SECTOR UPDATE

2026. 1. 6

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Autos (OVERWEIGHT)

2026: Entering the age of physical AI

- In 2025, global auto stocks displayed pronounced divergence. Companies pursuing new growth initiatives or offering strong shareholder return programs reached new highs, while those facing structural challenges fell to new lows.
- 2026 is likely to mark the rise of robotaxis. With new-vehicle market growth increasingly constrained, automakers are seeking alternative growth drivers.
- Hyundai Motor Group plans to launch AI-enabled devices, deepening its push into autonomous driving and robotics. The associated value chain warrants closer attention.

WHAT'S THE STORY?

2025 in review—Global auto equities diverge: Share-price performances in 2025 were split sharply between companies creating credible forward momentum and those slipping into structural decline.

- **Record highs achieved by firms pioneering new areas…** Tesla climbed to an all-time high despite weak earnings, supported by expectations around robotaxi service expansion and humanoid robotics. Hyundai Motor (HMC)—which announced plans to acquire 50,000 Nvidia GPUs following a reduction in US tariffs (from 25% to 15%)—also reached a record high, buoyed by anticipation of new announcements in robotics and autonomous driving hardware.
- **…and those scaling back EV business and lifting shareholder returns:** GM sold one of its three JV plants with LG Energy Solution (Michigan) to its partner and recorded a USD1.6b charge in 3Q25 related to EV production capacity adjustments. In 1H26, it plans to temporarily halt EV plant operations. Despite these costs, GM continued to outperform market expectations and reinstated its USD6b share buyback program (12-13% of market cap) in 2H25.
- **VW chooses survival over pride:** Volkswagen (VW) has decided to adopt XPeng's autonomous driving architecture to accelerate development timelines. The company plans to deploy Level 2+ autonomous functionality across both EVs and ICE vehicles. The first model using this architecture is scheduled to launch in China in 2H26, with broader rollout planned across all regions except the US. By end-2024, VW's share price had fallen below Dieselgate-era levels amid pressure from Chinese EV competitors, but it has since recovered to pandemic-era levels.
- **Nissan and Stellantis remain in downward spiral:** Nissan swung to losses, and its proposed merger with Honda collapsed. Stellantis is grappling with poor earnings momentum, which is weighing on its share price.

(Continued on the next page)

▶ AT A GLANCE

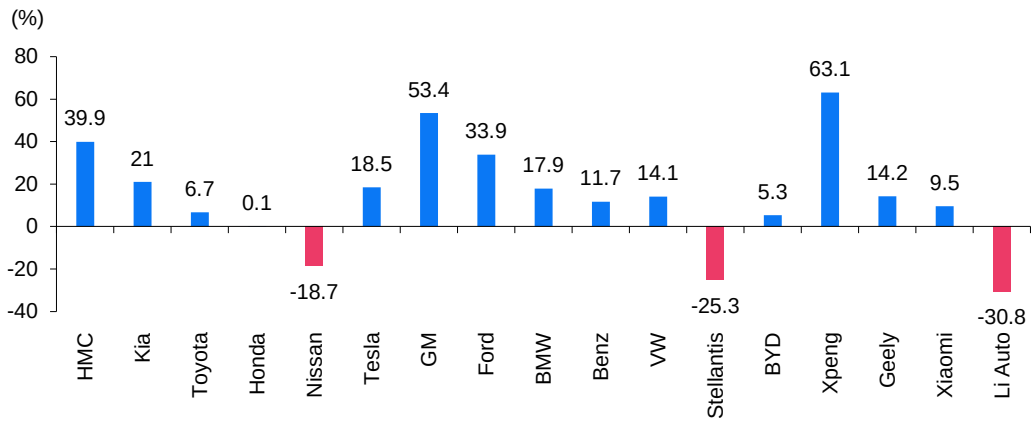
Hyundai Motor (005380 KS, 304,500)		
Target price	KRW400,000	31.4%
BUY		
Kia (000270 KS, 122,600)		
Target price	KRW150,000	22.3%
BUY		
Hyundai Mobis (012330 KS, 372,000)		
Target price	KRW450,000	21%
BUY		
HL Mando (204320 KS, 60,700)		
Target price	KRW67,000	10.4%
BUY		

- **Chinese EV stocks retreat in 2H25 amid policy uncertainty:** BYD, Xiaomi, and XPeng reached record highs in 1H25 but sold off thereafter amid intensifying competition, the government's anti-involution push, and uncertainty over the extension of the cash-for-clunkers program. While the program was ultimately extended, EV subsidies were cut from CHY20,000 to CHY15,000, and ICE subsidies from CHY15,000 to CHY13,000.

HMC/Kia to begin physical AI business; Nvidia collaboration to accelerate development: Hyundai Motor Group (HMG) plans to introduce AI-enabled devices in 2026, enabling large-scale data accumulation. The Nvidia ecosystem will be used to strengthen its reasoning models.

- **AI infrastructure and devices advancing on schedule:** HMG has committed to purchasing 50,000 Nvidia Blackwell GPUs (USD4b) by 2030. Software-defined vehicle (SDV) models are set to enter mass-production in 2026, and the Robotics Lab will launch a mobile robot. Boston Dynamics plans to unveil its third-generation humanoid robot.
- **End-to-end approach relies on fleet learning loop:** HMG has opted for an end-to-end reasoning model. An end-to-end approach to autonomous driving uses an AI neural network that ingests raw video data and autonomously adjusts hundreds of millions to billions of internal parameters to generate driving commands. Improving such models depends on a fleet learning loop—a continuous cycle of collecting real-world driving data from SDVs, transmitting edge data to the cloud, refining the model, and redeploying updated versions to vehicles
- **Nvidia unveils autonomous driving reference model:** At the NeurIPS AI conference on Dec 8, Nvidia unveiled physical AI models and tools, including Nvidia DRIVE Alpamayo-R1 (AR1), an open reasoning vision-language-action model for autonomous vehicle research. AR1 integrates chain-of-thought AI reasoning with path planning, evaluates multiple potential trajectories, and uses contextual data to select optimal routes. A language layer provides reasoning traces explaining choices . HMC can leverage AR1 for reinforcement learning within Nvidia's virtual platform, Cosmos.
- **HMC/Kia lag Tesla substantially but can catch up to Chinese EVs:** HMG's autonomous driving technology trails Tesla by more than five years, reflecting divergent development strategies. HMG focuses on advanced driver-assistance systems that support human drivers, while Tesla aims to replace human drivers with AI. Most leading Chinese EV makers, except Xpeng, remain at Level 2+ autonomy, with the transition to end-to-end systems still ongoing. While Chinese EVs benefit from large data volumes and a data-sharing-friendly environment, differences in how data are refined and applied mean scale alone does not guarantee superior model performance. Data center constraints are also slowing model development.
- **HMC/Kia to rerate in 2026:** The valuation gap between HMC/Kia and Chinese EV brands should narrow in 2026 as the Korean automakers: 1) roll out SDVs and robots; and 2) more clearly communicate with the market vis-à-vis progress in data accumulation and technology advancement. Tesla began highlighting its technological progress to the market in 2020 by distributing FSD beta versions to select drivers and influencers in North America as part of its real-world data accumulation strategy. HMC may adopt a similar approach in Korea to defend brand recognition and market share.
- **Robotics value chain coming into focus:** Boston Dynamics's third-generation humanoid robot will debut at CES 2026, while Robotics Lab's mobile robot is expected to be commercialized in 2026. HMG is positioning itself to build a robotics value chain anchored in Korea, creating meaningful growth opportunities for auto parts suppliers with strengths in motor and sensor technologies and capable of system-level delivery.

Global automakers: Share-price performances in 2025



Source: Bloomberg, Samsung Securities

HMG's physical AI: Collaboration with Nvidia

Role	Entity	Role/Policy
HMC's autonomous driving model	Hyundai Atria AI	Autonomous driving model / Policy
Robotics Lab autonomous driving model	Perception and SLAM	Autonomous driving model / Policy
Boston Dynamics VLA model	Boston Dynamics	Robot model / Policy
Data amplification	Nvidia Cosmos	Real-to-Sim data engine that amplifies learning scenarios (environment, observations) at thousands of scales using real and verified synthetic data
	GR00T-Dreams	Virtual world-based behavior data generator for robot learning
Physics verification	Nvidia Isaac/Omniverse	Generates and verifies synthetic motion data / 3D virtual environment with physical laws identical to reality
Learning infrastructure	Nvidia NeMo / Blackwell GPU	AI model learning and operation platform / High-performance computing chip
Reference model	Nvidia Alpamayo-R1	Comparison and verification with Atria
Robot foundation model	GR00T	Foundation model for robot reasoning and decision-making, allowing individual robot companies to operate their own models on top of it
Inference chip	Nvidia Orin/Thor	275 TOPS (INT8) / 2070 TFLOPS (FP4)

Source: Nvidia, HMC, Samsung Securities

Robotics Lab: MobED value chain

Item	Company	Note
LiDAR	SOS Lab	2 units per robot (amount: KRW850m) / Supplied as a module by SL Corp
Battery	Samsung SDI	Cylindrical
Battery module	SL	LiDAR module and battery module
Edge chip	DEEPX	DX-M1 NPU / Computational power: 30 FPS / Power consumption: 5 W
Actuators	Gyeyang Electric	12 units per robot

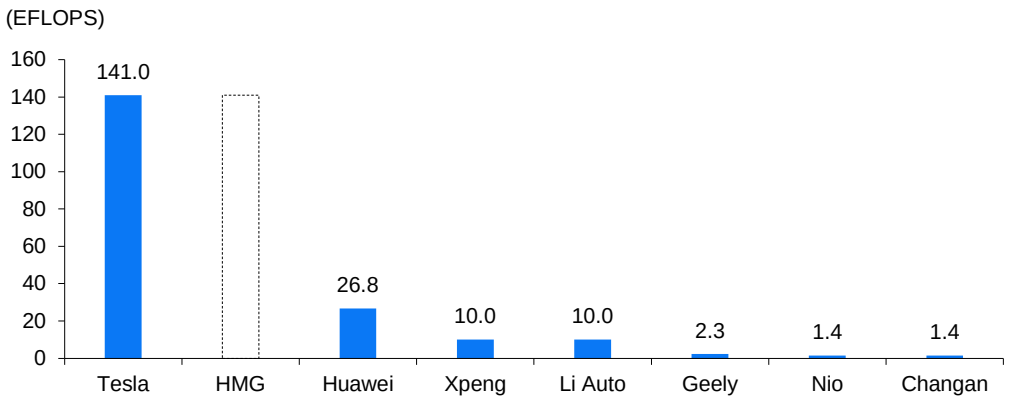
Source: Company data, Samsung Securities

Boston Dynamics: Value chain

Item	Company	Notes
Humanoid robot actuator	Hyundai Mobis	
Quadruped robot actuator	HL Mando	Also expected to supply 2nd generation
Stretch turn signal	SL Corporation	
Quadruped robot legs	SL Corporation	
Control system and aftermarket services	Hyundai AutoEver	

Source: Company data, Samsung Securities

Tesla vs Chinese automakers: Computing power

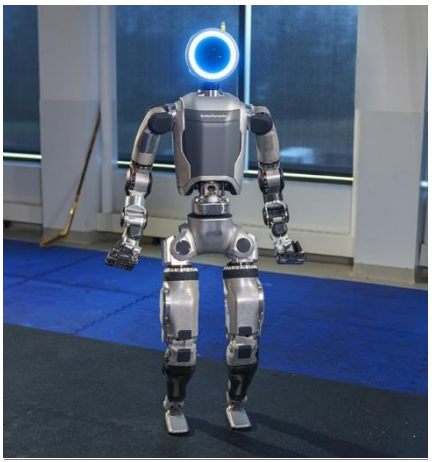


Source: CITIC, Samsung Securities

DAL-e: Mobile robot

Source: Hyundai Motor Group

2nd-gen E-Atlas



Note: 3rd-gen robot currently in development
Source: Hyundai Motor Group

1st-gen Spot

Note: 2nd-gen Spot currently in development
Source: Hyundai Motor Group

Hyundai Motor Group: SDV development roadmap

Source: Media

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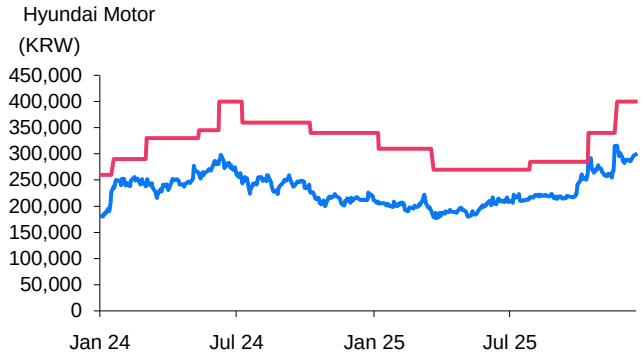
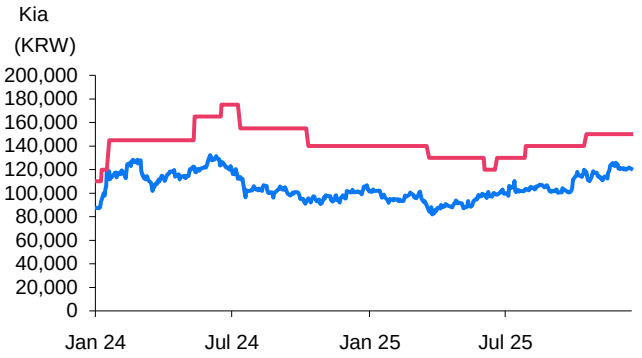
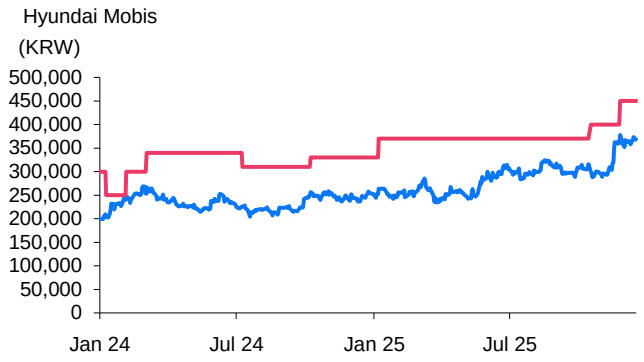
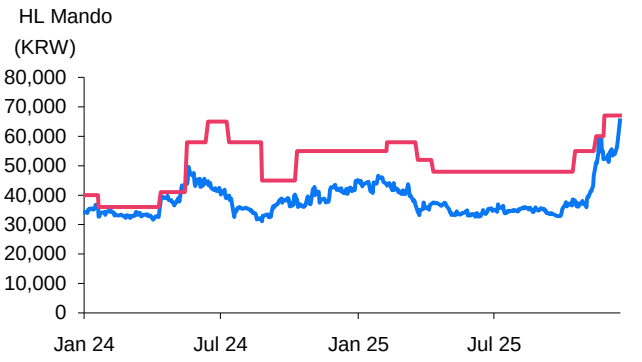
Target price changes in past two years









Rating changes over past two years (adjusted share prices)

Hyundai Motor												
Date	2023/10/26	2024/2/5	3/20	5/29	6/25	7/26	10/25	2025/1/24	4/7	8/14	10/31	12/8
Recommendation	BUY	BUY	BUY	BUY	BUY	BUY	BUY	BUY	BUY	BUY	BUY	BUY
Target price (KRW)	260000	290000	330000	345000	400000	360000	340000	310000	270000	285000	340000	400000
Gap* (average)	-28.49	-15.25	-26.19	-21.52	-31.63	-32.30	-37.27	-34.90	-26.06	-20.49	-20.69	
(max or min)**	-12.69	-11.90	-16.06	-16.96	-25.50	-28.06	-33.38	-28.39	-17.41	-7.02	-7.35	
Kia												
Date	2023/8/4	2024/1/26	2/5	5/29	7/4	7/29	10/28	2025/4/7	6/20	7/7	8/14	11/3
Recommendation	BUY	BUY	BUY	BUY	BUY	BUY	BUY	BUY	BUY	BUY	BUY	BUY
Target price (KRW)	110000	120000	145000	165000	175000	155000	140000	130000	120000	130000	140000	150000
Gap* (average)	-24.00	-12.23	-19.81	-24.20	-31.41	-34.54	-30.66	-30.49	-17.88	-21.50	-24.00	
(max or min)**	-9.09	-0.42	-11.38	-19.82	-27.83	-27.68	-23.79	-23.38	-15.75	-15.08	-14.36	
Hyundai Mobis												
Date	2023/11/14	2024/1/26	2/22	3/20	7/26	10/25	2025/1/24	11/3	12/12			
Recommendation	BUY	BUY	BUY	BUY	BUY	BUY	BUY	BUY	BUY			
Target price (KRW)	300000	250000	300000	340000	310000	330000	370000	400000	450000			
Gap* (average)	-25.70	-9.38	-16.07	-30.85	-28.56	-24.95	-24.53	-22.07				
(max or min)**	-21.00	-2.40	-10.33	-21.76	-19.35	-21.67	-12.30	-9.38				
HL Mando												
Date	2023/10/30	2024/2/6	4/29	6/3	7/1	7/29	9/11	10/28	2025/2/25	4/7	4/28	11/3
Recommendation	HOLD	HOLD	BUY	BUY	BUY	BUY	BUY	BUY	BUY	BUY	BUY	BUY
Target price (KRW)	40000	36000	41000	58000	65000	58000	45000	55000	58000	52000	48000	55000
Gap* (average)	-10.05	-7.58	-3.55	-21.93	-35.91	-39.90	-18.57	-24.91	-29.05	-31.59	-27.26	-29.25
(max or min)**	0.25	-2.92	5.85	-14.48	-32.15	-32.76	-10.67	-15.18	-23.88	-27.88	-19.69	-15.27
Date	12/1	12/12										
Recommendation	BUY	BUY										
Target price (KRW)	60000	67000										
Gap* (average)	-8.90											
(max or min)**	-1.33											

Note: *[(average, maximum, or minimum share price over duration of target price minus target price) / target price] x 100%
**Maximum/minimum share price if new target is higher/lower than market close on the business day prior to target price change

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Industry

OVERWEIGHT	Expected to outperform market by 5% or more within 12 months
NEUTRAL	Expected to outperform/underperform market by less than 5% within 12 months
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*Note: Effective Jul 27, 2023, BUY, HOLD, and SELL criteria are based on expectations of share-price moves of 15% or more within 12 months

Percentage of ratings in 12 months prior to 2025.12.31

BUY (85.8%)·HOLD (14.2%)·SELL (0%)

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