

# Automobiles

## Global PV volume growth to moderate

We have analyzed Q4CY23 earnings calls of key global auto original equipment manufacturers (OEM), such as Tesla, Ford, General Motors (GM), Mercedes, Stellantis, Toyota, Suzuki, Rivian, to gain insight on the current global PV market and electrification trends. The key takeaways were: 1) impending threat of Chinese OEM in EV and their better cost and scale advantage, 2) the slowing pace of EV adoption in the past few months (although penetration continues to increase) and better growth for hybrids, 3) EV price wars and profitability cause for concern for legacy OEM and would be forced to undertake sharp cost reduction & innovative ways to manufacturing, and 4) slowing global PV growth.

### EV penetration levels continue to expand albeit at a slower pace

While global EV penetration and volume continue to rise to 11.1% (H1CY23 global EV penetration at 10.0% vs 9.5% in CY22), the pace of increase is slowing along with pressure on profitability. Total battery electric vehicle (BEV)+plug-in hybrid EV (PHEV) penetration was 15.8% of global light vehicle sales in CY23 vs 13.0% in CY22 and 8% in CY21. The share of PHEV has increased to 29.6% of overall EV+PHEV sales in CY23 vs 27% in CY22. In CY23, the EU registration of EV+PHEV was up 17% YoY, excluding Germany, up 32%. China sales rose 36% while sales in North America was up 46%. The stock price movement of global EV companies in the past six months has underperformed significantly against legacy OEM, owing to derating, given the cut in EV projections.

### Global PV production growth outlook flat in CY24

Most companies have a cautious growth outlook for PV in CY24, given volatile global geopolitical issues and good growth that was witnessed in CY23. As per S&P Global Mobility's mid-January projection, global light vehicle production is expected to drop 1% YoY in CY24 post 11% growth in CY23. Region-wise, North America would grow by 1% while the EU and Japan & South Korea are expected to drop by 2% and 4%, respectively. China's production growth is likely to remain flat.

### Focus on EV launches remains with better cost metrics

The common thread across OEM remains that they are aggressively focused on improving cost for the EV portfolio, due to ongoing sharp losses they face in the EV vertical. President & CEO of Ford, Jim Farley and even Elon Musk also said companies have to focus on cost and efficiency for EV to compete with China's automakers. Despite troubled financials in the EV portfolio, firms continue to commit to expanding their BEV portfolio and long-term electrification goals.

### Read-through for India listed companies under our coverage

The commentary of improved outlook toward hybrids bodes well for Maruti Suzuki. While slowing global PV growth is cause for concern for companies, such as SAMIL and Sona BLW, among our coverage universe, inorganic expansion (SAMIL) and order wins from EV (Sona BLW) should aid them in significantly outperforming the industry. Further, as highlighted in the [LACE Effect 2.0](#), they continue to be beneficiaries of the key megatrends for the long term.

## CY23 EV and PHEV growth moderates to 36% YoY

BEV + PHEV volume by country ('000 units)	CY21	CY22	CY23
China	3,158	6,181	8,413
Europe	2,228	2,683	3,146
North America	742	1,104	1,617
Others	405	556	1,006
<b>Global EV volume</b>	<b>6,533</b>	<b>10,458</b>	<b>14,182</b>
<b>YoY growth (%)</b>	<b>103.1</b>	<b>60.1</b>	<b>35.6</b>

Source: EV- volumes.com, Elara Securities Research

### Mix tilting toward PHEV

(%)	CY21	CY22	CY23
PHEV	29.0	27.0	29.6
BEV	71.0	73.0	70.4

Source: EV- volumes.com, Elara Securities Research

## Global PV production growth to decline 1% in CY24

Region-wise production growth (%)	CY23 vs CY22	CY24 vs CY23	CY25 vs CY24
North America	9	1	3
Europe	12	(2)	1
Japan and Korea	14	(4)	(3)
China	9	0	4
<b>Total</b>	<b>11</b>	<b>(1)</b>	<b>2</b>

Source: S&P Global mobility, Elara Securities Research

## Ford Model E: continues to widen EBIT losses

	Q3 CY22	Q4 CY22	Q1 CY23	Q2 CY23	Q3 CY23	Q4 CY23
Volume ('000)	25	30	12	34	36	34
Revenue (USD bn)	1.4	1.6	0.7	1.8	1.8	1.6
EBIT (USD bn)	(0.6)	(0.6)	(0.7)	(1.1)	(1.3)	(1.6)
EBIT margin (%)	(43.7)	(40.4)	(102.1)	(58.9)	(75.6)	(98.2)
EBIT/ Vehicle (USD)	(24,000)	(20,000)	(58,333)	(32,353)	(36,111)	(47,059)

Source: Company, Elara Securities Research

## Tesla Gross profit per vehicle drops from earlier highs owing to price cuts

	Q3 CY22	Q4 CY22	Q1 CY23	Q2 CY23	Q3 CY23	Q4 CY23
Volume ('000)	344	405	423	466	435	485
Revenue (USD bn)	21.5	24.3	23.3	24.9	23.4	25.2
EBIT (USD bn)	3.7	3.9	2.7	2.4	1.8	2.1
Auto Gross margin (%)	27.9	25.9	21.1	19.2	18.7	18.9
Auto Gross profit/ Vehicle (USD)	15,159	13,625	9,951	8,772	8,431	8,390

Source: Company, Elara Securities Research

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### Tesla: China's car companies are the most competitive

- Tesla reported Q4CY23 numbers that were below Street estimates. Auto gross margin at 18.9% was down 700bp YoY and up 20bp QoQ. Tesla did not set a target for CY24 volume but stated the growth rate will be lower than earlier
- The first manufacturing location for the next generation vehicle (compact car) will be at the Giga factory in Texas and then follow that up with other locations like Mexico and identify the next location by the end of this or early next year outside North America
- The next-gen vehicle would start production in H2CY25. It would be far advanced vehicle than any other vehicle in terms of way of manufacturing (will adopt the 48V architecture and other innovative manufacturing technologies)
- *Cybertruck*: The reserve to order rate has been encouraging. The company will be soon sold out for 2024, and there are new orders. This is a supply constraint situation. As long as price is affordable, it plans to deliver on the order of 250,000 *Cybertrucks* per year in North America, may be more
- Elon Musk's view on China car companies: Chinese car companies are the most competitive in the world. They are set to have significant success outside of China depending on tariff or trade barriers are being established.

*"If there are no barriers, most other companies are likely dead. They are extremely good. We do not see an obvious opportunity to partner, except on the supercharger front. Any EV company can gain access to it. Also, I am happy to license full self driving (FSD) and other technology, and anything that can be helpful in advancing the sustainable energy revolution".*

### Toyota Motor raises margin guidance

- Most of the increase in operating income was due to marketing efforts as sales volume increased in all regions, especially for hybrid electric vehicles (HEV) in 9MFY24
- Profit structure has improved as marketing efforts along with cost reduction efforts overcame rising raw materials prices since the COVID-19 pandemic
- Toyota increased sales of EV, primarily HEV, with electrified vehicles constituting 35.9% of total sales in 9MFY24. HEV share in overall sales stood at 33% vs 27% in 9MFY23
- For 9MFY24, Toyota's volume growth was 16-17% in Japan, North America and the EU while Asia and

other regions posted growth of 0-6% taking total growth at 12% for 9MFY24

- Due to the recent suspension of shipments of the *Daihatsu* brand, full-year volume assumption for Japan was reduced by 150,000 units. For FY24, Toyota expects volume growth of 7%
- Toyota also improved operating margin guidance to 11.3% from 10.5% set in Q2FY24 results (and 7.5% in Q1FY24)

### Exhibit 1: Toyota's growth higher in the EU and North America

Volume ('000)	9M FY23	9M FY24	YoY (%)	FY23A	FY24P	YoY (%)
Japan	1,402	1,630	16.3	2,069	2,120	2.5
North America	1,852	2,161	16.7	2,407	2,760	14.7
Europe	757	884	16.8	1,030	1,170	13.6
Asia	1,293	1,376	6.4	1,751	1,760	0.5
Other	1,188	1,245	4.8	1,565	1,640	4.8
<b>Total</b>	<b>6,492</b>	<b>7,296</b>	<b>12.4</b>	<b>8,822</b>	<b>9,450</b>	<b>7.1</b>

Source: Company, Elara Securities Research

### Daimler Mercedes delays EV milestone

- Mercedes Benz said plug-in-hybrids are expected to remain relevant for several years
- The company currently expects sales of electrified vehicles, including hybrids, to account for up to 50% of total by CY30 – five years later than its projection from CY21 when it aimed to hit the 50% milestone by CY25 with mostly all-electric cars
- Volume was flat YoY in CY23. The entry-level segment saw a 4% increase in volume, and the core segment declined by 2% and the top-end segment remains flat. EV grew by 21% YoY, taking overall EV contribution to 20% vs 16% in CY22. BEV contribution in overall EV sales was at 60% in CY23
- Operating performance was enhanced by improved pricing, up 2% YoY, lower RM and manufacturing cost while higher inflation and supply chain-related cost partly offset gains
- For CY24, Mercedes expects car sales to be at the same level as in CY23 while EV share is expected to go up to 19-21%
- Management says the current global economic situation looks uncertain with ongoing conflicts and exacerbation of tensions between the US and China and a further deterioration of political relations between the EU and China
- In EV, the company called out a potential battery cost reduction of ~30% in the upcoming years

**Ford EV EBIT/vehicle loss widens to USD 47,000 in Q4**

- *“All of our EV teams are ruthlessly focused on cost and efficiency in our EV products because the ultimate competition is going to be the affordable Tesla and the Chinese [automakers]”* President and CEO JimFarley.
- For CY24, it has set a target of guides a flattish volume growth for the US and the EU with industry volume in the range of 16.0-16.5mn units in the US; they do not expect the United Auto Worker (UAW) strikes to reoccur in CY24
- Profitability for EV remains under stress in CY23. The company has incurred an EBIT loss of USD 4.7bn in CY23 with a negative EBIT margin of 79.7% (vs 40.6% in CY22). For CY24, *Ford-E* is expected to widen EBIT loss to USD 5.0-5.5bn
- The company continues to look for ways to offset increasing labor cost due to the new UAW contract
- Ford is expected to face headwinds this year in the form of lower vehicle prices, warranty cost and continued losses for EV. Bright spots are expected to be its *Ford Pro* fleet unit and traditional *Ford Blue* internal combustion engine business
- The mainstream customer adoption of EV is happening at a slower rate than the industry, which is expected and would lead to deferring capital investments in EV until they are justified by demand and prospects of good returns.

**Exhibit 2: Ford Model - E continues to widen EBIT losses**

	Q3 CY22	Q4 CY22	Q1 CY23	Q2 CY23	Q3 CY23	Q4 CY23
Volume ('000)	25	30	12	34	36	34
Revenue (USD bn)	1.4	1.6	0.7	1.8	1.8	1.6
EBIT (USD bn)	(0.6)	(0.6)	(0.7)	(1.1)	(1.3)	(1.6)
EBIT margin (%)	(43.7)	(40.4)	(102.1)	(58.9)	(75.6)	(98.2)
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Source: Company, Elara Securities Research

**GM targets mid single-digit EBIT EV margin in CY25**

- Sales in CY23 was marked by incentives, which were ~20% below the industry average with an average transaction price (ATP) ~11% higher than the industry average. There was robust customer demand in high volume segments, partly offset by ~95,000 units lost due to the strike and unfavorable mix, given higher EV and crossover sales
- EV: GM has plans to launch six new EV in CY24. Adoption of EV in the US has been slower than originally expected but the company remains committed to expanding its EV lineup and sales in

CY24. It has experienced problems in ramping up production of its newer *Ultium* EV, including a major issue with battery module assembly. GM expects market share gains primarily from higher EV penetration driving revenue growth

- EV profitability: GM aims to deliver positive variable profit in H2CY24 and a 60bp EBIT margin improvement. Target is to achieve mid single-digit EBIT EV margin in CY25, including the benefits of the clean energy tax credits
- Impact of UAW strikes: GM called out an impact of USD 1.1bn impact (~0.8% impact on EBIT margin for GMNA for CY23) due to the strike and a further loss of sales by ~95,000 units
- For CY24, key headwinds were higher labor cost, lower pricing, the ongoing softness in China and weaker mix while the tailwinds are non-occurrence of UAW strikes
- In CY24, it expects the US light vehicle market to touch 16mn units

**Exhibit 3: US remains healthy growth region for GM**

(Volume '000)	Q4 2022	Q4 2023	CY 2022	CY 2023	YoY (%)
North America	729	747	2,680	3,055	14.0
Of which – US	623	625	2,274	2,595	14.1
Asia-Pacific, Middle East and the AU	700	735	2,808	2,675	(4.7)
China	576	569	2,303	2,099	(8.9)
South America	124	121	451	456	1.1
Brazil	88	92	291	328	12.7
Global deliveries	1,553	1,604	5,939	6,186	4.2

Source: Company, Elara Securities Research

**Suzuki Motor Corporation**

- Global volume sales for Suzuki Motorcorp improved 3.3% in 9MFY24 with sales in Japan up by 5%, the EU by 43%, India by 8% while Asia (ex-India) fell by 38% YoY and other nations by 8%
- The company has been revising prices in line with specification changes to reflect higher raw material prices in addition to higher cost due to improved specifications and equipment
- With respect to India, Suzuki wholesale numbers in December were low, due to inventory correction and to limit CY23 stock in the system while the retail numbers were encouraging. In addition, Tier II suppliers are experiencing a shortage of parts related to CNG vehicles and is expected to be resolved in the short term
- Demand in India is expected to be slow in H1CY24 due to the General Elections

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- In India, the company will adjust production capacity by the beginning of CY25. In addition to introducing new products, it also is considering whether SUV should be sold only through the NEXA channel

**Exhibit 4: Suzuki's growth in 9M at a mere 3% YoY**

Volume ('000)	9M FY23	9M FY24	YoY (%)	FY23	FY24P	YoY (%)
Japan	446	469	5.2	627	678	8.1
EU	118	168	42.4	171	226	32.2
Asia	212	132	(37.7)	1,903	1,953	2.6
- Of which India	1,206	1,304	8.1			-
Others	229	210	(8.3)	299	285	(4.7)
<b>Total</b>	<b>2,211</b>	<b>2,283</b>	<b>3.3</b>	<b>3,000</b>	<b>3,142</b>	<b>4.7</b>

Source: Company, Elara Securities Research

### Stellantis

- In CY23, volume for Stellantis improved 7% YoY to 6.2mn units while revenue was up 6% YoY, hit by the negative forex translation. As seen in context with other companies, average transaction price improved 7% YoY
- BEV:** The company intends to increase BEV offerings by 18 models taking the total to 48 nameplates
- Guidance for CY24:** For the following fiscal, Stellantis believes the revenue backdrop remains supportive with moderating interest rates and product portfolio expansion. Operating margin would have tailwinds in the form of lower RM cost, non-recurrence of UAW strikes while higher electrification of portfolio, pricing normalization and increased labor cost should be deterrent to margin

**Exhibit 5: US growth underwhelming for Stellantis**

(Volume '000)	CY22	CY23	YoY (%)
North America	1,791	1,782	(0.5)
Enlarged Europe	2,572	2,717	5.6
Middle East, the AU	415	614	48.0
South America	844	879	4.1
India & APAC	105	92	(12.4)
China	92	65	(29.3)
Maserati	24	27	13.6
<b>Total</b>	<b>5,843</b>	<b>6,176</b>	<b>5.7</b>

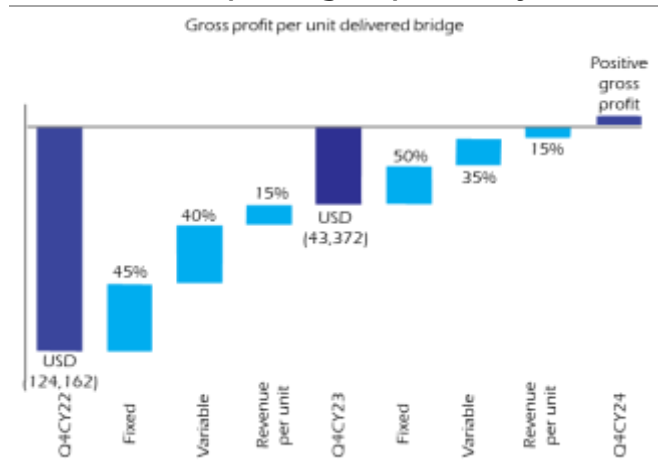
Source: Company, Elara Securities Research

### Rivian Automotive

- On a full-year basis, the company produced 57,232 vehicles and delivered 50,122, more than doubling production and deliveries from CY22 and exceeded its initial production guidance by more than 7,000 vehicles
- The company expects to produce 57,000 vehicles in CY24, in line with CY23 production

- Rivian also announced it is reducing its salaried workforce by 10%
- Rivian would be launching a new mid-sized SUV called *R2*. *R2* is designed to achieve a lower price point and cost structure while building on the brand position established with flagship *R1 Adventure* vehicles, *R1T* and *R1S*
- The Rivian team is focused on driving greater cost efficiency throughout the business, including operating expenses, capital expenditure and cost of goods sold. Regarding cost of goods sold, it has made continued progress lowering material as well as non-material cost. It anticipates the most significant set of cost reduction will happen in conjunction with the integration of new engineering design changes in the *R1* platform, bringing on new suppliers and realizing effectivity dates for negotiated commercial savings with suppliers. The company expects to achieve good gross profit in Q4CY24.

**Exhibit 6: Rivian's path to gross profitability**



Source: Company, Elara Securities Research

**Exhibit 7: Light vehicle production (per S&P Global Mobility mid-January light vehicle production projection)**

Volume (mn units)	Volume (mn units)				Volume growth (%)		
	CY25	CY24	CY23	CY22	CY25 vs CY24	CY24 vs CY23	CY23 vs CY22
North America	16.2	15.8	15.6	14.3	2.5	1.3	9.1
EU	17.5	17.4	17.8	15.8	0.6	(2.2)	12.4
Japan and Korea	11.8	12.2	12.7	11.1	(3.3)	(3.9)	14.0
China	30.1	28.9	28.9	26.4	4.2	0.0	9.5
<b>Total</b>	<b>75.6</b>	<b>74.3</b>	<b>75.0</b>	<b>67.7</b>	<b>1.7</b>	<b>(0.9)</b>	<b>10.8</b>

Source: S&P Global Mobility, Elara Securities Research

**Exhibit 8: EV companies face sharp P/E derating in the past six months, led by EV adoption slowdown**

Company	Stock returns (%)		EPS revision CY25 (%)		Time value (%)		P/E rerating/ (derating) (%)	
	3M	6M	3M	6M	3M	6M	3M	6M
<b>OEM</b>	<b>3M</b>	<b>6M</b>	<b>3M</b>	<b>6M</b>	<b>3M</b>	<b>6M</b>	<b>3M</b>	<b>6M</b>
Volkswagen AG	22.9	9.7	(0.8)	(4.4)	2.6	3.8	21.2	10.3
Toyota Motor	29.6	46.5	9.4	28.4	(0.1)	1.9	20.2	16.3
Hyundai Motor	33.5	33.8	4.7	5.8	(0.6)	1.3	29.4	26.6
Kia	39.1	50.3	2.9	3.7	(0.3)	0.9	36.5	45.8
General Motors	40.6	22.7	16.4	22.2	1.3	2.5	22.9	(2.1)
Nissan Motor	0.3	(3.1)	7.9	11.8	3.3	7.5	(10.9)	(22.4)
Renault SA	10.5	4.6	0.3	(0.3)	0.7	3.6	9.5	1.3
Mitsubishi Motors	(5.5)	(17.8)	(1.9)	2.5	1.2	3.6	(4.8)	(23.9)
Stellantis	27.6	43.1	(1.2)	(0.3)	0.6	1.1	28.1	42.3
Chrysler (acquired by MBG GR)	26.6	8.7	(0.9)	(8.1)	0.6	1.1	26.9	15.7
SAIC Motor	(4.0)	3.7	(3.3)	(7.4)	2.7	4.1	(3.4)	7.1
Honda Motor	16.3	14.6	4.0	9.9	2.2	3.4	10.0	1.3
Ford Motor	18.6	3.4	3.1	(6.2)	0.0	2.2	15.5	7.3
Suzuki Motor	7.3	19.6	6.0	13.1	2.4	5.2	(1.1)	1.4
Bayerische Motoren Werke AG	16.7	12.6	0.8	1.0	0.5	0.4	15.4	11.2
Mercedes-Benz Group AG	26.6	8.7	(0.9)	(8.1)	0.6	1.1	26.9	15.7
Guangzhou Automobile Group	(11.6)	(18.3)	(0.6)	(18.6)	2.9	2.8	(13.9)	(2.5)
Geely Automobile Holdings	(6.7)	(11.6)	(0.4)	0.2	7.6	15.6	(13.9)	(27.5)
Tesla Motors	(18.1)	(15.4)	(24.0)	(33.8)	9.9	14.1	(4.0)	4.3
BYD	(11.9)	(14.3)	(3.5)	9.7	6.6	15.8	(15.0)	(39.9)
Xpeng	(51.2)	(52.7)	6.9	18.0	(14.6)	(28.8)	(43.4)	(41.9)
Nio	(24.7)	(50.7)	42.0	147.5	(17.4)	(39.4)	(49.3)	(158.8)
Li Auto	12.4	13.8	5.2	19.7	13.4	33.4	(6.3)	(39.3)
Rivian Auto	(35.1)	(45.0)	36.8	17.9	(12.3)	(19.2)	(59.6)	(43.7)

Source: Bloomberg, Elara Securities Research

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