

SK Holdings

(034730 KS/Buy)

Biotech business deserves revaluation

Holding companies

News Comment
March 15, 2016

Daewoo Securities Co., Ltd.

[Holding Companies/IT
Services]

Dae-ro Jeong
+822-768-4160
daero.jeong@dwsec.com

Yoon-seok Seo
+822-768-4127
yoonseok.seo@dwsec.com

SK Biopharmaceuticals' epilepsy drug expected to hit the market in 2018

On March 14th, SK Holdings' wholly-owned subsidiary SK Biopharmaceuticals announced that it successfully completed the phase 2 clinical trial for its new epilepsy drug (YKP3089), and has reached an agreement with the US FDA on the terms of the drug's phase 3 trial and approval. (Note: SK Biopharmaceuticals was spun off from SK Holdings' Life Science unit in April 2011 and focuses on developing new drugs.)

SK Biopharmaceuticals conducted phase 2a and 2b trials in the US, Europe, and Asia over the past four years. In the 2b trial, the drug was proven to be twice more effective than existing treatments, reducing the frequency of seizures by 55%.

What's noteworthy is that the FDA has allowed the company to file a new drug application using the efficacy data of the phase 2 trials alone, given the drug's greater efficacy and safety compared to existing therapies. This means the company will be able to skip efficacy testing and perform only long-term safety assessments in the phase 3 trials.

The company is aiming to file for FDA approval in 2017 and launch the drug globally in 2018. The company expects the drug to become a blockbuster, with annual sales of over W1tr and OP margin of at least 50% in the US alone, based on sales data of the current leading epilepsy treatments—Vimpat and Keppra from UCB Pharma.

Revising up value of SK Biopharmaceuticals and SK Biotek to W2.2tr

In deriving SK Holdings' NAV, we revised up the combined value of the company's stakes in SK Biopharmaceuticals and SK Biotek to W2.2tr (from W328.7bn previously, based on book value). We think our estimates are conservative, as they only reflect what we could confirm at this stage. We see strong upside potential to our valuation depending on further developments in the pipeline.

We raised SK Biopharmaceuticals' value to roughly W2tr (based on 20x 2019F EPS; discounted by 7.5%) to reflect the likelihood of the new epilepsy drug's commercial production and sales in 2H18.

SK Biotek, which specializes in custom manufacturing services (CMS), became SK Holdings' subsidiary in February 2016 after the holdings company bought a 100% stake in the firm from SK Biopharmaceuticals. As such, we separately incorporated SK Biotek in SK Holdings' NAV, valuing the subsidiary at W218bn (based on 10x 2016F EPS). (Note: SK Biotek was spun off from SK Biopharmaceuticals in April 2015 and recorded revenue of W78.9bn and operating profit of W20.9bn in 2015).

Maintain Buy and TP of W330,000; Five growth strategies remain on track

We reiterate our Buy call and target price of W330,000 on SK Holdings. Despite our revised valuation of the biotech business, we left our target price unchanged due to 1) our downward revisions to in-house profits, and 2) the decline in value of stakes in SK Telecom and other subsidiaries.

SK Holdings is focusing on five key areas to support sustainable growth. As part of such efforts, the company has acquired SK Materials to enter the semiconductor materials business and has begun building a fully integrated pharma company (FIPCO) model across the value chain, led by SK Biopharmaceuticals and SK Biotek. As SK Holdings executes its growth strategies, we expect the operating business and subsidiaries to be revalued higher.

| FY (Dec.) | 12/11 | 12/12 | 12/13 | 12/14F | 12/15P | 12/16F |
|---------------|-------|-------|-------|--------|--------|--------|
| Revenue (Wbn) | 1,702 | 2,242 | 2,302 | 2,426 | 39,570 | 99,362 |
| OP (Wbn) | 176 | 201 | 225 | 272 | 1,403 | 5,842 |
| OP margin (%) | 10.3 | 9.0 | 9.8 | 11.2 | 3.5 | 5.9 |
| NP (Wbn) | 438 | 356 | 189 | 127 | 5,346 | 1,513 |
| EPS (W) | 8,765 | 7,122 | 3,777 | 2,546 | 75,980 | 20,039 |
| ROE (%) | 25.3 | 15.8 | 8.4 | 5.5 | 42.5 | 9.3 |
| P/E (x) | 13.3 | 14.5 | 35.7 | 83.9 | 3.2 | 11.4 |
| P/B (x) | 2.4 | 1.9 | 2.4 | 3.6 | 1.3 | 1.3 |

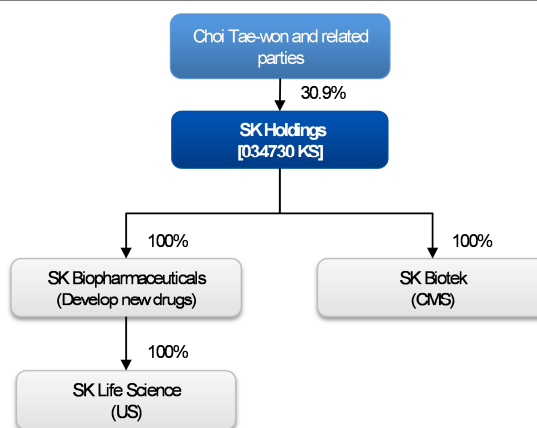
Notes: All figures are based on consolidated K-IFRS; NP refers to profit attributable to controlling interests

Source: Company data, KDB Daewoo Securities Research estimates

Analysts who prepared this report are registered as research analysts in Korea but not in any other jurisdiction, including the U.S.

PLEASE SEE ANALYST CERTIFICATIONS AND IMPORTANT DISCLOSURES & DISCLAIMERS IN APPENDIX 1 AT THE END OF REPORT.

Figure 1. SK Group's biotech/pharmaceutical-related governance structure



Source: KDB Daewoo Securities Research

Table 1. SK Biopharmaceuticals' major pipeline

| | Current stage | Details |
|---|---|--|
| Sleep-wake disorders (SKL-N05) | Phase 3b clinical trials underway | Signed out-licensing deal with Jazz Pharmaceuticals (US); Plan to go on sale in 2018 Will receive engineering fees during clinical trials (under technology export deal with Jazz) and royalties once drug goes on sale Secured licensing in 12 Asian countries; Plans to engage in direct marketing |
| Epilepsy (YKP3089) | Completed phase 2b clinical trials, Phase 3b clinical trials underway | Plan to file for FDA approval in 2017 Global release planned for 2018; Direct revenue (approximately W1tr annually) expected |
| Chronic constipation/ Irritable bowel syndrome (YKP10811) | Phase 2b clinical trials underway | Plan to sign out-licensing deals with global drug companies in 2016 |
| Acute seizures (PLUMIAZ) | Submitted NDA | Signed out-licensing in 2010 with Acorda Therapeutics (US supplier of drugs for central nervous system disorders) |
| Dementia/ cognitive impairment (SKL 15508) | Phase 2a clinical trials underway | Conducting phase 2a clinical trials independently |

Source: KDB Daewoo Securities Research

Table 2. SK Biopharmaceuticals' consolidated income statement (including SK Biotek) (Wbn)

| | 2011 | 2012 | 2013 | 2014 |
|--|--------------|--------------|--------------|--------------|
| Revenue | 37.6 | 51.8 | 60.5 | 72.4 |
| CMS (SK Biotek) | | | 108.1 | 113.0 |
| Development of new drugs (SK Biopharm) | | | 10.1 | 16.1 |
| (adjustment) | | | -57.8 | -56.7 |
| Cost of sales | 27.4 | 37.7 | 44.4 | 46.6 |
| Gross profit | 10.2 | 14.1 | 16.1 | 25.9 |
| SG&A | 32.6 | 50.1 | 60.2 | 65.1 |
| Operating profit | -22.3 | -36.0 | -44.2 | -39.2 |
| OP margin | -59.4% | -69.5% | -73.0% | -54.2% |
| CMS | | | 4.7 | 7.8 |
| OP margin | | | 4.4% | 6.9% |
| Development of new drugs | | | -48.9 | -46.7 |
| OP margin | | | -484.9% | -289.6% |
| (adjustment) | | | 0.1 | -0.3 |
| Financial income | 4.9 | 9.2 | 6.4 | 6.2 |
| Financial expenses | 1.3 | 1.4 | 1.9 | 2.5 |
| Non-operating income | 2.6 | 1.2 | 0.3 | 0.6 |
| Non-operating expenses | 4.6 | 3.0 | 3.2 | 1.2 |
| Pretax income | -20.7 | -30.0 | -42.6 | -36.2 |
| Corporate tax | -1.2 | 0.4 | -1.6 | 0.8 |
| Net profit | -19.5 | -30.3 | -41.0 | -37.0 |

Source: Dart, KDB Daewoo Securities Research

Table 3. SK Holdings' quarterly earnings

(Wbn)

| | 2015P | | | | | 2016F | | | | |
|---|------------|------------|--------------|-----------|--------------|------------|------------|------------|------------|--------------|
| | 1Q | 2Q | 3Q | 4QP | Annual | 1QF | 2QF | 3QF | 4QF | Annual |
| Revenue | 641 | 678 | 15,358 | 22,892 | 39,570 | 21,772 | 21,357 | 21,761 | 23,640 | 88,531 |
| Operating profit | 77 | 78 | 478 | 770 | 1,403 | 1,286 | 1,394 | 1,416 | 1,403 | 5,499 |
| Pretax profit | 248 | 218 | 5,252 | 521 | 6,239 | 1,304 | 1,456 | 1,326 | 1,030 | 5,115 |
| Net profit | 194 | 160 | 5,021 | 174 | 5,549 | 958 | 1,070 | 974 | 757 | 3,760 |
| Net profit attributable to controlling interests | 193 | 160 | 4,910 | 84 | 5,346 | 419 | 380 | 340 | 271 | 1,410 |
| Net profit attributable to non-controlling interests | 1 | 1 | 111 | 90 | 203 | 539 | 690 | 635 | 486 | 2,350 |

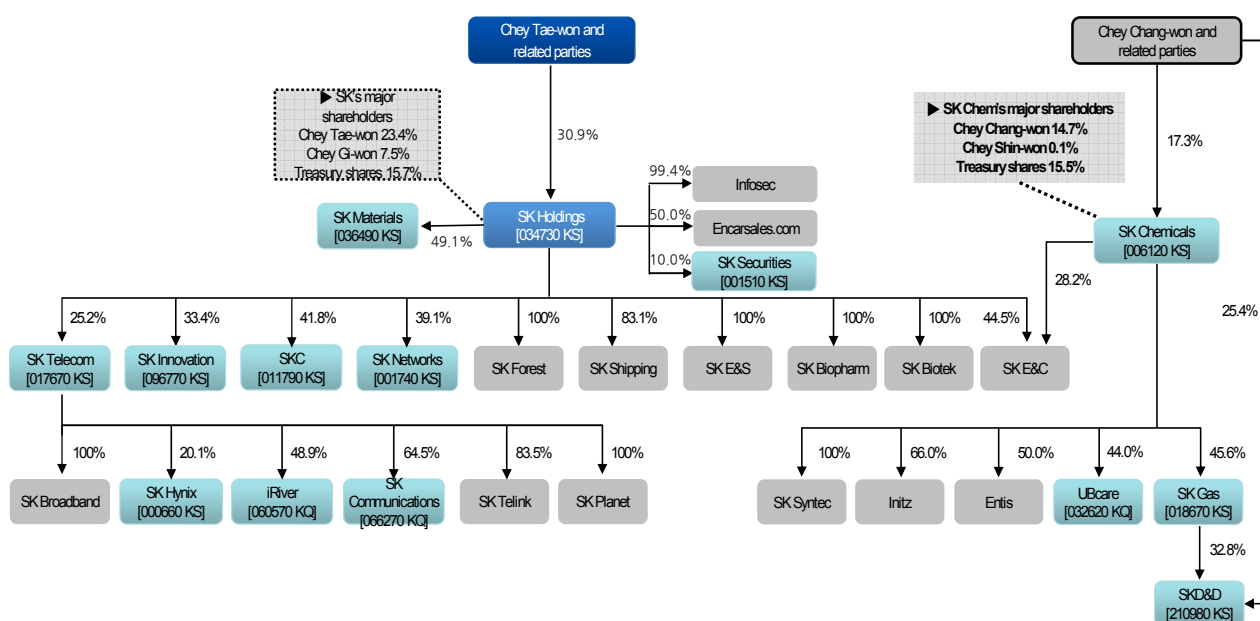
Source: KDB Daewoo Securities Research

Table 4. SK Group's growth framework

| | Growth areas | Related companies | Details |
|----------------------|-------------------------------------|---|---|
| ICT | (1) IT services | SK C&C, etc. | - Extend the coverage of IT services, establish overseas footholds through business partnerships, and broaden cloud-based offerings |
| | (2) ICT convergence | SK C&C, Infosec, NSOK, etc. | - Security convergence platform (information security and physical security) - Expand into security devices (sensors, etc.) as well as biometrics- and video surveillance - related software |
| New growth portfolio | (3) Biotech/ pharmaceuticals | SK Biopharmaceuticals SK Biotek | - Integrate the pharmaceuticals value chain, including R&D, manufacturing, and marketing, by 2018 - Take SK Biopharmaceuticals public in 2018 and acquire drug developers with strong potential |
| | (4) LNG | SK E&S | - Integrate and expand LNG value chain in the group; Expand the capacity of LNG business to 5mn tonnes by 2020 - Benefiting from cost advantages (due to direct access to cheap gas in the US and Australia) and captive demand - Expected to partner with a Chinese firm in the near future to secure new business opportunities |
| | (5) Semiconductor modules/materials | SK, Essencore, SK Materials, SK Hynix, etc. | - Semiconductor module business (Essencore) aims to achieve W1.5tr in revenue by 2019 - Plans to acquire a firm with global technology to secure stable footing in the market |

Source: Company data, KDB Daewoo Securities Research

Figure 2. SK Group's corporate governance



Source: KDB Daewoo Securities Research

Table 5. Valuation

(Wbn, W)

| | Fair value | Notes |
|--|----------------|---|
| 1. Operating value | 9,822 | |
| In-house businesses (SK C&C) | 7,455 | |
| IT services | 6,487 | - Based on 2016F EBITDA; applied EV/EBITDA of 18.0x |
| Distribution (Encar) | 439 | - Based on 2016F NOPLAT; applied 2015F P/E of 20.0x |
| Security services (Infosec) | 207 | - Based on 2016F EBITDA; applied P/E of 20.0x |
| Other (semicon. modules, etc.) | 322 | - Based on 2016F EBITDA; applied global peer average P/E of 10.9x |
| Brand royalties (SK Holdings) | 2,326 | - Based on brand royalty rate of 20bps (contract period: 1/1/2015-12/31/2017) |
| Real estate (SK Holdings) | 41 | - Investment properties as of 2015 |
| 2. Value of investment assets | 15,426 | |
| Listed subsidiaries | 8,770 | - 20% discount based on market price |
| Unlisted subsidiaries | 6,656 | - Book value and relative valuation |
| 3. Total asset value (1+2) | 25,249 | |
| Net borrowings (-) | 5,294 | -As of 2015 |
| Treasury shares | 3,329 | |
| 4. NAV(3+4) | 23,284 | |
| Market cap | 16,113 | |
| Discount to NAV | 30.8% | |
| 5. Number of shares ('000 shares) | 70,360 | - Total issued shares |
| NAV per share | 330,920 | |
| 6. Target price | 330,000 | |
| Current price | 229,000 | - As of Mar. 14, 2016 |
| Upside potential (%) | 44.1% | |

Source: KDB Daewoo Securities Research

Table 6. SK Holdings' investment securities (Wbn, W)

| | Stake | Book value | Current price | Valuation | Notes |
|-----------------------|-------|------------|---------------|---------------|------------------------------|
| Listed subsidiaries | | | | 10,962 | - As of Mar. 14, 2016 |
| SK Innovation | 33.4% | 3,073 | 157,000 | 4,849 | |
| SK Telecom | 25.2% | 5,081 | 215,000 | 4,378 | |
| SK Networks | 39.1% | 706 | 6,390 | 621 | |
| SKC | 42.3% | 549 | 30,600 | 471 | |
| SK Securities | 10.0% | 28 | 1,195 | 38 | |
| SK Materials | 49.1% | 470 | 116,900 | 605 | |
| Unlisted subsidiaries | | | | 6,656 | - Applied book value |
| SK E&S | 100% | 2,600 | | 3,296 | 2016F P/E 8.0x |
| SK Biopharm | 100% | 205 | | 1,995 | 2019F P/E 20.0x |
| SK Biotek | 100% | 124 | | 218 | 2016F P/E 10.0x |
| SK E&C | 44.5% | 545 | | 240 | Based on K-OTC trading price |
| SK Shipping | 83.1% | 332 | | 332 | |
| SK Forest | 100% | 61 | | 61 | |
| Other | | 513 | | 513 | |

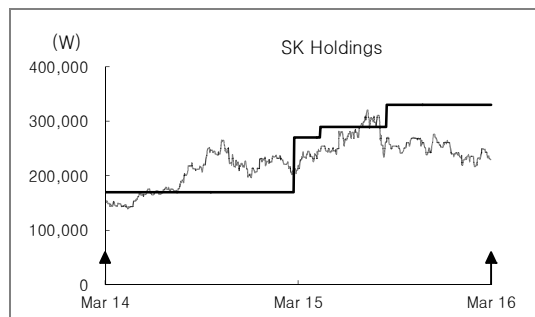
Source: KDB Daewoo Securities Research

APPENDIX 1

Important Disclosures & Disclaimers

2-Year Rating and Target Price History

| Company (Code) | Date | Rating | Target Price |
|---------------------|------------|--------|--------------|
| SK Holdings(034730) | 08/30/2015 | Buy | 330,000 |
| | 04/27/2015 | Buy | 290,000 |
| | 03/08/2015 | Buy | 270,000 |
| | 03/07/2014 | Buy | 170,000 |



Stock Ratings

- Buy : Relative performance of 20% or greater
- Trading Buy : Relative performance of 10% or greater, but with volatility
- Hold : Relative performance of -10% and 10%
- Sell : Relative performance of -10%

Industry Ratings

- Overweight : Fundamentals are favorable or improving
- Neutral : Fundamentals are steady without any material changes
- Underweight : Fundamentals are unfavorable or worsening

Ratings and Target Price History (Share price (—), Target price (—), Not covered (■), Buy (▲), Trading Buy (■), Hold (●), Sell (◆))

* Our investment rating is a guide to the relative return of the stock versus the market over the next 12 months.

* Although it is not part of the official ratings at Daewoo Securities, we may call a trading opportunity in case there is a technical or short-term material development.

* The target price was determined by the research analyst through valuation methods discussed in this report, in part based on the analyst's estimate of future earnings.

* The achievement of the target price may be impeded by risks related to the subject securities and companies, as well as general market and economic conditions.

Equity Ratings Distribution

| Buy | Trading Buy | Hold | Sell |
|--------|-------------|--------|-------|
| 71.08% | 11.76% | 17.16% | 0.00% |

* Based on recommendations in the last 12-months (as of December 31, 2015)

Disclosures

As of the publication date, Daewoo Securities Co., Ltd and/or its affiliates do not have any special interest with the subject company and do not own 1% or more of the subject company's shares outstanding.

Analyst Certification

The research analysts who prepared this report (the "Analysts") are registered with the Korea Financial Investment Association and are subject to Korean securities regulations. They are neither registered as research analysts in any other jurisdiction nor subject to the laws and regulations thereof. Opinions expressed in this publication about the subject securities and companies accurately reflect the personal views of the Analysts primarily responsible for this report. Daewoo Securities Co., Ltd. policy prohibits its Analysts and members of their households from owning securities of any company in the Analyst's area of coverage, and the Analysts do not serve as an officer, director or advisory board member of the subject companies. Except as otherwise specified herein, the Analysts have not received any compensation or any other benefits from the subject companies in the past 12 months and have not been promised the same in connection with this report. No part of the compensation of the Analysts was, is, or will be directly or indirectly related to the specific recommendations or views contained in this report but, like all employees of Daewoo Securities, the Analysts receive compensation that is impacted by overall firm profitability, which includes revenues from, among other business units, the institutional equities, investment banking, proprietary trading and private client division. At the time of publication of this report, the Analysts do not know or have reason to know of any actual, material conflict of interest of the Analyst or Daewoo Securities Co., Ltd. except as otherwise stated herein.

Disclaimers

This report is published by Daewoo Securities Co., Ltd. ("Daewoo"), a broker-dealer registered in the Republic of Korea and a member of the Korea Exchange. Information and opinions contained herein have been compiled from sources believed to be reliable and in good faith, but such information has not been independently verified and Daewoo makes no guarantee, representation or warranty, express or implied, as to the fairness, accuracy, completeness or correctness of the information and opinions contained herein or of any translation into English from the Korean language. If this report is an English translation of a report prepared in the Korean language, the original Korean language report may have been made available to investors in advance of this report. Daewoo, its affiliates and their directors, officers, employees and agents do not accept any liability for any loss arising from the use hereof. This report is for general information purposes only and it is not and should not be construed as an offer or a solicitation of an offer to effect transactions in any securities or other financial instruments. The intended recipients of this report are sophisticated institutional investors who have substantial knowledge of the local business environment, its common practices, laws and accounting principles and no person whose receipt or use of this report would violate any laws and regulations or subject Daewoo and its affiliates to registration or licensing requirements in any jurisdiction should receive or make any use hereof. Information and opinions contained herein are subject to change without notice and no part of this document may be copied or reproduced in any manner or form or redistributed or published, in whole or in part, without the prior written consent of Daewoo. Daewoo, its affiliates and their directors, officers, employees and agents may have long or short positions in any of the subject securities at any time and may make a purchase or sale, or offer to make a purchase or sale, of any such securities or other financial instruments from time to time in the open market or otherwise, in each case either as principals or agents. Daewoo and its affiliates may have had, or may be expecting to enter into, business relationships with the subject companies to provide investment

banking, market-making or other financial services as are permitted under applicable laws and regulations. The price and value of the investments referred to in this report and the income from them may go down as well as up, and investors may realize losses on any investments. Past performance is not a guide to future performance. Future returns are not guaranteed, and a loss of original capital may occur.

Distribution

United Kingdom: This report is being distributed by Daewoo Securities (Europe) Ltd. in the United Kingdom only to (i) investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the "Order"), and (ii) high net worth companies and other persons to whom it may lawfully be communicated, falling within Article 49(2)(A) to (E) of the Order (all such persons together being referred to as "Relevant Persons"). This report is directed only at Relevant Persons. Any person who is not a Relevant Person should not act or rely on this report or any of its contents.

United States: This report is distributed in the U.S. by Daewoo Securities (America) Inc., a member of FINRA/SIPC, and is only intended for major institutional investors as defined in Rule 15a-6(b)(4) under the U.S. Securities Exchange Act of 1934. All U.S. persons that receive this document by their acceptance thereof represent and warrant that they are a major institutional investor and have not received this report under any express or implied understanding that they will direct commission income to Daewoo or its affiliates. Any U.S. recipient of this document wishing to effect a transaction in any securities discussed herein should contact and place orders with Daewoo Securities (America) Inc., which accepts responsibility for the contents of this report in the U.S. The securities described in this report may not have been registered under the U.S. Securities Act of 1933, as amended, and, in such case, may not be offered or sold in the U.S. or to U.S. persons absent registration or an applicable exemption from the registration requirements.

Hong Kong: This document has been approved for distribution in Hong Kong by Daewoo Securities (Hong Kong) Ltd., which is regulated by the Hong Kong Securities and Futures Commission. The contents of this report have not been reviewed by any regulatory authority in Hong Kong. This report is for distribution only to professional investors within the meaning of Part I of Schedule 1 to the Securities and Futures Ordinance of Hong Kong (Cap. 571, Laws of Hong Kong) and any rules made thereunder and may not be redistributed in whole or in part in Hong Kong to any person.

All Other Jurisdictions: Customers in all other countries who wish to effect a transaction in any securities referenced in this report should contact Daewoo or its affiliates only if distribution to or use by such customer of this report would not violate applicable laws and regulations and not subject Daewoo and its affiliates to any registration or licensing requirement within such jurisdiction.

KDB Daewoo Securities International Network

Daewoo Securities Co. Ltd. (Seoul)

Head Office
34-3 Yeouido-dong, Yeongdeungpo-gu
Seoul 150-716
Korea
Tel: 82-2-768-3026

Daewoo Securities (Europe) Ltd.

41st Floor, Tower 42
25 Old Broad St.
London EC2N 1HQ
United Kingdom
Tel: 44-20-7982-8000

Beijing Representative Office

2401A, 24th Floor, East Tower, Twin Towers
B-12 Jianguomenwai Avenue
Chaoyang District, Beijing 100022
China
Tel: 86-10-6567-9299

Daewoo Investment Advisory (Beijing) Co., Ltd.

2401B, 24th Floor, East Tower, Twin Towers
B-12 Jianguomenwai Avenue,
Chaoyang District, Beijing 100022
China
Tel: 86-10-6567-9699

Daewoo Securities (Hong Kong) Ltd.

Two International Finance Centre
Suites 2005-2012
8 Finance Street, Central
Hong Kong, China
Tel: 85-2-2845-6332

Daewoo Securities (Singapore) Pte. Ltd.

Six Battery Road #11-01
Singapore, 049909

Tel: 65-6671-9845

Shanghai Representative Office

Room 38T31, 38F SWFC
100 Century Avenue
Pudong New Area, Shanghai 200120
China
Tel: 86-21-5013-6392

Daewoo Securities (Mongolia) LLC

#406, Blue Sky Tower, Peace Avenue 17
1 Khoroo, Sukhbaatar District
Ulaanbaatar 14240
Mongolia
Tel: 976-7011-0807

Daewoo Securities (America) Inc.

320 Park Avenue
31st Floor
New York, NY 10022
United States
Tel: 1-212-407-1000

Tokyo Branch

7th Floor, Yusen Building
2-3-2 Marunouchi, Chiyoda-ku
Tokyo 100-0005
Japan
Tel: 81-3- 3211-5511

Ho Chi Minh Representative Office

Suite 2103, Saigon Trade Center
37 Ton Duc Thang St,
Dist. 1, Ho Chi Minh City,
Vietnam
Tel: 84-8-3910-6000

PT. Daewoo Securities Indonesia

Equity Tower Building Lt.50
Sudirman Central Business District Jl.
Jendral Sudirman Kav. 52-53, Jakarta Selatan
Indonesia 12190
Tel: 62-21-515-1140