

September 1, 2023 06:01 PM GMT

## Autos &amp; Shared Mobility | North America

## Global Auto Monitor

## What Others Are Reading - Our Most Read Reports

[NORTH AMERICA] **UAW Investor Survey Results: Strike Risk/Wage Inflation Priced In? (Aug 31)** Based on 99 responses to our quick investor survey it appears consensus expects a materially lengthy UAW strike with wage inflation in the range of 20-40%. In our opinion, the survey results support our view that much of the negative potential outcomes of the UAW negotiations may be priced in.

[NORTH AMERICA] **UAW Concern Creates Divergence & Buying Opportunity (Aug 28)** Investor concerns about a UAW strike are well founded. And obvious. Will units be lost? Will hourly wages rise? The risks? Manageable. We identify numerous trading opportunities.

[JAPAN] **Japan New Car Sales (Aug): Recovery Continues; Minivehicles Up as Well (Sep 01)** 340k new cars were sold in Japan in Aug (+17% YoY), with registered vehicles at 214k (+19%) and minivehicles at 126k (+14%). Total sales volume growth has been positive for 12 straight months. Suspended operations at certain makers caused minivehicle sales to fall in July, but they turned up in August.

[JAPAN] **Toyota Suppliers: Balanced Expectations for Better S/D & Concerns for Weaker Demand (Aug 31)** Toyota's global output hit a quarterly high of 2.55mn units in 1Q. Impact from semis shortages is mostly gone. We raise our forecasts & PTs for parts suppliers. But a fall in J-OEMs' China sales share is a concern. Stay OW on Denso for a unique growth scenario not hinging on users' output changes.

[JAPAN] **Denso: Idiosyncratic Growth Catalysts Not Fully Priced In (Aug 31)** We think guidance of user output recovery (chip shortages easing) is largely factored in, but see much scope to recognize rising non-Toyot SiC inverter orders, actions to raise corporate value (ICE restructuring), and capital efficiency via buybacks, etc.

[S.KOREA] **S. Korea EV Batteries: In Need of EV Price Cuts (Aug 29)** We believe global EV/ battery growth is inching towards a growth moderation phase before reaccelerating in later years. Unless we get collective EV price cuts from non-Tesla parties, we believe investors may need to brace for a slower battery demand growth environment in the coming quarters.

[CHINA] **New Tesla Model 3 in China - Higher price a relief or an overhang? (Sep 01)** The higher starting price of the new M3 in China may dampen near-term excitement on the Tesla supply chain but soothe concerns about a pricing/ volume shock to EV OEMs. That said, it's likely not the end of the price war.

[CHINA] **Autos Overview (Aug 31)**

**Global picks:** RACE, Michelin, Zhongsheng, Denso, Mando, and MSIL are our preferred stocks from each major region.

MORGAN STANLEY &amp; CO. LLC

**Adam Jonas, CFA**

Equity Analyst

Adam.Jonas@morganstanley.com

+1 212 761-1726

MORGAN STANLEY MUFG SECURITIES CO., LTD.+

**Shinji Kakiuchi**

Equity Analyst

Shinji.Kakiuchi@morganstanleymufg.com

+81 3 6836-5416

MORGAN STANLEY &amp; CO. INTERNATIONAL PLC+

**Ross A MacDonald, CFA**

Equity Analyst

Ross.MacDonald@morganstanley.com

+44 20 7425-0240

MORGAN STANLEY INDIA COMPANY PRIVATE LIMITED+

**Binay Singh**

Equity Analyst

Binay.Singh@morganstanley.com

+91 22 6118-1158

MORGAN STANLEY ASIA LIMITED+

**Tim Hsiao**

Equity Analyst

Tim.Hsiao@morganstanley.com

+852 2848-1982

MORGAN STANLEY &amp; CO. INTERNATIONAL PLC, SEOUL BRANCH+

**Young Suk Shin**

Equity Analyst

Young.Shin@morganstanley.com

+82 2 399-4994

MORGAN STANLEY ASIA LIMITED+

**Shelley Wang, CFA**

Equity Analyst

Shelley.Wang@morganstanley.com

+852 3963-0047

**Joey Xu, CFA**

Equity Analyst

Joey.Xu@morganstanley.com

+852 3963-0337

MORGAN STANLEY INDIA COMPANY PRIVATE LIMITED+

**Sushrut Ghalsashi, CFA**

Research Associate

Sushrut.Ghalsashi@morganstanley.com

+91 22 6118-1073

Morgan Stanley does and seeks to do business with companies covered in Morgan Stanley Research. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of Morgan Stanley Research. Investors should consider Morgan Stanley Research as only a single factor in making their investment decision.

**For analyst certification and other important disclosures, refer to the Disclosure Section, located at the end of this report.**

+ = Analysts employed by non-U.S. affiliates are not registered with FINRA, may not be associated persons of the member and may not be subject to FINRA restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account.

**Our global industry views:** Our view on India auto is Attractive. We have In-Line views on the North America, Europe, China, Japan, and South Korea industries.

**Exhibit 1:** What Changed This Past Week?

Company	Rating	Price Target
Denso	OW	¥ 10,000 → ¥ 11,600
Aisin	UW	¥ 3,500 → ¥ 4,100
Toyota Ind.	EW	¥ 8,400 → ¥ 10,000
T. Boshoku	UW	¥ 1,800 → ¥ 2,200
T. Gosei	EW	¥ 2,200 → ¥ 2,800

Source: Morgan Stanley Research estimates

# Global Auto Sales Summary

Exhibit2: Global Auto Sales Summary

Country	LIGHT VEHICLE SALES FORECASTS								GROWTH %								CAGR '22-25E
	2018	2019	2020	2021	2022	2023e	2024e	2025e	2018	2019	2020	2021	2022	2023e	2024e	2025e	
<b>Asia</b>																	
China	23.7	21.4	20.1	21.5	23.7	23.6	22.9	23.4	-4.2%	-9.5%	-6.1%	6.6%	10.2%	0.0%	-3.2%	2.2%	-0.4%
Japan	5.2	5.1	4.5	4.3	4.9	4.9	5.0	5.2	1.0%	-1.5%	-12.7%	-3.1%	13.7%	0.2%	0.8%	5.0%	2.0%
South Korea	1.6	1.5	1.6	1.4	1.4	1.4	1.5	1.5	5.0%	-2.0%	4.4%	-10.4%	-4.5%	5.0%	2.0%	2.0%	3.0%
India	3.4	3.0	2.4	3.1	3.8	4.2	4.5	4.9	5.1%	-12.7%	-17.9%	26.7%	23.0%	9.6%	7.9%	10.0%	9.2%
Indonesia	1.1	0.9	0.5	0.8	0.9	0.9	0.9	0.9	4.9%	-9.8%	-47.8%	65.9%	6.2%	2.3%	1.7%	1.7%	1.9%
Australia	1.1	1.0	0.9	1.0	1.1	1.0	1.0	1.1	-3.2%	-7.7%	-13.9%	15.7%	3.8%	-8.5%	4.1%	2.3%	-0.9%
Thailand	1.0	1.0	0.8	0.7	0.8	0.8	0.9	0.9	19.9%	-3.1%	-21.3%	-5.3%	11.8%	2.5%	3.4%	1.8%	2.6%
Rest of Asia	2.5	2.7	2.2	1.5	1.7	1.8	1.8	1.9	14.1%	7.9%	-19.4%	-29.5%	12.5%	3.9%	0.4%	5.1%	3.1%
Total Asia	39.6	36.8	33.0	34.5	38.3	38.7	38.4	39.8	-0.7%	-7.1%	-10.2%	4.4%	11.0%	1.2%	-0.7%	3.6%	1%
<b>North America</b>																	
US	17.3	17.1	14.6	15.1	13.9	15.0	16.0	16.2	-0.2%	-1.3%	-14.5%	3.4%	-7.6%	7.7%	6.7%	1.0%	5.1%
Canada	2.0	1.9	1.6	1.7	1.7	1.7	1.8	1.8	-2.2%	-3.2%	-18.8%	6.4%	2.6%	-0.7%	5.1%	4.1%	2.8%
Mexico	1.4	1.3	0.9	1.0	1.1	1.1	1.1	1.2	-7.3%	-7.2%	-28.1%	6.4%	8.0%	-0.8%	4.7%	3.0%	2.2%
Total NAFTA	20.7	20.3	17.1	17.7	16.7	17.8	18.9	19.2	-0.9%	-1.9%	-15.6%	3.9%	-5.7%	6.3%	6.4%	1.4%	4.7%
<b>South America</b>																	
Brazil	2.5	2.7	2.0	2.0	2.0	2.2	2.2	2.3	13.7%	7.7%	-26.7%	0.9%	0.0%	10.0%	3.0%	3.0%	5.3%
Argentina	0.6	0.4	0.3	0.4	0.4	0.4	0.4	0.4	-17.4%	-27.1%	-27.2%	9.4%	0.0%	5.0%	5.0%	0.0%	3.3%
Rest of South America	1.2	1.0	0.7	1.1	1.1	1.1	1.1	1.2	10.2%	-18.4%	-30.9%	53.2%	5.0%	0.0%	3.0%	3.0%	2.0%
Total South America	4.3	4.1	3.0	3.4	3.4	3.7	3.8	3.9	7.0%	-4.7%	-27.8%	14.0%	1.6%	6.3%	3.2%	2.7%	4.0%
<b>Eastern Europe</b>																	
Russia	1.9	1.9	1.6	1.7	0.6	0.6	0.7	0.8	12.4%	-3.7%	-12.5%	4.7%	-66.3%	-2.4%	19.4%	18.3%	11.3%
Turkey	0.8	0.6	0.9	0.7	0.9	0.9	0.9	0.9	-20.5%	-24.4%	63.4%	-21.3%	21.6%	0.0%	0.0%	0.0%	0.0%
Romania	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	5.4%	38.4%	-21.9%	-2.9%	0.6%	6.5%	5.8%	3.0%	5.1%
Poland	0.6	0.7	0.5	0.5	0.5	0.5	0.5	0.7	3.3%	10.9%	-22.1%	5.9%	-11.2%	5.0%	5.3%	25.5%	11.5%
Other E Europe	0.6	0.7	0.6	1.0	0.7	0.7	0.7	0.8	-4.0%	13.2%	-21.3%	67.4%	-29.1%	5.5%	4.6%	3.1%	4.4%
Total E. Europe	4.1	4.0	3.8	4.1	2.8	2.8	3.0	3.3	0.4%	-1.4%	-5.2%	7.6%	-32.1%	2.1%	6.3%	9.5%	5.9%
<b>Western Europe</b>																	
France	2.5	2.7	2.0	2.1	1.9	2.0	2.2	2.3	1.1%	4.8%	-23.9%	1.0%	-8.6%	7.8%	7.9%	4.3%	6.6%
Germany	4.0	4.2	3.4	3.1	2.9	3.2	3.3	3.4	1.1%	4.6%	-17.8%	-10.0%	-5.5%	8.9%	4.1%	4.2%	5.7%
Italy	2.2	2.1	1.5	1.6	1.4	1.6	1.7	1.7	-0.2%	-2.4%	-27.3%	6.0%	-11.8%	8.6%	5.9%	4.0%	6.1%
Spain	1.5	1.5	1.0	1.0	0.9	1.0	1.1	1.2	2.3%	0.5%	-31.5%	0.1%	-6.6%	10.0%	6.9%	5.1%	7.3%
UK	2.9	2.7	1.9	2.0	1.9	2.0	2.1	2.2	-0.5%	-6.9%	-28.2%	3.7%	-7.0%	4.3%	5.7%	6.5%	5.5%
Other	3.6	3.6	2.8	2.9	2.6	3.0	3.1	3.2	0.8%	-0.9%	-20.5%	0.9%	-7.5%	12.3%	5.8%	2.5%	6.8%
Total W. Europe	16.7	16.7	12.8	12.7	11.7	12.7	13.5	14.0	0.7%	0.2%	-23.5%	-1.0%	-7.6%	8.8%	5.8%	4.2%	6.3%
Total Europe (incl Russia & Turkey)	20.7	20.7	16.6	16.7	14.5	15.6	16.5	17.3	0.6%	-0.1%	-19.9%	1.0%	-13.6%	7.5%	5.9%	5.2%	6.2%
Rest of World	4.8	4.5	4.1	4.3	4.3	4.3	4.3	4.4	-0.1%	-6.5%	-9.3%	5.0%	0.0%	0.0%	0.0%	1.6%	0.5%
RoW (vs US specific countries)	18.0	17.3	13.7	14.7	15.4	15.3	15.7	16.2									
Global PC Total	81.7	78.1	66.9	69.0	69.9	72.1	73.8	76.4	-0.7%	-4.5%	-14.3%	3.2%	1.3%	3.1%	2.3%	3.5%	3.0%
Global LCV Total	8.1	8.0	6.6	7.8	7.6	7.9	8.2	8.3	3.5%	-1.3%	-17.4%	18.5%	-2.7%	4.1%	3.7%	1.5%	3.1%
Global LV Total	89.8	86.1	73.5	76.8	77.6	80.0	82.0	84.7	-0.4%	-4.2%	-14.6%	4.6%	0.9%	3.2%	2.4%	3.3%	3.0%
<b>ICE sales</b>	88.4	84.4	71.2	71.5	69.6	70.3	69.6	69.6	-1.0%	-4.5%	-15.6%	0.4%	-2.7%	1.1%	-1.0%	0.0%	0.0%
<b>EV sales</b>	1.4	1.6	2.3	5.4	8.0	9.7	12.3	15.1	72.0%	17.2%	37.6%	136.5%	49.1%	21.2%	27.4%	22.2%	23.6%

Source: Morgan Stanley Research estimates, IHS AutoInsight

# Global Auto Stock Rankings

**Exhibit 3:** North America Coverage Rankings

North America			2023e EPS		
			MS	Cons	
1	Ferrari	OW	€ 6.40	€ 7.04	(9.1%)
2	Harley-Davidson	OW	4.59	4.60	(0.2%)
3	Ford Motor	OW	2.12	2.09	1.5%
4	General Motors	OW	7.78	7.68	1.3%
5	American Axle	OW	0.47	0.37	24.6%
6	Magna International	OW	5.40	5.32	1.5%
7	BorgWarner Inc.	OW	3.81	3.82	(0.4%)
8	Avis Budget	OW	37.57	36.94	1.7%
9	FREYR Battery	OW	-1.39	-1.08	NM
10	CarMax	OW	3.03	3.02	0.6%
11	Rivian	OW	-5.65	-5.19	NM
12	Tesla	EW	3.26	3.44	(5.2%)
13	Hertz	EW	1.93	2.38	(18.6%)
14	Lear	EW	11.77	11.91	(1.2%)
15	Visteon	EW	6.14	6.72	(8.7%)
16	APTIV	EW	4.78	4.72	1.4%
17	Mobileye Global	EW	0.70	0.70	0.0%
18	Carvana	UW	-3.79	-3.70	NM
19	Adient	UW	2.17	2.16	0.6%
20	AutoNation	UW	22.76	22.87	(0.5%)
21	Penske Automotive Group	UW	16.79	16.55	1.5%
22	Group 1 Automotive	UW	46.08	44.25	4.1%
23	Lithia Motors	UW	36.92	38.26	(3.5%)
24	Asbury Automotive	UW	33.94	33.50	1.3%
25	Sonic Automotive	UW	6.62	6.67	(0.7%)
26	Lucid	UW	-1.21	-1.49	NM
27	Li-Cycle	UW	-0.93	-0.92	NM
28	QuantumScape	UW	-0.89	-0.82	NM
29	Fisker	UW	-0.96	-0.84	NM

Source: Refinitiv, Morgan Stanley Research estimates

**Exhibit 5:** Europe Coverage Rankings

Europe			2023e EPS		
			MS	Cons	
1	Michelin	OW	3.15	3.15	0.2%
2	Daimler Truck Holding	OW	4.45	4.37	1.8%
3	Pirelli	OW	0.56	0.51	10.9%
4	Aramis Autos	EW	-0.25	-0.35	NM
5	Volkswagen	EW	31.05	31.71	(2.1%)
6	Mercedes-Benz	EW	13.38	13.12	2.0%
7	Autoliv	EW	6.93	6.71	3.3%
8	BMW	EW	17.14	17.44	(1.8%)
9	Volvo	EW	24.88	25.49	(2.4%)

Source: Refinitiv, Morgan Stanley Research estimates

**Exhibit 4:** Japan Coverage Rankings

Japan			2023e EPS		
			MS	Cons	
1	Denso	OW	621.16	717.32	(13.4%)
2	NHK Spring	OW	109.93	131.24	(16.2%)
3	NOK	OW	140.52	173.17	(18.9%)
4	Mitsubishi Motors	OW	85.72	94.79	(9.6%)
5	Musashi Seimitsu	OW	136.22	204.92	(33.5%)
6	Suzuki Motor	OW	531.39	571.64	(7.0%)
7	Yokohama Rubber	OW	352.84	370.56	(4.8%)
8	Toyota Motor	EW	246.36	265.39	(7.2%)
9	Unipres	EW	114.67	93.23	23.0%
10	Mazda Motor	EW	280.55	279.30	0.4%
11	Toyota Industries	EW	682.82	756.20	(9.7%)
12	Toyoda Gosei	EW	266.44	308.65	(13.7%)
13	Toyo Tire & Rubber	EW	233.93	314.15	(25.5%)
14	Bridgestone	EW	527.86	542.66	(2.7%)
15	Stanley Electric	EW	164.79	224.35	(26.5%)
16	Honda Motor	EW	547.52	604.64	(9.4%)
17	EXEDY	EW	202.32	230.01	(12.0%)
18	Koito Mfg.	EW	164.71	179.38	(8.2%)
19	Nissan Motor	EW	83.89	104.20	(19.5%)
20	Aisin Seiki	UW	408.13	575.70	(29.1%)
21	Nifco	UW	230.01	292.38	(21.3%)
22	Toyota Boshoku	UW	232.76	290.98	(20.0%)
23	Sumitomo Rubber	UW	90.78	100.33	(9.5%)
24	Subaru Corp	UW	341.94	351.00	(2.6%)

Source: Refinitiv, Morgan Stanley Research estimates

**Exhibit 6:** China Coverage Rankings

China			2023e EPS		
			MS	Cons	
1	Guangzhou Auto	OW	0.69	0.70	(1.9%)
2	Great Wall	OW	0.62	0.69	(9.6%)
3	Yongda Auto	OW	0.57	0.63	(9.8%)
4	Minth Group	OW	1.81	1.82	(0.3%)
5	Nexteer Automotive	OW	0.06	0.05	20.0%
6	Dongfeng	EW	1.11	0.71	57.0%
7	BYD	EW	7.45	9.76	(23.7%)
8	Baoxin Auto	UW	0.13	0.15	(15.4%)
9	Zhengtong Auto	UW	0.08	0.08	0.0%
10	BAIC Motor	UW	0.34	0.52	(34.5%)

Source: Refinitiv, Morgan Stanley Research estimates



**Exhibit7:** India Coverage Rankings

India		2023e EPS		
		MS	Cons	
1	Maruti Suzuki	OW	365.67	431.26 (15.2%)
2	Bharat Forge	OW	25.38	26.80 (5.3%)
3	Ashok Leyland	OW	8.29	9.72 (14.7%)
4	Mahindra & Mahindra	OW	84.92	85.49 (0.7%)
5	Tata Motors	OW	39.48	37.76 4.6%
6	Exide Industries	OW	12.08	14.95 (19.2%)
7	Bajaj Auto	OW	240.25	278.23 (13.7%)
8	Apollo Tyres	EW	26.05	26.13 (0.3%)
9	Eicher Motors Ltd.	EW	106.53	101.83 4.6%
10	TVS Motor	EW	39.86	52.47 (24.0%)
11	Hero MotoCorp	UW	179.33	200.54 (10.6%)
12	Balkrishna Industries	UW	75.31	75.20 0.1%
13	Amara Raja	UW	43.44	48.49 (10.4%)

Source: Refinitiv, Morgan Stanley Research estimates

**Exhibit 9:** S.Korea Coverage Rankings

S.Korea		2023e EPS		
		MS	Cons	
1	Mando Corp	OW	4204.74	4738.83 (11.3%)
2	S&T Motiv	OW	7700.40	7153.57 7.6%
3	Kia Motors	OW	21964.60	22402.38 (2.0%)
4	Hyundai MOBIS	EW	31010.45	36278.51 (14.5%)
5	Hyundai Motor	EW	55437.60	46629.97 18.9%
6	Hankook Tire	UW	4071.20	5345.35 (23.8%)
7	Hanon Systems	UW	392.49	515.05 (23.8%)

Source: Refinitiv, Morgan Stanley Research estimates

**Exhibit8:** Taiwan Coverage Rankings

Taiwan		2023e EPS		
		MS	Cons	
1	Macauto Industrial	OW	9.78	9.38 4.3%
2	Hota Industrial	OW	3.32	2.98 11.4%
3	Global PMX	EW	10.93	7.93 37.8%
4	Hu Lane Associates	EW	9.89	8.78 12.7%
5	Cheng Shin Rubber	UW	2.23	2.38 (6.0%)

Source: Refinitiv, Morgan Stanley Research estimates

*Note: Coverage Rankings are as of Sep 01, 2023*

# Global OEM Comps

**Exhibit 10:** Global OEM Comps - RACE, Guangzhou, Toyota Motors and MSIL are preferred stocks

Company	Currency	Price at	MS	Upside to	MS	Market Cap		MS EPS		Consensus EPS		P / E		EV / EBITDA (3)		EV / Sales (3)		P / B	
		1-Sep	Price Target	PT (%)	Rating	LC	US\$	2023e	2024e	2023e	2024e	2023e	2024e	2023e	2024e	2023e	2024e	2023e	2024e
Europe																			
Mercedes-Benz	EUR	67.54	73.50	9%	EW	72.3	78.4	13.38	12.29	13.12	12.84	5.0x	5.5x	2.7x	3.0x	0.5x	0.5x	0.8x	0.7x
Volkswagen	EUR	113.04	130.00	15%	EW	62.2	67.5	31.05	28.96	31.71	31.11	3.6x	3.9x	0.4x	0.4x	0.1x	0.1x	0.3x	0.3x
Daimler Truck Holding	EUR	32.49	43.00	32%	OW	26.7	29.0	4.45	4.32	4.37	4.25	7.3x	7.5x	6.0x	6.2x	0.7x	0.7x	1.2x	1.1x
Renault	EUR	37.34	44.00	18%	OW	11.0	12.0	12.17	12.70	12.36	12.72	3.1x	2.9x	NA	NA	NA	NA	0.4x	0.3x
Stellantis	USD	17.18	22.00	28%	OW	58.6	58.6	5.46	4.90	5.65	5.15	3.1x	3.5x	NA	NA	NA	NA	0.6x	0.6x
BMW	EUR	97.17	100.00	3%	EW	61.6	66.8	17.14	14.55	17.44	16.49	5.7x	6.7x	1.6x	1.6x	0.3x	0.2x	0.7x	0.6x
Europe Weighted Average												4.7x	5.1x	2.2x	2.3x	0.3x	0.3x	0.7x	0.6x
North America																			
Ford Motor	USD	12.13	16.00	32%	OW	47.7	47.7	2.12	1.93	2.09	1.92	5.7x	6.3x	2.0x	1.7x	0.2x	0.2x	1.1x	1.0x
General Motors	USD	33.51	41.00	22%	OW	46.1	46.1	7.78	6.52	7.68	6.77	4.3x	5.1x	1.6x	1.6x	0.2x	0.2x	0.6x	0.5x
North America Weighted Average												5.0x	5.7x	1.8x	1.7x	0.2x	0.2x	0.8x	0.8x
China																			
BYD	HKD	245.80	249.00	1%	EW	756.3	96.4	7.45	9.88	9.76	13.33	33.0x	24.9x	12.9x	9.7x	1.1x	0.9x	5.0x	4.1x
Great Wall	HKD	9.30	13.00	40%	OW	195.0	24.9	0.62	0.98	0.69	0.94	15.0x	9.5x	16.0x	11.2x	1.1x	0.9x	1.1x	1.0x
Weichai Power	HKD	10.18	12.00	18%	EW	105.9	13.5	0.75	0.91	0.92	1.11	13.6x	11.2x	4.1x	3.7x	0.3x	0.3x	1.0x	1.0x
SAIC Motor	CNY	14.54	18.00	24%	OW	169.9	23.3	1.67	1.89	1.35	1.51	8.7x	NA	4.1x	3.2x	0.2x	0.1x	0.6x	0.5x
BAIC Motor	HKD	2.17	1.80	(17%)	UW	5.5	0.7	0.34	0.33	0.52	0.52	6.4x	NA	0.1x	0.4x	0.0x	0.1x	0.3x	0.3x
Anhui Jianghuai	CNY	13.08	11.60	(11%)	EW	28.6	3.9	0.14	0.22	0.08	0.18	90.8x	60.7x	11.5x	10.9x	0.6x	0.6x	2.1x	2.1x
Chongqing Changan	HKD	3.49	5.80	66%	OW	119.3	15.2	0.97	0.59	1.05	1.01	3.6x	5.9x	4.6x	6.7x	0.4x	0.4x	0.5x	0.4x
Jiangling Motors	HKD	6.27	7.20	15%	EW	11.4	1.5	0.53	0.56	1.29	1.45	11.8x	11.3x	0.6x	NM	0.0x	NM	0.5x	0.5x
Dongfeng	HKD	2.88	4.10	42%	EW	8.0	1.0	1.11	1.02	0.71	0.73	2.6x	2.8x	0.3x	0.4x	0.0x	0.1x	0.1x	0.1x
Guangzhou	HKD	4.13	8.30	101%	OW	92.9	11.8	1.42	1.56	0.70	0.79	2.9x	2.6x	17.4x	7.3x	0.5x	0.4x	0.3x	0.3x
Zhengzhou Yutong Bus C	CNY	12.72	14.00	10%	EW	28.2	3.9	1.24	NA	0.61	0.88	10.3x	NA	4.7x	NA	0.5x	NA	1.5x	NA
China Weighted Average												22.7x	18.8x	10.9x	8.2x	0.8x	0.7x	2.9x	2.4x
South Korea																			
Hyundai Motor	KRW	187,400.00	230,000.00	23%	EW	46,040.2	34.8	55,437.60	46,280.77	46,629.97	44,551.48	3.4x	4.0x	2.0x	2.2x	0.2x	0.2x	0.4x	0.4x
Kia Motors	KRW	79,700.00	105,000.00	32%	OW	32,042.9	24.2	21,964.60	21,506.88	22,402.38	21,548.34	3.6x	3.7x	2.3x	2.4x	0.3x	0.3x	0.7x	0.6x
South Korea Weighted Average												3.5x	3.9x	2.1x	2.3x	0.3x	0.3x	0.5x	0.5x
Japan																			
Toyota Motor	JPY	2,519.50	2,400.00	(5%)	EW	41,105.6	282.3	246.36	265.38	265.39	275.63	10.2x	9.5x	5.9x	5.5x	0.8x	0.8x	1.1x	1.0x
Mazda Motor	JPY	1,532.50	1,400.00	(9%)	EW	968.2	6.7	280.55	313.45	279.30	283.27	5.5x	4.9x	1.5x	1.1x	0.1x	0.1x	0.6x	0.6x
Suzuki Motor	JPY	5,770.00	5,900.00	2%	OW	2,833.9	19.5	531.39	588.96	571.64	597.16	10.9x	9.8x	4.3x	3.8x	0.5x	0.5x	1.3x	1.2x
Mitsubishi Motors	JPY	572.70	610.00	7%	OW	853.5	5.9	85.72	101.93	94.79	98.95	6.7x	5.6x	2.3x	1.7x	0.2x	0.2x	0.9x	0.8x
Subaru Corp	JPY	2,805.50	2,400.00	(14%)	UW	2,157.9	14.8	341.94	371.75	377.76	377.88	8.2x	7.5x	12.3x	10.5x	0.3x	0.3x	1.0x	0.9x
Nissan Motor	JPY	617.50	560.00	(9%)	EW	2,606.3	17.9	83.89	93.23	104.20	108.31	7.4x	6.6x	2.0x	1.5x	0.1x	0.1x	0.4x	0.4x
Honda Motor	JPY	4,703.00	4,400.00	(6%)	EW	8,519.1	58.5	547.52	628.06	604.64	626.28	8.6x	7.5x	3.2x	2.7x	0.3x	0.2x	0.7x	0.6x
Japan Weighted Average												9.7x	8.9x	5.4x	4.9x	0.6x	0.6x	1.0x	0.9x
India																			
Maruti Suzuki	INR	10,331.8	11,164.0	8%	OW	3,121.0	37.7	365.7	410.7	431.3	472.6	28.3x	25.2x	16.5x	14.5x	1.8x	1.6x	4.6x	4.1x
Bajaj Auto	INR	4,662.7	5,063.0	9%	OW	1,319.3	15.9	240.2	285.0	278.2	310.6	19.4x	16.4x	15.2x	12.4x	2.8x	2.4x	4.9x	4.5x
TVS Motor	INR	1,454.6	1,171.0	(19%)	EW	691.1	8.3	39.9	44.8	52.5	59.6	36.5x	32.4x	20.1x	17.7x	2.3x	2.0x	9.0x	7.4x
Hero MotoCorp	INR	2,927.1	2,344.0	(20%)	UW	585.0	7.1	179.3	197.4	200.5	225.8	16.3x	14.8x	9.2x	8.1x	1.2x	1.1x	3.2x	3.0x
Mahindra & Mahindra	INR	1,591.5	1,697.0	7%	OW	1,979.1	23.9	84.9	95.5	85.5	89.6	18.7x	16.7x	12.9x	11.6x	1.8x	1.6x	3.6x	3.1x
Tata Motors	INR	611.2	711.0	16%	OW	2,236.9	27.0	39.5	48.4	53.0	64.5	11.5x	9.5x	4.5x	3.9x	0.7x	0.6x	3.8x	2.9x
Balkrishna Industries	INR	2,361.8	1,765.0	(25%)	UW	456.6	5.5	75.3	96.5	93.8	108.6	31.4x	24.5x	19.3x	15.3x	4.6x	4.1x	5.2x	4.5x
Ashok Leyland	INR	184.2	214.0	16%	OW	540.7	6.5	8.3	9.1	9.7	10.3	22.2x	20.2x	12.8x	11.8x	1.4x	1.3x	5.5x	4.7x
India Weighted Average												21.8x	19.0x	13.0x	11.3x	1.8x	1.6x	4.6x	3.9x
Global Weighted Average												11.4x	10.1x	6.3x	5.4x	0.7x	0.6x	1.6x	1.4x

Source: Refinitiv, Morgan Stanley Research estimates

Notes: 1) For Renault EV calculation, Nissan and Volvo stakes are subtracted at 20% discount to their current market cap. (2) For Indian companies, 2020 and 2021 estimates refer to the fiscal years ending March 2021 and March 2022, respectively. (3) EV/EBITDA excludes the impact from pension and healthcare liabilities with the exception of Ford. Ford is calculated on an EV/EBITDAP and includes pension and healthcare liabilities. Notes: e = Morgan Stanley Research est. O = Overweight; E = Equal-weight; U = Underweight; NC = Not Covered. Valuation multiples are based on MS est. unless a company is restricted or NC, in which case cons. est. are used 4) PTs & Ratings are as Sep 01, 2023

# EV OEMs Comps

Exhibit 11: EV OEM Comps

Company	Currency	Price at 1-Sep	MS Price Target	Upside to PT (%)	MS Rating	Market Cap		Current EV	MS EPS		Consensus EPS		P / E		EV / EBITDA		EV / Sales		P / B	
						LC	USD		LC	2023e	2024e	2023e	2024e	2023e	2024e	2023e	2024e	2023e	2024e	2023e
North America																				
Tesla	USD	258.08	250.00	(3%)	EW	819.1	819.1	875.4	2.77	3.24	3.35	4.76	93.1x	79.6x	99.3x	43.9x	8.7x	6.6x	16.4x	13.5x
Lucid	USD	6.28	5.00	(20%)	UW	14.3	14.3	10.0	-1.21	-0.76	-1.48	-1.11	NM	NM	NM	NM	12.8x	5.0x	2.8x	3.8x
Flaker	USD	5.87	4.00	(32%)	UW	1.2	1.2	3.2	-0.96	-0.60	-0.84	-0.40	NM	NM	NM	NM	1.7x	1.1x	13.3x	21.8x
Rivian	USD	22.73	24.00	6%	OW	21.4	21.4	20.6	-0.65	-3.49	-0.19	-3.97	NM	NM	NM	NM	4.8x	3.8x	2.7x	3.5x
North America Weighted Average													93.1x	79.6x	99.3x	43.9x	8.7x	6.5x	15.8x	13.1x
China																				
NIO	USD	10.27	18.70	82%	OW	16.8	16.8	257.3	-5.82	-0.29	-1.35	-0.75	NM	NM	NM	76.1x	3.8x	1.9x	6.2x	5.6x
Li Auto	USD	41.65	53.00	27%	OW	36.3	36.3	245.0	3.35	6.83	0.90	1.59	12.4x	6.1x	49.8x	25.2x	2.1x	1.4x	5.2x	4.2x
BYD Company	HKD	245.80	249.00	1%	EW	756.3	96.4	637.4	7.45	9.88	9.76	13.33	33.0x	24.9x	13.2x	10.0x	1.1x	0.9x	5.0x	4.1x
Xpeng Inc.	USD	17.79	25.40	43%	OW	13.0	13.0	110.3	-8.21	-7.21	-1.15	-0.77	NM	NM	NM	NM	3.8x	2.0x	3.7x	4.7x
China Weighted Average													27.4x	19.7x	23.2x	21.3x	1.8x	1.2x	5.1x	4.3x
Global Weighted Average													83.9x	71.2x	84.2x	40.4x	7.6x	5.7x	14.1x	11.7x

Source: Refinitiv, Morgan Stanley Research estimates Note: PTs & Ratings are as of Sep 01, 2023

# Global Supplier Comps

**Exhibit12:** Global Supplier Comps: AXL, Valeo, Huayu, Denso, Mando and Tata Motors are preferred stocks

Company	Currency	Price at 1-Sep	MS Price Target	Upside to PT (%)	MS Rating	Market Cap		MS EPS		Consensus EPS		P / E		EV / EBITDA		EV / Sales		P / B		
						LC	US\$	2023e	2024e	2023e	2024e	2023e	2024e	2023e	2024e	2023e	2024e	2023e	2024e	2023e
Europe																				
Hella KGAA Hueck	EUR	65.40		NC	NA	NC	7.3	7.9	NA	NA	3.80	4.80	17.2x	13.6x	6.8x	6.0x	0.9x	0.9x	2.2x	1.9x
Europe Weighted Average												17.2x	13.6x	6.8x	6.0x	0.9x	0.9x	2.2x	1.9x	
North America (1)																				
APTIV	USD	101.45	100.00	(1%)	EW	28.7	28.7	4.78	5.54	4.72	6.22	21.2x	18.3x	10.6x	9.1x	1.6x	1.4x	2.9x	2.6x	
BorgWarner Inc.	USD	40.75	47.00	15%	OW	9.6	9.6	3.81	4.53	3.82	4.40	10.7x	9.0x	5.8x	4.7x	0.9x	0.7x	1.2x	1.1x	
Lear	USD	144.09	140.00	(3%)	EW	8.5	8.5	11.77	14.87	11.91	16.37	12.2x	9.7x	5.2x	4.3x	0.4x	0.3x	3.3x	3.0x	
Visteon	USD	139.27	145.00	4%	EW	3.9	3.9	6.14	8.10	6.72	9.71	22.7x	17.2x	10.1x	8.1x	0.9x	0.8x	10.4x	8.1x	
Magna International	USD	58.82	65.00	11%	OW	16.8	16.8	5.40	6.70	5.32	6.62	10.9x	8.8x	4.5x	3.6x	0.4x	0.3x	1.2x	1.0x	
Adient	USD	39.17	38.00	(3%)	UW	3.7	3.7	2.17	3.01	2.16	3.69	18.0x	13.0x	5.7x	5.2x	0.3x	0.3x	NM	NM	
Mobileye Global Inc	USD	35.51	34.00	(4%)	EW	3.3	3.3	0.70	0.75	0.70	0.86	50.4x	47.1x	33.9x	22.4x	6.1x	4.9x	1.9x	1.9x	
American Axle	USD	7.55	12.00	59%	OW	0.9	0.9	0.47	0.60	0.37	0.80	16.2x	12.6x	4.0x	3.4x	0.5x	0.4x	1.3x	1.2x	
North America Weighted Average												17.7x	14.9x	8.7x	7.1x	1.2x	1.0x	2.7x	2.3x	
Japan																				
Denso	JPY	9,974	11,600	16%	OW	7,859	54.0	621	725	717	807	16.1x	13.8x	7.9x	6.9x	1.1x	1.0x	1.6x	1.5x	
Toyota Industries	JPY	10,370	10,000	(4%)	EW	3,379	23.2	683	754	756	835	15.2x	13.8x	10.4x	9.8x	1.3x	1.3x	0.8x	0.8x	
Aisin Seiki	JPY	4,858	4,100	(16%)	UW	1,432	9.8	408	456	576	614	11.9x	10.6x	4.8x	4.4x	0.4x	0.4x	0.7x	0.7x	
Koito Mfg.	JPY	2,471	2,500	1%	EW	794	5.5	165	209	179	201	15.0x	11.8x	4.4x	3.7x	0.5x	0.5x	1.2x	1.1x	
Nifco	JPY	4,302	3,100	(28%)	UW	463	3.2	230	257	292	324	18.7x	16.7x	7.2x	6.5x	1.1x	1.0x	1.8x	1.6x	
Stanley Electric	JPY	2,549	2,800	10%	EW	436	3.0	165	234	224	264	15.5x	10.9x	4.5x	3.7x	0.7x	0.7x	0.9x	0.8x	
Toyota Boshoku	JPY	2,746	2,200	(20%)	UW	515	3.5	233	260	291	319	11.8x	10.6x	3.7x	3.3x	0.2x	0.2x	1.2x	1.1x	
EXEDY	JPY	2,646	1,900	(28%)	EW	129	0.9	202	236	230	253	13.1x	11.2x	3.6x	3.2x	0.4x	0.4x	0.6x	0.5x	
NHK Spring	JPY	1,132	1,250	10%	OW	276	1.9	110	157	131	161	10.3x	7.2x	4.3x	3.4x	0.4x	0.3x	0.7x	0.7x	
Toyoda Gosei	JPY	3,164	2,800	(12%)	EW	412	2.8	266	310	309	335	11.9x	10.2x	4.5x	3.7x	0.5x	0.4x	0.8x	0.8x	
Musashi Seimitsu	JPY	1,707	2,100	23%	OW	112	0.8	136	182	205	242	12.5x	9.4x	6.1x	5.2x	0.6x	0.5x	1.1x	1.0x	
Unipres	JPY	1,235	1,100	(11%)	EW	59	0.4	108	182	150	195	11.4x	6.8x	2.9x	2.2x	0.3x	0.2x	0.4x	0.4x	
NOK	JPY	2,079	2,250	8%	OW	360	2.5	141	205	173	226	14.8x	10.2x	5.0x	4.3x	0.5x	0.5x	0.7x	0.6x	
Japan Weighted Average												15.1x	12.9x	7.4x	6.7x	1.0x	0.9x	1.3x	1.2x	
China																				
Fuyao Glass	HKD	35.50	32.00	(10%)	EW	111.2	14.2	1.87	2.45	2.12	2.39	19.0x	14.5x	10.3x	8.2x	2.7x	2.3x	2.7x	2.4x	
Huayu Automotive	HKD	19.19	25.00	30%	OW	60.5	8.3	2.13	2.30	2.22	2.55	9.0x	8.4x	3.8x	3.1x	0.2x	0.2x	1.1x	1.0x	
Mint Group Limited	HKD	23.25	28.00	20%	OW	29.1	3.7	1.81	2.36	1.82	2.29	12.8x	9.9x	8.2x	5.9x	1.1x	0.9x	1.2x	1.1x	
Changzhou Xingyu	HKD	147.86	172.00	16%	OW	42.2	5.8	3.86	5.30	4.05	5.45	38.3x	27.9x	25.6x	19.0x	4.0x	3.3x	4.6x	4.1x	
Nexteer Automotive Group	HKD	5.05	7.50	49%	OW	99.4	12.7	0.06	0.09	0.34	0.53	82.7x	57.0x	3.7x	3.1x	0.4x	0.4x	0.8x	0.8x	
China Weighted Average												37.2x	26.8x	9.0x	7.0x	1.6x	1.4x	2.0x	1.8x	
South Korea																				
Hyundai MOBIS	KRW	232,500	250,000	8%	EW	21,921	16.6	31,010	31,022	36,279	38,792	7.5x	7.5x	6.7x	5.9x	0.4x	0.3x	0.5x	0.5x	
LG Chem	KRW	570,000	620,000	9%	EW	42,805	32.4	27,472	50,540	27,219	52,449	20.7x	11.3x	6.7x	5.3x	0.9x	0.9x	1.2x	1.1x	
Hanon Systems	KRW	9,120	7,800	(14%)	UW	4,868	3.7	392	490	515	619	23.2x	18.6x	8.0x	7.2x	0.8x	0.8x	2.0x	1.9x	
Mando Corp	KRW	42,050	63,000	50%	OW	1,975	1.5	4,205	4,507	4,739	5,916	10.0x	9.3x	5.6x	5.6x	0.4x	0.4x	0.8x	0.8x	
South Korea Weighted Average												16.6x	10.6x	6.7x	5.6x	0.7x	0.7x	1.0x	1.0x	
Taiwan																				
Hu Lane Associate Inc.	TWD	144	140	(2%)	EW	14	0.4	9.89	10.83	2.01	2.48	14.5x	13.3x	10.4x	9.0x	2.3x	2.1x	2.4x	2.2x	
Cub Elecparts Inc	TWD	134	148	11%	EW	15	0.5	10.93	13.30	1.60	2.43	12.2x	10.0x	6.8x	5.6x	1.7x	1.4x	1.7x	1.6x	
Hota Industrial Mfg.	TWD	66	85	29%	OW	18	0.6	3.32	3.84	0.68	0.82	19.9x	17.2x	7.7x	6.9x	2.3x	2.0x	1.4x	1.4x	
Taiwan Weighted Average												15.8x	13.7x	8.2x	7.1x	2.1x	1.8x	1.8x	1.7x	
India																				
Exide Industries	INR	266		(20%)	OW	226	2.7	12.08	14.37	14.95	11.53	22.0x	18.5x	12.0x	10.1x	1.4x	1.2x	1.9x	1.7x	
Samvardhana Motherson	INR	98	80	(18%)	EW	662	8.0	4.95	6.16	5.80	11.53	19.7x	15.9x	8.7x	7.5x	0.8x	0.7x	2.7x	2.4x	
Amara Raja	INR	626	623	(0%)	UW	107	1.3	47.31	51.94	54.71	55.73	13.2x	12.0x	6.7x	5.7x	0.9x	0.8x	1.8x	1.6x	
India Weighted Average												19.5x	16.0x	9.2x	7.9x	0.9x	0.8x	2.4x	2.2x	
Global Weighted Average												19.4x	15.2x	7.9x	6.7x	1.1x	1.0x	1.7x	1.6x	

Source: Refinitiv, Morgan Stanley Research estimates

Notes: (1) EV/EBITDA excludes the impacts from pension and healthcare liabilities with the exception of our North American coverage, which are calculated using EV/EBITDAP and do include pension and healthcare liabilities. (2) North America weighted averages are calculated without Mobileye. e = Morgan Stanley Research est; O = Overweight; E = Equal-weight; U = Underweight; NC = Not Covered. Valuation multiples are based on MS est. unless a company is restricted or NC, in which case cons. est. are used 3) PTs & Ratings are as of Sep 01, 2023



# Global Tire Comps

**Exhibit13:** Global Tire Comps: Michelin, Bridgestone and Mando are our preferred stocks

Company	Currency	Price at 1-Sep	MS Price Target	Upside to PT (%)	MS Rating	Market Cap		MS EPS		Consensus EPS		P / E		EV / EBITDA		EV / Sales		P / B	
						LC	US\$	2023e	2024e	2023e	2024e	2023e	2024e	2023e	2024e	2023e	2024e	2023e	2024e
Europe																			
Continental	EUR	67.54	NC	NA	NC	13.5	14.7	NA	NA	7.49	9.53	9.0x	7.1x	4.2x	3.7x	0.5x	0.5x	0.9x	0.9x
Pirelli & C. SpA	EUR	4.62	5.50	19%	OW	4.6	5.0	0.56	0.62	0.51	0.57	8.2x	7.4x	4.8x	4.9x	1.1x	1.0x	0.8x	0.8x
Michelin	EUR	29.08	35.00	20%	OW	20.8	22.5	3.15	3.26	3.15	3.27	9.2x	8.9x	4.1x	3.8x	0.8x	0.7x	1.1x	1.1x
Europe Weighted Average												9.0x	8.1x	4.2x	3.9x	0.7x	0.7x	1.0x	1.0x
Japan																			
Bridgestone	JPY	5,662	5,700	1%	EW	4,041	27.8	528	569	543	571	10.7x	10.0x	4.4x	4.0x	0.9x	0.8x	1.2x	1.2x
Toyo Tire & Rubber Co	JPY	2,203	1,850	(16%)	EW	339	2.3	234	265	314	302	9.4x	8.3x	4.7x	4.4x	0.8x	0.7x	1.0x	0.9x
Sumitomo Rubber	JPY	1,533	1,100	(28%)	UW	403	2.8	91	138	100	139	16.9x	11.1x	6.8x	5.7x	0.6x	0.5x	0.7x	0.7x
Yokohama Rubber	JPY	2,951	3,400	15%	OW	500	3.4	353	423	371	420	8.4x	7.0x	6.6x	5.6x	0.9x	0.8x	0.7x	0.6x
Japan Weighted Average												10.9x	9.7x	4.8x	4.3x	0.9x	0.8x	1.1x	1.1x
Korea																			
Hankook Tire	KRW	39,850	33,000	(17%)	UW	4,936	3.7	4,071	4,136	5,345	6,276	9.8x	NA	3.2x	2.8x	0.6x	0.5x	0.5x	0.5x
Korea Weighted Average												9.8x	NA	3.2x	2.8x	0.6x	0.5x	0.5x	0.5x
Global Weighted Average												10.2x	8.8x	4.5x	4.0x	0.8x	0.7x	1.1x	1.0x

Source: Refinitiv, Morgan Stanley Research estimates

Notes: 1) e = Morgan Stanley Research est; O = Overweight; E = Equal-weight; U = Underweight; NC = Not Covered. Valuation multiples are based on MS est. unless a company is restricted or NC, in which case cons. est. are used. 2) ++Rating and price target for this company have been removed from consideration in this report because, under applicable law and/or Morgan Stanley policy, Morgan Stanley may be precluded from issuing such information with respect to this company at this time 3) PTs & Ratings are as of Sep 01, 2023

# Global Dealer Comps

Exhibit14: Global Dealer Comps: KMX and Zhongsheng are preferred stocks

Company	Currency	Price at 1-Sep	MS Price Target	Upside to PT (%)	MS Rating	Market Cap		Current EV	MS EPS		Consensus EPS		P / E		EV / EBITDA		EV / Sales		P / B	
						LC	US\$	LC	2023e	2024e	2023e	2024e	2023e	2024e	2023e	2024e	2023e	2024e	2023e	2024e
North America																				
CarMax	USD	81.68	80.00	(2%)	OW	12.9	12.9	20.2	3.03	3.36	3.02	3.74	26.9x	24.3x	18.5x	15.1x	0.7x	0.6x	3.0x	2.6x
Penske Automotive Group	USD	164.30	107.00	(35%)	UW	11.1	11.1	12.3	16.79	17.68	16.55	15.90	9.8x	9.3x	6.1x	6.0x	0.4x	0.4x	2.3x	1.9x
Lithia Motors	USD	308.02	220.00	(29%)	UW	8.5	8.5	14.1	36.92	36.72	38.26	37.64	8.3x	8.4x	7.6x	8.0x	0.5x	0.5x	1.4x	1.2x
Sonic Automotive	USD	53.32	35.00	(34%)	UW	1.2	1.2	4.4	6.62	7.28	6.67	6.79	8.1x	7.3x	6.1x	5.9x	0.3x	0.3x	2.9x	2.3x
Group 1 Automotive	USD	264.42	200.00	(24%)	UW	3.7	3.7	5.9	46.08	43.96	44.25	40.70	5.7x	6.0x	5.6x	5.3x	0.3x	0.3x	1.3x	1.1x
Asbury	USD	230.00	165.00	(28%)	UW	4.7	4.7	7.8	33.94	31.70	33.50	30.98	6.8x	7.3x	6.9x	6.8x	0.5x	0.5x	1.4x	1.2x
Carvana	USD	50.35	37.00	(27%)	UW	5.4	5.4	15.0	-2.10	-1.69	-3.70	-2.52	NM	NM	80.0x	49.3x	1.4x	1.4x	19.4x	226.4x
AutoNation	USD	157.09	117.00	(26%)	UW	6.9	6.9	10.4	22.76	20.26	22.87	21.30	6.9x	7.8x	5.7x	5.3x	0.4x	0.4x	2.7x	2.0x
North America Weighted Average													13.0x	12.4x	16.6x	12.6x	0.6x	0.6x	3.9x	24.0x
China																				
China Yongda Auto	HKD	3.48	5.10	47%	OW	6.8	0.9	6.1	0.57	0.81	0.63	0.87	6.1x	4.3x	3.0x	2.3x	0.1x	0.1x	0.4x	0.4x
MeiDong	HKD	5.91	14.80	150%	OW	8.0	1.0	7.7	0.49	0.80	0.51	0.87	12.1x	7.4x	4.2x	3.2x	0.2x	0.2x	1.5x	1.4x
Baoxin Auto	HKD	0.23	0.27	15%	UW	0.7	0.1	5.1	0.13	0.14	0.15	0.18	1.8x	1.7x	3.2x	2.9x	0.2x	0.2x	0.1x	0.1x
Zhongsheng Group	HKD	23.90	37.00	55%	OW	57.1	7.3	63.0	2.50	3.04	2.81	3.27	9.6x	7.9x	5.1x	4.2x	0.3x	0.3x	1.2x	1.1x
China Zhengtong Auto	HKD	0.44	0.39	(11%)	UW	1.3	0.2	18.5	0.08	0.23	-0.36	-0.26	5.3x	1.9x	9.5x	7.9x	0.7x	0.7x	2.7x	1.1x
China Weighted Average													9.4x	7.3x	4.9x	3.9x	0.3x	0.3x	1.2x	1.0x
Global Weighted Average													12.4x	11.6x	14.8x	11.4x	0.5x	0.5x	3.5x	20.6x

Source: Refinitiv, Morgan Stanley Research estimates  
Note: 1) e = Morgan Stanley Research est; O = Overweight; E = Equal-weight; U = Underweight; NC = Not Covered. Valuation multiples are based on MS est. unless a company is restricted or NC, in which case cons. est. are used 2) PTs & Ratings are as of Sep 01, 2023

Exhibit15: Auto companies under Morgan Stanley coverage not shown in the comps tables are listed below (with current share price):

Company Name	Volvo	China Motor Corp.	Hesai Motor	Porsche	Avis Budget
Price at Aug 31	221.20	83.80	673.00	43.57	213.33
Currency	SEK	TwD	TwD	EUR	USD

Company Name	Tong Yang Industry	Yulon Motor	Zhongsheng Group	Tesla	Hertz
Price at Aug 31	67.30	83.40	23.30	7.14	16.35
Currency	TwD	TwD	CNY	USD	USD

Source: Refinitiv, Morgan Stanley Research

# Morgan Stanley Global Auto Team

## Morgan Stanley Global Auto Team

### NORTH AMERICA



Adam Jonas, CFA  
+1 212 761-1726  
adam.jonas@morganstanley.com



Daniela M. Haigian  
+1 212 761 6071  
Daniela.Haigian@morganstanley.com

### KOREA



Young Suk Shin  
+82 2 399-9907  
young.shin@morganstanley.com

### EUROPE



Ross MacDonald  
+44 20 7425-0240  
Ross.MacDonald@morganstanley.com



Shaqeal A. Kirunda  
+44 20 7425-0736  
Shaqeal.Kirunda@morganstanley.com

### CHINA



Shelley Wang  
+852 3963-0047  
Shelley.Wang@morganstanley.com



Eddy Wang  
+852 2239-7339  
eddy.wang@morganstanley.com

### TAIWAN



Tim Hsiao  
+852 2848-1982  
tim.hsiao@morganstanley.com

### JAPAN



Shinji Kakiuchi  
+81 3 5424-5914  
shinji.kakiuchi@morganstanleymufg.com

### INDIA



Binay Singh  
+91 22 6118-1158  
Binay.Singh@morganstanley.com



Sushrut Ghalsashi  
+91 22 6118-1073  
Sushrut.Ghalsashi@morganstanley.com

*Morgan Stanley is acting as financial advisor to Ford Motor Company in connection with its agreement with PT Vale Indonesia Tbk and Zhejiang Huayou Cobalt Co., Ltd., to make a capital investment in PT Kolaka Nickel Indonesia ("KNI") hydrometallurgy (HPAL) project (the "Pomalaa HPAL Project") as announced on March 30, 2023. Ford has agreed to pay fees to Morgan Stanley for its financial services, including transaction fees that are contingent upon the consummation of the transaction. Please refer to the notes at the end of the report.*

*Morgan Stanley is acting as financial advisor to Veoneer HoldCo, LLC ("Veoneer") in connection with its definitive agreement under which Magna International Inc. will acquire the Veoneer Active Safety business, as announced on December 20, 2022. The transaction is subject to approval of applicable regulatory authorities. Veoneer has agreed to pay fees to Morgan Stanley for its financial services that are contingent upon the consummation of the transaction. Please refer to the notes at the end of the report.*



## Disclosure Section

The information and opinions in Morgan Stanley Research were prepared by Morgan Stanley & Co. LLC, and/or Morgan Stanley C.T.V.M. S.A., and/or Morgan Stanley Mexico, Casa de Bolsa, S.A. de C.V., and/or Morgan Stanley Canada Limited. As used in this disclosure section, "Morgan Stanley" includes Morgan Stanley & Co. LLC, Morgan Stanley C.T.V.M. S.A., Morgan Stanley Mexico, Casa de Bolsa, S.A. de C.V., Morgan Stanley Canada Limited and their affiliates as necessary.

For important disclosures, stock price charts and equity rating histories regarding companies that are the subject of this report, please see the Morgan Stanley Research Disclosure Website at [www.morganstanley.com/researchdisclosures](http://www.morganstanley.com/researchdisclosures), or contact your investment representative or Morgan Stanley Research at 1585 Broadway, (Attention: Research Management), New York, NY, 10036 USA.

For valuation methodology and risks associated with any recommendation, rating or price target referenced in this research report, please contact the Client Support Team as follows: US/Canada +1 800 303-2495; Hong Kong +852 2848-5999; Latin America +1 718 754-5444 (U.S.); London +44 (0)20-7425-8169; Singapore +65 6834-6860; Sydney +61 (0)2-9770-1505; Tokyo +81 (0)3-6836-9000. Alternatively you may contact your investment representative or Morgan Stanley Research at 1585 Broadway, (Attention: Research Management), New York, NY 10036 USA.

### Analyst Certification

The following analysts hereby certify that their views about the companies and their securities discussed in this report are accurately expressed and that they have not received and will not receive direct or indirect compensation in exchange for expressing specific recommendations or views in this report: Adam Jonas, CFA; Ross A MacDonald, CFA; Binay Singh; Shelley Wang, CFA; Joey Xu, CFA.

### Global Research Conflict Management Policy

Morgan Stanley Research has been published in accordance with our conflict management policy, which is available at [www.morganstanley.com/institutional/research/conflict/policies](http://www.morganstanley.com/institutional/research/conflict/policies). A Portuguese version of the policy can be found at [www.morganstanley.com.br](http://www.morganstanley.com.br)

### Important Regulatory Disclosures on Subject Companies

As of July 31, 2023, Morgan Stanley beneficially owned 1% or more of a class of common equity securities of the following companies covered in Morgan Stanley Research: American Axle & Manufacturing Holdings Inc, Anhui Jianghuai Automobile, Aptiv Plc, Asbury Automotive Group Inc, Autoliv, AutoNation Inc., BMW, BorgWarner Inc., Brilliance China Automotive, BYD Company Limited, Carvana Co, Ferrari NV, Fisker Inc, Ford Motor Company, FREYR Battery SA, Geely Automobile Holdings, General Motors Company, Great Wall Motor Company Limited, Group 1 Automotive, Inc, Guangzhou Automobile Group, Harley-Davidson Inc, Kia Corp., Korea Electric Power, Lithia Motors Inc., Lucid Group Inc, Mando, Minth Group Limited, NIO Inc., Quantumscape Corp, Renault, Rivian Automotive, Inc., Stellantis, Tesla Inc, Visteon Corporation, Zhengzhou Yutong Bus Co.

Within the last 12 months, Morgan Stanley managed or co-managed a public offering (or 144A offering) of securities of Autoliv, BMW, Ford Motor Company, FREYR Battery SA, General Motors Company, Mobileye Global Inc, Nissan Motor, Quantumscape Corp, Rivian Automotive, Inc., Stellantis, Tesla Inc, Toyota Boshoku, Toyota Motor, Volkswagen.

Within the last 12 months, Morgan Stanley has received compensation for investment banking services from Aptiv Plc, Autoliv, Avis Budget Group Inc, BMW, Denso, Ford Motor Company, General Motors Company, Honda Motor, Michelin, Mobileye Global Inc, Nissan Motor, Quantumscape Corp, Rivian Automotive, Inc., Stanley Electric, Stellantis, Tata Motors, Tesla Inc, Toyota Boshoku, Toyota Motor, Volkswagen.

In the next 3 months, Morgan Stanley expects to receive or intends to seek compensation for investment banking services from Aisin, American Axle & Manufacturing Holdings Inc, Aptiv Plc, Autohome Inc, Autoliv, AutoNation Inc., Avis Budget Group Inc, BMW, BorgWarner Inc., Bridgestone, BYD Company Limited, Carvana Co, China Yongda Automobiles Services, Denso, EXEDY, Ferrari NV, Ford Motor Company, Geely Automobile Holdings, General Motors Company, Great Wall Motor Company Limited, Guangzhou Automobile Group, Hertz Global Holdings Inc, Honda Motor, Huayu Automotive, Hyundai Motor, Koito Mfg., Korea Electric Power, Lear Corporation, Lithia Motors Inc., Lucid Group Inc, Magna International Inc., Mahindra & Mahindra, Michelin, Minth Group Limited, Mobileye Global Inc, NHK Spring, Nifco, NIO Inc., Nissan Motor, NOK, Pirelli & C SpA, Quantumscape Corp, Renault, Rivian Automotive, Inc., SAIC Motor Corp. Ltd., Stanley Electric, Stellantis, Sumitomo Rubber, Tata Motors, Tesla Inc, Toyoda Gosei, Toyota Boshoku, Toyota Industries, Toyota Motor, Unipres, Visteon Corporation, Volkswagen, Volvo, Zhongsheng Group Holdings.

Within the last 12 months, Morgan Stanley has received compensation for products and services other than investment banking services from American Axle & Manufacturing Holdings Inc, Aptiv Plc, Autoliv, Avis Budget Group Inc, Baoxin Auto Group, BMW, BorgWarner Inc., BYD Company Limited, Ferrari NV, Ford Motor Company, Geely Automobile Holdings, General Motors Company, Harley-Davidson Inc, Hertz Global Holdings Inc, Hyundai Motor, Korea Electric Power, Lear Corporation, Mahindra & Mahindra, Michelin, Nissan Motor, Pirelli & C SpA, Renault, Rivian Automotive, Inc., Sinotruk (Hong Kong) Limited, Stellantis, Tata Motors, Tesla Inc, Toyota Motor, Visteon Corporation, Volkswagen, Volvo, Zhongsheng Group Holdings.

Within the last 12 months, Morgan Stanley has provided or is providing investment banking services to, or has an investment banking client relationship with, the following company: Aisin, American Axle & Manufacturing Holdings Inc, Aptiv Plc, Autohome Inc, Autoliv, AutoNation Inc., Avis Budget Group Inc, BMW, BorgWarner Inc., Bridgestone, BYD Company Limited, Carvana Co, China Yongda Automobiles Services, Denso, Ferrari NV, Ford Motor Company, FREYR Battery SA, Geely Automobile Holdings, General Motors Company, Great Wall Motor Company Limited, Guangzhou Automobile Group, Hertz Global Holdings Inc, Honda Motor, Huayu Automotive, Hyundai Motor, Korea Electric Power, Lear Corporation, Lithia Motors Inc., Lucid Group Inc, Magna International Inc., Mahindra & Mahindra, Michelin, Minth Group Limited, Mobileye Global Inc, NIO Inc., Nissan Motor, Pirelli & C SpA, Quantumscape Corp, Renault, Rivian Automotive, Inc., SAIC Motor Corp. Ltd., Stellantis, Tata Motors, Tesla Inc, Toyota Boshoku, Toyota Industries, Toyota Motor, Visteon Corporation, Volkswagen, Volvo, Zhongsheng Group Holdings.

Within the last 12 months, Morgan Stanley has either provided or is providing non-investment banking, securities-related services to and/or in the past has entered into an agreement to provide services or has a client relationship with the following company: Aisin, American Axle & Manufacturing Holdings Inc, Aptiv Plc, Autoliv, Avis Budget Group Inc, Baoxin Auto Group, BMW, BorgWarner Inc., BYD Company Limited, China Zhengtong Auto Services, Denso, Ferrari NV, Fisker Inc, Ford Motor Company, Geely Automobile Holdings, General Motors Company, Harley-Davidson Inc, Hertz Global Holdings Inc, Hyundai Motor, Koito Mfg., Korea Electric Power, Lear Corporation, Mahindra & Mahindra, Michelin, NHK Spring, NIO Inc., Nissan Motor, Pirelli & C SpA, Renault, Rivian Automotive, Inc., Sinotruk (Hong Kong) Limited, Stellantis, Sumitomo Rubber, Tata Motors, Tesla Inc, Toyota Motor, Visteon Corporation, Volkswagen, Volvo, Zhongsheng Group Holdings.

An employee, director or consultant of Morgan Stanley is a director of General Motors Company. This person is not a research analyst or a member of a research analyst's household.

Morgan Stanley & Co. LLC makes a market in the securities of Adient PLC, American Axle & Manufacturing Holdings Inc, Aptiv Plc, Asbury Automotive Group Inc, Autohome Inc, Autoliv, AutoNation Inc., Avis Budget Group Inc, BorgWarner Inc., Carmax Inc, Ford Motor Company, General Motors Company, Group 1 Automotive, Inc, Harley-Davidson Inc, Honda Motor, Korea Electric Power, Lear Corporation, Lithia Motors Inc., Magna International Inc., Mobileye Global Inc, Penske Automotive Group, Inc, Rivian Automotive, Inc., Sonic Automotive Inc, Tesla Inc, Visteon Corporation.

The equity research analysts or strategists principally responsible for the preparation of Morgan Stanley Research have received compensation based upon various factors, including quality of research, investor client feedback, stock picking, competitive factors, firm revenues and overall investment banking revenues. Equity Research analysts' or strategists' compensation is not

linked to investment banking or capital markets transactions performed by Morgan Stanley or the profitability or revenues of particular trading desks.

Morgan Stanley and its affiliates do business that relates to companies/instruments covered in Morgan Stanley Research, including market making, providing liquidity, fund management, commercial banking, extension of credit, investment services and investment banking. Morgan Stanley sells to and buys from customers the securities/instruments of companies covered in Morgan Stanley Research on a principal basis. Morgan Stanley may have a position in the debt of the Company or instruments discussed in this report. Morgan Stanley trades or may trade as principal in the debt securities (or in related derivatives) that are the subject of the debt research report.

Certain disclosures listed above are also for compliance with applicable regulations in non-US jurisdictions.

## STOCK RATINGS

Morgan Stanley uses a relative rating system using terms such as Overweight, Equal-weight, Not-Rated or Underweight (see definitions below). Morgan Stanley does not assign ratings of Buy, Hold or Sell to the stocks we cover. Overweight, Equal-weight, Not-Rated and Underweight are not the equivalent of buy, hold and sell. Investors should carefully read the definitions of all ratings used in Morgan Stanley Research. In addition, since Morgan Stanley Research contains more complete information concerning the analyst's views, investors should carefully read Morgan Stanley Research, in its entirety, and not infer the contents from the rating alone. In any case, ratings (or research) should not be used or relied upon as investment advice. An investor's decision to buy or sell a stock should depend on individual circumstances (such as the investor's existing holdings) and other considerations.

## Global Stock Ratings Distribution

(as of August 31, 2023)

The Stock Ratings described below apply to Morgan Stanley's Fundamental Equity Research and do not apply to Debt Research produced by the Firm.

For disclosure purposes only (in accordance with FINRA requirements), we include the category headings of Buy, Hold, and Sell alongside our ratings of Overweight, Equal-weight, Not-Rated and Underweight. Morgan Stanley does not assign ratings of Buy, Hold or Sell to the stocks we cover. Overweight, Equal-weight, Not-Rated and Underweight are not the equivalent of buy, hold, and sell but represent recommended relative weightings (see definitions below). To satisfy regulatory requirements, we correspond Overweight, our most positive stock rating, with a buy recommendation; we correspond Equal-weight and Not-Rated to hold and Underweight to sell recommendations, respectively.

Stock Rating Category	Coverage Universe		Investment Banking Clients (IBC)			Other Material Investment Services Clients (MISC)	
	Count	% of Total	Count	% of Total IBC	% of Rating Category	Count	% of Total Other MISC
Overweight/Buy	1345	37%	273	43%	20%	606	39%
Equal-weight/Hold	1686	46%	301	47%	18%	719	47%
Not-Rated/Hold	3	0%	0	0%	0%	1	0%
Underweight/Sell	594	16%	67	10%	11%	218	14%
Total	3,628		641			1544	

Data include common stock and ADRs currently assigned ratings. Investment Banking Clients are companies from whom Morgan Stanley received investment banking compensation in the last 12 months. Due to rounding off of decimals, the percentages provided in the "% of total" column may not add up to exactly 100 percent.

## Analyst Stock Ratings

Overweight (O). The stock's total return is expected to exceed the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Equal-weight (E). The stock's total return is expected to be in line with the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Not-Rated (NR). Currently the analyst does not have adequate conviction about the stock's total return relative to the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Underweight (U). The stock's total return is expected to be below the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Unless otherwise specified, the time frame for price targets included in Morgan Stanley Research is 12 to 18 months.

## Analyst Industry Views

Attractive (A): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be attractive vs. the relevant broad market benchmark, as indicated below.

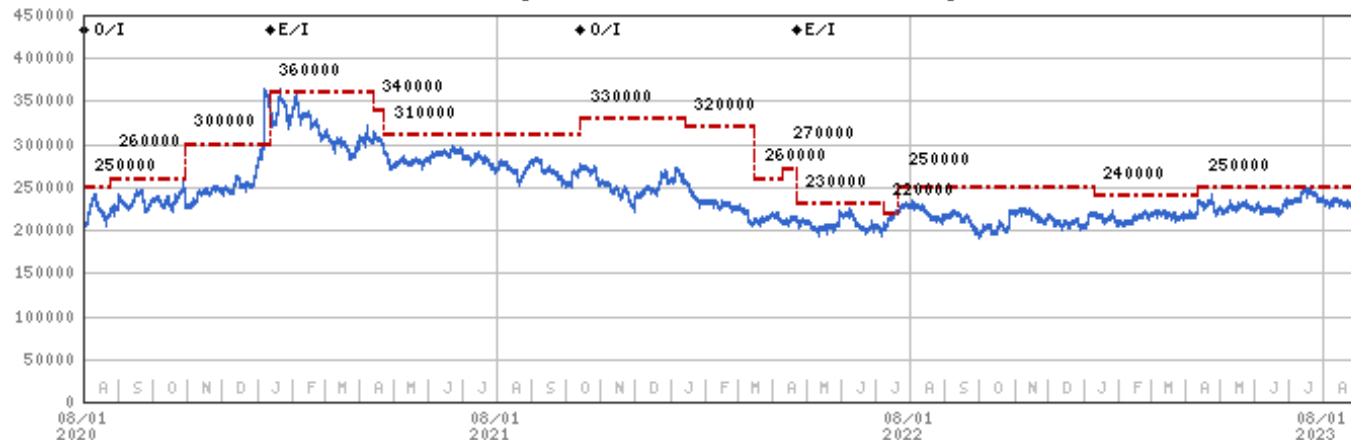
In-Line (I): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be in line with the relevant broad market benchmark, as indicated below.

Cautious (C): The analyst views the performance of his or her industry coverage universe over the next 12-18 months with caution vs. the relevant broad market benchmark, as indicated below.

Benchmarks for each region are as follows: North America - S&P 500; Latin America - relevant MSCI country index or MSCI Latin America Index; Europe - MSCI Europe; Japan - TOPIX; Asia - relevant MSCI country index or MSCI sub-regional index or MSCI AC Asia Pacific ex Japan Index.

## Stock Price, Price Target and Rating History (See Rating Definitions)

Hyundai MOBIS (012330.KS) - As of 8/31/23 in KRW  
Industry : S. Korea Autos & Shared Mobility



Stock Rating History: 9/1/18 : E/I; 7/24/19 : O/I; 1/12/21 : E/I; 10/14/21 : O/I; 4/22/22 : E/I

Price Target History: 6/23/18 : 250000; 10/11/18 : 230000; 10/29/18 : 210000; 1/9/19 : 200000; 4/29/19 : 220000; 7/24/19 : 280000;  
3/9/20 : 260000; 4/8/20 : 210000; 4/27/20 : 200000; 7/10/20 : 230000; 7/24/20 : 250000; 8/24/20 : 260000; 10/29/20 : 300000;  
1/12/21 : 360000; 4/13/21 : 340000; 4/23/21 : 310000; 10/14/21 : 330000; 1/14/22 : 320000; 3/17/22 : 260000; 4/11/22 : 270000;  
4/22/22 : 230000; 7/8/22 : 220000; 7/22/22 : 250000; 1/10/23 : 240000; 4/12/23 : 250000

Source: Morgan Stanley Research Date Format : MM/DD/YY Price Target --- No Price Target Assigned (NA)

Stock Price (Not Covered by Current Analyst) — Stock Price (Covered by Current Analyst) —

Stock and Industry Ratings (abbreviations below) appear as ♦ Stock Rating/Industry View

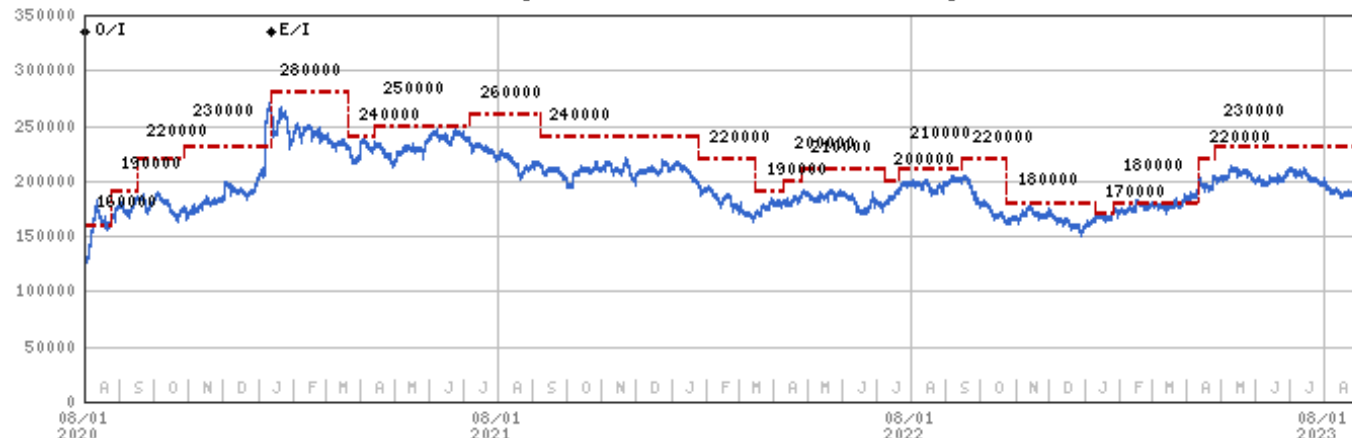
Stock Ratings: Overweight (O) Equal-weight (E) Underweight (U) Not-Rated (NR) No Rating Available (NA)

Industry View: Attractive (A) In-line (I) Cautious (C) No Rating (NR)

Effective January 13, 2014, the stocks covered by Morgan Stanley Asia Pacific will be rated relative to the analyst's industry (or industry team's) coverage.

Effective January 13, 2014, the industry view benchmarks for Morgan Stanley Asia Pacific are as follows: relevant MSCI country index or MSCI sub-regional index or MSCI AC Asia Pacific ex Japan Index.

Hyundai Motor (005380.KS) - As of 8/31/23 in KRW  
Industry : S. Korea Autos & Shared Mobility



Stock Rating History: 9/1/18 : O/I; 10/11/18 : E/I; 7/24/20 : O/I; 1/12/21 : E/I

Price Target History: 6/23/18 : 170000; 10/11/18 : 135000; 10/25/18 : 120000; 4/24/19 : 150000; 10/3/19 : 140000; 1/9/20 : 120000; 1/23/20 : 130000; 3/9/20 : 120000; 4/8/20 : 100000; 4/24/20 : 90000; 7/10/20 : 110000; 7/24/20 : 160000; 8/24/20 : 190000; 9/16/20 : 220000; 10/27/20 : 230000; 1/12/21 : 280000; 3/22/21 : 240000; 4/13/21 : 250000; 7/7/21 : 260000; 9/7/21 : 240000; 1/25/22 : 220000; 3/17/22 : 190000; 4/11/22 : 200000; 4/26/22 : 210000; 7/8/22 : 200000; 7/22/22 : 210000; 9/15/22 : 220000; 10/24/22 : 180000; 1/10/23 : 170000; 1/26/23 : 180000; 4/12/23 : 220000; 4/26/23 : 230000

Source: Morgan Stanley Research Date Format : MM/DD/YY Price Target -- No Price Target Assigned (NA)

Stock Price (Not Covered by Current Analyst) — Stock Price (Covered by Current Analyst) —

Stock and Industry Ratings (abbreviations below) appear as ♦ Stock Rating/Industry View

Stock Ratings: Overweight (O) Equal-weight (E) Underweight (U) Not-Rated (NR) No Rating Available (NA)

Industry View: Attractive (A) In-line (I) Cautious (C) No Rating (NR)

Effective January 13, 2014, the stocks covered by Morgan Stanley Asia Pacific will be rated relative to the analyst's industry (or industry team's) coverage.

Effective January 13, 2014, the industry view benchmarks for Morgan Stanley Asia Pacific are as follows: relevant MSCI country index or MSCI sub-regional index or MSCI AC Asia Pacific ex Japan Index.



Kia Corp. (000270.KS) - As of 8/31/23 in KRW  
Industry : S. Korea Autos & Shared Mobility



Stock Rating History: 9/1/18 : E/I; 1/9/20 : U/I; 3/26/20 : E/I; 6/2/20 : O/I; 1/28/21 : E/I; 4/26/22 : O/I

Price Target History: 1/26/18 : 30000; 10/11/18 : 35000; 10/26/18 : 31000; 1/9/19 : 34000; 4/9/19 : 37000; 4/25/19 : 40000; 10/24/19 : 45000; 1/9/20 : 34000; 3/9/20 : 32000; 3/26/20 : 29000; 4/8/20 : 28000; 6/2/20 : 40000; 7/24/20 : 45000; 8/24/20 : 52000; 9/14/20 : 64000; 10/27/20 : 85000; 1/12/21 : 80000; 1/28/21 : 90000; 6/18/21 : 100000; 9/7/21 : 95000; 10/28/21 : 100000; 1/14/22 : 95000; 1/26/22 : 90000; 3/17/22 : 80000; 4/11/22 : 85000; 4/26/22 : 100000; 7/8/22 : 90000; 7/22/22 : 100000; 10/25/22 : 80000; 1/10/23 : 70000; 1/30/23 : 80000; 4/12/23 : 100000; 4/26/23 : 105000

Source: Morgan Stanley Research Date Format : MM/DD/YY Price Target — No Price Target Assigned (NA)

Stock Price (Not Covered by Current Analyst) — Stock Price (Covered by Current Analyst) —

Stock and Industry Ratings (abbreviations below) appear as ♦ Stock Rating/Industry View

Stock Ratings: Overweight (O) Equal-weight (E) Underweight (U) Not-Rated (NR) No Rating Available (NA)

Industry View: Attractive (A) In-line (I) Cautious (C) No Rating (NR)

Effective January 13, 2014, the stocks covered by Morgan Stanley Asia Pacific will be rated relative to the analyst's industry (or industry team's) coverage.

Effective January 13, 2014, the industry view benchmarks for Morgan Stanley Asia Pacific are as follows: relevant MSCI country index or MSCI sub-regional index or MSCI AC Asia Pacific ex Japan Index.

Korea Electric Power (015760.KS) - As of 8/31/23 in KRW  
Industry : S. Korea Energy & Materials



Stock Rating History: 9/1/18 : E/A; 12/7/18 : O/A; 5/14/19 : E/A; 11/5/21 : O/A; 8/12/22 : E/A

Price Target History: 8/13/18 : 33000; 12/7/18 : 39000; 1/4/19 : 45000; 5/14/19 : 30000; 8/15/19 : 28000; 3/2/20 : 24000; 2/20/21 : 26000; 5/14/21 : 25000; 11/5/21 : 33000; 11/12/21 : 32000; 5/13/22 : 29000; 8/12/22 : 22000; 11/14/22 : 20000; 5/15/23 : 22000; 8/11/23 : 21000

Source: Morgan Stanley Research Date Format : MM/DD/YY Price Target — No Price Target Assigned (NA)

Stock Price (Not Covered by Current Analyst) — Stock Price (Covered by Current Analyst) —

Stock and Industry Ratings (abbreviations below) appear as ♦ Stock Rating/Industry View

Stock Ratings: Overweight (O) Equal-weight (E) Underweight (U) Not-Rated (NR) No Rating Available (NA)

Industry View: Attractive (A) In-line (I) Cautious (C) No Rating (NR)

Effective January 13, 2014, the stocks covered by Morgan Stanley Asia Pacific will be rated relative to the analyst's industry (or industry team's) coverage.

Effective January 13, 2014, the industry view benchmarks for Morgan Stanley Asia Pacific are as follows: relevant MSCI country index or MSCI sub-regional index or MSCI AC Asia Pacific ex Japan Index.

Mando (204320.KS) - As of 8/31/23 in KRW  
Industry : S. Korea Autos & Shared Mobility



Stock Rating History: 9/1/18 : E/I; 1/31/19 : U/I; 7/26/19 : O/I; 4/8/20 : E/I; 10/14/21 : O/I; 3/17/22 : E/I; 8/1/22 : O/I

Price Target History: 6/23/18 : 40000; 10/11/18 : 32000; 1/9/19 : 30000; 1/31/19 : 27000; 7/26/19 : 42000; 9/17/19 : 44000;  
3/9/20 : 38000; 4/8/20 : 23000; 7/10/20 : 24000; 8/24/20 : 30000; 10/19/20 : 35000; 10/29/20 : 40000; 1/12/21 : 80000;  
2/4/21 : 77000; 4/13/21 : 72000; 4/30/21 : 66000; 7/7/21 : 70000; 10/14/21 : 82000; 1/14/22 : 80000; 2/9/22 : 70000; 3/17/22 : 48000;  
4/11/22 : 54000; 4/29/22 : 60000; 7/8/22 : 52000; 8/1/22 : 74000; 10/28/22 : 70000; 1/10/23 : 60000; 4/12/23 : 56000; 7/7/23 : 62000;  
7/27/23 : 63000

Source: Morgan Stanley Research Date Format : MM/DD/YY Price Target -- No Price Target Assigned (NA)

Stock Price (Not Covered by Current Analyst) — Stock Price (Covered by Current Analyst) —

Stock and Industry Ratings (abbreviations below) appear as ♦ Stock Rating/Industry View

Stock Ratings: Overweight (O) Equal-weight (E) Underweight (U) Not-Rated (NR) No Rating Available (NA)

Industry View: Attractive (A) In-line (I) Cautious (C) No Rating (NR)

Effective January 13, 2014, the stocks covered by Morgan Stanley Asia Pacific will be rated relative to the analyst's industry (or industry team's) coverage.

Effective January 13, 2014, the industry view benchmarks for Morgan Stanley Asia Pacific are as follows: relevant MSCI country index or MSCI sub-regional index or MSCI AC Asia Pacific ex Japan Index.

## Important Disclosures for Morgan Stanley Smith Barney LLC & E\*TRADE Securities LLC Customers

Important disclosures regarding the relationship between the companies that are the subject of Morgan Stanley Research and Morgan Stanley Smith Barney LLC or Morgan Stanley or any of their affiliates, are available on the Morgan Stanley Wealth Management disclosure website at [www.morganstanley.com/online/researchdisclosures](http://www.morganstanley.com/online/researchdisclosures). For Morgan Stanley specific disclosures, you may refer to [www.morganstanley.com/researchdisclosures](http://www.morganstanley.com/researchdisclosures).

Each Morgan Stanley research report is reviewed and approved on behalf of Morgan Stanley Smith Barney LLC and E\*TRADE Securities LLC. This review and approval is conducted by the same person who reviews the research report on behalf of Morgan Stanley. This could create a conflict of interest.

## Other Important Disclosures

Morgan Stanley & Co. International PLC and its affiliates have a significant financial interest in the debt securities of Aptiv Plc, Asbury Automotive Group Inc, Autoliv, AutoNation Inc., Avis Budget Group Inc, BMW, BorgWarner Inc., Bridgestone, Denso, Ford Motor Company, Geely Automobile Holdings, General Motors Company, Honda Motor, Korea Electric Power, Lear Corporation, Magna International Inc., Michelin, NIO Inc., Nissan Motor, Renault, Rivian Automotive, Inc., Stellantis, Tata Motors, Tesla Inc, Toyota Motor, Volkswagen, Zhongsheng Group Holdings.

A member of Research who had or could have had access to the research prior to completion owns securities (or related derivatives) in the Ford Motor Company. This person is not a research analyst or a member of research analyst's household.

Morgan Stanley Research policy is to update research reports as and when the Research Analyst and Research Management deem appropriate, based on developments with the issuer, the sector, or the market that may have a material impact on the research views or opinions stated therein. In addition, certain Research publications are intended to be updated on a regular periodic basis (weekly/monthly/quarterly/annual) and will ordinarily be updated with that frequency, unless the Research Analyst and Research Management determine that a different publication schedule is appropriate based on current conditions.

Morgan Stanley is not acting as a municipal advisor and the opinions or views contained herein are not intended to be, and do not constitute, advice within the meaning of Section 975 of the Dodd-Frank Wall Street Reform and Consumer Protection Act.

Morgan Stanley produces an equity research product called a "Tactical Idea." Views contained in a "Tactical Idea" on a particular stock may be contrary to the recommendations or views expressed in research on the same stock. This may be the result of differing time horizons, methodologies, market events, or other factors. For all research available on a particular stock, please contact your sales representative or go to Matrix at <http://www.morganstanley.com/matrix>.

Morgan Stanley Research is provided to our clients through our proprietary research portal on Matrix and also distributed electronically by Morgan Stanley to clients. Certain, but not all, Morgan Stanley Research products are also made available to clients through third-party vendors or redistributed to clients through alternate electronic means as a convenience. For access to all available Morgan Stanley Research, please contact your sales representative or go to Matrix at <http://www.morganstanley.com/matrix>.

Any access and/or use of Morgan Stanley Research is subject to Morgan Stanley's Terms of Use (<http://www.morganstanley.com/terms.html>). By accessing and/or using Morgan Stanley Research, you are indicating that you have read and agree to be bound by our Terms of Use (<http://www.morganstanley.com/terms.html>). In addition you consent to Morgan Stanley processing your personal data and using cookies in accordance with our Privacy Policy and our Global Cookies Policy ([http://www.morganstanley.com/privacy\\_pledge.html](http://www.morganstanley.com/privacy_pledge.html)), including for the purposes of setting your preferences and to collect readership data so that we can deliver better and more personalized service and products to you. To find out more information about how Morgan Stanley

processes personal data, how we use cookies and how to reject cookies see our Privacy Policy and our Global Cookies Policy ([http://www.morganstanley.com/privacy\\_pledge.html](http://www.morganstanley.com/privacy_pledge.html)). If you do not agree to our Terms of Use and/or if you do not wish to provide your consent to Morgan Stanley processing your personal data or using cookies please do not access our research. Morgan Stanley Research does not provide individually tailored investment advice. Morgan Stanley Research has been prepared without regard to the circumstances and objectives of those who receive it. Morgan Stanley recommends that investors independently evaluate particular investments and strategies, and encourages investors to seek the advice of a financial adviser. The appropriateness of an investment or strategy will depend on an investor's circumstances and objectives. The securities, instruments, or strategies discussed in Morgan Stanley Research may not be suitable for all investors, and certain investors may not be eligible to purchase or participate in some or all of them. Morgan Stanley Research is not an offer to buy or sell or the solicitation of an offer to buy or sell any security/instrument or to participate in any particular trading strategy. The value of and income from your investments may vary because of changes in interest rates, foreign exchange rates, default rates, prepayment rates, securities/instruments prices, market indexes, operational or financial conditions of companies or other factors. There may be time limitations on the exercise of options or other rights in securities/instruments transactions. Past performance is not necessarily a guide to future performance. Estimates of future performance are based on assumptions that may not be realized. If provided, and unless otherwise stated, the closing price on the cover page is that of the primary exchange for the subject company's securities/instruments.

The fixed income research analysts, strategists or economists principally responsible for the preparation of Morgan Stanley Research have received compensation based upon various factors, including quality, accuracy and value of research, firm profitability or revenues (which include fixed income trading and capital markets profitability or revenues), client feedback and competitive factors. Fixed Income Research analysts', strategists' or economists' compensation is not linked to investment banking or capital markets transactions performed by Morgan Stanley or the profitability or revenues of particular trading desks.

The "Important Regulatory Disclosures on Subject Companies" section in Morgan Stanley Research lists all companies mentioned where Morgan Stanley owns 1% or more of a class of common equity securities of the companies. For all other companies mentioned in Morgan Stanley Research, Morgan Stanley may have an investment of less than 1% in securities/instruments or derivatives of securities/instruments of companies and may trade them in ways different from those discussed in Morgan Stanley Research. Employees of Morgan Stanley not involved in the preparation of Morgan Stanley Research may have investments in securities/instruments or derivatives of securities/instruments of companies mentioned and may trade them in ways different from those discussed in Morgan Stanley Research. Derivatives may be issued by Morgan Stanley or associated persons.

With the exception of information regarding Morgan Stanley, Morgan Stanley Research is based on public information. Morgan Stanley makes every effort to use reliable, comprehensive information, but we make no representation that it is accurate or complete. We have no obligation to tell you when opinions or information in Morgan Stanley Research change apart from when we intend to discontinue equity research coverage of a subject company. Facts and views presented in Morgan Stanley Research have not been reviewed by, and may not reflect information known to, professionals in other Morgan Stanley business areas, including investment banking personnel.

Morgan Stanley Research personnel may participate in company events such as site visits and are generally prohibited from accepting payment by the company of associated expenses unless pre-approved by authorized members of Research management.

Morgan Stanley may make investment decisions that are inconsistent with the recommendations or views in this report.

To our readers based in Taiwan or trading in Taiwan securities/instruments: Information on securities/instruments that trade in Taiwan is distributed by Morgan Stanley Taiwan Limited ("MSTL"). Such information is for your reference only. The reader should independently evaluate the investment risks and is solely responsible for their investment decisions. Morgan Stanley Research may not be distributed to the public media or quoted or used by the public media without the express written consent of Morgan Stanley. Any non-customer reader within the scope of Article 7-1 of the Taiwan Stock Exchange Recommendation Regulations accessing and/or receiving Morgan Stanley Research is not permitted to provide Morgan Stanley Research to any third party (including but not limited to related parties, affiliated companies and any other third parties) or engage in any activities regarding Morgan Stanley Research which may create or give the appearance of creating a conflict of interest. Information on securities/instruments that do not trade in Taiwan is for informational purposes only and is not to be construed as a recommendation or a solicitation to trade in such securities/instruments. MSTL may not execute transactions for clients in these securities/instruments.

Morgan Stanley is not incorporated under PRC law and the research in relation to this report is conducted outside the PRC. Morgan Stanley Research does not constitute an offer to sell or the solicitation of an offer to buy any securities in the PRC. PRC investors shall have the relevant qualifications to invest in such securities and shall be responsible for obtaining all relevant approvals, licenses, verifications and/or registrations from the relevant governmental authorities themselves. Neither this report nor any part of it is intended as, or shall constitute, provision of any consultancy or advisory service of securities investment as defined under PRC law. Such information is provided for your reference only.

Morgan Stanley Research is disseminated in Brazil by Morgan Stanley C.T.V.M. S.A. located at Av. Brigadeiro Faria Lima, 3600, 6th floor, São Paulo - SP, Brazil; and is regulated by the Comissão de Valores Mobiliários; in Mexico by Morgan Stanley México, Casa de Bolsa, S.A. de C.V. which is regulated by Comision Nacional Bancaria y de Valores. Paseo de los Tamarindos 90, Torre 1, Col. Bosques de las Lomas Floor 29, 05120 Mexico City; in Japan by Morgan Stanley MUFG Securities Co., Ltd. and, for Commodities related research reports only, Morgan Stanley Capital Group Japan Co., Ltd; in Hong Kong by Morgan Stanley Asia Limited (which accepts responsibility for its contents) and by Morgan Stanley Bank Asia Limited; in Singapore by Morgan Stanley Asia (Singapore) Pte. (Registration number 199206298Z) and/or Morgan Stanley Asia (Singapore) Securities Pte Ltd (Registration number 200008434H), regulated by the Monetary Authority of Singapore (which accepts legal responsibility for its contents and should be contacted with respect to any matters arising from, or in connection with, Morgan Stanley Research) and by Morgan Stanley Bank Asia Limited, Singapore Branch (Registration number T14FC0118); in Australia to "wholesale clients" within the meaning of the Australian Corporations Act by Morgan Stanley Australia Limited A.B.N. 67 003 734 576, holder of Australian financial services license No. 233742, which accepts responsibility for its contents; in Australia to "wholesale clients" and "retail clients" within the meaning of the Australian Corporations Act by Morgan Stanley Wealth Management Australia Pty Ltd (A.B.N. 19 009 145 555, holder of Australian financial services license No. 240813, which accepts responsibility for its contents; in Korea by Morgan Stanley & Co International plc, Seoul Branch; in India by Morgan Stanley India Company Private Limited having Corporate Identification No (CIN) U22990MH1998PTC115305, regulated by the Securities and Exchange Board of India ("SEBI") and holder of licenses as a Research Analyst (SEBI Registration No. INH000001105); Stock Broker (SEBI Stock Broker Registration No. INZ000244438), Merchant Banker (SEBI Registration No. INM000011203), and depository participant with National Securities Depository Limited (SEBI Registration No. IN-DP-NSDL-567-2021) having registered office at 18th Floor, Tower 2, One World Center, Plot- 841, Jupiter Textile Mill Compound, Senapati Bapat Marg, Lower Parel, Mumbai 400013, India Telephone no. +91-22-61181000; Compliance Officer Details: Mr. Anil Shenoy, Tel. No.: +91-22-61181000 or Email: Anil.Shenoy@morganstanley.com; Grievance officer details: Mr. Anil Shenoy, Tel. No.: +91-22-61181000 or Email: msic-compliance@morganstanley.com; in Canada by Morgan Stanley Canada Limited; in Germany and the European Economic Area where required by Morgan Stanley Europe S.E., authorised and regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin) under the reference number 149169; in the US by Morgan Stanley & Co. LLC, which accepts responsibility for its contents. Morgan Stanley & Co. International plc, authorized by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority, disseminates in the UK research that it has prepared, and research which has been prepared by any of its affiliates, only to persons who (i) are investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (as amended, the "Order"); (ii) are persons who are high net worth entities falling within Article 49(2)(a) to (d) of the Order; or (iii) are persons to whom an invitation or inducement to engage in investment activity (within the meaning of section 21 of the Financial Services and Markets Act 2000, as amended) may otherwise lawfully be communicated or caused to be communicated. RMB Morgan Stanley Proprietary Limited is a member of the JSE Limited and A2X (Pty) Ltd. RMB Morgan Stanley Proprietary Limited is a joint venture owned equally by Morgan Stanley International Holdings Inc. and RMB Investment Advisory (Proprietary) Limited, which is wholly owned by FirstRand Limited. The information in Morgan Stanley Research is being

disseminated by Morgan Stanley Saudi Arabia, regulated by the Capital Market Authority in the Kingdom of Saudi Arabia, and is directed at Sophisticated investors only.

Morgan Stanley Hong Kong Securities Limited is the liquidity provider/market maker for securities of BYD Company Limited, Geely Automobile Holdings, Great Wall Motor Company Limited, Guangzhou Automobile Group, NIO Inc. listed on the Stock Exchange of Hong Kong Limited. An updated list can be found on HKEx website: <http://www.hkex.com.hk>.

The information in Morgan Stanley Research is being communicated by Morgan Stanley & Co. International plc (DIFC Branch), regulated by the Dubai Financial Services Authority (the DFSA), and is directed at Professional Clients only, as defined by the DFSA. The financial products or financial services to which this research relates will only be made available to a customer who we are satisfied meets the regulatory criteria to be a Professional Client. A distribution of the different MS Research ratings or recommendations, in percentage terms for Investments in each sector covered, is available upon request from your sales representative.

The information in Morgan Stanley Research is being communicated by Morgan Stanley & Co. International plc (QFC Branch), regulated by the Qatar Financial Centre Regulatory Authority (the QFCRA), and is directed at business customers and market counterparties only and is not intended for Retail Customers as defined by the QFCRA.

As required by the Capital Markets Board of Turkey, investment information, comments and recommendations stated here, are not within the scope of investment advisory activity. Investment advisory service is provided exclusively to persons based on their risk and income preferences by the authorized firms. Comments and recommendations stated here are general in nature. These opinions may not fit to your financial status, risk and return preferences. For this reason, to make an investment decision by relying solely to this information stated here may not bring about outcomes that fit your expectations.

The following companies do business in countries which are generally subject to comprehensive sanctions programs administered or enforced by the U.S. Department of the Treasury's Office of Foreign Assets Control ("OFAC") and by other countries and multi-national bodies: Renault.

The trademarks and service marks contained in Morgan Stanley Research are the property of their respective owners. Third-party data providers make no warranties or representations relating to the accuracy, completeness, or timeliness of the data they provide and shall not have liability for any damages relating to such data. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and S&P.

Morgan Stanley Research, or any portion thereof may not be reprinted, sold or redistributed without the written consent of Morgan Stanley.

Indicators and trackers referenced in Morgan Stanley Research may not be used as, or treated as, a benchmark under Regulation EU 2016/1011, or any other similar framework.

The issuers and/or fixed income products recommended or discussed in certain fixed income research reports may not be continuously followed. Accordingly, investors should regard those fixed income research reports as providing stand-alone analysis and should not expect continuing analysis or additional reports relating to such issuers and/or individual fixed income products.

Morgan Stanley may hold, from time to time, material financial and commercial interests regarding the company subject to the Research report.

Registration granted by SEBI and certification from the National Institute of Securities Markets (NISM) in no way guarantee performance of the intermediary or provide any assurance of returns to investors. Investment in securities market are subject to market risks. Read all the related documents carefully before investing.

## INDUSTRY COVERAGE: Autos & Shared Mobility

COMPANY (TICKER)	RATING (AS OF)	PRICE* (08/31/2023)
<b>Adam Jonas, CFA</b>		
Adient PLC (ADNT.N)	U (03/17/2021)	\$39.17
American Axle & Manufacturing Holdings Inc (AXL.N)	O (02/28/2022)	\$7.55
Aptiv Plc (APTV.N)	E (11/28/2022)	\$101.45
Asbury Automotive Group Inc (ABG.N)	U (05/20/2022)	\$230.00
AutoNation Inc. (AN.N)	U (01/17/2023)	\$157.09
Avis Budget Group Inc (CAR.O)	O (06/20/2023)	\$213.39
BorgWarner Inc. (BWA.N)	O (05/15/2023)	\$40.75
Carmax Inc (KMX.N)	O (07/10/2018)	\$81.68
Carvana Co (CVNA.N)	U (07/26/2023)	\$50.35
Ferrari NV (RACE.N)	O (05/09/2019)	\$317.74
Fisker Inc (FSR.N)	U (01/25/2023)	\$5.87
Ford Motor Company (F.N)	O (10/05/2022)	\$12.13
FREYR Battery SA (FREY.N)	O (06/28/2023)	\$6.23
General Motors Company (GM.N)	O (05/01/2023)	\$33.51
Group 1 Automotive, Inc (GPI.N)	U (05/20/2022)	\$264.42
Harley-Davidson Inc (HOG.N)	O (03/21/2023)	\$33.75
Hertz Global Holdings Inc (HTZ.O)	E (12/06/2021)	\$16.95
Lear Corporation (LEA.N)	E (02/28/2022)	\$144.09
Li-Cycle Holdings Corp. (LICY.N)	U (01/25/2023)	\$4.44
Lithia Motors Inc. (LAD.N)	U (02/09/2021)	\$308.02
Lucid Group Inc (LCID.O)	U (09/13/2021)	\$6.28
Magna International Inc. (MGA.N)	O (10/14/2021)	\$58.82
Mobileye Global Inc (MBLY.O)	E (07/24/2023)	\$35.51
Penske Automotive Group, Inc (PAG.N)	U (11/17/2021)	\$164.30
Quantumscape Corp (QS.N)	U (11/09/2022)	\$7.14
Rivian Automotive, Inc. (RIVN.O)	O (12/05/2021)	\$22.73
Sonic Automotive Inc (SAH.N)	U (11/17/2021)	\$53.32



Tesla Inc (TSLA.O)	E (06/22/2023)	\$258.08
Visteon Corporation (VC.O)	E (06/01/2022)	\$139.27

Stock Ratings are subject to change. Please see latest research for each company.  
\* Historical prices are not split adjusted.

© 2023 Morgan Stanley