

COMPANY UPDATE

2026. 6. 18

EV/Mobility Team

Esther Yim

Team Leader

esther.yim@samsung.com

Hyunji Kim

Research Associate

hyunji.kim@samsung.com

▶ AT A GLANCE

BUY

Target price **KRW16,000** 20.2%

Current price **KRW13,310**

Market cap KRW464.79b/USD307.12m

Shares (float) 34,920,410 (49.1%)

52-week high/low KRW15,550/KRW7,550

Avg daily trading value (60-day) KRW9.5b/
USD6.3m

▶ ONE-YEAR PERFORMANCE

	1M	6M	12M
Hwashin (%)	1.1	53.3	55.5
Vs Kospi (%pts)	-14.5	-29.8	-48.2

▶ KEY CHANGES

(KRW)	New	Old	Diff
Recommend.	BUY	BUY	
Target price	16,000	16,000	0.0%
2026E EPS	2,516	2,516	0.0%
2027E EPS	2,773	2,773	0.0%

▶ SAMSUNG vs THE STREET

No of estimates	1
Target price	16,000
Recommendation	4.0

※ Rating: 4 < → BUY, 3 = HOLD, 2 > → SELL



Scan to go to
Research Center report database

Hwashin (010690)

Second pivot offers greater opportunities

- Leveraging its chassis technology, Hwashin has successfully expanded into the battery case business and is now well positioned to win orders for robotic body modules.
- Whereas it was a latecomer to battery cases, Hwashin may enter the robot body module market early, which could lead to a high growth premium.
- Trading at just 4.1x 2026 P/E, Hwashin is the most undervalued company in the mobility value chain.

WHAT'S THE STORY?

Valuation discount reflects weak 1Q results: Trading at a mere 4.1x 2026 P/E, Hwashin is viewed by many as an auto parts supplier with no discernible growth prospects.

- **Earnings to improve from 2Q:** Depreciation cost pressures from Hwashin's new plant in the US should ease as Kia's Sportage Hybrid enters production at Hyundai Motor Group Metaplant America. Additionally, Hwashin's battery case sales should grow alongside Kia's EV sales volume.
- **First pivot to battery case business holding strong:** Hwashin started generating sales from battery cases in 3Q24. Its battery case sales rose from KRW20b in 2024 (1.2% of its total sales) to KRW58b in 2025 (3.3%) and are projected to reach KRW90b in 2026 (4%).
- **HMC/Kia diversify EV component sourcing:** In 2022, HMC and Kia together recorded more than 500,000 EV sales, leading them to broaden their supplier base for EV components.

(Continued on the next page)

SUMMARY FINANCIAL DATA

(KRWb)	2025	2026E	2027E	2028E
Revenue	1,962	2,116	2,356	2,584
Operating profit	102	96	127	138
Net profit (adj)	67	88	97	108
EPS (adj) (KRW)	1,910	2,516	2,773	3,099
EPS (adj) growth (% y-y)	24.5	31.7	10.2	11.7
EBITDA margin (%)	8.7	8.0	8.6	8.4
ROE (%)	12.3	14.4	13.9	13.8
P/E (adj) (x)	4.3	5.3	4.8	4.3
P/B (x)	0.5	0.7	0.6	0.6
EV/EBITDA (x)	4.6	5.6	4.5	4.0
Dividend yield (%)	2.0	2.3	2.6	2.6

Source: Company data, Samsung Securities estimates

- **Battery configuration design changes create opportunities for chassis and body part suppliers:** To reduce battery pack costs and improve energy density, battery designs are shifting towards cell-to-pack and cell-to-body configurations. These changes have opened up opportunities for body and chassis suppliers, firms that are familiar with the overall vehicle structure and have advanced materials technology. Donghee Auto, Hwashin, Sungwoo Hitech, and Webasto are vying for battery pack and case orders. The ASP of battery cases is estimated at KR₩0.8m-1.2m.
- **Battery case sales on high growth trajectory:** Hwashin supplies battery cases for use in HMC's Casper EV and Kia's EV4 and PV5. It is also set to supply battery cases for HMC's GV90 from Sep 2026.

Potential entry into robot body module business: Chassis manufacturers excel in designing structures that absorb shocks and vibrations, and they have expertise in handling a wide range of materials.

- **Foundational technologies and spare capacity mean new business opportunities:** Hwashin is a chassis maker and meets 57% of Hyundai Motor Group's chassis needs. The chassis serves as the vehicle frame, absorbing vibrations and shocks to maintain body stability and enhance ride comfort. Hwashin possesses expertise in hot press forming steel for lightweighting, as well as in working with aluminum and various composite materials. This technological foundation: 1) has allowed Hwashin to expand into new markets such as EV battery cases; and 2) should help it penetrate the robotic limb and body module markets. In 2024, Hwashin constructed a new plant in Georgia (US) to support Hyundai Motor Group Metaplant America, giving the parts maker additional production capacity in the US.
- **Chassis technologies applicable in robotics:** Mobile robots with wheels share structural similarities with vehicles, making it feasible to apply chassis manufacturers' expertise in underbody frames of vehicles (including materials, vibration absorption, and shock absorption), along with battery pack technologies, to robotics.

Humanoid robots require technologies to absorb shocks and vibrations from the ground when walking and moving. These robots typically weigh 60-100 kg, necessitating lightweight materials to reduce their overall weight. Also, noise needs to be minimized by minimizing friction and absorbing shock from the ground when walking or running. When observed up close, humanoid robots generate so much noise while moving (such as walking or rolling) that they seem unsuitable for indoor service applications outside of manufacturing facilities. Robotic arms and hands must also be able to tolerate friction and absorb shocks and vibrations when handling objects.

Humanoid robot bodies typically house batteries. With a track record in supplying battery cases, Hwashin is well positioned to secure orders for body modules that include batteries.

- **Humanoid robot limbs have standardized specifications:** Boston Dynamics' humanoid robots feature arms and legs, both left and right, that are designed in the same format. This means that each robot requires four identical modules. With a production target of 30,000 robots pa, this translates to demand for 120,000 limb modules pa—enabling economies of scale.
- **ASP for arm, leg, and body modules estimated to be in 6-8% range:** When it comes to arm and leg module production, actuators—which make up 60% of manufacturing costs—are likely to be supplied to the module supplier by the robot maker. The body module is likely to include a battery pack (3-4 kWh). Hyundai Mobis had accounted for the procurement of battery cells (60-80 kWh) as

direct purchases during the early stages of battery pack production, but in 3Q24 began treating these components as customer-supplied. Hwashin is likely to treat actuators and battery cells as customer-supplied, as: 1) including all components would significantly boost its sales but make the business appear less profitable; and 2) for smaller parts suppliers like Hwashin, purchasing actuators and battery packs, assembling them into modules, and delivering them would take a couple of months—as production volumes grow, this process could strain operational cash flow.

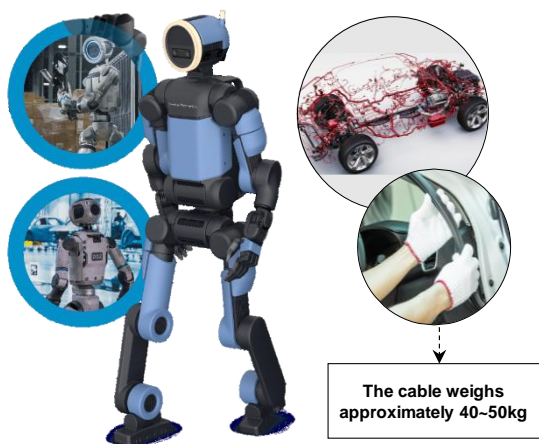
Based on the Atlas model, the combined ASP for two arms, two legs, and one body modules is estimated at USD7,000-7,300 (KRW10.0m-10.6m) during the initial production phase. However, as production scales up to more than 10,000 units, the ASP should fall to around USD3,100 (KRW2.9m-3.6m).

Companies in the mobility value chain

Company	Market cap (KRWb)	2026E P/E (x)	US plant	Automotive products	Robotics products
Hyundai Mobis	55,438	12.6	✓	Steering, braking, motors, electrification, sensors, chips	Actuators, battery modules, head modules, grippers
SL Corporation	3,149	7.8	✓	Lamps, side body modules	Indicator lights, battery packs, lidar modules, MobED and PnD production
HL Mando	3,052	12	✓	Steering, braking, motors, sensors	Actuators
SNT Motiv	796	7.9	✓	Motors (hybrid, EV, steering)	Motors
Hwashin	359	4	✓	Chassis, battery cases	Body modules, arm & leg modules
Samhyun	1,715	168.1	×	Gear reducer actuators	Actuators, motors, gear reducers
Samhwa Capacitor	1,320	55	×	DC-Link, MLCC	DC-Link, MLCC

Source: Company data, Bloomberg, Samsung Securities

Atlas Gen3: Employs cableless actuator structure



Source: Company data

Atlas: Cost breakdown (estimates)

Item	Unit cost (USD)	Quantity	Total cost (USD)
Rotary actuator	561	31	17,391
Vision sensor	41	3	123
Nvidia Thor chip	800	1	800
Gripper	800	2	1,600
Battery pack	600	4 kWh	600
Body			2,600
Subtotal			23,114
Data center depreciation*			26,667
Factory depreciation			1,156
Other operating costs			2,311
Total			53,248

Note: *Assumes usage of one-third of 50,000 Blackwell GPUs

Source: Samsung Securities estimates

Hwashin: Estimated revenue from robotics

Timeline	Volume (units)	Production cost (each, USD)	Unit cost (USD)	Hwashin sales* (USDm)	Hwashin sales** (KRWb)
2028	5,000	135,000	37	54	617
	10,000	53,248	32	46	466
2029	20,000	39,914	64	93	688
	30,000	35,470	96	139	910
2030	40,000	33,248	128	186	1,132
	50,000	31,914	160	232	1,355

Note: *Assumes exchange rate of USD/KRW1,450

Source: Samsung Securities estimates

Hwashin: Results and forecasts

(KRWb)	1Q25	2Q25	3Q25	4Q25	1Q26	2Q26E	3Q26E	4Q26E	2024	2025	2026E	2027E
KRW/USD (average)	1,453	1,401	1,387	1,452	1,467	1,450	1,430	1,420	1,365	1,423	1,442	1,390
Sales	473	491	486	512	506	530	520	560	1,712	1,962	2,116	2,356
Chg (% y-y)	13.9	14.4	16.1	14.1	6.8	7.9	7.0	9.4	-5.0	14.6	7.8	11.4
Gross profit	55	52	42	68	47	54	53	66	168	216	221	266
Operating profit	30	26	12	34	17	25	20	34	65	102	96	127
Chg (% y-y)	44.6	8.7	83.4	150.1	-44.3	-5.4	70.6	0.0	-22.0	56.9	-6.6	32.5
Pre-tax profit	35	-1	22	27	38	23	21	36	76	82	117	129
Net profit	29	0	18	19	28	17	16	27	54	67	88	97
Chg (% y-y)	-0.8	-98.3	nm	5.2	-2.8	6,691	-11.0	37.5	-30.7	24.5	31.7	10.2
Margins (%)												
Gross profit	11.5	10.7	8.6	13.2	9.3	10.2	10.3	11.8	9.8	11.0	10.5	11.3
Operating profit	6.4	5.4	2.4	6.6	3.4	4.7	3.8	6.1	3.8	5.2	4.5	5.4
Net profit	6.1	0.1	3.7	3.8	5.6	3.2	3.1	4.8	3.1	3.4	4.2	4.1
Sales, by region												
Korea	164	177	172	185	203	193	185	187	600	698	767	806
US	172	176	173	183	161	186	181	210	571	704	739	850
India	84	80	80	83	81	88	91	98	321	326	359	413
Brazil	35	36	42	41	41	42	45	40	148	154	169	186
China	18	21	19	20	18	19	16	24	70	77	77	81
Other	1	1	1	1	1	1	1	1	3	3	4	20
Sales contribution, by region (%)												
Korea	34.6	36.0	35.3	36.1	40.1	36.4	35.5	33.4	35.0	35.5	36.3	34.2
US	36.3	35.9	35.7	35.6	31.9	35.1	34.9	37.6	33.3	35.9	34.9	36.1
India	17.7	16.3	16.4	16.1	16.1	16.7	17.6	17.5	18.7	16.6	17.0	17.5
Brazil	7.4	7.3	8.6	8.0	8.2	8.0	8.7	7.1	8.6	7.8	8.0	7.9
China	3.7	4.2	3.8	4.0	3.6	3.6	3.2	4.2	4.1	3.9	3.7	3.4

Source: Company data, Samsung Securities estimates

Income statement

Year-end Dec 31 (KRWb)	2024	2025	2026E	2027E	2028E
Sales	1,712	1,962	2,116	2,356	2,584
Cost of goods sold	1,545	1,746	1,895	2,090	2,290
Gross profit	168	216	221	266	294
Gross margin (%)	9.8	11.0	10.5	11.3	11.4
SG&A expenses	102	114	125	140	156
Operating profit	65	102	96	127	138
Operating margin (%)	3.8	5.2	4.5	5.4	5.3
Non-operating gains (losses)	11	-20	21	2	6
Financial profit	70	37	12	11	13
Financial costs	63	50	29	27	27
Equity-method gains (losses)	-1	-5	-2	-2	0
Other	5	-3	40	20	21
Pre-tax profit	76	82	117	129	144
Taxes	22	15	29	32	36
Effective tax rate (%)	29.4	18.8	24.9	25.0	25.0
Profit from continuing operations	54	67	88	97	108
Profit from discontinued operations	0	0	0	0	0
Net profit	54	67	88	97	108
Net margin (%)	3.1	3.4	4.2	4.1	4.2
Net profit (controlling interests)	54	67	88	97	108
Net profit (non-controlling interests)	-0	-0	0	0	0
EBITDA	129	171	169	203	216
EBITDA margin (%)	7.5	8.7	8.0	8.6	8.4
EPS (parent-based) (KRW)	1,534	1,910	2,516	2,773	3,099
EPS (consolidated) (KRW)	1,534	1,910	2,516	2,773	3,099
Adjusted EPS (KRW)*	1,534	1,910	2,516	2,773	3,099

Cash flow statement

Year-end Dec 31 (KRWb)	2024	2025	2026E	2027E	2028E
Cash flow from operations	137	42	143	143	157
Net profit	54	67	88	97	108
Non-cash profit and expenses	97	109	121	126	129
Depreciation	64	68	73	76	78
Amortization	0	0	0	0	0
Other	33	41	48	50	50
Changes in A/L from operating activities	21	-92	-20	-31	-30
Cash flow from investments	-224	-173	-122	-103	-103
Change in tangible assets	-222	-170	-120	-100	-100
Change in financial assets	-3	-3	-2	-3	-3
Other	-0	0	-0	0	-0
Cash flow from financing	-7	204	-56	-10	-12
Change in debt	23	205	-50	0	0
Change in equity	0	-0	0	0	0
Dividends	-5	-5	-6	-10	-12
Other	-25	4	0	0	0
Change in cash	-80	71	-38	28	41
Cash at beginning of year	247	166	238	200	228
Cash at end of year	166	238	200	228	269
Gross cash flow	150	176	209	223	237
Free cash flow	-96	-146	23	43	57

Note: *Excluding one-off items;

**Fully diluted, excluding one-off items;

***From companies subject to equity-method valuation

Source: Company data, Samsung Securities estimates

Balance sheet

Year-end Dec 31 (KRWb)	2024	2025	2026E	2027E	2028E
Current assets	600	755	758	849	950
Cash & equivalents	166	238	200	228	269
Accounts receivable	203	215	232	258	283
Inventories	210	280	301	336	368
Other current assets	21	23	25	28	30
Fixed assets	722	804	852	880	905
Investment assets	32	30	32	35	38
Tangible assets	619	703	750	774	796
Intangible assets	3	5	5	5	4
Other long-term assets	68	66	66	66	66
Total assets	1,322	1,559	1,611	1,729	1,855
Current liabilities	669	653	622	651	680
Accounts payable	130	126	136	152	166
Short-term debt	290	359	359	359	359
Other current liabilities	248	167	126	140	154
Long-term liabilities	135	335	337	339	341
Bonds & long-term debt	111	308	308	308	308
Other long-term liabilities	24	27	29	31	33
Total liabilities	804	988	958	990	1,020
Owners of parent equity	517	571	652	739	835
Capital stock	17	17	17	17	17
Capital surplus	26	26	26	26	26
Retained earnings	455	519	601	687	783
Other	19	10	9	9	9
Non-controlling interests' equity	-0	-0	-0	-0	-0
Total equity	517	571	652	739	835
Net debt	356	489	477	450	408

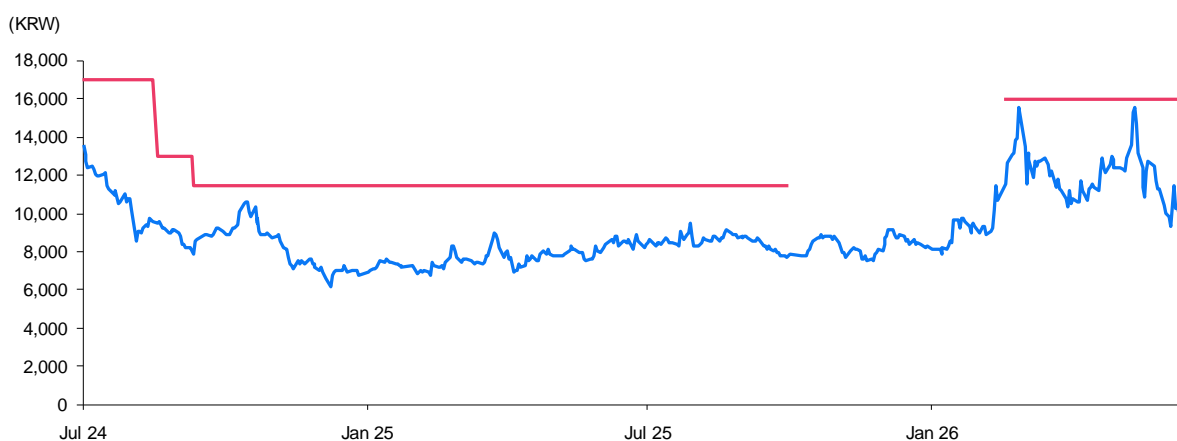
Financial ratios

Year-end Dec 31	2024	2025	2026E	2027E	2028E
Growth (%)					
Sales	-5.0	14.6	7.8	11.4	9.7
Operating profit	-22.0	56.9	-6.6	32.5	8.8
Net profit	-30.7	24.5	31.7	10.2	11.7
Adjusted EPS**	-30.7	24.5	31.7	10.2	11.7
Per-share data (KRW)					
EPS (parent-based)	1,534	1,910	2,516	2,773	3,099
EPS (consolidated)	1,534	1,910	2,516	2,773	3,099
Adjusted EPS**	1,534	1,910	2,516	2,773	3,099
BVPS	14,891	16,443	18,771	21,258	24,021
DPS (common)	150	170	300	350	350
Valuations (x)					
P/E***	4.5	4.3	5.3	4.8	4.3
P/B***	0.5	0.5	0.7	0.6	0.6
EV/EBITDA	4.6	4.6	5.6	4.5	4.0
Ratios (%)					
ROE	11.1	12.3	14.4	13.9	13.8
ROA	4.3	4.6	5.5	5.8	6.0
ROIC	6.2	9.0	6.8	8.5	8.8
Payout ratio	9.7	8.9	11.9	12.6	11.2
Dividend yield (common)	2.2	2.0	2.3	2.6	2.6
Net debt to equity	68.8	85.7	73.2	60.9	48.9
Interest coverage (x)	2.5	4.0	3.4	4.6	5.0

Compliance notice

- As of 6/17 2026, the covering analyst(s) did not own any shares, or debt instruments convertible into shares, of any company covered in this report.
- As of 6/17 2026, Samsung Securities' holdings of shares and debt instruments convertible into shares of each company covered in this report would not, if such debt instruments were converted, exceed 1% of each company's outstanding shares.
- This report has been prepared without any undue external influence or interference, and accurately reflects the views of the analyst(s) covering the company or companies herein.
- All material presented in this report, unless specifically indicated otherwise, is under copyright to Samsung Securities.
- Neither the material nor its content (including copies) may be altered in any form, or by any means transmitted, copied, or distributed to another party, without prior express written permission from Samsung Securities.
- This memorandum is based upon information available to the public. While we have taken all reasonable care to ensure its reliability, we do not guarantee its accuracy or completeness. This memorandum is not intended to be an offer, or a solicitation of any offer, to buy or sell the securities mentioned herein. Samsung Securities shall not be liable whatsoever for any loss, direct or consequential, arising from the use of this memorandum or its contents. Statements made regarding affiliates of Samsung Securities are also based upon publicly available information and do not necessarily represent the views of management at such affiliates.
- This material has not been distributed to institutional investors or other third parties prior to its publication.

Target price changes in past two years



Rating changes over past two years (adjusted share prices)

Date	2024/5/16	6/18	8/19	9/11	2026/2/19
Recommendation	BUY	BUY	BUY	BUY	BUY
Target price (KRW)	15000	17000	13000	11500	16000
Gap* (average)	-25.83	-31.40	-31.78	-29.77	
(max or min)**	-3.33	-11.76	-26.08	-7.74	

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

Samsung Securities uses the following investment ratings*

Company

- BUY** Expected to increase in value by 15% or more within 12 months and is highly attractive within sector
- HOLD** Expected to increase/decrease in value by less than 15% within 12 months
- SELL** Expected to decrease in value by 15% or more within 12 months

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
- UNDERWEIGHT** Expected to underperform market by 5% or more within 12 months

* 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 2026.03.31

BUY(85.2%)·HOLD(14.8%)·SELL(0%)

Global Disclosures & Disclaimers

General

This research report is for information purposes only. It is not and should not be construed as an offer or solicitation of an offer to purchase or sell any securities or other financial instruments or to participate in any trading strategy. This report does not provide individually tailored investment advice. This report does not take into account individual client circumstances, objectives, or needs and is not intended as recommendations of particular securities, financial instruments or strategies to any particular client. The securities and other financial instruments discussed in this report may not be suitable for all investors. The recipient of this report must make its own independent decisions regarding any securities or financial instruments mentioned herein and investors should seek the advice of a financial adviser.

This report may not be altered, reproduced, distributed, transmitted or published in whole or in part for any purpose. References to "Samsung Securities" are references to any company in the Samsung Securities, Co., Ltd. group of companies.

Samsung Securities and/or other affiliated companies, its and their directors, officers, representatives, or employees may have long or short positions in any of the securities or other financial instruments mentioned in this report or of issuers described herein and may purchase and/or sell, or offer to purchase and/or sell, at any time, such securities or other financial instruments in the open market or otherwise, as either a principal or agent. Any pricing of securities or other financial instrument contained herein is as of the close of market for such day, unless otherwise stated. Opinions and estimates contained herein constitute our judgment as of the date of this report and are subject to change without notice.

The information provided in this report is provided "AS IS". Although the information contained herein has been obtained from sources believed to be reliable, no representation or warranty, either expressed or implied, is provided by Samsung Securities in relation to the accuracy, completeness or reliability of such information or that such information was provided for any particular purpose and Samsung Securities expressly disclaims any warranties of merchantability or fitness for a particular purpose. Furthermore, this report is not intended to be a complete statement or summary of the securities, markets or developments referred to herein.

Samsung Securities does not undertake that investors will obtain any profits, nor will it share with investors any investment profits. Samsung Securities, its affiliates, or any of its and their affiliates, directors, officers, employees or agents disclaim any and all responsibility or liability whatsoever for any loss (direct or consequential) or damage arising out of the use of all or any part of this report or its contents or otherwise arising in connection therewith. Information and opinions contained herein are subject to change without notice. Past performance is not indicative of future results. Foreign currency rates of exchange may adversely affect the value, price or income of any security or financial instrument mentioned in this report. For investment advice, trade execution or other enquiries, clients should contact their local sales representative. Any opinions expressed in this report are subject to change without notice and may differ or be contrary to opinions expressed by other business areas or groups of Samsung Securities. Any analysis contained herein is based on numerous assumptions. Different assumptions may result in materially different results. Samsung Securities is under no obligation to update or keep current the information contained herein. Samsung Securities relies on information barriers to control the flow of information contained in one or more areas or groups within Samsung Securities into other areas or groups of Samsung Securities. Any prices stated in this report are for information purposes only and do not represent valuations for individual securities or other financial instruments. Samsung Securities makes no representation that any transaction can or could have been effected at those prices and any prices contained herein may not reflect Samsung Securities' internal books and records or theoretical model-based valuations and may be based on certain assumptions. Different assumptions by Samsung Securities or any other source may yield substantially different results. Additional information is available upon request.

For reports to be distributed to US:

Securities research is prepared, issued and exclusively distributed by Samsung Securities Co., Ltd., an organization licensed with the Financial Supervisory Service of South Korea. This research may be distributed in the United States only to major institutional investors as defined in Rule 15a-6 of the U.S. Securities Exchange Act of 1934, as amended, and may not be circulated to any other person otherwise. All transactions by U.S. investors involving securities discussed in this report must be effected through Samsung Securities (America) Inc., a broker-dealer registered with the U.S. Securities & Exchange Commission and a member of the Financial Industry Regulatory Authority/SIPC, and not through any non-U.S. affiliate thereof. The analysts listed [on the front of this report] are employees of Samsung Securities Co., Ltd., or a non-U.S. affiliate thereof, and are not registered/qualified as research analysts under applicable U.S. rules and regulations and may not be subject to U.S. restrictions on communications with covered companies, public appearances, and trading securities held by a research analyst account.

For reports to be distributed to UK:

This report is not an invitation nor is it intended to be an inducement to engage in investment activity for the purpose of section 21 of the Financial Services and Markets Act 2000 of the United Kingdom ("FSMA"). To the extent that this report does constitute such an invitation or inducement, it is directed only at (i) persons who are investment professionals within the meaning of Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2001 (as amended) of the United Kingdom (the "Financial Promotion Order"); (ii) persons who fall within Articles 49(2)(a) to (d) ("high net worth companies, unincorporated associations etc.") of the Financial Promotion Order; and (iii) any other persons to whom this report can, for the purposes of section 21 of FSMA, otherwise lawfully be made (all such persons together being referred to as "relevant persons").

Any investment or investment activity to which this report relates is available only to relevant persons and will be engaged in only with relevant persons. Persons who are not relevant persons must not act or rely on this report.

For reports to be distributed to Korea:

This report is for private circulation only, not for sale, and is issued and distributed only to persons permitted under the laws and regulations of Korea.

For reports to be distributed to Singapore:

This report is provided pursuant to the financial advisory licensing exemption under Regulation 27(1)(e) of the Financial Advisers Regulation of Singapore and accordingly may only be provided to persons in Singapore who are "institutional investors" as defined in Section 4A of the Securities and Futures Act, Chapter 289 of Singapore. This report is intended only for the person to whom Samsung Securities has provided this report and such person may not send, forward or transmit in any way this report or any copy of this report to any other person.

Analyst certification

The views expressed in this research report accurately reflect the personal views of the analyst(s) about the subject securities or issuers and no part of the compensation of such analyst(s) was, is, or will be directly or indirectly related to the inclusion of specific recommendations or views in this research report. The analyst(s) principally responsible for the preparation of this research report receives compensation based on determination by research management and senior management (not including investment banking), based on the overall revenues, including investment banking revenues of Samsung Securities Co., Ltd. and its related entities and has taken reasonable care to achieve and maintain independence and objectivity in making any recommendations.

Copyright © 2010 Samsung Securities Co., Ltd.. All rights reserved. This report or any portion hereof may not be reprinted, sold or redistributed without the prior written consent of Samsung Securities America Inc

Samsung Securities

SAMSUNG SECURITIES

Samsung Electronics Bldg., 11, 74-gil,
Seochodaero-ro, Seocho-gu, Seoul, Korea 06620
Tel: 02 2020 8000 / www.samsungpop.com

Family Center: 1588 2323

Voice Of Customer: 080 911 0900

**For more information,
please call our sales representatives:**

LONDON

Samsung Securities Europe Limited

1st Floor, 30 Gresham Street, London EC2V 7PG UK
Tel. 44-207-776-4311
Fax. 44-203-837-9219

NEW YORK

Samsung Securities America Limited

1330 Avenue of the Americas, 10th Floor, New York,
NY 10019
Tel: 1-212-972-2454
Fax: 1-212-972-2704

HONG KONG

Samsung Securities (Asia) Limited

Suite 4511, Two International Finance Center,
8 Finance Street, Central, Hong Kong
Tel: 852-3411-3608
Fax: 852-2114-0290

BEIJING

Samsung Securities Beijing Representative Office

Rm. 910, The Exchange Building No 118 JianGuo Lu, Chao
Yang District, Beijing, China
Tel: 86-10-6522-1855 (extension 7891)
Fax: 86-10-6522-1855 (extension 7889)

TOKYO

Samsung Securities Tokyo Representative Office

#106-8532 19F, Roppongi T-Cube 3-1-1,
Roppongi Minato-ku Tokyo, Japan
Tel: 81-3-6333-2952
Fax: 81-3-6333-2953



Member of
**Dow Jones
Sustainability Indices**
Powered by the S&P Global CSA