SECTOR UPDATE

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Autos (OVERWEIGHT)

Atria AI now has a reference guide

- Tesla's FSD expansion is raising concerns about Hyundai Motor (HMC) and Kia's autonomous driving capabilities and market share in Korea. In response, HMC is likely to commercialize its Pace Car and begin data accumulation in 1Q26.
- Hyundai Motor Group's (HMG) physical AI partner, Nvidia, has gone beyond providing learning and simulation platforms, GPUs, and reasoning chips, unveiling a reference reasoning model for autonomous vehicles.
- We expect HMG to show visible progress in autonomous driving and robotics in 2026, with HMC leading reratings across Korea's automotive sector.

AT A GLANCE

Hyundai Motor	(005380 KS, 286,000)	
Target price	KRW400,000	39.9%
BUY		
Kia	(000270 KS, 119,800)	
Target price	KRW150,000	25.2%
BUY		

WHAT'S THE STORY?

HMG navigating a period of both challenges and opportunities: With Tesla's Full Self-Driving (FSD) now available in Korea, there are growing concerns over how Hyundai Motor and Kia's autonomous driving technology stacks up. At the same time, this creates an opportunity for the Korean automakers to demonstrate tangible progress in self-driving capabilities, potentially supporting a rerating.

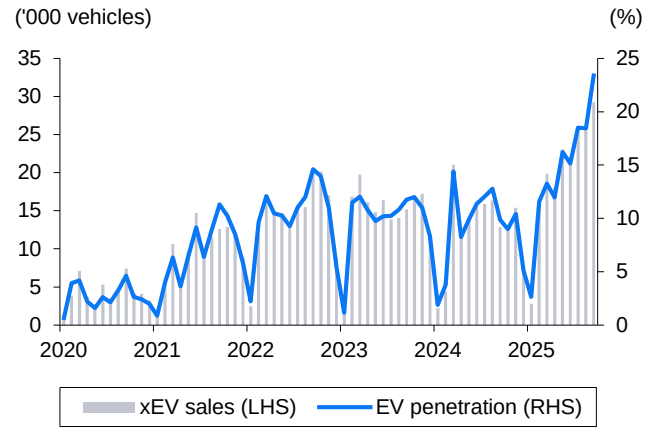
- **Tesla's Supervised FSD arrives in Korea:** Under the Korea-US Free Trade Agreement, vehicles produced in the US can be exported to Korea without type approval. A previous cap of 50,000 units per manufacturer was removed in late October following tariff talks. Currently, only the Model S and Model X are being exported, but the Model 3 and Model Y are expected to join them in 2026, partly to offset the loss of US Inflation Reduction Act (IRA) tax credits.
- **Media highlight FSD capabilities:** Media coverage and YouTube content have emphasized the convenience and sophistication of Tesla's FSD, amplifying concerns around HMC and Kia. Tesla is already selling 8,000-9,000 vehicles per month in Korea, making it one of the top two imported brands. The China-made Model Y, with monthly sales of around 8,000 units, is the second best-selling model after the Kia Sorento. If US-made, FSD-capable Model Ys are exported to Korea, the model could become the market's top seller.
- **HMC/Kia expected to unveil SDV in 1Q26:** HMC is likely to accelerate the rollout of its Pace Car featuring a software-defined vehicle (SDV) architecture, marking the start of large-scale data accumulation. The Pace Car adopts a zonal architecture similar to Tesla's, grouping functions into zones controlled by a centralized computing unit, and uses a vision-based, end-to-end reasoning model for autonomous driving.

(Continued on the next page)

HMC's reasoning model to advance rapidly via Nvidia collaboration: HMC's autonomous driving AI model, Atria, is being developed by 42dot, but currently lacks sufficient accumulated data.

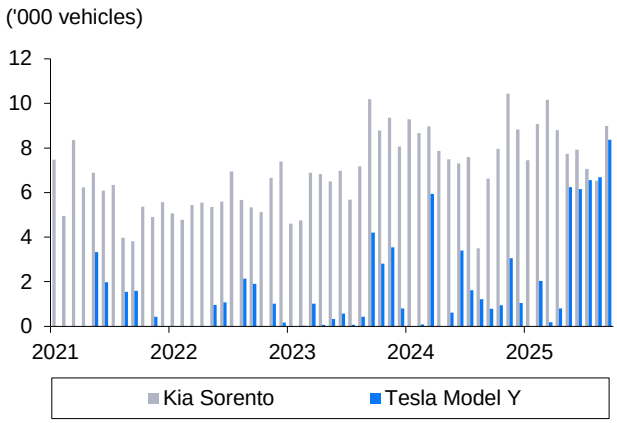
- **End-to-end approach relies on fleet learning loop:** An end-to-end approach to autonomous driving uses an AI neural network that ingests raw video data and autonomously adjusts hundreds of millions to billions of internal parameters to generate driving commands. Improving such models depends on a 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 a reference model for autonomous driving:** 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 (VLA) 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 the optimal route. A language layer provides reasoning traces explaining its decisions. 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:** HMC's autonomous driving technology trails Tesla by more than five years, reflecting divergent development strategies. HMC 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.

Korea: xEV sales and penetration



Source: KAMA, EV-Volumes, Samsung Securities

Tesla Model Y: Ranks second in sales among all models sold in Korea



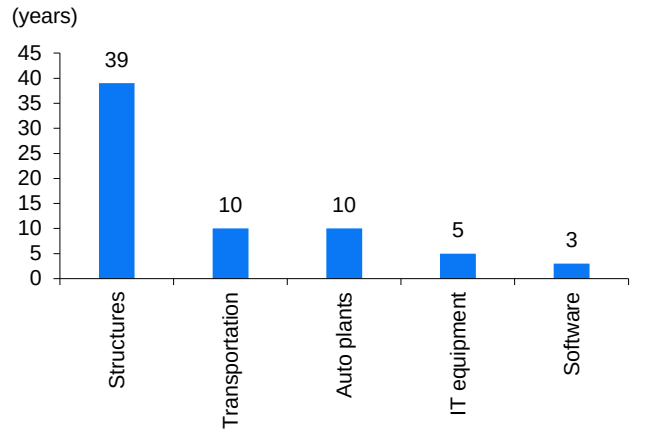
Source: KAMA, EV-Volumes, Samsung Securities

HMG's autonomous driving: Collaboration with Nvidia

Role	Entity	Description
Autonomous driving model	Hyundai Atria AI	Autonomous driving model; Policy
Data amplification	Nvidia Cosmos	Real-to-Sim data engine that amplifies learning scenarios to thousands of scales using real and verified synthetic data
Physical verification	Nvidia Isaac/Omniverse	Generates and verifies synthetic motion data; Realistic 3D virtual environment with physical laws applied
Learning infrastructure	Nvidia NeMo/Blackwell GPU	AI model training and operation platform; High-performance computing chip
Reference model	Nvidia Alpamayo-R1	Comparison and verification with Atria AI

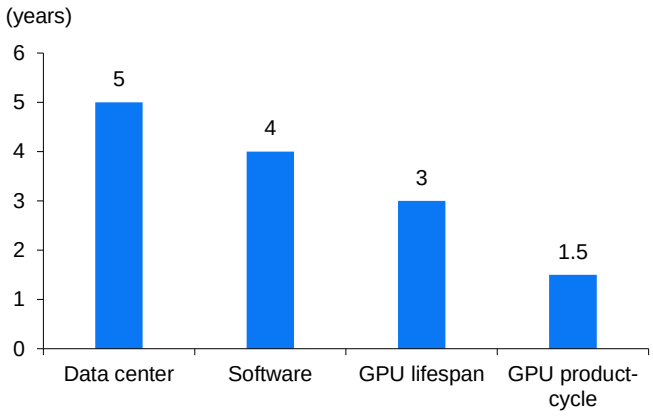
Source: Company data, Samsung Securities

Capex items and tax-prescribed depreciation



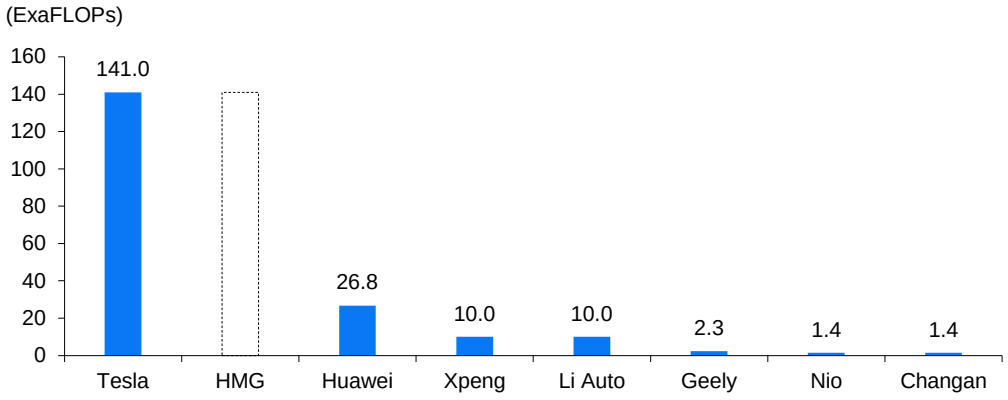
Source: Tax code, Samsung Securities

Data center asset depreciable life



Source: Nvidia, Samsung Securities

Tesla vs Chinese automakers: Computing power

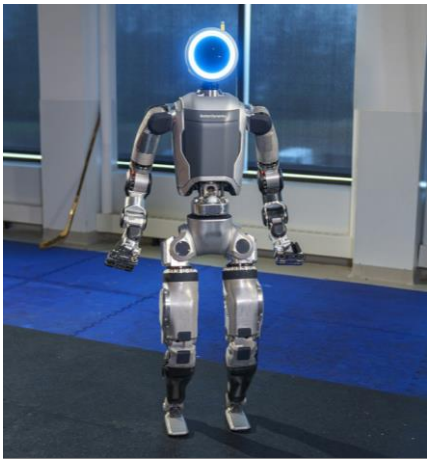


Source: CITIC, Samsung Securities

Robotics Lab: MobED platform

Source: Company data, Samsung Securities

Boston Dynamics: 2nd-gen E-Atlas



Source: Company data, Samsung Securities

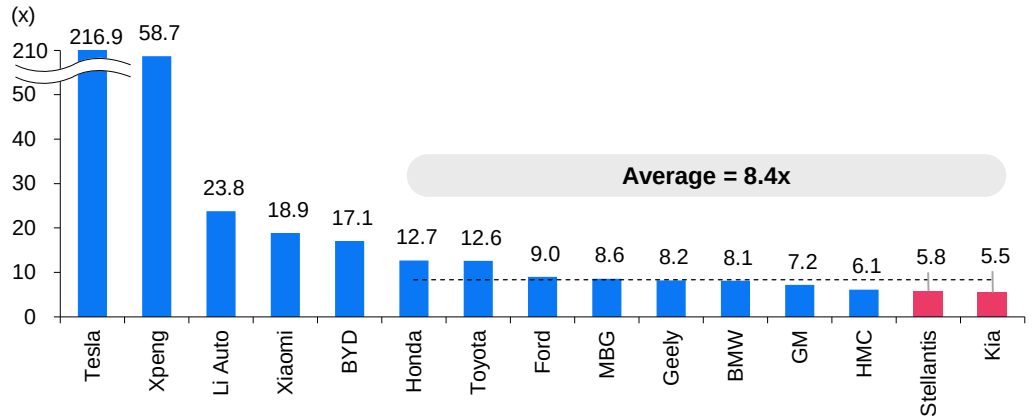
Boston Dynamics: 1st-gen Spot

Source: Company data, Samsung Securities

Hyundai Motor Group: SDV development roadmap

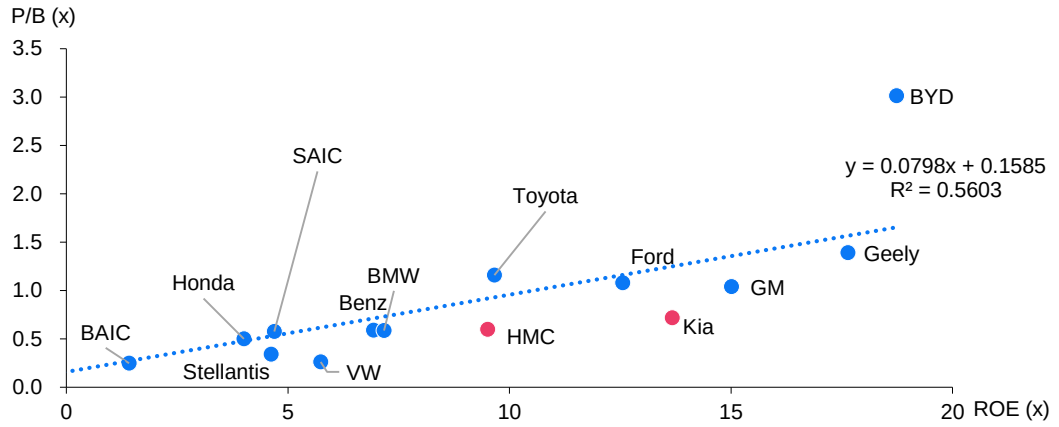
Source: Media

Automakers: 12-month forward P/E valuation



Note: As of Dec 26 close
Source: Bloomberg, Samsung Securities

Automakers: P/B vs ROE (2026E)



Source: Bloomberg, Samsung Securities

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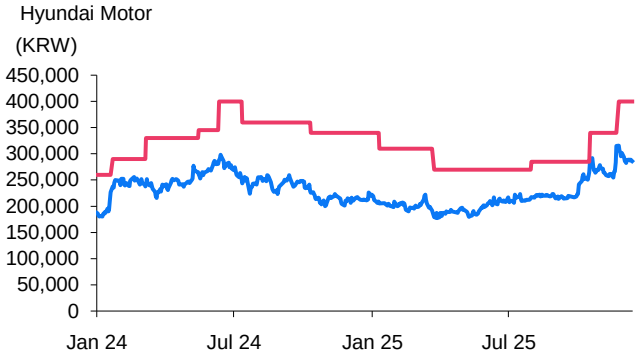
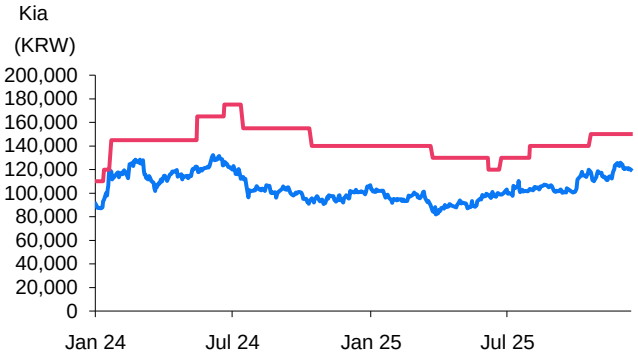
Target price changes in past two years





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	

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
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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 2025.09.30

BUY(83.5%)·HOLD(16.5%)·SELL(0%)

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