastic Omnium	12.8%	12.9%	13.2%	13.7%	4.0%	3.5%	3.8%	4.4%	2.0%	1.7%	1.9%	2.4%
Average EU suppliers	19.8%	24.4%	25.4%	27.5%	6.3%	7.0%	7.8%	8.4%	1.0%	3.1%	4.0%	4.6%
Mobileye	74.5%	69.1%	69.4%	68.9%	36.7%	32.9%	19.4%	29.0%	32.4%	30.9%	20.2%	25.4%
Aptiv PLC	15.1%	16.9%	18.6%	19.7%	9.1%	10.5%	11.6%	12.6%	5.5%	6.7%	7.6%	8.5%
Autoliv	15.8%	17.5%	19.3%	20.1%	6.8%	8.6%	10.8%	11.7%	4.3%	6.2%	7.3%	8.0%
BorgWarner	19.6%	19.3%	19.2%	19.6%	10.1%	9.5%	9.7%	9.9%	6.9%	6.2%	6.5%	6.8%
Visteon	10.1%	12.3%	13.7%	14.6%	4.8%	7.0%	8.5%	9.4%	4.0%	4.8%	5.9%	6.5%
Magna International	12.3%	13.0%	13.8%	14.5%	4.4%	5.2%	5.9%	6.7%	3.2%	3.7%	4.2%	4.8%
Lear	7.4%	7.9%	8.6%	9.2%	4.2%	4.8%	5.7%	6.4%	2.5%	3.1%	3.7%	4.3%
Dana	7.5%	8.6%	9.4%	10.4%	2.7%	3.9%	4.5%	5.1%	0.5%	1.1%	1.7%	2.4%
Adient	5.5%	6.7%	7.3%	7.9%	2.5%	4.0%	4.1%	4.8%	0.1%	1.3%	1.8%	2.5%
American Axle & Manufacturing	11.3%	9.8%	10.9%	10.3%	4.4%	2.5%	3.7%	3.8%	1.2%	-0.4%	0.7%	1.0%
Average North American suppliers	17.9%	18.1%	19.0%	19.5%	8.6%	8.9%	8.4%	9.9%	6.1%	6.4%	6.0%	7.0%
Hankook	25.1%	31.0%	31.4%	31.0%	8.4%	13.1%	13.6%	12.6%	8.2%	8.9%	10.1%	9.4%
LG Energy	16.8%	17.6%	19.6%	20.6%	4.7%	7.0%	9.9%	12.0%	3.0%	5.0%	6.4%	7.9%
Nexen Tire	16.6%	29.4%	31.0%	31.1%	-2.1%	7.0%	8.8%	9.2%	-1.1%	5.1%	6.3%	6.8%
Samsung SDI	21.0%	18.8%	20.3%	20.9%	9.0%	7.8%	8.7%	9.7%	9.7%	8.6%	8.6%	9.0%
Hyundai Mobis	11.5%	11.6%	12.1%	12.4%	3.9%	4.1%	4.5%	4.7%	4.8%	5.9%	5.7%	5.7%
SK Innovation	9.0%	7.4%	8.6%	10.3%	5.0%	3.1%	4.4%	6.1%	2.1%	1.1%	2.3%	3.3%
Average Korean suppliers	16.7%	19.3%	20.5%	21.0%	4.8%	7.0%	8.3%	9.0%	4.5%	5.8%	6.6%	7.0%
Bridgestone	38.8%	39.9%	40.4%	40.6%	11.7%	11.9%	12.5%	13.0%	7.3%	8.1%	8.6%	8.9%
Yokohama		32.7%	34.3%	35.8%	8.1%	9.3%	10.1%	10.3%	5.3%	6.5%	6.8%	6.9%
DENSO		16.9%	17.8%	18.1%	6.8%	8.9%	9.7%	10.0%	4.9%	6.8%	7.3%	7.6%
Toyota Gosei		13.4%	13.7%	14.4%	3.7%	6.0%	6.2%	6.6%	1.9%	3.9%	3.9%	4.2%
Panasonic	27.0%	29.2%	29.2%	29.7%	3.4%	4.9%	5.6%	6.2%	3.2%	4.9%	4.4%	4.9%
Toyota Boshoku	9.7%				3.0%	4.7%	5.0%	5.1%	1.4%	2.9%	3.0%	3.1%
Aisin	9.2%	11.3%	12.0%	12.1%	1.3%	4.5%	4.9%	5.1%	1.5%	3.0%	3.2%	3.4%
Average Japanese suppliers	21.2%	23.9%	24.6%	25.1%	5.5%	7.2%	7.7%	8.1%	3.6%	5.2%	5.3%	5.6%
CATL	20.3%	22.3%	22.1%	21.5%	11.2%	12.0%	12.5%	12.7%	9.4%	10.6%	10.9%	11.2%

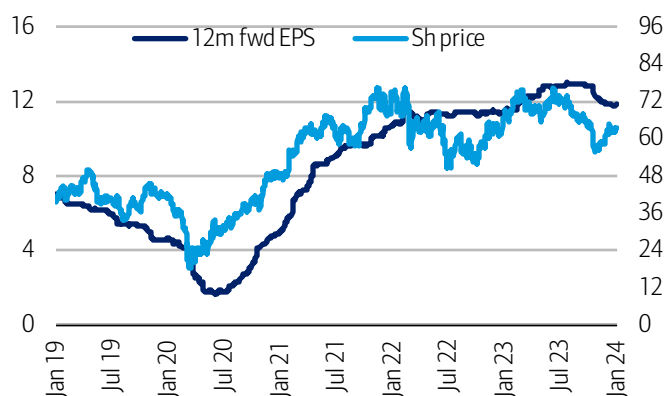
Source: FactSet, BofA Global Research. GM = Gross Margin; NI = Net Income

BofA GLOBAL RESEARCH

EU OEM earnings momentum charts

Exhibit 39: MBG 12m fwd EPS (lhs) vs sh price (rhs)

MBG EPS has been falling with the share price

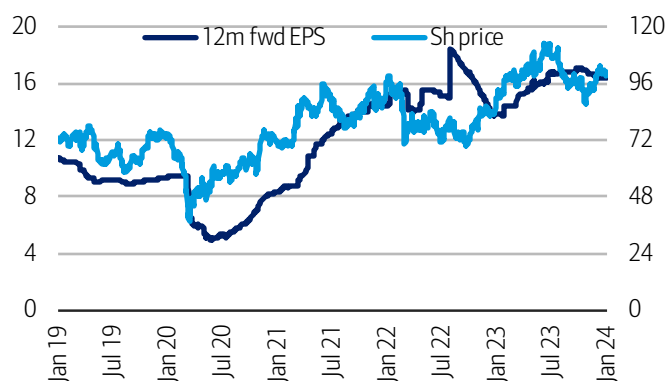


Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 40: BMW 12m fwd EPS (lhs) vs sh price (rhs)

BMW share price has improving despite no major EPS revision

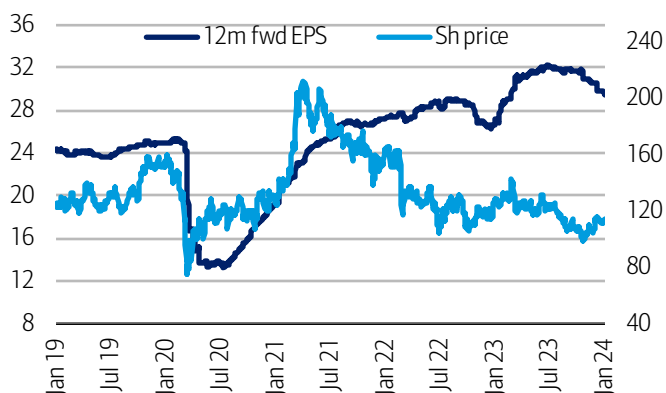


Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 41: VOW3 12m fwd EPS (lhs) vs sh price (rhs)

VW EPS revision trend has recently worsened but sh price improved

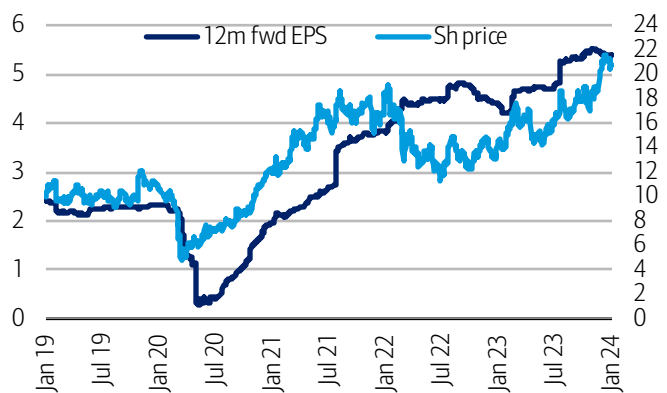


Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 42: STLA 12m fwd EPS (lhs) vs sh price (rhs)

STLA share price has been keeping track with positive EPS revisions

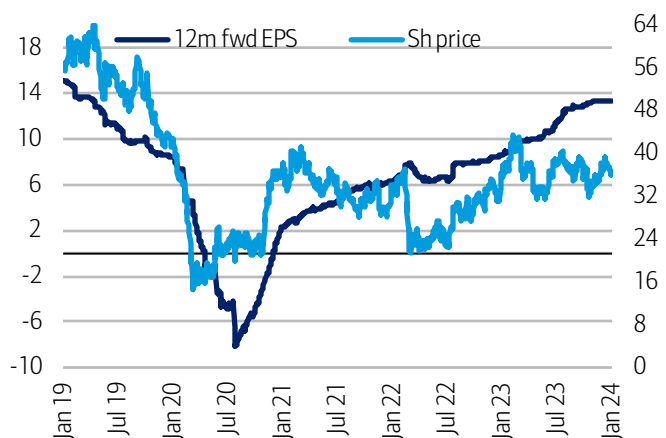


Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 43: RNO 12m fwd EPS (lhs) vs sh price (rhs)

RNO share price has declined despite of positive EPS revisions recently

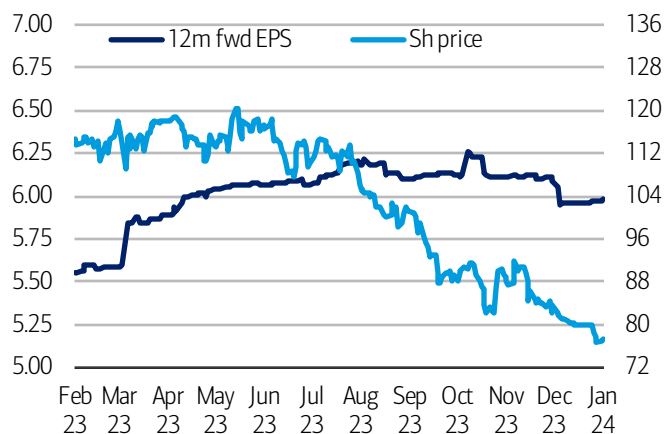


Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 44: P911 12m fwd EPS (lhs) vs sh price (rhs)

Stable 12m fwd EPS expectations vs declining share price



Source: FactSet, BofA Global Research

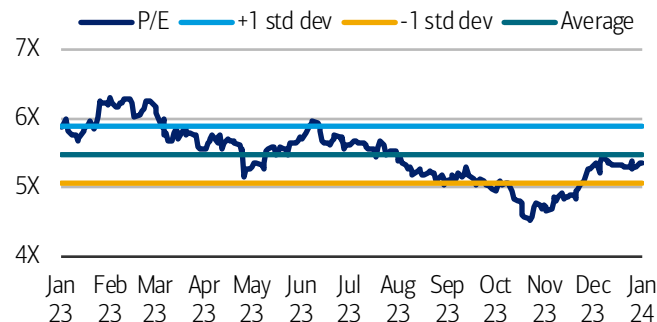
BofA GLOBAL RESEARCH



EU OEM 1-year historical valuation

Exhibit 45: MBG 12m fwd PE historical valuation

MBG is trading closer to its avg PE

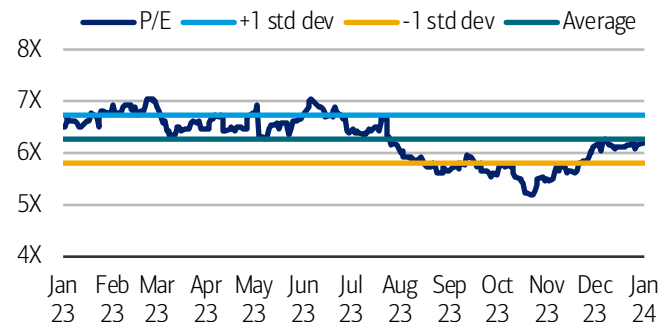


Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 46: BMW 12m fwd PE historical valuation

BMW has also de-rated sharply but still trades at a premium vs MBG

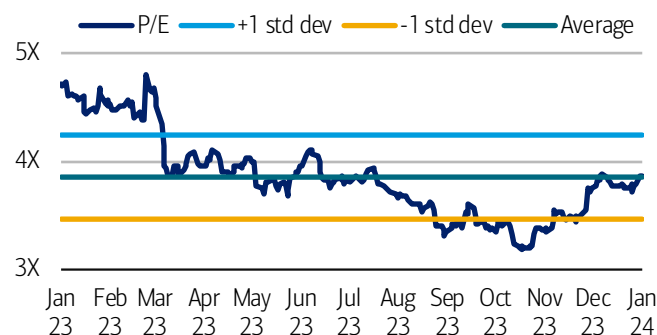


Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 47: VW prefs 12m fwd PE historical valuation

VW de-rated from 4.8x to 3.3x in less than 9 months

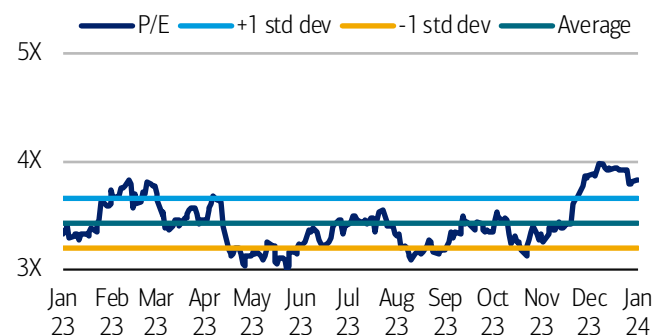


Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 48: STLA 12m fwd PE historical valuation

STLA is the only EU OEM trading higher than its yearly average

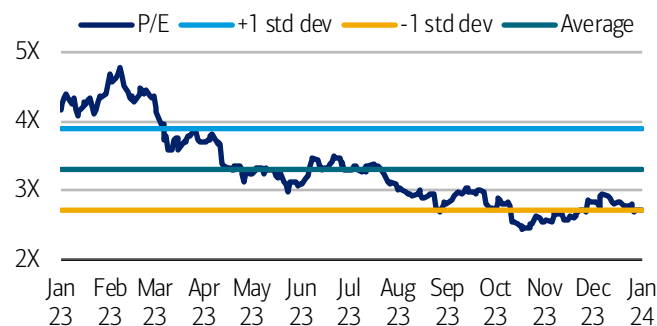


Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 49: RNO 12m fwd PE historical valuation

RNO is trading below 1 std dev of its 1-year average 12m fwd PE

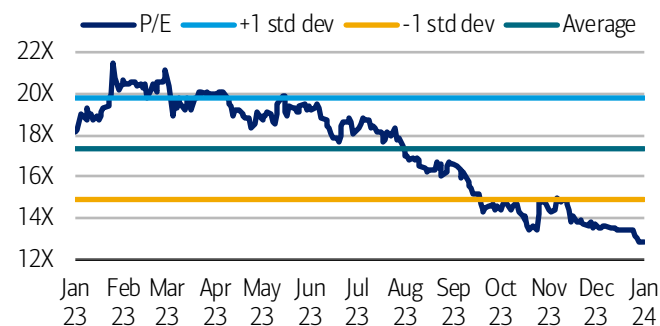


Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 50: P911 12m fwd PE historical valuation

P911 de-rated from 21.5x to 14.5x in less than 9 months



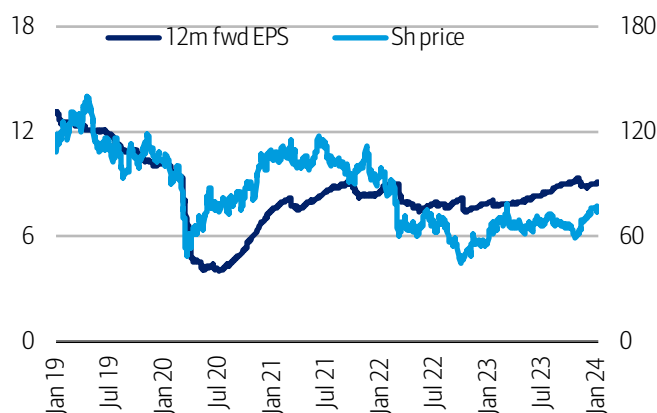
Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

EU suppliers earnings momentum charts

Exhibit 51: Continental 12m fwd EPS (lhs) vs sh price (rhs)

Continental earnings have been moving higher as sh price recovers

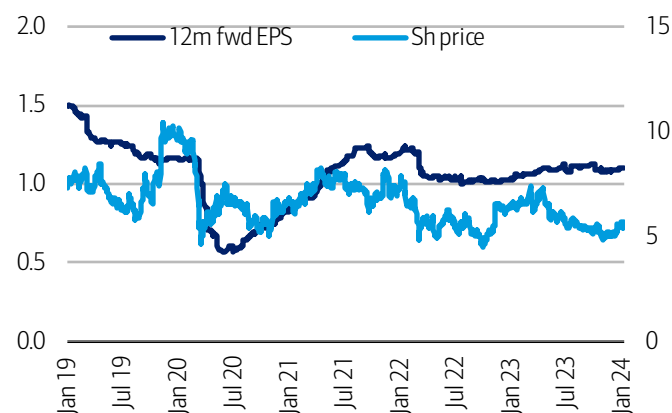


Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 52: Schaeffler 12m fwd EPS (lhs) vs sh price (rhs)

Schaeffler's EPS outlook has been fairly stable since April-22

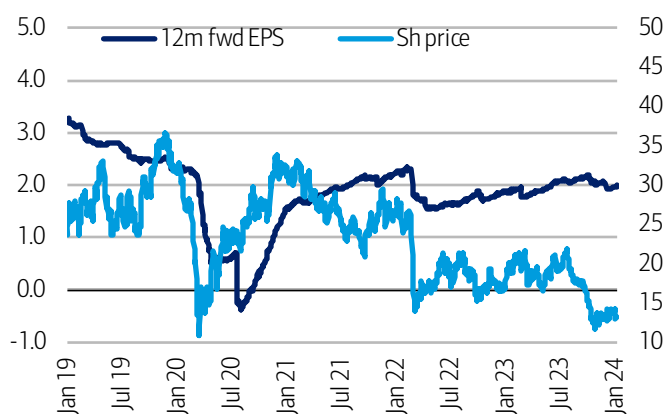


Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 53: Valeo 12m fwd EPS (lhs) vs sh price (rhs)

Stock reaction suggest that there are fears that Valeo's EPS outlook worsens

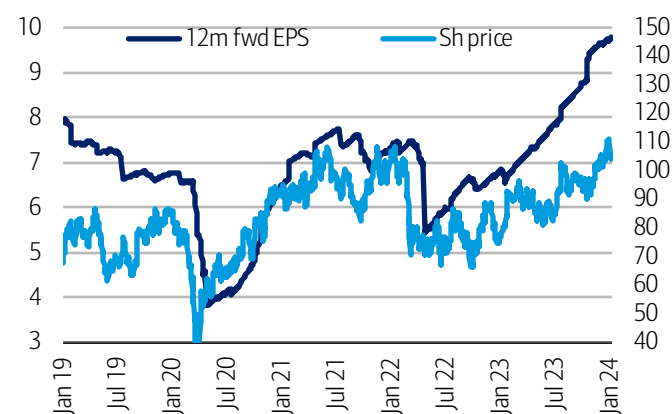


Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 54: Autoliv 12m fwd EPS (lhs) vs sh price (rhs)

Autoliv EPS forecast benefited from lower tax rate but sh. price didn't follow

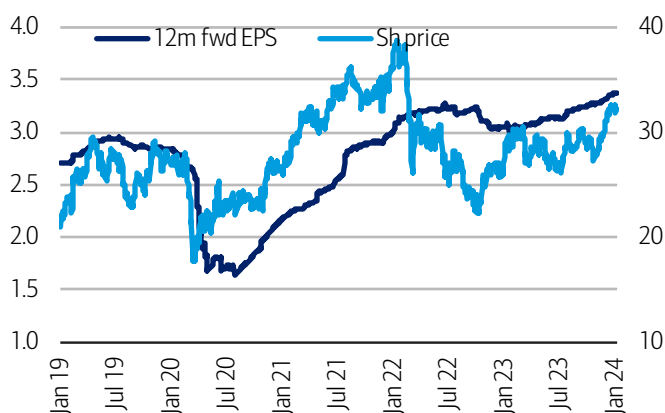


Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 55: Michelin 12m fwd EPS (lhs) vs sh price (rhs)

Michelin EPS outlook has been improving since the beginning of the year

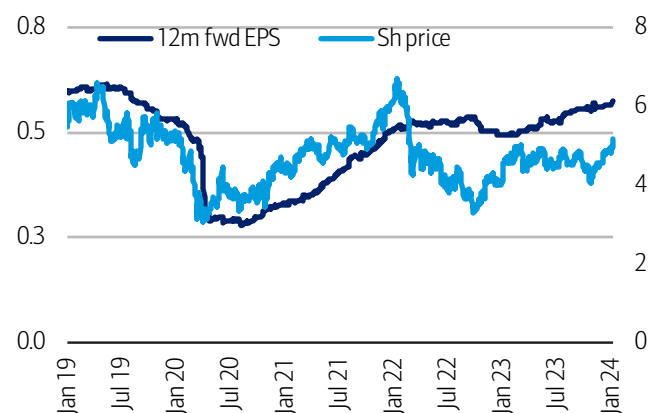


Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 56: Pirelli 12m fwd EPS (lhs) vs sh price (rhs)

Pirelli EPS and share price spread has increased since late Sept-23



Source: FactSet, BofA Global Research

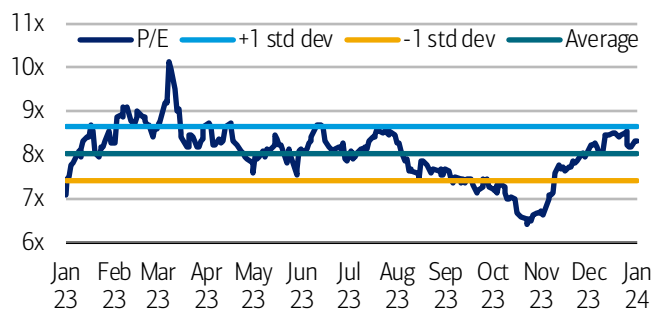
BofA GLOBAL RESEARCH



EU supplier 1-year historical valuation

Exhibit 57: Continental 12m fwd PE historical valuation

Conti 12m fwd PE is trending back above the +1 std dev level

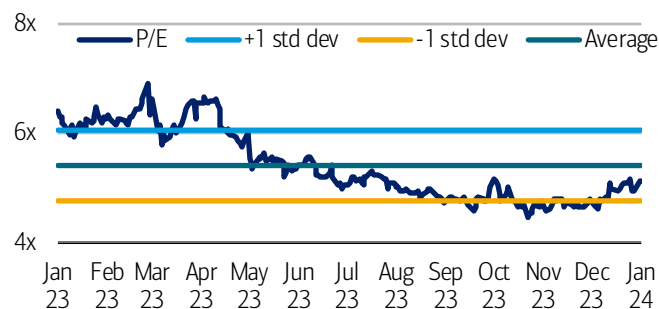


Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 58: Schaeffler 12m fwd PE historical valuation

Schaeffler's de-rating trend in persisting

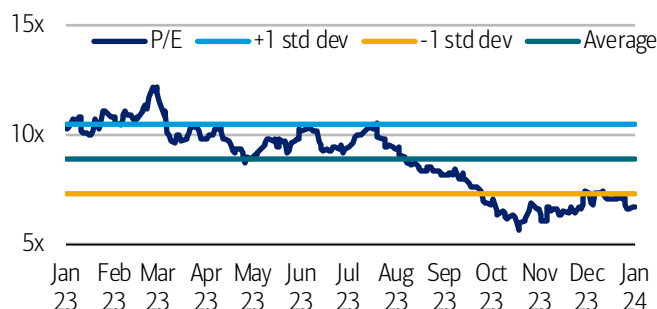


Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 59: Valeo 12m fwd PE historical valuation

Valeo's valuation now stabilizing

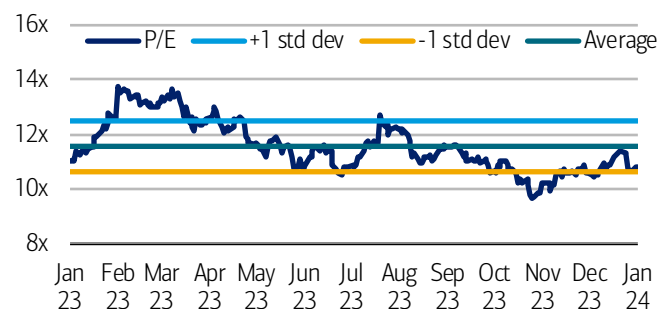


Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 60: Autoliv 12m fwd PE historical valuation

Autoliv de-rating stabilizing at 10x PE with -1 std dev acting as resistance

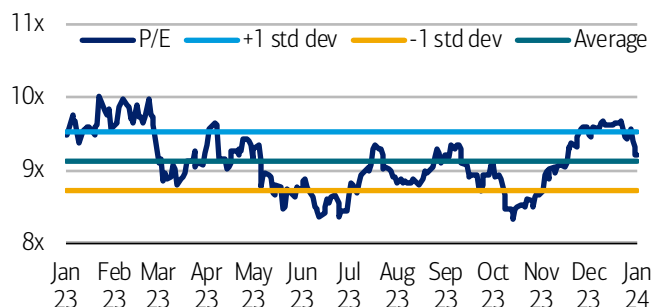


Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 61: Michelin 12m fwd PE historical valuation

Michelin has recently de-rated back towards 1-year avg PE

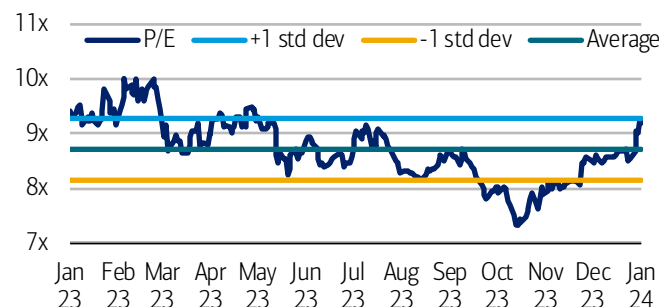


Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 62: Pirelli 12m fwd PE historical valuation

Pirelli re-rated significantly, closing the gap to Michelin



Source: FactSet, BofA Global Research

BofA GLOBAL RESEARCH

Glossary

General glossary:

Cons: Consensus

(B)EV: Battery Electric Vehicles

FMS: Fund Manager Survey

Fwd: forward

ICE: Internal Combustion Engine

q-t-d: quarter to date

y-t-d: year to date

SXAP: STOXX Europe 600 Automobiles & Parts

Lhs: left hand side

Rhs: right hand side

OEM abbreviation:

AML: Aston Martin Lagonda

Cie: CIE Automotive

GM: General Motors

MBG: Mercedes-Benz Group

P911: Porsche AG

PSE: Porsche Automobil Holding AG

RACE: Ferrari

RNO: Renault

SHA: Schaeffler

STLA: Stellantis

Volvo (C): Volvo Cars

VW/VOW3: Volkswagen (pref shares)

Special Disclosures

In accordance with the SEBI (Foreign Portfolio Investors) Regulations, 2019 and with guidelines issued by the Securities and Exchange Board of India (SEBI), foreign investors (individuals as well as institutional) that wish to transact the common stock of Indian companies must have applied to, and have been approved as per SEBI (Foreign Portfolio Investors) Regulations, 2019. Each investor who proposes to transact common stock of Indian companies will be required to obtain Foreign Portfolio Investor (FPI) registration as per SEBI (Foreign Portfolio Investors) Regulations, 2019. Certain other entities are also entitled to transact common stock of Indian companies under the Indian laws relating to investment by foreigners. BofA Securities reserves the right to refuse to provide a copy of research on common stock of Indian companies to a person not resident in India. American Depositary Receipts (ADR) representing such common stock are not subject to these Indian law restrictions and may be transacted by investors in accordance with the applicable laws of the relevant jurisdiction. Global Depositary Receipts (GDR) and the Global Depositary Shares (GDS) of Indian companies, Indian limited liability corporations, have not been registered under the U.S. Securities Act of 1933, as amended, and may only be transacted by persons in the United States who are Qualified Institutional Buyers (QIBs) within the meaning of Rule 144A under the Securities Act. Accordingly, no copy of any research report on Indian companies' GDRs or GDSs will be made available to persons who are not QIBs.

BofA Securities India Limited (BofAS India) is regulated by the Securities and Exchange Board of India (SEBI) and provides the following services in India: Research, Equity Sales & Trading, Futures & Options, Electronic Trading, Equity



Capital Markets, Debt Capital Markets and M&A. SEBI Registration Nos. Research Analyst: INH000000503, Stock Broking: INZ000217333 (Trading and Clearing Member of NSE and BSE – Capital Markets and Equity Derivatives), Merchant Banker: INM000011625, CIN U74140MH1975PLC018618. Registration granted by SEBI and certification from National Institute of Securities Markets (NISM) in no way guarantee performance of the intermediary or provide any assurance of returns to investors. BofAS India's registered office is at Ground Floor, A Wing, One BKC, G Block, Bandra Kurla Complex, Bandra (East), Mumbai 400 051, India, Tel: +91 22 6632 8000 and the contact details of its Compliance Officer (Shervin Purohit) are: Tel: (91-22) 6632 8853, Email: shervin.purohit@bofa.com. For specific grievances, if any, please contact the Grievance Officer (Amish Shah) and contact details are: Tel: (91-22) 6632 8000, Email: dg.rsch_in_complaint@bofa.com. Investment in securities market are subject to market risks. Read all the related documents carefully before investing.

Disclosures

Important Disclosures

BofA Global Research personnel (including the analyst(s) responsible for this report) receive compensation based upon, among other factors, the overall profitability of Bank of America Corporation, including profits derived from investment banking. The analyst(s) responsible for this report may also receive compensation based upon, among other factors, the overall profitability of the Bank's sales and trading businesses relating to the class of securities or financial instruments for which such analyst is responsible.

Other Important Disclosures

From time to time research analysts conduct site visits of covered issuers. BofA Global Research policies prohibit research analysts from accepting payment or reimbursement for travel expenses from the issuer for such visits.

Prices are indicative and for information purposes only. Except as otherwise stated in the report, for any recommendation in relation to an equity security, the price referenced is the publicly traded price of the security as of close of business on the day prior to the date of the report or, if the report is published during intraday trading, the price referenced is indicative of the traded price as of the date and time of the report and in relation to a debt security (including equity preferred and CDS), prices are indicative as of the date and time of the report and are from various sources including BofA Securities trading desks.

The date and time of completion of the production of any recommendation in this report shall be the date and time of dissemination of this report as recorded in the report timestamp.

Recipients who are not institutional investors or market professionals should seek the advice of their independent financial advisor before considering information in this report in connection with any investment decision, or for a necessary explanation of its contents.

Officers of BofAS or one or more of its affiliates (other than research analysts) may have a financial interest in securities of the issuer(s) or in related investments.

Refer to [BofA Global Research policies relating to conflicts of interest](#).

"BofA Securities" includes BofA Securities, Inc. ("BofAS") and its affiliates. Investors should contact their BofA Securities representative or Merrill Global Wealth Management financial advisor if they have questions concerning this report or concerning the appropriateness of any investment idea described herein for such investor. "BofA Securities" is a global brand for BofA Global Research.

Information relating to Non-US affiliates of BofA Securities and Distribution of Affiliate Research Reports:

BofAS and/or Merrill Lynch, Pierce, Fenner & Smith Incorporated ("MLPF&S") may in the future distribute, information of the following non-US affiliates in the US (short name: legal name, regulator): Merrill Lynch (South Africa): Merrill Lynch South Africa (Pty) Ltd., regulated by The Financial Service Board; MLI (UK): Merrill Lynch International, regulated by the Financial Conduct Authority (FCA) and the Prudential Regulation Authority (PRA); BofASE (France): BofA Securities Europe SA is authorized by the Autorité de Contrôle Prudentiel et de Résolution (ACPR) and regulated by the ACPR and the Autorité des Marchés Financiers (AMF). BofA Securities Europe SA ("BofASE") with registered address at 51, rue La Boétie, 75008 Paris is registered under no 842 602 690 RCS Paris. In accordance with the provisions of French Code Monétaire et Financier (Monetary and Financial Code), BofASE is an établissement de crédit et d'investissement (credit and investment institution) that is authorised and supervised by the European Central Bank and the Autorité de Contrôle Prudentiel et de Résolution (ACPR) and regulated by the ACPR and the Autorité des Marchés Financiers. BofASE's share capital can be found at www.bofam.com/BofASEDisclaimer; BofA Europe (Milan): Bank of America Europe Designated Activity Company, Milan Branch, regulated by the Bank of Italy, the European Central Bank (ECB) and the Central Bank of Ireland (CBI); BofA Europe (Frankfurt): Bank of America Europe Designated Activity Company, Frankfurt Branch regulated by BaFin, the ECB and the CBI; BofA Europe (Madrid): Bank of America Europe Designated Activity Company, Sucursal en España, regulated by the Bank of Spain, the ECB and the CBI; Merrill Lynch (Australia): Merrill Lynch Equities (Australia) Limited, regulated by the Australian Securities and Investments Commission; Merrill Lynch (Hong Kong): Merrill Lynch (Asia Pacific) Limited, regulated by the Hong Kong Securities and Futures Commission (HKSF); Merrill Lynch (Singapore): Merrill Lynch (Singapore) Pte Ltd, regulated by the Monetary Authority of Singapore (MAS); Merrill Lynch (Canada): Merrill Lynch Canada Inc, regulated by the Canadian Investment Regulatory Organization; Merrill Lynch (Mexico): Merrill Lynch Mexico, SA de CV, Casa de Bolsa, regulated by the Comisión Nacional Bancaria y de Valores; Merrill Lynch (Argentina): Merrill Lynch Argentina SA, regulated by Comisión Nacional de Valores; BofAS Japan: BofA Securities Japan Co., Ltd., regulated by the Financial Services Agency; Merrill Lynch (Seoul): Merrill Lynch International, LLC Seoul Branch, regulated by the Financial Supervisory Service; Merrill Lynch (Taiwan): Merrill Lynch Securities (Taiwan) Ltd., regulated by the Securities and Futures Bureau; BofAS India: BofA Securities India Limited, regulated by the Securities and Exchange Board of India (SEBI); Merrill Lynch (Israel): Merrill Lynch Israel Limited, regulated by Israel Securities Authority; Merrill Lynch (DIFC): Merrill Lynch International (DIFC Branch), regulated by the Dubai Financial Services Authority (DFSA); Merrill Lynch (Brazil): Merrill Lynch S.A. Corretora de Títulos e Valores Mobiliários, regulated by Comissão de Valores Mobiliários; Merrill Lynch KSA Company: Merrill Lynch Kingdom of Saudi Arabia Company, regulated by the Capital Market Authority.

This information: has been approved for publication and is distributed in the United Kingdom (UK) to professional clients and eligible counterparties (as each is defined in the rules of the FCA and the PRA) by MLI (UK), which is authorized by the PRA and regulated by the FCA and the PRA - details about the extent of our regulation by the FCA and PRA are available from us on request; has been approved for publication and is distributed in the European Economic Area (EEA) by BofASE (France), which is authorized by the ACPR and regulated by the ACPR and the AMF; has been considered and distributed in Japan by BofAS Japan, a registered securities dealer under the Financial Instruments and Exchange Act in Japan, or its permitted affiliates; is issued and distributed in Hong Kong by Merrill Lynch (Hong Kong) which is regulated by HKSF; is issued and distributed in Taiwan by Merrill Lynch (Taiwan); is issued and distributed in India by BofAS India; and is issued and distributed in Singapore to institutional investors and/or accredited investors (each as defined under the Financial Advisers Regulations) by Merrill Lynch (Singapore) (Company Registration No 198602883D). Merrill Lynch (Singapore) is regulated by MAS. Merrill Lynch Equities (Australia) Limited (ABN 65 006 276 795), AFS License 235132 (MLEA) distributes this information in Australia only to 'Wholesale' clients as defined by s.761G of the Corporations Act 2001. With the exception of Bank of America N.A., Australia Branch, neither MLEA nor any of its affiliates involved in preparing this information is an Authorised Deposit-Taking Institution under the Banking Act 1959 nor regulated by the Australian Prudential Regulation Authority. No approval is required for publication or distribution of this information in Brazil and its local distribution is by Merrill Lynch (Brazil) in accordance with applicable regulations. Merrill Lynch (DIFC) is authorized and regulated by the DFSA. Information prepared and issued by Merrill Lynch (DIFC) is done so in accordance with the requirements of the DFSA conduct of business rules. BofA Europe (Frankfurt) distributes this information in Germany and is regulated by BaFin, the ECB and the CBI. BofA Securities entities, including BofA Europe and BofASE (France), may outsource/delegate the marketing and/or provision of certain research services or aspects of research services to other branches or members of the BofA Securities group. You may be contacted by a different BofA Securities entity acting for and on behalf of your service provider where permitted by applicable law. This does not change your service provider. Please refer to the [Electronic Communications Disclaimers](#) for further information.

This information has been prepared and issued by BofAS and/or one or more of its non-US affiliates. The author(s) of this information may not be licensed to carry on regulated activities in your jurisdiction and, if not licensed, do not hold themselves out as being able to do so. BofAS and/or MLPF&S is the distributor of this information in the US and accepts full responsibility for information distributed to BofAS and/or MLPF&S clients in the US by its non-US affiliates. Any US person receiving this information and wishing to effect any transaction in any security discussed herein should do so through BofAS and/or MLPF&S and not such foreign affiliates. Hong Kong recipients of this information should contact Merrill Lynch (Asia Pacific) Limited in respect of any matters relating to dealing in securities or provision of specific advice on securities or any other matters arising from, or in connection with, this information. Singapore recipients of this information should contact Merrill Lynch (Singapore) Pte Ltd in respect of any matters arising from, or in connection with, this information. For clients that are not accredited investors, expert investors or institutional investors Merrill Lynch (Singapore) Pte Ltd accepts full responsibility for the contents of this information distributed to such clients in Singapore.

General Investment Related Disclosures:

Taiwan Readers: Neither the information nor any opinion expressed herein constitutes an offer or a solicitation of an offer to transact in any securities or other financial instrument. No part of this report may be used or reproduced or quoted in any manner whatsoever in Taiwan by the press or any other person without the express written consent of BofA Securities.

This document provides general information only, and has been prepared for, and is intended for general distribution to, BofA Securities clients. Neither the information nor any opinion expressed constitutes an offer or an invitation to make an offer, to buy or sell any securities or other financial instrument or any derivative related to such securities or instruments (e.g., options,

futures, warrants, and contracts for differences). This document is not intended to provide personal investment advice and it does not take into account the specific investment objectives, financial situation and the particular needs of, and is not directed to, any specific person(s). This document and its content do not constitute, and should not be considered to constitute, investment advice for purposes of ERISA, the US tax code, the Investment Advisers Act or otherwise. Investors should seek financial advice regarding the appropriateness of investing in financial instruments and implementing investment strategies discussed or recommended in this document and should understand that statements regarding future prospects may not be realized. Any decision to purchase or subscribe for securities in any offering must be based solely on existing public information on such security or the information in the prospectus or other offering document issued in connection with such offering, and not on this document.

Securities and other financial instruments referred to herein, or recommended, offered or sold by BofA Securities, are not insured by the Federal Deposit Insurance Corporation and are not deposits or other obligations of any insured depository institution (including, Bank of America, N.A.). Investments in general and, derivatives, in particular, involve numerous risks, including, among others, market risk, counterparty default risk and liquidity risk. No security, financial instrument or derivative is suitable for all investors. Digital assets are extremely speculative, volatile and are largely unregulated. In some cases, securities and other financial instruments may be difficult to value or sell and reliable information about the value or risks related to the security or financial instrument may be difficult to obtain. Investors should note that income from such securities and other financial instruments, if any, may fluctuate and that price or value of such securities and instruments may rise or fall and, in some cases, investors may lose their entire principal investment. Past performance is not necessarily a guide to future performance. Levels and basis for taxation may change.

This report may contain a short-term trading idea or recommendation, which highlights a specific near-term catalyst or event impacting the issuer or the market that is anticipated to have a short-term price impact on the equity securities of the issuer. Short-term trading ideas and recommendations are different from and do not affect a stock's fundamental equity rating, which reflects both a longer term total return expectation and attractiveness for investment relative to other stocks within its Coverage Cluster. Short-term trading ideas and recommendations may be more or less positive than a stock's fundamental equity rating.

BofA Securities is aware that the implementation of the ideas expressed in this report may depend upon an investor's ability to "short" securities or other financial instruments and that such action may be limited by regulations prohibiting or restricting "shortselling" in many jurisdictions. Investors are urged to seek advice regarding the applicability of such regulations prior to executing any short idea contained in this report.

Foreign currency rates of exchange may adversely affect the value, price or income of any security or financial instrument mentioned herein. Investors in such securities and instruments, including ADRs, effectively assume currency risk.

BofAS or one of its affiliates is a regular issuer of traded financial instruments linked to securities that may have been recommended in this report. BofAS or one of its affiliates may, at any time, hold a trading position (long or short) in the securities and financial instruments discussed in this report.

BofA Securities, through business units other than BofA Global Research, may have issued and may in the future issue trading ideas or recommendations that are inconsistent with, and reach different conclusions from, the information presented herein. Such ideas or recommendations may reflect different time frames, assumptions, views and analytical methods of the persons who prepared them, and BofA Securities is under no obligation to ensure that such other trading ideas or recommendations are brought to the attention of any recipient of this information.

In the event that the recipient received this information pursuant to a contract between the recipient and BofAS for the provision of research services for a separate fee, and in connection therewith BofAS may be deemed to be acting as an investment adviser, such status relates, if at all, solely to the person with whom BofAS has contracted directly and does not extend beyond the delivery of this report (unless otherwise agreed specifically in writing by BofAS). If such recipient uses the services of BofAS in connection with the sale or purchase of a security referred to herein, BofAS may act as principal for its own account or as agent for another person. BofAS is and continues to act solely as a broker-dealer in connection with the execution of any transactions, including transactions in any securities referred to herein.

Copyright and General Information:

Copyright 2024 Bank of America Corporation. All rights reserved. iQDatabase® is a registered service mark of Bank of America Corporation. This information is prepared for the use of BofA Securities clients and may not be redistributed, retransmitted or disclosed, in whole or in part, or in any form or manner, without the express written consent of BofA Securities. BofA Global Research information is distributed simultaneously to internal and client websites and other portals by BofA Securities and is not publicly-available material. Any unauthorized use or disclosure is prohibited. Receipt and review of this information constitutes your agreement not to redistribute, retransmit, or disclose to others the contents, opinions, conclusion, or information contained herein (including any investment recommendations, estimates or price targets) without first obtaining express permission from an authorized officer of BofA Securities.

Materials prepared by BofA Global Research personnel are based on public information. Facts and views presented in this material have not been reviewed by, and may not reflect information known to, professionals in other business areas of BofA Securities, including investment banking personnel. BofA Securities has established information barriers between BofA Global Research and certain business groups. As a result, BofA Securities does not disclose certain client relationships with, or compensation received from, such issuers. To the extent this material discusses any legal proceeding or issues, it has not been prepared as nor is it intended to express any legal conclusion, opinion or advice. Investors should consult their own legal advisers as to issues of law relating to the subject matter of this material. BofA Global Research personnel's knowledge of legal proceedings in which any BofA Securities entity and/or its directors, officers and employees may be plaintiffs, defendants, co-defendants or co-plaintiffs with or involving issuers mentioned in this material is based on public information. Facts and views presented in this material that relate to any such proceedings have not been reviewed by, discussed with, and may not reflect information known to, professionals in other business areas of BofA Securities in connection with the legal proceedings or matters relevant to such proceedings.

This information has been prepared independently of any issuer of securities mentioned herein and not in connection with any proposed offering of securities or as agent of any issuer of any securities. None of BofAS any of its affiliates or their research analysts has any authority whatsoever to make any representation or warranty on behalf of the issuer(s). BofA Global Research policy prohibits research personnel from disclosing a recommendation, investment rating, or investment thesis for review by an issuer prior to the publication of a research report containing such rating, recommendation or investment thesis.

Any information relating to the tax status of financial instruments discussed herein is not intended to provide tax advice or to be used by anyone to provide tax advice. Investors are urged to seek tax advice based on their particular circumstances from an independent tax professional.

The information herein (other than disclosure information relating to BofA Securities and its affiliates) was obtained from various sources and we do not guarantee its accuracy. This information may contain links to third-party websites. BofA Securities is not responsible for the content of any third-party website or any linked content contained in a third-party website. Content contained on such third-party websites is not part of this information and is not incorporated by reference. The inclusion of a link does not imply any endorsement by or any affiliation with BofA Securities. Access to any third-party website is at your own risk, and you should always review the terms and privacy policies at third-party websites before submitting any personal information to them. BofA Securities is not responsible for such terms and privacy policies and expressly disclaims any liability for them.

All opinions, projections and estimates constitute the judgment of the author as of the date of publication and are subject to change without notice. Prices also are subject to change without notice. BofA Securities is under no obligation to update this information and BofA Securities ability to publish information on the subject issuer(s) in the future is subject to applicable quiet periods. You should therefore assume that BofA Securities will not update any fact, circumstance or opinion contained herein.

Certain outstanding reports or investment opinions relating to securities, financial instruments and/or issuers may no longer be current. Always refer to the most recent research report relating to an issuer prior to making an investment decision.

In some cases, an issuer may be classified as Restricted or may be Under Review or Extended Review. In each case, investors should consider any investment opinion relating to such issuer (or its security and/or financial instruments) to be suspended or withdrawn and should not rely on the analyses and investment opinion(s) pertaining to such issuer (or its securities and/or financial instruments) nor should the analyses or opinion(s) be considered a solicitation of any kind. Sales persons and financial advisors affiliated with BofAS or any of its affiliates may not solicit purchases of securities or financial instruments that are Restricted or Under Review and may only solicit securities under Extended Review in accordance with firm policies.

Neither BofA Securities nor any officer or employee of BofA Securities accepts any liability whatsoever for any direct, indirect or consequential damages or losses arising from any use of this information.