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Business Report

(The 7th Period)

Business Year From January 1, 2023 To
December 31, 2023

Respectfully submitted to
Financial Services Commission, the Korea Exchange

March 18, 2024

Type of Corporation Subject to Submission: Stock-listed Corporation

Reason for Exemption: Not applicable

Name of Company: SK chemicals Co., Ltd.

Chief Executive Officer: Ahn Jae Hyun

Head Office: 310 Pangyo-ro (Sampyeong-dong), Bundang-gu, Seongnam-si, Gyeonggi-do
(Phone) 02-2008-2008
(Website) <http://www.skchemicals.com>

Principal Officer: (Position) Head of the Management Support Division (Name) Kim Kee Dong
(Phone) 02-2008-2008

【Confirmation of the Chief Executive Officer, Etc.】

Statement of Confirmation

We, as the chief executive officer and the director in charge of reporting of the Company, have directly reviewed and examined the contents of this disclosure document with due care. As a result, we confirm that there are no omissions or false statements regarding material matters, and that the contents of this disclosure document do not contain any statements that may cause a material misunderstanding for those who use the information stated or indicated in this disclosure document.

Furthermore, we confirm that the Company has prepared and is operating an internal accounting control system in accordance with the provisions of Article 8 of the Act on External Audit of Stock Companies, Etc.

2024.03.18

[SK Chemicals Co., Ltd.]

CEO [Ahn Jae Hyun]

Director in Charge of Reporting [Kim Kee Dong]

I. Overview of the Company

1. Overview of the Company

A. Overview of the Consolidated Subsidiaries

1) Status of the Consolidated Subsidiaries (Summary)

(Unit: company)

Classification	Number of Consolidated Companies				Number of Major Subsidiaries
	Beginning of period	Increase	Decrease	End of period	
Listed	1	-	-	1	1
Unlisted	9	1	-	10	2
Total	10	1	-	11	3

※ For detailed status, refer to 'Detailed Table-1 Status of Consolidated Subsidiaries (Details).'

2) Changes in the Consolidated Companies

Classification	Subsidiaries	Reason
Newly consolidated	Shuye-SK chemicals (Shantou) Co., Ltd	Newly invested in and incorporated as a subsidiary
	-	-
Excluded from consolidation	-	-
	-	-

B. Legal and Commercial Name of the Company

The Company's name is 'SK chemicals Co., Ltd.', which in Korean is noted as '에스케이 케미칼 주식회사', and in English as 'SK CHEMICALS CO., LTD.'

C. Date of Establishment & Survival Period

The Company is a split-off company newly established on December 1, 2017 through the split-off of the Green Chemicals and Life Science business divisions previously operated by SK discovery Co, Ltd. pursuant to the provisions of Articles 530-2 to 530-11 of the Commercial Act.

D. Head Office's Address, Phone Number, and Website Address

Classification	Details
Head Office's Address	310 Pangyo-ro (Sampyeong-dong), Bundang-gu, Seongnam-si, Gyeonggi-do
Phone Number	02-2008-2008
Website	http://www.skchemicals.com/

E. Whether Applicable as an SME, Etc.

Whether applicable as an SME	Not applicable
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Whether applicable as a venture company	Not applicable
Whether applicable as a middle standing enterprise	Not applicable

F. Contents of the Main Businesses

The Company was established by spinning off the Green Chemicals and Life Science business divisions from among the businesses conducted by SK discovery Co., Ltd., and operates the Green Chemicals Biz. that is focused on the eco-friendly materials business and the Life Science Biz. that is involved with producing and selling pharmaceuticals and vaccines. As of the end of 2023, the consolidated sales revenue was KRW 1,748.8 billion, consisting of 96.3% eco-friendly material products such as high-functional copolyester resin, 16.0% natural substance-based/synthetic pharmaceuticals, 8.4% vaccine products, and -20.7% others.

☞ For more details, please refer to 'II. Details of the Businesses' of these disclosure documents.

G. Matters Concerning the Credit Rating [Corporate Bond]

Session	Amount Issued (KRW 100 million)	Date of issuance	Date of maturity	Classification	Date of Rating	Rating	Rating Agency
13-3	700	2023.02.24	2026.02.24	Periodic rating	2023.05.25	A+	Korea Investors Service (AAA-D)
13-2	950	2023.02.24	2025.02.24	Periodic rating	2023.05.25	A+	Korea Investors Service (AAA-D)
13-1	350	2023.02.24	2024.08.23	Periodic rating	2023.05.25	A+	Korea Investors Service (AAA-D)
12-2	750	2019.10.30	2024.10.30	Periodic rating	2023.05.25	A+	Korea Investors Service (AAA-D)
11-2	800	2019.01.31	2024.01.31	Periodic rating	2023.05.25	A+	Korea Investors Service (AAA-D)
13-3	700	2023.02.24	2026.02.24	This rating	2023.02.07	A+	Korea Investors Service (AAA-D)
13-2	950	2023.02.24	2025.02.24	This rating	2023.02.07	A+	Korea Investors Service (AAA-D)
13-1	350	2023.02.24	2024.08.23	This rating	2023.02.07	A+	Korea Investors Service (AAA-D)
13-3	700	2023.02.24	2026.02.24	Periodic rating	2023.06.09	A+	Korea Ratings (AAA-D)
13-2	950	2023.02.24	2025.02.24	Periodic rating	2023.06.09	A+	Korea Ratings (AAA-D)
13-1	350	2023.02.24	2024.08.23	Periodic rating	2023.06.09	A+	Korea Ratings (AAA-D)
12-2	750	2019.10.30	2024.10.30	Periodic rating	2023.06.09	A+	Korea Ratings (AAA-D)
11-2	800	2019.01.31	2024.01.31	Periodic rating	2023.06.09	A+	Korea Ratings (AAA-D)
13-3	700	2023.02.24	2026.02.24	Periodic rating	2023.05.04	A+	NICE Investors Service (AAA-D)
13-3	700	2023.02.24	2026.02.24	This rating	2023.02.06	A+	NICE Investors Service (AAA-D)
13-2	950	2023.02.24	2025.02.24	This rating	2023.01.27	A+	NICE Investors Service (AAA-D)
9-2	660	2018.04.30	2023.04.30	Periodic rating	2022.04.14	A+	Korea Ratings (AAA-D)
12-1	700	2019.10.30	2022.10.30	Periodic rating	2022.04.14	A+	Korea Ratings (AAA-D)
12-2	750	2019.10.30	2024.10.30	Periodic rating	2022.04.14	A+	NICE Investors Service (AAA-D)
12-2	750	2019.10.30	2024.10.30	Periodic rating	2022.04.19	A+	Korea Investors Service (AAA-D)
12-1	700	2019.10.30	2022.10.30	Periodic rating	2022.04.19	A+	Korea Investors Service (AAA-D)
11-2	800	2019.01.31	2024.01.31	Periodic rating	2022.04.19	A+	Korea Investors Service (AAA-D)
9-2 (Jointly guaranteed by SK bioscience)	660	2018.04.30	2023.04.30	Periodic rating	2022.04.19	A+	Korea Investors Service (AAA-D)
12-2	750	2019.10.30	2024.10.30	Periodic rating	2021.05.14	A	NICE Investors Service (AAA-D)
9-1	750	2018.04.30	2021.04.30	Periodic rating	2021.04.29	A	Korea Ratings (AAA-D)
11-1	700	2019.01.31	2022.01.28	Periodic rating	2021.04.29	A	Korea Ratings (AAA-D)
12-2	750	2019.10.30	2024.10.30	Periodic rating	2021.06.03	A+	Korea Investors Service (AAA-D)
12-1	700	2019.10.30	2022.10.30	Periodic rating	2021.06.03	A+	Korea Investors Service (AAA-D)
11-2	800	2019.01.31	2024.01.31	Periodic rating	2021.06.03	A+	Korea Investors Service (AAA-D)
11-1	700	2019.01.31	2022.01.31	Periodic rating	2021.06.03	A+	Korea Investors Service (AAA-D)

9-2 (Jointly guaranteed by SK bioscience)	660	2018.04.30	2023.04.30	Periodic rating	2021.03.09	A+	Korea Investors Service (AAA-D)
12-2	750	2019.10.30	2024.10.30	Non-periodic rating	2021.03.09	A↑	Korea Investors Service (AAA-D)
12-1	700	2019.10.30	2022.10.30	Non-periodic rating	2021.03.09	A↑	Korea Investors Service (AAA-D)
11-2	800	2019.01.31	2024.01.31	Non-periodic rating	2021.03.09	A↑	Korea Investors Service (AAA-D)
11-1	700	2019.01.31	2022.01.31	Non-periodic rating	2021.03.09	A↑	Korea Investors Service (AAA-D)
9-2 (Jointly guaranteed by SK bioscience)	660	2018.04.30	2023.04.30	Non-periodic rating	2021.03.09	A↑	Korea Investors Service (AAA-D)
9-1 (Jointly guaranteed by SK bioscience)	750	2018.04.30	2021.04.30	Non-periodic rating	2021.03.09	A↑	Korea Investors Service (AAA-D)

[Commercial Paper]

Date of Rating	Type of Rating	Rating	Effective Date	Rating Agency
2023.12.20	Periodic rating	A2+	2024.06.30	Korea Investors Service (A1-D)
2023.05.25	This rating	A2+	2024.06.30	Korea Investors Service (A1-D)
2023.12.12	Periodic rating	A2+	2024.06.30	NICE Investors Service (A1-D)
2023.05.04	This rating	A2+	2024.06.30	NICE Investors Service (A1-D)
2022.12.13	Periodic rating	A2+	2023.06.30	Korea Investors Service (A1-D)
2022.12.20	Periodic rating	A2+	2023.06.30	NICE Investors Service (A1-D)
2022.04.14	This rating	A2+	2023.06.30	NICE Investors Service (A1-D)
2022.04.19	This rating	A2+	2023.06.30	Korea Investors Service (A1-D)
2021.06.03	Non-periodic rating	A2+	2021.06.30	Korea Investors Service (A1-D)
2021.03.09	Non-periodic rating	A2↑	2021.06.30	Korea Investors Service (A1-D)

[Electronic Short-Term Bonds]

Date of Rating	Type of Rating	Rating	Ceiling on Issuance (KRW 100 million)	Rating Agency
2021.06.03	Non-periodic rating	A2+	500	Korea Investors Service (A1-D)
2021.03.09	Non-periodic rating	A2↑	500	Korea Investors Service (A1-D)

※ About Corporate Bond Ratings

AAA	A 'AAA' rating indicates the highest probability of payment of principal and interest.
AA	A 'AA' rating indicates a very high probability of the payment. However, the probability may be slightly lower than the highest rating category (AAA).
A	An 'A' rating indicates a high probability of the payment. However, the probability may be more sensitive to changes in circumstances and economic conditions than the higher rating category (AA).
BBB	A 'BBB' rating indicates a moderate probability of the payment. However, changes in circumstances and economic conditions are more likely to impair this likelihood than the higher rating category (A).
BB	A 'BB' rating indicates some uncertainty about the probability of the payment and speculative elements.
B	A 'B' rating indicates substantial uncertainty about the probability of the payment and is considered speculative, and interest payments are not guaranteed in times of recession.
CCC	A 'CCC' rating indicates a high risk of default, questionable probability of the payment, and is considered highly speculative.
CC	A 'CC' rating indicates a very high risk of default and an extremely low probability of the payment, with greater uncertainties than the higher rating category (CCC).

C	A 'C' rating indicates the highest risk of default and no capacity to repay the principal and interest.
D	A 'D' rating indicates default.

※ Ratings of Commercial Papers and Electronic Short-Term Bonds

A1	The capacity for timely payment is extremely strong.
A2	The capacity for timely payment is very strong, but somewhat less than 'A1.'
A3	The capacity for timely payment is very good, but somewhat less than 'A2.'
B	The capacity for timely payment is adequate, but depending on short-term changes in conditions, speculative elements are inherent in its stability.
C	The capacity for timely payment is poor and is considered highly speculative.
D	A 'D' rating indicates default.

H. Matters Concerning Whether the Company's Stock Certificates are Listed (or Registered or Designated) and Special Listing

Status of stock certificates listed (or registered/designated)	Date of stock certificates listed (or registered/designated)	Type of special listing
Listed on the securities market	January 5, 2018	Not applicable

2. History of the Company

A. History of the Company

- 1969** Founded Sunkyoung Synthetic Fiber
- 1987** Acquired Samshin Pharmaceutical
- 1989** Established Life Science Research Institute
- 1998** Changed the company name to SK chemicals
- 1999** Developed Sunpla®, the world's first 3rd generation platinum complex anticancer drug (Korea's first new drug)
- 2002** Launched Joins®, an arthritis treatment (First natural treatment)
- 2005** Established SK Petrochemical (DMT business)
Merged with SK Pharmaceutical
- 2006** Merged with Dongshin Pharmaceutical (Began the vaccine and blood products businesses)
Developed biodiesel production technology
- 2008** Acquired UB Care Co., Ltd., a healthcare company
- 2009** Launched Ecogen®, a biomass-containing polyester resin
Licensed out hemophilia treatment of NBP601, a new biopharmaceutical drug (CSL Limited.), for the first time in Korea
- 2012** NBP601 selected as Top 10 New Technologies in Korea
Completed the construction of Andong Vaccine Plant (L House)
- 2013** Established Initx Co., Ltd. (Began the PPS business through a joint venture with Teijin Limited)
- 2014** Pursued a joint development of next generation pneumococcal vaccine with Sanofi Pasteur SA

- Andong Vaccine Plant (L House) obtained KGMP (Korea Good Manufacturing Practice) approval
- 2015** Launched SKYCellflu® Trivalent (Korea's first cell-cultured influenza vaccine)
- 2016** Launched SKYCellflu® Quadrivalent (the world's first quadrivalent cell culture-derived influenza vaccine)
- Launched Afstylia (NBP601) hemophilia treatment (CSL Limited.)
- 2017** Launched SKYZoster® (the world's second and Korea's first herpes zoster vaccine)
- Launched a holding company launched (surviving entity: SK discovery / Newly established entity: SK chemicals)
- 2018** Signed a contract with Sanofi Pasteur for the technology transfer of high-efficiency influenza vaccine production
- Launched SKYVaricella® (chickenpox vaccine)
- SK bioscience established (vaccine business split off)
- 2019** Merged with Initz Co., Ltd.
- 2020** Sold off the bio-energy business
- 2021** SK bioscience, listed on the securities market
- SK Multi-Utility established (utility supply business split off)
- Divestiture of PPS business,
- ECOTRIA CR commercialized
- 2022** Bio-polyol (PO3G) commercialized
- SKYPET CR commercialized (Korea's first chemically recycled PET)
- CR copolyester obtained UL's Low Carbon Certification
- 2023** Shuye SK chemicals (Shantou) Co., Ltd. established
- Completed verification of recyclability of 5 recyclable materials by the Association of Plastic Recyclers (APR), USA

B. Location of the Company's Head Office and Its Change

310 Pangyo-ro (Sampyeong-dong), Bundang-gu, Seongnam-si, Gyeonggi-do

C. Important Changes in the Senior Management

Date of Change	Type of General Meeting of Shareholders	Appointment		Expiry or Dismissal
		Newly Appointed	Reappointed	
2019.03.25	Regular Meeting of Shareholders	Chief Executive Officer Jeon Kwang Hyun Independent Director Park Jungsoo	-	Independent Director Ahn Deok Geun
2020.03.25	Regular Meeting of Shareholders	Independent Director Moon Sunghwan Independent Director Cho Honghee	Chief Executive Officer Kim Cheol	Independent Director Choi Jeon Hwan
2020.12.01	-	-	-	Independent Director An Yang Ho
2021.03.31	Regular Meeting of Shareholders	-	Independent Director An Yang Ho	-
2022.03.28	Regular Meeting of Shareholders	Non-Executive Director Ahn Jae Hyun	Chief Executive Officer Jeon Kwang Hyun Independent Director Park Jungsoo	-
2023.03.28	Regular Meeting of Shareholders	Chief Executive Officer Ahn Jae Hyun Non-Executive Director Jeon Kwang Hyun	Chief Executive Officer Kim Cheol Independent Director Moon Sunghwan Independent Director Cho Honghee	-

※ The Company was established through a split-off from SK discovery Co., Ltd. (formerly SK chemicals Co., Ltd.) on December 1, 2017, the date of the split-off.

D. Changes in the Largest Shareholder

When the Company was split off and newly established on December 1, 2017, the largest shareholder of the Company was Vice Chairman Choi Chang Won. However, as a result of SK discovery's tender offer for the Company's registered common shares on April 19, 2018, SK discovery Co., Ltd. held 24.15% (3,148,571 shares) of the Company's total issued shares at that time and became the largest shareholder.

☞ For more details related to the largest shareholder, please refer to 'VII. Matters Concerning Shareholders'.

E. Change of the Trade Name

The Company was newly established on December 1, 2017 under the trade name "SK Chemical" through the split-off of the Green Chemicals and Life Science businesses previously operated by SK discovery Co, Ltd. pursuant to the provisions of Articles 530-2 to 530-11 of the Commercial Act.

F. If the Company Has Executed Merger, Their Relevant Details

What follows are the matters which have taken place within the last 5 business years.

1) Merger and Acquisition of Initiz Co., Ltd.

- Date of merger: December 1, 2019

For more details, please refer to "XI. Other Matters Required for Investor Protection - 4. Other Matters Such as Major Issues Which Arose After the Reference Date of Preparation - B. Post-merger Information, Etc. - 1) Merger and Acquisition of Initiz Co., Ltd."

2) Split-off of the utility supply business division

- Date of split-off: December 1, 2021

For more details, please refer to "XI. Other Matters Required for Investor Protection - 4. Other Matters Such as Major Issues Which Arose After the Reference Date of Preparation - B. Post-merger Information, Etc. - 3) Split-off of the Utility Supply Business Division."

G. Details of Other Important Matters Related to the Business Management Activities

What follows are the matters which have taken place within the last 5 business years.

[SK chemicals]

1) Decision to Acquire the Stocks and Equity Securities of Another Corporation

Through the Board of Directors on April 24, 2019, the Company decided to purchase the entire interest Teijin, a partner in joint venture, owns in Initiz Co., Ltd. and converted Initiz Co., Ltd. into a wholly owned subsidiary on May 22, 2019.

- Target stock: Initiz Co., Ltd.
- Number of stocks acquired: Common stocks and preferred stocks worth KRW 45 billion
- Date of acquisition: May 22, 2019
- Method of acquisition: Cash acquisition

2) Decision on the Paid-in Capital Increase through Third-party Allocation

Through the Board of Directors on April 24, 2019, the Company decided to issue new shares to Teijin through third-party allocation for the continuous cooperation in the PPS business, and the details are as follows.

- Type and number of new stocks: 161,544 common stocks
- Issuing price: KRW 69,600
- Amount of capital increase: KRW 11,243 million
- Date of payment: May 23, 2019
- Date of issuance of new stocks: June 5, 2019

※ The new shares above are deposited with the Korea Securities Depository on the date of issuance of new shares pursuant to the implementation of transfer restrictions under Article 2-2, Paragraph 2, Subparagraph 1 of the Regulations on the Issuance and Disclosure of Securities, and the withdrawal and sale of the relevant securities are restricted for 1 year from the date of deposit.

3) Decision to Transfer the Bio-energy Business

On February 5, 2020, the Company decided to transfer the bio-energy business to 'Han & Co No.16 Co., Ltd.' through a resolution of the Board of Directors. On February 19, 2020, Han & Co No.16 Co., Ltd. transferred its status as a contracting party and all rights and obligations under the same contract to K-Green System Co., Ltd., a wholly owned subsidiary of the Company. As of the date of report submission, K Green System Co., Ltd. has changed its trade name to SK EcoPrime. The Company held an extraordinary meeting of stockholders on March 17, 2020 and received shareholder approval for the matter.

The overview of the relevant contract is as follows.

- Sold to: SK Eco Prime
- Business transferred: Bio-energy business
- Transfer price: KRW 385.2 billion
- Date of contract execution: February 5, 2020
- Date of extraordinary meeting of shareholders: March 17, 2020
- Date of transaction closing: May 29, 2020

※ For details of this transfer, refer to the report on major issues which the Company submitted to the electronic disclosure system on February 5, 2020 (correction disclosure made on July 14, 2020) and the report on the closing of merger, etc., submitted to the electronic disclosure system on May 29, 2020.

4) Publicly Offered Sales of SK bioscience

Following the listing of SK bioscience, the Company's subsidiary, on the securities market, the Company decided to publicly offer and sell the old stocks of the relevant subsidiary on February 5, 2021. For more information, refer to the securities declaration initially submitted by SK bioscience on February 5, 2021.

5) Decision on the Capital Increase without Consideration

Based on the resolution of the Board of Directors dated October 7, 2021, the Company decided to carry out a capital increase without consideration for the allotment of new shares in the ratio of 0.5 share for each share held by the shareholders (excluding treasury shares) registered in the list of shareholders as of the date of new shares allocation.

The details of the allocation following the execution of the capital increase without consideration are as follows.

- Details of the Allocation Following the Capital Increase without Consideration

(Unit: stocks)

Classification	Before the Capital Increase without Consideration	Details of the Allocation Following the Capital Increase without Consideration	After the Capital Increase without Consideration
Common stocks (excluding treasury stocks)	11,738,768	5,869,384	17,608,152
Preferred stocks (excluding treasury stocks)	1,313,519	656,759	1,970,278
Treasury stocks	157,779	-	157,779
Total	13,210,066	6,526,143	19,736,209

Following the execution of the capital increase without consideration, the Company acquired treasury stocks (18,229 common stocks, 2,982 preferred stocks) in order to process fractional shares on November 9, 2021.

6) Decision to Acquire the Stocks and Equity Securities of Another Corporation

- On March 6, 2023, the Company paid in capital of RMB 350 million and established Shuye SK chemicals (Shantou) Co., Ltd.. a wholly owned overseas subsidiary, and incorporated it as a subsidiary.
- Target company: Shuye SK chemicals (Shantou) Co., Ltd..
- Acquisition amount: KRW 66,094,000,000
- Date of acquisition: March 7, 2023
- Method of acquisition: Cash acquisition

[SK bioscience]

The Company's subsidiary, SK bioscience, was established on July 1, 2018, through the physical split-off of SK chemicals' VAX business division, and its main history is as follows.

Year	History
2001	Acquired Dongshin Pharmaceutical
2005	Established the Vaccine R&D Center
2009	Licensed out NBP601 (hemophilia treatment), Korea's first new biopharmaceutical drug (CSL)
2012	Completed the construction of a vaccine production plant (Andong L House)
2013	Signed a joint development and global supply agreement for typhoid vaccine (IVI, BMGF)
2014	Executed a contract on the joint development of next-generation pneumococcal vaccine (Sanofi)
2015	Released Korea's first trivalent cell culture-based influenza vaccine
2016	Released the world's first quadrivalent cell-cultured influenza vaccine
2017	Signed a joint development and manufacturing agreement for pediatric enteritis vaccine for developing countries (PATH, BMGF) Released the world's second shingles vaccine
2018	Executed a contract on the export of cell cultured flu vaccine production technology (Sanofi) Released chickenpox vaccine Established SK bioscience Co., Ltd. (by splitting off the SK chemicals' VAX business division on July 1, 2018)
2019	Acquired WHO PQ certification for trivalent and quadrivalent influenza vaccines and varicella vaccine
2020	Entered global Phase 2 clinical trial for next-generation pneumococcal vaccine (Sanofi) Initiated development of COVID-19 vaccine Received BMGF grant for development of COVID-19 vaccine Executed a contract on the COVID-19 Capacity Reservation (CEPI) Executed a COVID-19 CMO contract (AstraZeneca) Executed a COVID-19 CDMO contract (Novavax)
2021	Executed a contract on the introduction of Novavax's COVID-19 vaccine technology Listed on the securities market (March 18, 2021) Acquired EU GMP for the first time as a vaccine company in Korea (Andong L House) Received IND approval for a Phase 3 clinical trial plan for the COVID-19 vaccine candidate, 'GBP510'

2022	<p>Obtained domestic product approval for Novavax COVID-19 vaccine Signed a pre-purchase agreement for the COVID-19 vaccine GBP510 with the government</p> <p>Received IND approval for a Phase 3 clinical trial plan for the GBP510 COVID-19 Booster Vaccine Received export product approval for typhoid vaccine (SKYTyphoid Multi Inj.)</p> <p>Obtained domestic product approval for COVID-19 vaccine SKYCovione (GBP510) from the Ministry of Food and Drug Safety</p>
2023	<p>Signed a CMO contract for a 2nd generation Ebola vaccine (MSD)</p> <p>Obtained marketing authorization from the UK MHRA for COVID-19 vaccine SKYCovione (GBP510)</p> <p>Signed an influenza vaccine stock solution supply contract with the Public Procurement Service of the Republic of Korea</p> <p>COVID-19 vaccine SKYCovione (GBP510) listed on the World Health Organization (WHO) Emergency Use Listing</p> <p>Announced the results of global Phase 2 clinical trial for next-generation pneumococcal vaccine jointly developed with Sanofi</p> <p>Signed a globalization MOU and influenza vaccine stock solution supply contract with the state-owned pharmaceutical company GPO under the Thai government</p> <p>Acquired shares in Novavax, USA</p> <p>Signed a business agreement for the development of patch-type vaccines (Vaxxas)</p> <p>Signed a business agreement for the joint development of a 2nd generation Ebola vaccine (Hilleman Laboratories)</p> <p>Initiated the process for filing an IND application for a Phase 3 clinical trial of the next-generation pneumococcal vaccine, jointly developed with Sanofi in the USA</p>

[SK Multi-Utility]

The Company's subsidiary, SK Multi-Utility, was established on December 1, 2021, through the physical split-off of SK chemicals' power, steam and other utility supply divisions, and its main history is as follows.

Year	History
1989	Completed the construction of a coal-fired boiler
2009	Completed the construction of environment friendly Eco Green Boiler
2021	Established SK Multi-Utility (by physically splitting off SK chemicals' power, steam, and other utility supply divisions on December 1, 2021)
2022	Signed an EPC contract for an LNG CHP plant

3. Changes in Capital

A. Changes in the Capital

The Company issued 161,544 common stocks in 2019, 5,879,384 common stocks and 656,759 preferred stocks in 2021, and 22,492 stocks in 2022, thereby increasing its capital by KRW 32,793,175,000.

(Unit: KRW, stocks)

Type	Classification	The 7th Period (End of 2023)	The 6th Period (End of 2022)	The 5th Period (End of 2021)	The 4th Period (End of 2020)	The 3rd Period (End of 2019)
Common stocks	Total number of issued stocks	17,253,783	17,253,783	17,620,780	11,741,396	11,741,396
	Par value	5,000	5,000	5,000	5,000	5,000
	Capital	88,216,360,000	88,216,360,000	88,103,900,000	58,706,980,000	58,706,980,000
Preferred stocks	Total number of issued stocks	2,115,429	2,115,429	2,115,429	1,458,670	1,458,670
	Par value	5,000	5,000	5,000	5,000	5,000
	Capital	10,577,145,000	10,577,145,000	10,577,145,000	7,293,350,000	7,293,350,000

Total	Capital	98,793,505,000	98,793,505,000	98,681,045,000	66,000,330,000	66,000,330,000
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※ On September 28, 2022, the Board of Directors decided to retire 389,489 treasury stocks held by the company, and due to the retirement out of profits, there was no decrease in capital.

4. Total Number of Stocks, Etc.

A. Status of the Total Number of Stocks

(Reference date: 2023.12.31)

(Unit: stocks)

Classification		Type of stock			Note
		Common stocks	Preferred stocks	Total	
I . Total number of stocks to be issued		40,000,000	10,000,000	50,000,000	-
II . Total number of stocks issued to date		17,643,272	2,115,429	19,758,701	-
III . Total number of stocks decreased to date		389,489	-	389,489	-
	1. Capital reduction	-	-	-	-
	2. Retirement of profits	389,489	-	389,489	-
	3. Redemption of redeemable shares	-	-	-	-
	4. Others	-	-	-	-
IV . Total number of issued shares (II - III)		17,253,783	2,115,429	19,369,212	-
V . Number of treasury stocks		30,857	148,133	178,990	-
VI . Number of outstanding stocks (IV - V)		17,222,926	1,967,296	19,190,222	-

※ As a result of the exercise of stock options on November 11, 2022, the number of common stocks increased by 22,492.

※ On September 28, 2022, the Board of Directors decided to retire 389,489 treasury stocks held by the company, and the retirement was completed on October 5, 2022.

※ 5,869,384 common stocks and 656,759 preferred stocks were increased as a result of the capital increase without consideration on October 22, 2021.

※ As a result of the exercise of stock options on April 2, 2021, the number of common stocks increased by 10,000.

※ On May 4, 2020, treasury shares (948 common stocks, 143,767 preferred stocks) were acquired through the exercise of the shareholders' right to purchase shares in connection with the transfer of the bio-energy business.

※ The common stocks increased by 161,544 as a result of the execution of the paid-in capital increase by third party allocation on May 24, 2019.

B. Status of the Treasury Stock Acquisition and Disposal

For the purpose of shareholder return, the Company carried out the purchase and retirement of treasury stocks in 2022, and there were no transactions for the acquisition or disposal of treasury stocks during the period subject to disclosure.

(Reference date: 2023.12.31)

(Unit: stocks)

Method of acquisition			Type of stock	Beginning balance	Change			Closing balance	Note
					Acquisition (+)	Disposal (-)	Share retirement (-)		
Dividends Possible Profit Scope	Direct Acquisition	On-market Direct acquisition	Common stocks	-	-	-	-	-	-
			Preferred stocks	-	-	-	-	-	-
		Off-market Direct acquisition	Common stocks	-	-	-	-	-	-
			Preferred stocks	-	-	-	-	-	-

Within Acquisition		Tender offer	Common stocks	-	-	-	-	-	-
			Preferred stocks	-	-	-	-	-	-
		Subtotal (a)	Common stocks	-	-	-	-	-	-
			Preferred stocks	-	-	-	-	-	-
	Trust Based on By contract Acquisition	Number of shares indirectly held through trust contracts	Common stocks	-	-	-	-	-	-
			Preferred stocks	-	-	-	-	-	-
		Number of shares directly held	Common stocks	-	-	-	-	-	-
			Preferred stocks	-	-	-	-	-	-
		Subtotal (b)	Common stocks	-	-	-	-	-	-
			Preferred stocks	-	-	-	-	-	-
Amount of shares acquired for other reasons (c)			Common stocks	30,857	-	-	-	30,857	-
			Preferred stocks	148,133	-	-	-	-	148,133
Total (a+b+c)			Common stocks	30,857	-	-	-	30,857	-
			Preferred stocks	148,133	-	-	-	-	148,133

※On September 28, 2022, the Board of Directors decided to retire 389,489 treasury stocks directly held by the Company.

※ On March 22, 2022, through the decision to enter into a trust agreement for the acquisition of treasury stocks, 389,489 common treasury stocks were acquired. Upon termination of the trust agreement, the acquired stocks were received in kind.

※ On November 9, 2021, treasury stocks (18,229 common stocks and 2,982 preferred stocks) were acquired to process fractional stocks resulting from the stock dividend.

※ On May 4, 2020, treasury shares (948 common stocks, 143,767 preferred stocks) were acquired through the exercise of the shareholders' right to purchase shares in connection with the transfer of the bio-energy business.

C. Status of Issuance of Class Stocks (Name)

(Unit: KRW)

Date of Issuance			December 1, 2017	
Issuing price per stock (par value)			39,791	5,000
Total amount of issuance (number of stocks issued)			84,174,339,850	2,115,429
Current balance (current number of stocks)			84,174,339,850	2,115,429
Details of stocks	Duration (valid period for preferred stock rights)		-	
	Matters concerning the profit dividend		- For the preferred stocks without the voting rights, an additional 1% per year in terms of the par value shall be paid out in cash rather than the dividends for the common stocks. - Dividends on the preferred stocks may not be paid if no dividends are paid on the common stocks.	
	Matters concerning the distribution of residual assets		-	
	Matters concerning the redemption	Holder of the redemption right	None	
		Terms and conditions of the redemption	-	
		Method of redemption	-	
		Period of redemption	-	

		Maturity value per stock	-
		If redemption is planned for 1 year or less	-
	Matters concerning the conversion	Holder of the conversion right	None
		Conversion conditions (including whether the conversion ratio changes)	-
		Exercise of conversion right since issuance	N
		Period of conversion claim	-
		Types of stocks to be issued following the conversion	-
		Number of stocks to be issued following the conversion	-
	Matters concerning the voting rights		<ul style="list-style-type: none"> Registered preferred shares to be issued by the Company shall be non-participating, non-cumulative, indefinite, non-voting shares. If the Company is unable to pay the prescribed dividends on preferred stocks out of the profits for the relevant business year, the preferred stocks shall have voting rights from the general meeting following the general meeting at which a resolution is made not to pay the prescribed dividends on the preferred stocks until the end of the general meeting at which a resolution is made to pay the preferred dividends.
	Other matters to be factored into investment decisions (inter-shareholder agreements and financial agreements, etc.)		<ul style="list-style-type: none"> The date of issuance above is the date of the split off of the Company. The total amount issued and the current balance above are the values obtained by multiplying the number of preferred stocks by the amount calculated by dividing the sum of the capital stock and paid-in capital in excess of par value at the time of the split-off due to the Company's split-off by the total number of issued stocks. The issuing price per stock above is the amount obtained by dividing the total issuance amount by the total number of issued stocks.

5. Matters Concerning the Articles of Incorporation

A. Matters Scheduled to be Amended in the Articles of Incorporation

The most recent amendment date of the Articles of Incorporation attached to the business report is March 28, 2022, and the agenda for the 7th Annual General Meeting of Shareholders (scheduled to be held on March 26, 2024) includes an agenda item for amending the Articles of Incorporation.

Before Amendment	After Amendment	Purpose of Amendment
<p>Article 36 (Composition and Convening of the Board of Directors)</p> <p>① The Board of Directors shall be composed of directors and shall resolve important matters of the Company's business.</p> <p>② The chairman of the Board of Directors shall be determined as stipulated by the Board of Directors.</p> <p>③ The Board of Directors shall consist of regular Board of Directors meetings and extraordinary Board of Directors meetings, and regular Board of Directors meetings shall be held at least once a quarter, and extraordinary Board of Directors meetings shall be held frequently as necessary.</p> <p>④ The Board of Directors shall be convened by the chairman of the Board of Directors by notifying each director 5 days prior to the meeting date. However, the convocation procedure may be omitted with the consent of all directors.</p>	<p>Article 36 (Composition and Convening of the Board of Directors)</p> <p>① <Same as the current></p> <p>② <Same as the current></p> <p>③ <Same as the current></p> <p>④ The Board of Directors shall be convened by the chairman of the Board of Directors by notifying each director 7 days prior to the meeting date. However, the convocation procedure may be omitted with the consent of all directors.</p>	Change of notice period for convening the Board of Directors

<p>Article 50 (Payment of Dividends)</p> <p>① Dividends of profits may be made in cash, stocks, and other property. However, dividends in stocks shall not exceed an amount equivalent to one-half of the total amount of dividends.</p> <p><u>② The dividends under Paragraph 1 shall be paid to shareholders or registered pledgees entered in the shareholder register as of the end of each fiscal year.</u></p> <p>③ In the case of dividends in shares, the classes and types of new shares may be determined by a resolution of a general meeting of shareholders if the Company has issued different classes and types of shares.</p>	<p>Article 50 (Payment of Dividends)</p> <p>① <Same as the current></p> <p><u>② The Company may, by resolution of the Board of Directors, set a record date for determining shareholders to receive the dividends under Paragraph 1, and if a record date is set, it shall be publicly announced 2 weeks prior to such record date.</u></p> <p>③ <Same as the current></p>	<p>Reflecting improvements in dividend procedures</p>
<p>Article 50-1 (Interim Dividends)</p> <p>① The Company may pay interim dividends in accordance with relevant laws and regulations.</p> <p><u>② The interim dividends under Paragraph 1 shall be decided by resolution of the Board of Directors, which shall be made within 45 days after the record date under Paragraph 1.</u></p> <p>③ The interim dividend shall not exceed the amount obtained by deducting the following amounts from the net asset value on the balance sheet for the immediately preceding fiscal year.</p> <ol style="list-style-type: none"> 1. The amount of capital stock in the immediately preceding fiscal year 2. The total amount of capital reserves and earned surplus reserves accumulated until the immediately preceding fiscal year 3. Unrealized gains defined by the Enforcement Decree of the Commercial Act 4. The amount determined to be distributed as dividends at the regular general meeting of shareholders of the immediately preceding fiscal year 5. Voluntary reserves accumulated for specific purposes pursuant to the provisions of the Articles of Incorporation or by resolution of the general meeting of shareholders until the immediately preceding fiscal year 6. The amount of earned surplus reserves to be accumulated in the relevant fiscal year pursuant to interim dividends 	<p>Article 50-1 (Interim Dividends)</p> <p>① The Company may pay interim dividends pursuant to Article 462-3 of the Commercial Act by resolution of the Board of Directors.</p> <p><u>② The Company may, by resolution of the Board of Directors, set a record date for determining shareholders to receive the interim dividends under Paragraph 1, and if a record date is set, it shall be publicly announced 2 weeks prior to such record date.</u></p> <p>③ <Same as the current></p>	

<Newly established>	<u>Addendum</u> <u>These Articles of Incorporation shall be effective from March 26, 2024.</u>	

※ For matters related to the amendment of the Articles of Incorporation, please refer to the 'Notice of Convocation of the General Meeting of Shareholders,' etc. disclosed by the Company on the electronic disclosure system of the Financial Supervisory Service (<https://dart.fss.or.kr/>) on March 11, 2024.

B. History of the Changes Made to the Articles of Incorporation

The history of the changes made to the Company's Articles of Incorporation during the period subject to disclosure is as follows.

Date of Change of the Articles of Incorporation	Name of the Relevant General Meeting of Shareholders	Major Changes	Reason for the Relevant Change Made
2021.03.31	The 4th Period Regular meeting of shareholders	1. Addition of registered class stocks to be delivered upon the exercise of stock options	1. Expansion of the scope of stocks subject to stock option
2022.03.28	The 5th Regular Meeting of Shareholders	1. Cancellation of share classes upon introduction of electronic securities system 2. Alignment of the end date of directors' terms of office with the conclusion of the annual regular meeting of shareholders 3. Establishment of new provisions on the reasons for the introduction of an interim dividend system	1. Lack of need to distinguish share classes due to the introduction of electronic securities system 2. Elimination of the risk arising from the discrepancy between the expiration date of the term of office and the date of the regular general meeting of shareholders due to a vacancy in the term of office of directors, etc. 3. Establishment of a provision as the basis for the interim dividend system in accordance with the interim dividend plan to be pursued as part of the shareholder return policy

C. Status of Business Purposes

Classification	Business Purpose	Whether Conducting Business
1	Manufacture, processing, sale and import/export of synthetic resins and related products;	Conducting
2	Manufacture, processing, sale, and import/export of carbon fiber, composite materials, and related products (Note 1)	Not conducting
3	Manufacture, processing, sale, and import/export of inorganic materials and related products (Note 1)	Not conducting
4	Manufacture, processing, sale, and import/export of pesticides and related products (Note 2)	Conducting
5	Manufacture, processing, sale, and import/export of various surfactants, synthetic detergents, and other household goods and related products (Note 2)	Conducting
6	Manufacture, processing, sale, and import/export of information electronic materials and related products (Note 2)	Conducting
7	Manufacture, processing, sale and import/export of fine chemical products;	Conducting
8	Manufacture, processing, sale, and import/export of food, food additives, ginseng products, and related products (Note 2)	Conducting
9	Manufacture, processing, repair, sale, import/export, retail and wholesale of pharmaceuticals, quasi-drugs, veterinary drugs, cosmetics, medical supplies, medical devices, sanitary products, and health care-related businesses	Conducting
10	Manufacture, processing, sale, and import/export of raw materials for polyester fiber and regenerated fiber (acetate fiber, etc.) and related chemical products	Conducting
11	Manufacture, processing, sale and import/export of polyester fibers and related products;	Conducting
12	Manufacture, processing, sale, and import/export of regenerated fiber (acetate fiber, etc.) and related products (Note 1)	Not conducting
13	Manufacture, processing, dyeing, sale, and import/export of woven/knitted fabrics, clothing, and related products (Note 1)	Not conducting
14	Manufacture, processing, sale, and import/export of building materials and related products (Note 1)	Not conducting
15	Venture capital or business support for start-ups;	Conducting
16	E-commerce and service provider through the Internet;	Conducting
17	Real estate sales and leasing services;	Conducting
18	Specialized construction business, building and civil engineering construction business (Note 2)	Conducting
19	Environmental measurement agency business and environmental management service business (Note 2)	Conducting
20	Environmental pollution prevention facility business (Note 2)	Conducting
21	Manufacture, processing, sale and import/export of high-purity organic solvents, and retail business of ethanol;	Conducting
22	Manufacture, cultivation, storage, processing, sale, and import/export of biodiesel and other petroleum alternative fuels, their raw materials, mixtures, by-products, and production plant facilities (Note 1)	Not conducting
23	Refining, processing, sale, import/export of by-products (toxic substances, methanol, etc.) generated in the manufacturing process of the products in each of the above items, and sale of utilities (nitrogen, compressed air, steam, etc.)	Conducting
24	Manufacture, sale, and import/export of machinery, equipment, and facilities related to the businesses in each of the above items	Conducting
25	Technical services related to the businesses of each of the foregoing subparagraphs;	Conducting

26	Investment in the textile and chemical industries and investment deemed necessary for the management of the businesses in each of the above items	Conducting
27	Provision and sale of computer system services including analysis, design, development, integration, education, and operation of computer systems	Conducting
28	Manufacture, processing, and sale of health functional foods (Note 2)	Conducting
29	Business related to the operation of and investment in medical institutions (Note 2)	Conducting
30	Business related to the manufacture, processing, sale, and import/export of automotive parts and related products (Note 1)	Not conducting
31	Leasing of intellectual property rights such as trademarks and patents related to each of the foregoing subparagraphs;	Conducting
32	Construction and operation of facilities necessary for the implementation of the businesses, product manufacturing and research of each of the foregoing subparagraphs; and/or	Conducting
33	Any business and investment related to, necessary for, or concomitant of each of the foregoing subparagraphs.	Conducting

(Note 1) Regarding the business purposes in each of the above items, the Company previously conducted the businesses but has sold them and is not currently conducting them as of the reference date of the disclosure document preparation.

(Note 2) Regarding the business purposes in each of the above items, the Company previously conducted the businesses but has discontinued them as of the reference date of the disclosure document preparation.

D. Matters Concerning Changes or Additions to Business Purposes in the Articles of Incorporation

— Not applicable

II. Details of the Business

1. Business Overview

With its head office in Pangyo as the base, the Company operates three domestic production plants in Ulsan, Cheongju, and Andong, three production plants in Suzhou, Yantai, and Shantou, China, and local corporations and regional offices in China, the United States, Germany, Japan, Malaysia, etc.

In terms of business, in the Green Chemicals Biz., which is in charge of the eco-friendly materials business, the Company manufactures and sells Specialty Polymers (Copolyester) in the Polyester series, adhesives, and coating agents, etc. The Company is also securing new growth drivers by commercializing bio-based material PO3G and establishing a commercial production infrastructure for CR-PET materials and CR raw materials (r-BHET) through an asset purchase agreement with China's Shuye.

Life Science Biz., which oversees the pharmaceutical and biotechnology businesses, is engaged in the production and sale of new drugs developed in-house, such as a natural substance-based arthritis treatment and a blood circulation enhancer, and premium vaccines such as the world's first cell-cultured quadrivalent influenza vaccine developed by its subsidiary SK bioscience and herpes zoster vaccine.

In particular, SK bioscience, a subsidiary, is currently promoting the expansion of its vaccine portfolio targeting the COVID-19 endemic vaccine and premium vaccine markets based on '[SKBS 3.0: Leap forward as a vaccine powerhouse]'. Representative projects include the development of a universal coronavirus vaccine in preparation for outbreaks of coronavirus-related diseases and the development of a next-generation pneumococcal vaccine with Sanofi. Along with these efforts to 1) expand the product portfolio, the Company is pursuing businesses that can create synergies such as 2) strengthening manufacturing/R&D infrastructure, 3) 'SKY Shield execution' to establish a vaccine supply chain for major global regions by modeling the Company's production capabilities as part of its Glocalization strategy, 4) preparation for the next pandemic, and 5) expansion into new bio areas such as CGT (Cell and Gene Therapy).

The main products which the Company offers by business division are as follows.

- Green Chemical Biz.: High-functional copolyester resins, DMT, copolyester adhesives, bio-polyols, CR-PET materials, CR raw materials (r-BHET), etc.
- Life Science Biz. (Pharma business): Natural/synthetic pharmaceuticals such as Joins, Ginexin, Rivastigmine patches, etc.
- Life Science Biz. (SK bioscience): In-house vaccines, Boostrix, infusion solutions, C(D)MO, etc.

The Company's consolidated sales in 2023 were KRW 1,748.8 billion, consisting of 96.3% from the Green Chemicals Biz., 16.0% from the Life Science Biz. Pharma business, 8.4% from SK bioscience, and -20.7% from others. Also, geographically, 58.7% was from exports and 41.3% was from domestic sales.

For more details not included in the above "1. Business Overview" and other content, please refer to "II. Details of the Business" from "2. Key Products and Services" to "7. Other Matters of Reference."

2. Key Products and Services

A. Key Product Sales

The Company's Green Chemicals Biz. provides differentiated products such as high-functional copolyester resins, DMT, copolyester adhesives, bio-polyols, CR-PET materials, CR raw materials (r-BHET), etc., according to customer needs.

The Life Science Biz. operates healthcare businesses in two fields: the pharmaceutical business (Pharma business) and the vaccine business (SK bioscience). The net sales amount and the weight of sales by business division are as follows.

(Reference date: 2023.12.31) (Unit: KRW one million, %)

Division		Key Products	Sales amount	Weight
Green Chemicals Biz.		High-functional copolyester resins, DMT, copolyester adhesives, bio-polyols, CR-PET materials, CR raw materials (r-BHET), etc.	1,240,106	96.3%
Life Science Biz.	Pharma Business	Natural substance based and synthetic drugs (arthritis treatment, blood circulation improving agent, etc.), etc.	205,963	16.0%
	SK bioscience	In-house vaccines, Boostrix, infusion solutions, C(D)MO, etc.	108,458	8.4%
Others			(266,111)	-20.7%
Total			1,288,416	100.0%

B. Key Products

1) Green Chemicals Biz.

[SKYGREEN] Copolyester resin

Copolyester (PETG, PCTG) SKYGREEN is used in a wide range of applications from household items to industrial materials such as cosmetic containers, electronic components, and building materials based on its excellent transparency, chemical resistance, processability, and moldability. A stable production system has been established through vertical integration from CHDM, the main raw material, to copolyester.

[ECOZEN] Bio copolyester resin

ECOZEN, launched in 2009, introduces bio-based components derived from biomass (plants) (1-15% by carbon weight), improving heat resistance compared to existing copolyester SKYGREEN products. Additionally, it does not contain Bisphenol derivatives (BPA, etc.) and Phthalate plasticizers regulated by the EU RoHS and meets the requirements for food contact materials in Korea, the United States, Europe, China, and Japan.

Due to its excellent properties, ECOZEN is used in a wide range of applications including electronic products, food containers and baby products.

[ECOTRIA] Resource circulated copolyester resin

Ecotria is a copolyester product that uses post-consumer recycled materials as raw materials (30-50%). It consists of the R series, which mixes physically recycled raw materials, and the CR series, which uses chemically recycled raw materials, and also includes products that meet the definition of PET described in ASTM D7611-20. Ecotria provides transparency, physical performance, and moldability close to those of existing copolyester products, making it usable in a wide range of applications, including cosmetic containers, packaging materials, and household items.

[SKYDMT] DMT

DMT is primarily used for the synthesis of polyesters such as PET and PBT via transesterification, and is also used for products requiring high quality such as films, fibers, engineering plastics, and adhesives. Also, the Company's DMT is used as a raw material for CHDM for the production of copolyester.

[SKYBON] Polyester resin for coating and adhesion

SKYBON, a high molecular weight polyester resin, is attracting attention as an adhesive and coating resin in various fields, including coating for home appliance steel plates and food cans, with its flexibility and excellent adhesive strength. The solvent-free hotmelt type product is increasingly being applied as an adhesive resin for clothing heat transfer films due to its excellent washability.

In addition, to respond to the eco-friendly trend, the Company is expanding its portfolio of water-based polyester resins and developing high-functional specialty resins that can be applied to rapidly evolving electronic component materials.

[SKYPURA] PCT

SKYPURA, a PCT material, is a type of super engineering plastic made based on CHDM. This material has excellent heat stability, reflectance, and light resistance, making it used for TV or lighting LED reflectors. It also has excellent electrical properties as a high-heat-resistant material, expanding its use as a material for electrical and electronic components such as SMT connectors. Recently, it is being sold with expanded applications such as automotive films and high-heat-resistant fibers due to the needs for heat resistance, durability, and insulation resistance.

[SKYPEL] TPEE

SKYPEL is a thermoplastic elastomer based on high molecular weight polyester. As an elastic material with intermediate characteristics between plastic and rubber, it is used in a range of applications such as automobiles, E&E, fiber, and film. Recently, with the emphasis on aesthetic/tactile properties, the demand for TPEE, which has excellent cost-effectiveness, is expanding as a material for shoes and synthetic leather, and the market is expanding at an annual average of 6%, making it an attractive material. The Company continues to expand the market by developing unique materials with low hardness but excellent physical properties and products that can meet customer needs.

[SKYTRA] Compound Product

SKYTRA, SK chemicals' compounding brand, is a product based on high-functional resins produced by SK chemicals and provides solutions that can meet the needs of various customers. Based on the resins produced by SK chemicals, it is achieving continuous growth through business development for various applications such as automobiles, electrical, and electronic products, and living environments.

[PO3G] 100% bio-based eco-friendly polyol

PO3G is a 100% new biomaterial that replaces polyols using conventional petroleum-based raw materials. Polyol is one of the core raw materials for polyurethane materials widely used for applications such as synthetic leather, clothing, coating, and adhesive materials, and spandex fibers. Made from biological resources, PO3G is a renewable resource, not a finite resource like petroleum, which helps address global environmental and climate issues due to its low greenhouse gas (carbon dioxide) emissions. It also enables the realization of excellent low-temperature properties, elastic recovery, elongation, and superior surface properties, thereby satisfying the needs of various customers through differentiated product development. The PO3G commercial facility was commissioned in March 2022, and is currently equipped with a 5,000 tons per year mass production system. The Company plans to pioneer into a full-scale eco-friendly materials market with the facility as a new growth engine.

[SKYPET CR] Chemically recycled PET resin

SKYPET CR is the world's first chemically recycled PET resin at a mass-production level. It can be applied in a wide range with properties equivalent to those of existing PET. It is a material that meets the U.S. FDA's food contact standards and is recognized for its excellent quality, being applied to SamDasoo, Korea's largest bottled water brand, and is expanding its scope in response to the needs for eco-friendly material use by various global brand owners.

2) Life Science Biz.

(1) Pharmaceutical Business (Pharma Business)

[Joins] Natural arthritis treatment

Joins is Korea's first herbal ingredient-based arthritis treatment that has proven equivalent anti-inflammatory and analgesic effects and low side effects compared to existing anti-inflammatory analgesics in clinical trials conducted at five general hospitals, including Seoul National University Hospital. In addition to anti-inflammatory and analgesic effects, it is evaluated as a fundamental treatment for arthritis as it exhibits protective effects on cartilage tissue. It is a representative product of SK chemicals that has surpassed KRW 592.1 billion in cumulative sales in 2023 since its launch in 2002.

[Ginexin-F] Blood circulation improvement and cognitive function enhancement agent with ginkgo leaf ingredients

Ginexin-F, a blood circulation improvement and cognitive function enhancement agent, has maintained the No. 1 market share for ginkgo leaf products and achieved cumulative sales of KRW 533.6 billion in 2023. This product, manufactured by extracting active ingredients such as ginkgolides from ginkgo leaves using the Company's own patented technology, has the effect of lowering blood viscosity and dilating blood vessels. In 2010, the Company launched "Renexin" by combining Ginexin-F with cilostazol, an antiplatelet agent, to improve efficacy and received a good response. In July 2020, the Company launched "Renexin CR Tablet," which improved medication adherence and convenience compared to the existing Renexin, solidifying its position in the domestic blood circulation disorder market.

[Rivastigmine Patch] A patch-type dementia treatment

Rivastigmine Patch (product name in Korea: Wondron), a patch-type dementia treatment first developed by SK chemicals in Korea in 2010, proved its outstanding technology by obtaining sales approval as the 1st generic in Europe in 2013 and has been consistently maintaining the No. 1 market share in the European generic market for the same ingredient.

The Company has been continuously expanding its overseas entry, obtaining approval in Australia and Colombia in 2016, Mexico and Jordan in 2017, Canada in 2018, U.S. FDA approval in 2019, and approval in Brazil in 2022.

[Mvix S] No. 1 erectile dysfunction treatment in the international erectile function index

In 2011, SK chemicals introduced Mvix S, the world's first film-type erectile dysfunction treatment, followed by a high-dose film-type formulation in 2012, establishing a portfolio of various formulations. Mvix S is a product that innovatively changed the existing tablet into a film formulation, making it thin and light enough to fit in a wallet, maximizing the convenience of carrying and taking the medication, and receiving positive reviews in the market. In 2014, the Company further increased the convenience of taking the medication by dramatically reducing the dissolution speed and size through the improvement of the Mvix S formulation.

[Trast] Patch-type arthritis treatment with strong efficacy

Trast has grown into a representative brand in Korea as a patch-type arthritis treatment that has been consistently loved since its launch in 1996. It has the strength of minimizing the side effects of existing oral medications by directly attaching it to the joint area with pain and providing long-lasting efficacy for 48 hours with a single application. It maximized the persistence of the arthritis treatment effect by delivering the anti-inflammatory and analgesic drug piroxicam at the same concentration through the transdermal drug delivery system (TDDS) technology.

[SK bioscience] A. Status of major products, etc.

(Reference date: 2023.12.31)

(Unit: KRW one million)

Type of Sales	Classification	Item	Sales amount	Ratio
Products	Vaccine medicine	In-house vaccines, etc.	108,458	29.4%

Goods	Vaccine products, etc.	Boostrix, infusion solutions, etc.	22,939	6.2%
Others	Service sales, etc.	C(D)MO, etc.	238,109	64.4%
Total			369,506	100%

B. Price fluctuation trend of major products, etc. and reasons for price fluctuation

The selling prices of SK bioscience's products vary by product and contract, considering various variables such as market conditions, government policies, price fluctuation trends of raw materials and competitive products, and accordingly, the price fluctuation trend is not separately described.

1) Vaccine Products

In general, the price of vaccine products is determined according to the market or government demand in response to the outbreak of infectious diseases and the supply situation of vaccine companies.

2) C(D)MO/CMO Business

In the case of the C(D)MO/CMO business, the price is determined through mutual consultation with customers, taking into account market conditions and key contract terms.

[SK Multi-Utility]

In 2021, SK chemicals established a new subsidiary, SK Multi-Utility, through a physical split-off to enhance its expertise and strengthen management efficiency by focusing on its core competencies in the utility supply business, including the electricity and steam businesses. The main products of the SK Multi-Utility business are heat (steam) and electricity, which it sells to customers within its supply area as a qualified collective energy business operator and district electricity business operator.

SK Multi-Utility is currently investing in LNG cogeneration power generation facilities to promote the specialization of the industrial electricity and steam supply business, with the goal of completion in the first half of 2025.

3. Raw Materials and Production Facilities

A. Matters Concerning the Key Raw Materials

1) Status of the Purchase of Key Raw Materials

(Reference date: 2023.12.31)

(Unit: KRW one million)

Division	Type of Purchase	Item	Purpose of Use	Amount of Purchase	Major Place of Purchase
Green Chemicals Biz.	Raw materials	PTA, MEG	Main raw material for the copolyester resin production	172,239	PTA - Hanwha Impact, Taekwang Industrial MEG - Lotte Chemical, SK Networks
	Raw materials	QTA	Main raw material for the DMT production	115,640	Samnam Petrochemical
Life Science Biz.	Raw materials	Polaprezinc, Febuxostat, Rivastigmine	Promac Tablet/Febric Tablet/ Dementia Patch Main Raw Materials	15,070	Enzychem Life Sciences, Teijin, Shodhana
	Raw materials	In-house vaccines, Boostrix, infusion solutions, C(D)MO, etc.	COVID-19 / SKY Cellflu / SKY Zoster Active Ingredient	49,310	GSK, Lonza, Merck, Cytiva, Thermo Fisher, etc.

2) Trends in the Changes of the Major Raw Materials' Prices

(1) Green Chemicals Biz.

Green Chemicals Biz. uses PTA, MEG, and CHDM as raw materials to produce our highly functional copolyester resins and polyester adhesives. These raw materials are directly affected by oil prices and exchange rates.

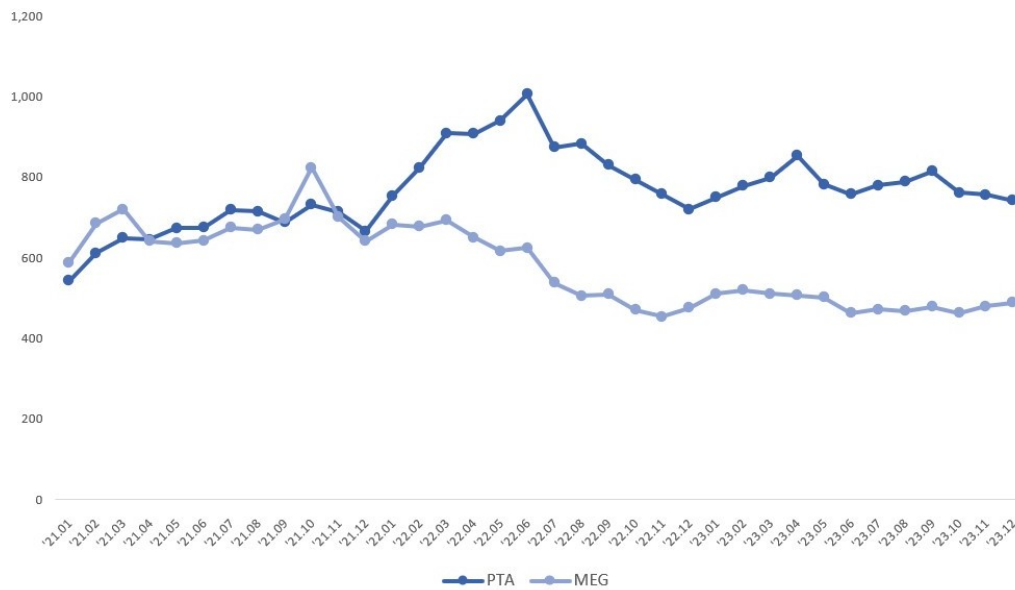
In particular, PTA (Purified Terephthalic Acid), a key raw material for copolyester resin, has the characteristic of repeating booms and recessions depending on the global economy and supply and demand.

Ahead of the driving season, PTA prices continued to rise up to a maximum of \$850/mt in April due to increased demand for PX gasoline blending and rising oil prices, but gradually decreased to the mid-\$700/mt range due to inventory burden from sluggish downstream demand and oversupply from large-scale expansion plants amounting to 10 million tons.

In the case of MEG, due to the impact of new and expanded large-scale plants since 2020, the spread (Naphtha-MEG) between raw materials and products remained at a negative margin of more than -\$200/mt for over two years, resulting in a significant decrease in production. Nevertheless, due to the continued sluggish downstream demand, the low price level of less than \$500/mt was maintained for a year.

Price Trends of PTA and MEG

(Unit: \$/ton)



(Source: ICIS report)

(2) Life Science Biz.

– Pharmaceutical business (pharma business division)

The pharmaceutical business (Pharma business) produces finished pharmaceuticals that can be administered to the human body in certain formulations while complying with GMP by inputting raw materials and materials into the manufacturing process.

With the end of COVID-19 in 2024 and the gradual stabilization of exchange rates, the purchase price is stabilizing without any special issues in the supply and demand of raw materials. However, as the Ukraine war prolonged and the Israel-Hamas war began in October, there were some price increases and disruptions in transportation for some items, but stable purchase management was carried out without significant impact on raw material purchase prices and transportation.

As Sidapvia Tablet, a diabetes treatment entrusted for production from AstraZeneca, received approval from the Ministry of Food and Drug Safety in July, the supply and demand of raw materials and sub-materials input into product production were carried out from the second quarter. Inventory management is being thoroughly implemented to ensure timely shipment according to the order quantity.

– Vaccine Business (SK bioscience)

The raw materials for SK bioscience's biopharmaceuticals have low demand elasticity to price fluctuations and are less affected by economic trends. This means that the price of key raw materials and subsidiary materials is usually negotiated in the form of annual contracts. The Company provides the expected volume of demand based on the annual usage history and business plan, and the vendors determine the discount rate for each item based on the list price to determine the final annual unit price.

Usually, there are price fluctuations in raw material and sub-material prices according to the annual inflation rate, labor costs, supply and demand situation, etc., and for imported items, additional consideration factors include exchange rates, transportation prices, tariff agreements, etc. Except for some raw materials (production sites in war/conflict regions), the overall supply and demand situation for raw and sub-materials is maintaining stability. The rise in major indexes such as inflation, consumer/producer price indexes, and exchange rates after the pandemic period did not end with a short-term impact but brought an increase in the overall price of bio-product products that go through a long production process.

Accordingly, each supplier is requesting a price increase of more than 7% for 2024, exceeding the inflation rate, but we are focusing on stabilizing/defending purchase prices through the recent stable supply market situation and diversification of major purchased items.

SK bioscience is monitoring the factors of rising prices for the major raw and subsidiary materials and the supply and demand of quantities in real time, and we are strengthening our bargaining power and partnership with our suppliers, based on which the smooth supply of raw and subsidiary materials continues to be our top priority to ensure that there are no disruptions to the in-house production.

[SK Multi-Utility]

1) Status of the Purchase of Key Raw Materials

(Reference date: 2023.12.31) (Unit: KRW one million)

Division	Type of Purchase	Item	Purpose of Use	Amount of Purchase	Major Place of Purchase
Supply of utilities such as electricity and steam	Raw materials	Bituminous coal	Fuel for steam and electricity production	41,929	Hanil International
	Raw materials	Wood chips	Fuel for steam production	3,142	Sungjin Industrial, D&G Industry, etc.

2) Trends in the Changes of the Major Raw Materials' Prices

For the supply of utilities such as electricity and steam, steam and electricity are produced using bituminous coal and wood chips as raw materials. These raw materials have the characteristic of repeating booms and recessions depending on the global economy and supply and demand. In particular, bituminous coal, a major raw material, comes in various types depending on the origin/calorific value. Market fluctuations occur according to the supply status of major producing countries. In the first half of 2022, prices soared due to Indonesia's export ban, and after that, high price levels were maintained due to disruptions in supply from producing countries, export restrictions due to the Ukraine issue, and the strong dollar.

Since the beginning of 2023, as the market situation stabilizes, prices are falling.

B. Matters Concerning the Production and Facilities

1) Production Capacity and Basis for

Calculation of Production Capacity

[SK chemicals]

(1) Production capacity

Production capacity = Daily production capacity × Number of days of operation available

Business division	Item	The 7th Period	The 6th Period	The 5th Period
Green Chemicals Biz.	Copolyester resins, DMT, BHET, etc.	471,000 tons (Note 1)	445,000 tons	445,000 tons (Note 2)
	BON	12,000 tons	15,000 tons	15,000 tons
Life Science Biz.	Tablets (Note 3)	758,369,000 tablets	758,369,000 tablets	761,427,000 tablets
	Patch	65,621,000 patches	65,621,000 patches	65,885,000 patches

(Note 1) The new production facility started operation on May 11, 2023, and the above figures include this. Excluding the new production facility, the 'production capacity' for the 7th period is 430,000 tons.

(Note 2) The new copolyester production facility (#4) started operation on June 15, 2021, and the above figures include this.

(Note 3) It refers to the production capacity of the production equipment itself, regardless of the type of tablet produced.

(2) Calculation basis for the production capacity

① Basis of calculation

Business division	Products	Daily Production Capacity	Number of Days of Operation Available for the Current Period
Green Chemicals Biz.	Copolyester resins, DMT, BHET, etc.	1,420 tons (Note 1)	332 days
	BON	35 tons	345 days
Life Science Biz.	Tablet (Note 2)	3,057,938 T	248 days
	Patch	264,600 P	248 days

(Note 1) The new production facility started operation on May 11, 2023, and the above figures include this.

(Note 2) It refers to the production capacity of the production equipment itself, regardless of the type of tablet produced.

② Average hours of operation

Business division	Products	Average Daily Hours of Operation	Average Number of Days of Operation Per Month	Number of Days of Operation for the Current Period
Green Chemicals Biz.	Copolyester, DMT, BHET, etc. (Note 1)	24 hours	24 days	214 days
	BON	24 hours	37 days	331 days
Life Science Biz.	Tablet	8 hours	27 days	242 days
	Patch	8 hours	27 days	242 days

(Note 1) The new production facility started operation on May 11, 2023, and the above figures include this.

(3) Production Performance and Operation Rate

① Production performance

Business division	Item	The 7th Period	The 6th Period	The 5th Period
Green Chemicals Biz.	Copolyester, DMT, BHET, etc.	331,000 tons (Note 1)	377,000 tons	366,000 tons (Note 2)
	BON	11,000 tons	11,000 tons	13,000 tons
Life Science Biz.	Tablets (Note 3)	652,702,000 tablets	730,204,000 tablets	605,864,000 tablets
	Patch	39,374,000 patches	41,112,000 patches	38,730,000 patches

(Note 1) The new production facility started operation on May 11, 2023, and the above figures include this.

(Note 2) The new copolyester production facility (#4) started operation on June 15, 2021, and the above figures include this.

(Note 3) For tablets, there are very diverse types, and the production process and production time vary by type, so the production volume is inevitably lower than the production capacity of the equipment itself. As for the operation rate of tablet items, note that the operation rate of the current period is the correct figure, not the production volume relative to the production capacity.

② Operation rate

Business division	Item	Number of Days of Operation Available for the Current Period	Number of Days of Actual Operation for the Current Period	Average Operation Rate
Green Chemicals Biz.	Copolyester, DMT, BHET, etc. (Note 1)	332 days	214 days	64.5%
	BON	345 days	331 days	95.9%
Life Science Biz.	Tablet	248 days	242 days	97.6%
	Patch	248 days	242 days	97.6%

(Note 1) The new production facility started operation on May 11, 2023, and the above figures include this. Excluding the new production facility, the 'number of operable days for the current period' is 349 days, the 'actual number of operating days for the current period' is 317 days, and the 'average capacity utilization rate' is 91%.

[SK bioscience]

(1) Production Capacity, Production Performance, Capacity Utilization Rate

Based on the drug substance, the production capacity is calculated considering the number of producible days and the process period (cycle) of the representative product for each suite, and the capacity utilization rate is calculated by reflecting the production performance.

Classification	The 6th Period	The 5th Period	The 4th Period
Production capacity	481 batches	494 batches	273 batches
Production performance	269 batches	110 batches	179 batches
Operation rate	55.9%	22.3%	65.6%

[SK Multi-Utility]

(1) Production capacity

Production capacity = Daily production capacity × Number of days of operation available

Business division	Item	The 3rd Period	The 2nd Period	The 1st Period (Note 1)
Supply of utilities such as electricity and steam	Steam	2,190,000 tons	2,190,000 tons	186,000 tons
	Electricity	237,000 MWh	237,000 MWh	20,000 MWh

(Note 1) The production capacity above is only for the month of December 2021.

(2) Calculation basis for the production capacity

① Basis of calculation

Business division	Products	Daily Production Capacity	Number of Days of Operation Available for the Current Period
Supply of utilities such as electricity and steam	Steam	6,000 tons	365 days
	Electricity	648 MWh	365 days

② Average hours of operation

Business division	Products	Average Daily Hours of Operation	Average Number of Days of Operation Per Month	Number of Days of Operation for the Current Period
Supply of utilities such as electricity and steam	Steam	24 hours	30 days	360 days
	Electricity (Note 1)	24 hours	10 days	121 days

(Note 1) Electricity production through the Company's own facilities was resumed due to a decrease in the prices of major raw materials.

(3) Production Performance and Operation Rate

① Production performance

Business division	Products	The 3rd Period	The 2nd Period	The 1st Period (Note 1)
Supply of utilities such as electricity and steam	Steam	1,458,000 tons	1,484,000 tons	151,000 tons
	Electricity (Note 2)	12,219,000 MWh	-	-

(Note 1) The production performance above is only for the month of December.

(Note 2) Electricity production through the Company's own facilities was resumed due to a decrease in the prices of major raw materials.

② Operation rate

Business division	Products	Number of Days of Operation Available for the Current Period	Number of Days of Actual Operation for the Current Period	Average Operation Rate
Supply of utilities such as electricity and steam	Steam	365 days	360 days	98.6%
	Electricity	365 days	121 days	33.2%

2) Status of Production and Facilities, etc.

[SK chemicals]

The Company's main places of business are as follows.

Place of Business	Contents of the Main Businesses	Location
Pangyo Head Office	Company-wide management and marketing, R&D	310 Pangyo-ro, Bundang-gu, Seongnam-si, Gyeonggi-do
Ulsan Plant	Copolyester resin production, etc.	718 Cheoyong-ro, Nam-gu, Ulsan-si, Gyeongsangnam-do
Cheongju S HOUSE	Pharmaceutical production	149 Sandan-ro, Heungdeok-gu, Cheongju-si, Chungcheongbuk-do

The Company's facilities and equipment include land, buildings, structures, machinery, etc., and the details of the book value as of the end of the current period are as follows.

(Reference date: 2023.12.31)

(Unit: KRW one million)

Classification	Beginning of period	Acquired	Disposed	Depreciation	Impairment (Note 1)	Others (Note 2)	End of period
Land	151,956	524	-	-	-	564	153,043
Building	188,266	449	-	(6,294)	(288)	189	182,321
Structure	84,161	4,639	(165)	(2,628)	(811)	3,040	88,236
Mechanical equipment	190,134	7,395	(32)	(32,699)	(5,836)	6,974	165,936
Vehicles and transport equipment	248	59	(0)	(102)	-	-	205
Other tangible assets	13,732	9,090	(21)	(5,860)	(1)	2,497	19,437
Assets under construction in progress	31,877	59,325	(58)	-	-	(13,902)	77,241
Machineries in transit	1,400	6,806	-	-	-	(1,316)	6,889
Total	661,774	88,287	(277)	(47,584)	(6,937)	(1,956)	693,309

(Note 1) Impairment was recognized for tangible assets that are not used due to the transfer of the SKYBON production facility to SK Chemicals (Yantai) Co., Ltd.

(Note 2) It consists of reclassification of the main account for construction in progress, investment real estate properties, and intangible assets.

※ For detailed information on tangible assets, please refer to "12. Tangible Assets" in "5. Notes to Financial Statements" under "III. Matters Concerning Finance."

[SK bioscience]

SK bioscience's main places of business are as follows.

Place of Business	Contents of the Main Businesses	Location
Pangyo Head Office	Company-wide management and marketing, R&D	310 Pangyo-ro, Bundang-gu, Seongnam-si, Gyeonggi-do
Andong L House	Production, wholesale and retail of pharmaceuticals	150 Saneopdanji-gil, Poongsan-eup, Andong-si, Gyeongsangbuk-do

Pyeongtaek	Storage of vaccine stock solution	131 Oseongsandan 1-ro, Oseong-myeon, Pyeongtaek-si, Gyeonggi-do
Hwaseong	Storage of raw materials and completed products	184beon-gil, Jeongmunsongsan-ro, Yanggam-myeon, Hwaseong-si, Gyeonggi-do

SK bioscience's facilities and equipment consist of land, buildings, structures, machinery, etc.

(Reference date: 2023.12.31)

(Unit: KRW one million)

Place of Business	Land	Building	Structure	Mechanical equipment	Vehicles and transport equipment	Tools, equipment and fixtures	Total
Head Office	39,534	17,762	-	15,780	-	3,434	76,510
Andong	5,745	105,514	1,039	40,061	39	1,741	154,139
Total	45,279	123,276	1,039	55,841	39	5,175	230,649

※ Assets under construction in progress, machineries in transit, and memberships are excluded.

※ It is difficult to objectively evaluate the market price of major tangible assets. Therefore, such entry has been omitted.

[SK Multi-Utility]

SK Multi-Utility's main places of business are as follows.

Place of Business	Contents of the Main Businesses	Location
Ulsan Head Office	Steam and electricity production	718 Cheoyong-ro, Nam-gu, Ulsan-si, Gyeongsangnam-do

SK Multi-Utility's facilities and equipment consist of land, buildings, structures, and machinery, etc.

(Reference date: 2023.12.31)

(Unit: KRW one million)

Place of Business	Land	Building	Structure	Mechanical equipment	Vehicles and transport equipment	Other tangible assets	Total
Ulsan Head Office	26,582	5,053	34,908	22,012	-	375,628	464,183

(2) Ongoing Investments and Future Investment Plans, etc.

[SK chemicals]

In March 2023, the Company's Green Chemicals Biz. signed an asset purchase agreement with Shuye, a Chinese green materials specialized company, to establish a production system for chemically recycled raw materials and chemically recycled PET. Through this investment, the Company has completed the recycled plastic value chain leading from recycled raw materials, recycled PET, and recycled copolyester, securing the sustainability of its core business, copolyester, and laying the foundation for new growth. Through the operation of the currently secured production and facilities, we plan to quickly verify our own technology, accelerate investment in domestic depolymerization facilities, and continuously discover business partners to establish a global production infrastructure.

Based on stable operations, Life Science Biz. plans to further strengthen business competitiveness in key areas, secure visible results of open innovation and rebuild the R&D growth foundation, while pursuing various mid- to long-term value expansion measures, such as expanding C(D)MO, to create new business opportunities.

[SK bioscience]

In June 2021, SK bioscience, a subsidiary, signed a memorandum of understanding (MOU) with Gyeongsangbuk-do and Andong City for factory expansion and site expansion investment to leap forward as a global vaccine production hub with top-tier production facilities. While expanding the manufacturing facilities of Andong L House, which has the latest vaccine production facilities, the Company plans to additionally purchase approximately 99,130m² (about 30,000 pyeong) of land within the Gyeongbuk Bio 2nd General Industrial Complex being created near the L House site and expand the factory size to approximately 161,000m² (about 50,000 pyeong) for utilization in various businesses.

In addition to Andong L House, in December 2021, the Company signed a land purchase agreement with Incheon Free Economic Zone Authority (IFEZ) and plans to newly construct a Global R&PD (Research & Process Development) Center on a 30,414m² (about 9,000 pyeong) site in the Sr14 area of the 7th block of the expanded Incheon Technopark complex in Songdo-dong, Incheon, and expand the Company's R&D and production infrastructure currently centered in Pangyo and Andong, Gyeongbuk.

The newly created Global R&PD Center will house research institutes and pilot plants for basic research, process development, and production in the vaccine and bio fields. Through this, we plan to actively engage in expanding the bio CDMO business, securing new platforms, and strengthening cooperation with international organizations, domestic and foreign bio companies, and research institutes.

In addition, in November 2023, the Company decided to expand the L House production facility for commercial production of the next-generation pneumococcal vaccine jointly developed with Sanofi, continuing its ongoing investments.

[SK Multi-Utility]

SK Multi-Utility is currently making the following investments at its Ulsan plant to specialize in the industrial power and steam supply business, which are scheduled to be completed in the first half of 2025.

(Unit: year, KRW 100 million)

Classification	Period of Investment	Name of Investment	Total Investment Amount	Amount of Investment Executed	Amount of Investment to be Executed
Multi-Utility Business	2022 - 2025	LNG cogeneration facilities	6,200	3,744	2,456

※ The investment schedule and amount have changed due to significant cost increases and inflation.

4. Status of Sales & Contracts Won

A. Sales performance (based on the consolidated financial statements)

1) Performance by sales type

(Reference date: 2023.12.31)

(Unit: KRW one million)

Business division	Type of Sales	Item	The 7th Period		The 6th Period		The 5th Period	
			Sales amount	Ratio	Sales amount	Ratio	Sales amount	Ratio
Green Chemicals Biz	Products	Copolyester, DMT, etc.	1,240,106	70.9%	1,315,039	71.9%	933,572	44.7%
	Goods		9,138	0.5%	9,220	0.5%	12,484	0.6%
	Others		35,955	2.1%	77,687	4.2%	91,003	4.4%
	Subtotal		1,285,199	73.5%	1,401,947	76.6%	1,037,059	49.6%
Life Science Biz.	Products	Vaccine, tablet, patch, etc.	314,421	18.0%	407,064	22.3%	837,263	40.1%
	Goods		186,737	10.7%	116,098	6.3%	122,904	5.9%
	Others		244,397	14.0%	247,498	13.5%	269,012	12.9%
	Subtotal		745,554	42.6%	770,659	42.1%	1,229,179	58.8%
Others	Products	Others	(266,112)	-15.2%	(297,761)	-16.3%	(149,396)	-7.1%
	Goods		(15,161)	-0.9%	(2,416)	-0.1%	(2,287)	-0.1%

	Others		(703)	0.0%	(43,237)	-2.4%	(24,923)	-1.2%
	Subtotal		(281,975)	-16.1%	(343,414)	-18.8%	(176,606)	-8.5%
Total			1,748,778	100.0%	1,829,191	100.0%	2,089,632	100.0%

※ Due to the sale of the PPS business, the performance of that business was excluded from the sales for the 5th period.

※ Others are internal transaction sales amount, etc.

2) Performance by sales region

(Reference date: 2023.12.31)

(Unit: KRW one million)

Business division	Form	Classification	The 7th Period	The 6th Period	The 5th Period
Green Chemicals Biz.	Copolyester, DMT, etc.	Export	925,217	1,056,129	795,141
		Domestic consumption	359,982	345,818	241,918
		Total	1,285,199	1,401,947	1,037,059
Life Science Biz.	Vaccine, tablet, patch, etc.	Export	292,314	268,419	266,258
		Domestic consumption	453,241	502,241	962,921
		Total	745,554	770,660	1,229,179
Others	-	Export	(191,128)	(275,694)	(181,245)
		Domestic consumption	(90,848)	(67,720)	4,639
		Total	(281,975)	(343,414)	(176,606)
Total		Export	1,026,403	1,048,853	880,154
		Domestic consumption	722,375	780,338	1,209,478
		Total	1,748,778	1,829,191	2,089,632

※ Due to the sale of the PPS business, the performance of that business was excluded from the sales for the 5th period.

※ Others are internal transaction sales amount, etc.

B. Sales channels and sales methods, etc. (including the major consolidated subsidiaries)

1) Sales organizations

Business division	Sales organizations
Green Chemicals Biz.	Green Materials Business Division, Functional Materials Business Division, Recycling Business Division, SK Shantou, SKCA, SK chemicals GmbH, SK Chemical (Shanghai) Co., Ltd., SK chemicals (Yantai), Japan Branch, SK chemicals Malaysia
Life Science Biz.	(Pharma Business) Marketing Divisions 1-4, (SK bioscience) Marketing Division, BD2 Department, BD3 Department

2) Sales channel

– Domestic consumption, local, and direct exports

3) Sales method and conditions

Sales method	Conditions for the payment collection
Domestic consumption	Payment in cash and promissory note, etc.

Local and direct exports	Payment via letter of credit, etc.
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4) Sales strategy

Business division	Sales organizations	Sales strategy
Green Chemicals Biz.	Green Materials Business Division	<ul style="list-style-type: none"> - Development and expansion of sales opportunities for high-functional, heat-resistant Copolyester with high transparency and moldability - Pursuing customer diversification to preoccupy the eco-friendly, high-functional copolyester market - Expanding market size through stable and competitive raw material procurement and supply
	Functional Materials Business Division	<ul style="list-style-type: none"> - Expanding differentiated products through continuous discovery of new items - Expanding customers through new application development and maximization of cost competitiveness
	Recycling Business Division	<ul style="list-style-type: none"> - Expansion of applications and strengthening of overseas marketing - Pioneering sales channels and expanding the market - Developing applications for existing products and developing related products
Life Science Biz.	Pharma Business Division (Marketing Divisions 1 - 4)	<ul style="list-style-type: none"> - Developing marketing activities centered on hospitals and clinics - Explore new channels by entering markets overseas - Conduct accurate target marketing based on market segmentation - Strengthen the organization via specialization and segmentation of the hospital organization clients - Creating new businesses by securing the quality of pharmaceutical distribution
	SK bioscience (Marketing Division, BD Office 2, BD Office 3)	<ul style="list-style-type: none"> - Developing marketing activities centered on hospitals and clinics - Conduct accurate target marketing based on market segmentation - Strengthen the organization via specialization and segmentation of the hospital organization clients - Participating in domestic government bids - Expand to the public bidding market based on WHO PQ certification - Enter LMIC markets by cooperating with global initiatives - Attracting new customers through discussions on strengthening partnerships, technology development status, Capa., and expansion progress

[SK Multi-Utility]

1) Sales organizations

Business division	Sales organizations
Supply of utilities such as electricity and steam	Power Operation Team, SK Multi-Utility

2) Sales channel

- Domestic consumption

3) Sales method and conditions

Sales method	Conditions for the payment collection
Domestic consumption	Cash payment, etc.

4) Sales strategy

Business division	Sales organizations	Sales strategy
Supply of utilities such as electricity and steam	Power Operation Team, SK Multi-Utility	Supplying stable and competitive heat (steam), etc. within the district as a collective energy business operator

C. Orders

[SK chemicals]

– Not applicable

[SK bioscience]

(Reference date: 2023.12.31)

(Unit: KRW one million)

Item	Order Date	Delivery Date	Total Order Amount	Amount Delivered	Order Backlog
			Amount	Amount	Amount
Vaccine drug substance and finished product manufacturing	2021 - (varies by contract)	- 2033 (varies by contract)	522,175	407,219	114,956
Total			522,175	407,219	114,956

※ May change in the future depending on changes in market conditions and customer demand.

[SK Multi-Utility]

– Not applicable

5. Risk Management and Derivatives Transactions

A. Market Risk and Risk Management

The consolidated companies are exposed to certain risks in connection with their ongoing business operations. The main risks managed using derivatives are foreign exchange risk, commodity price risk, and interest rate risk. The consolidated companies' risk management strategies and methods are as follows.

(1) Fair value hedging for the foreign exchange risk

As of the end of the current period, the consolidated companies have currency swap contracts designated as the hedging instruments to hedge the foreign currency risk for the foreign currency bonds.

The terms of the above currency swap contracts are set to match the repayment schedule of the foreign currency bonds. The parties to the contract have executed currency swap contracts with cash as the collateral, which effectively reduces the credit risk associated with the contract (the counterparty's and the consolidated companies' credit risk). As a result, hedging was evaluated as very effective.

(2) Hedging cash flows for the interest rate risk

The consolidated companies borrow funds at the fixed and variable interest rates, and thus, are exposed to the interest rate risk. To manage the interest rate risk, consolidated companies maintain an appropriate balance between the fixed rate borrowings and the variable rate borrowings and have executed the interest-rate swap contracts. The consolidated companies exchange the difference calculated by applying the difference between the fixed and variable interest rates for the predetermined nominal principal under the interest-rate swap contract. These contracts allow the consolidated company to mitigate the risk of fluctuations in cash flows of floating-rate liabilities due to changes in interest rates.

Hedging activities are regularly evaluated to appropriately adjust the interest rate status and the defined risk appetite to ensure that the optimal hedging strategy is applied.

(3) Other risk management activities

The consolidated companies are exposed to the foreign currency risk for some of their sales and purchases in international transactions. To mitigate such risk, the consolidated companies regularly monitor the net exposures in major currencies (the dollar, euro, and yen) based on projected sales and purchases over the next 12 months. Furthermore, the consolidated companies enter into foreign currency forward contracts to avoid such exposures.

For business and sales purposes, the consolidated companies have not designated such currency forward contracts for hedging. Thus, the changes in the fair value of all forward contracts are recognized as profit or loss for the relevant period.

4) Market risk management policy

As of the end of the current period, the consolidated companies have established and are implementing fund management policies to ensure stable management activities by minimizing the risks caused by variables such as raw material and commodity prices and foreign exchange rates, the key details of which are as follows.

- ① Purpose of risk management and the basic principles
- ② Organization in charge and the tasks in charge
- ③ Transaction procedures and the reporting procedures

Notwithstanding the market risk management of the consolidated companies and the market risk management policies as described above, the Company cannot hedge all market risks and there is a limit to risk hedging.

B. Status of Transactions such as Derivatives and Put Back Options (including Major Consolidated Subsidiaries)
[SK chemicals]

Details of the derivative instruments held by the Company as of the end of the current period are as follows.

<End of the current period> (Unit: KRW one thousand)

Classification	Details	End of the current period	End of the previous period
Derivative instruments not designated as the hedging instruments:			
Current assets in derivative financial instruments	Currency forward contracts	215,849	823,372
Current liabilities in derivative financial instruments	Currency forward contracts	81,934	-
Non-current assets in derivative financial instruments	Put Option	5,055,776	1,237,613

As of the end of the current period, the Company executed derivative contracts with Hana Bank, etc., for the purpose of hedging the risk of exchange rate fluctuations arising from the foreign currency transactions. In this regard, the details of the derivative financial instruments that are not designated as hedging instruments by the Company are as follows.

<End of the current period> (Unit: KRW one thousand)

Contracting party	Buy/Sell	Contract amount	Fair value
Hana Bank, etc.	Buy	11,722,485	(31,372)
	Sell	15,486,100	165,287
Total		27,208,585	133,915

<End of the previous period>

(Unit: KRW thousand)

Contracting party	Buy/Sell	Contract amount	Fair value
Hana Bank, etc.	Buy	-	-
	Sell	33,812,275	823,372
Total		33,812,275	823,372

As of the end of the reporting period, the details of non-current derivative financial instruments not designated as hedging instruments by the Company are as follows.

<End of the current period>

(Unit: KRW thousand)

Classification	Type	Fair value
Non-current derivative assets	Put Option on SK chemicals Daejung Co., Ltd. common stock (Note 1)	791,000
	HDC Polyol Co., Ltd. stock Put Option (Note 2)	4,336,776
Total		5,127,776

(Note 1) This is a put option which enables the sale of the investment shares in a subsidiary, SK chemicals Daejung Co., Ltd., to Daejung Chemicals & Metals Co., Ltd.

(Note 2) This is a put option which enables the sale of the investment shares in an affiliate, HDC Polyall Co. Ltd., to HDC Hyundai EP Co., Ltd.

[SK bioscience]

1) Details of Derivative Holdings

As of the reference date of the report, the details of derivatives held by SK bioscience are as follows.

(Unit: KRW thousand)

Classification	End of the current period		End of the previous period	
	Assets	Liabilities	Assets	Liabilities
Derivative instruments not designated as the hedging instruments:				
Currency forward contracts	219,403	28,922	4,919,333	67,153
Derivative instruments designated as the hedging instruments:				
Currency interest-rate swap	-	-	4,718,222	-

2) Derivatives trading for hedging risks from the exchange rate fluctuations

As of the date of preparation of this report, the details of the derivatives not designated as hedging instruments by SK bioscience are as follows.

<End of the current period>

(Unit: USD, EUR, AUD, KRW thousand)

Classification	Details	
Contracting party	Hana Bank, etc.	
Buy/Sell	Sell	Buy

Contract amount	USD 23,805,393 EUR 98,850 AUD 289,141	USD 314,746 EUR 788,309
Valuation gain/loss	204,268	(13,788)

<End of the previous period>

(Unit: USD, KRW thousand)

Classification	Details	
Contracting party	Hana Bank, etc.	
Buy/Sell	Sell	Buy
Contract amount	USD 216,237,739	USD 5,961,253
Valuation gain/loss	4,873,056	(20,875)

3) Currency swap derivatives transaction

As of the end of the current period, there are no derivatives for which the consolidated company applies hedge accounting by designating them as hedging instruments. The details as of the end of the previous period are as follows.

<End of the previous period>

(Unit: KRW thousand)

Classification	Details
Contracting party	Hana Bank
Items subject to hedging risk	Variable interest rate foreign currency privately placed bonds (par value of USD 30,000,000)
Contract period	2018.06.29 - 2023.06.29
Buy/Sell	Buy
Purpose of transaction	Exchange rate risk and interest rate risk hedging
Contract amount	33,645,000
Fair value	4,718,222
Valuation gain/loss:	
Amount reclassified as profit or loss	2,454,000
Other comprehensive income (Note 1)	473,256

(Note 1) This amount is obtained after deducting the corporate tax.

[SK Multi-Utility]

- Not applicable

6. Major Contracts and R&D Activities

A. Major contracts in terms of management (summary)

[SK chemicals]

As of the date of submission of the disclosure document, the Company's major contracts in terms of management consist of license-in contracts, other contracts, etc., and the main details are as follows.

1) Green Chemicals Biz.

Classification	Contractual counterparty	Purpose and details of the contract	Period of contract execution & contract period	Contract amount & payment method (criteria)*
License in contract	Covation Biomaterials LLC	PO3G manufacturing license and process/application technology patent contract	2021.06 - 2032 (until patent expiration)	Upfront technology fee, running royalty (a certain percentage of net sales)
License out contract	Capchem	Patent's non-exclusive license and transfer of technology for the secondary batteries' electrolyte additive	2021.08 - 2036.06	Upfront technology fee and running royalty (constant rate of contract product sales)
License out contract	Private	Technology evaluation contract for non-exclusive licensing of patented technology for bio-PESC substances	2021.09 - 2024.03	Upfront technology fee and patent maintenance fees

2) Life Science Biz. (Pharma business)

Classification	Item	Contractual counterparty	Target region	Contract execution date	Total contract amount	Amount received/paid	Progress, etc.
License in contract	SKP204	ITALFARMACO, ITF RESEARCH (Italy)	Korea	2021.01.28	(Note 1)	(Note 1)	aReleased
	SKP205	Miravo Healthcare (Ireland)	Korea	2021.07.28	(Note 1)	(Note 1)	Approved
	SKP221	KOREA UNITED PHARM (Korea)	Korea	2022.06.28	(Note 1)	(Note 1)	Joint research in progress
	SKP222	Synthon B.V (Netherlands)	Korea	2022.05.31	(Note 1)	(Note 1)	Approval in progress
	SKP231	Samcheong Pharmaceutical (Korea)	Korea	2023.01.17	(Note 1)	(Note 1)	Joint research in progress
Other contracts	Joint research	Standigm Inc.	Worldwide	2019.07.19	(Note 1)	(Note 1)	Joint research in progress
	Joint research	Deargen Inc.	Worldwide	2020.10.20	(Note 1)	(Note 1)	Joint research in progress
	Fund investment	Korea Investment Partners Co., Ltd.	N/A	2020.11.18	(Note 1)	(Note 1)	Fund in operation
	Joint research	DR. NOAH Biotech Co., Ltd.	Worldwide	2020.11.24	(Note 1)	(Note 1)	Joint research in progress
	Equity investment	Standigm Inc.	N/A	2021.05.14	(Note 1)	(Note 1)	Pre-IPO phase
	Equity investment	J2H Biotech Co., Ltd.	N/A	2021.07.29	(Note 1)	(Note 1)	Pre-IPO phase
	Fund investment	Sante Ventures	N/A	2021.09.14	(Note 1)	(Note 1)	Fund investment in progress
	Joint research	J2H Biotech Co., Ltd.	N/A	2021.11.01	(Note 1)	(Note 1)	Joint research in progress
	Equity investment	Oncobix Co., Ltd.	N/A	2021.11.18	(Note 1)	(Note 1)	Series B stage
	Joint research	Oncobix Co., Ltd.	N/A	2022.04.05	(Note 1)	(Note 1)	Joint research in progress
	Joint research	inCerebro Co., Ltd.	N/A	2022.04.07	(Note 1)	(Note 1)	Joint research in progress

(Note 1) The details have not been entered as they are trade secrets.

[SK bioscience]

As of the reference date of the report, SK bioscience's major contracts in terms of management consist of license-out/in contracts, joint development contracts, C(D)MO contracts, others, etc., and the main details are as follows.

Classification	Item	Contractual counterparty	Target region	Contract execution date	Total contract amount	Amount received/paid	Progress, etc.
License out contract	Recombinant Factor VIII (Hemophilia treatment)	CSL	All regions except the Republic of Korea	2009.05	(Note 1)	(Note 1)	Commercialization in the U.S., Europe/Asia (by country), etc.
	Cell culture influenza vaccine bulk	GPO (Government Pharmaceutical Organization), BGT (Biogenetech Co., Ltd.)	Thailand	2023.08	US\$ 51M	(Note 1)	Local technology transfer/approval in progress
License in contract	Novavax COVID-19 vaccine Technology introduction	Novavax	Republic of Korea, Thailand, Vietnam	2021.02	(Note 1)	(Note 1)	Commercial production
Joint development contract	Next-generation pneumococcal vaccine	Sanofi	Worldwide	2014.03	USD 45M	USD 45M	Completed Phase 2 clinical trial in the U.S. Preparing for global Phase 3 clinical trial
	Typhoid conjugate vaccine	IVI (International Vaccine Institute)	Worldwide	2013.04	(Note 1)	(Note 1)	Obtained export product approval WHO PQ certification (Note 2)
	Next-generation pediatric enteritis vaccine	PATH (Proper Healthcare Technology Program)	Worldwide	2017.04	(Note 1)	(Note 1)	Concluded Phase 3 clinical trial

	COVID-19 vaccine (GBP510) Project research/development contract	CEPI (Coalition for Epidemic Preparedness Innovations)	-	2020.12	USD 10.0M	(Note 1)	Obtained domestic product approval Received MHRA approval
	COVID-19 vaccine (GBP510) Project research/development additional support contract	CEPI (Coalition for Epidemic Preparedness Innovations)	-	2021.05	USD 200.1M	(Note 1)	Listed on WHO EUL Additional clinical studies in progress
	Broad-spectrum mutant virus responsive vaccine (GBP511) Project research/development contract	CEPI (Coalition for Epidemic Preparedness Innovations)	-	2021.12	USD 50.0M	(Note 1)	Process development and animal testing in progress
	COVID-19 mRNA vaccine (GBP550) development	BMGF (Bill & Melinda Gates Foundation)	-	2021.11	US\$ 2.0M	(Note 1)	Completed pre-clinical
	Nasal Spray	IAVI (International AIDS Vaccine Initiative)	-	2021.11	USD 2.2M	(Note 1)	Basic research
	Japanese encephalitis virus/Lassa fever mRNA vaccine (GBP560, GBP570) development	CEPI (Coalition for Epidemic Preparedness Innovations)	-	2022.10	USD 140.0M	(Note 1)	Japanese encephalitis virus mRNA vaccine: Pre-clinical trial Lassa fever mRNA vaccine: Candidate screening
C(D)MO contract	COVID-19 vaccine CDMO contract	Novavax	-	2020.08	(Note 1)	(Note 1)	Contract terminated
Others	COVID-19 vaccine development and facility use contract	CEPI (Coalition for Epidemic Preparedness Innovations)	-	2020.06	(Note 1)	(Note 1)	Contract terminated
				2021.10 (extended)			

(Note 1) Detailed information is not provided as it is a trade secret.

(Note 2) Received WHO PQ certification in February 2024.

[SK Multi-Utility]

As of the date of submission of the disclosure document, the main details of SK Multi-Utility's major non-recurring contracts in terms of management are as follows.

Contractual counterparty	Purpose and details of the contract	Period of contract execution & contract period	Contract amount
SK Ecoengineering Co., Ltd.	EPC construction contract	2022.06.30 - 2025.06.30	KRW 510 billion
KB Kookmin Bank	Ulsan CHP Plant construction	2022.08.31 - 2023.09.20	Agreed amount of KRW 150 billion
		2023.06.02 - 2040.12.16	Agreed amount of KRW 530 billion

※For detailed status, refer to Detailed Table-4. Major Contracts in Terms of Management (Details).

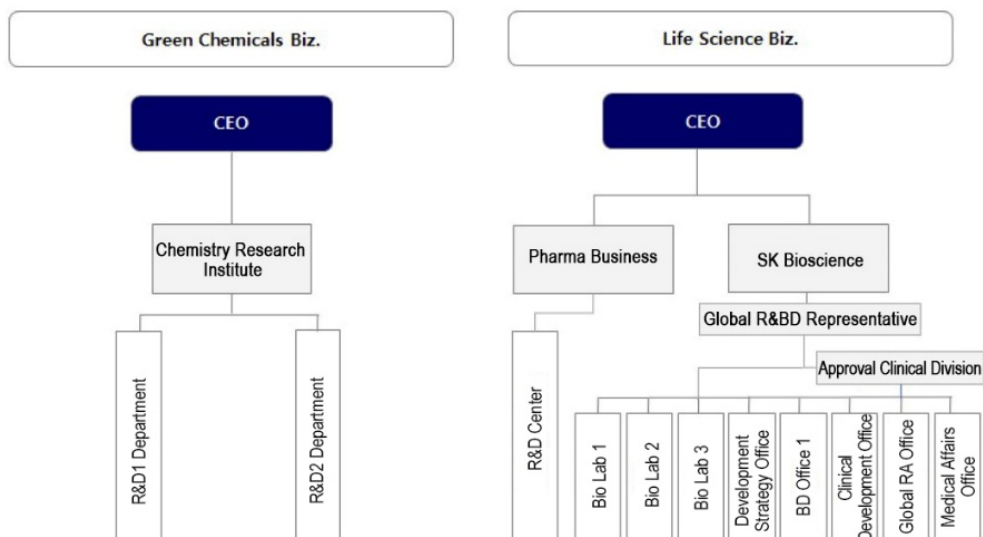
B. R&D activities (including the major consolidated subsidiaries)

1) Overview of R&D activities

The Company's R&D organization consists of the Chemical Research Institute of Green Chemicals Biz., which is in charge of chemical product development, and the R&D Center of Life Science Biz. Pharma Business Division, which is in charge of pharmaceutical development. The Company's subsidiary, SK bioscience, also operates an individual research institute, and the Company continuously achieves development results in the fields of chemistry, pharmaceuticals, and vaccines through the research organizations of the headquarters and the subsidiary.

2) R&D organizations

(1) Organizational chart for the organizations in charge of R&D



(2) Status of Personnel in R&D Organizations [SK chemicals]

(Reference date: 2023.12.31)

(Unit: Number of persons)

Classification	Doctoral	Master's	Bachelor's	Technician	Total
R&D Center	3	34	30	6	73
Chemistry Research Institute	15	60	13	31	119
Total	18	94	43	37	192

※ The personnel above include all R&D personnel.

(Pharmaceutical/bio related key research personnel)

Position	Name	Task in charge	Professional background	Key research performance
Executive	Yoo Hun Seung	Pharma Research Institute Director	Seoul National University/Bachelor in Pharmacy, Master and PhD in Pharmacognosy	Not entered at request
Executive	Mun Jeong Hyun	Development Division Head	B.S. in Pharmaceutical Science, Seoul National University / M.S. in Pharmacy, Seoul National University	Not entered at request

[SK bioscience]

(Reference date: 2023.12.31)

(Unit: Number of persons)

Classification	Doctoral	Master's	Others	Total
Number of persons	43	201	75	319

(Pharmaceutical/bio related key research personnel)

Position	Name	Professional background	Key research performance
Global Business Representative	Kim Hoon	Korea University, Agricultural Chemistry, Bachelor's; Korea University, Biochemistry, Master's; Ajou University, Molecular Science, Doctoral	<p>[Papers]</p> <ul style="list-style-type: none"> - Immune persistence and response to booster dose of Vi-DT vaccine at 27.5 months post-first dose (2022, NPJ Vaccines. 7:12) - Influenza vaccines: Past, present, and future (Review) (2022, Rev Med Virol. 32(1):e2243) - Effective inactivated influenza vaccine for the elderly using a single-stranded RNA-based adjuvant (2021, Sci Rep. 11(1):11961) - Immunization with RBD-P2 and N protects against SARS-CoV-2 in nonhuman primates (2021, Science Advances. 7 : eabg7156) - Immunogenicity, safety and reactogenicity of a Phase II trial of Vi-DT typhoid conjugate vaccine in healthy Filipino infants and toddlers: A preliminary report (2020, Vaccine. 4476-4483) - Safety and immunogenicity of Vi-DT conjugate vaccine among 6-23-month-old children: Phase II, randomized, dose-scheduling, observer-blind Study (2020, EClinicalMedicine. 100540) - Inactivated influenza vaccine formulated with single-stranded RNA-based adjuvant confers mucosal immunity and cross-protection against influenza virus infection (Vaccine 38 (2020) 6141-6152) - Evaluation of glycoprotein E subunit and live attenuated varicella-zoster virus vaccines formulated with a single-strand RNA-based adjuvant (2020, Volume8) - Immunogenicity and safety of a 12-valent pneumococcal conjugate vaccine in infants aged 6-10 weeks: a randomized double-blind active-controlled trial (2020, Volume 63(7)) - Assignment of opsonic values to pneumococcal reference serum 007sp and a second pneumococcal OPA calibration serum panel (Ewha QC sera panel B) for 11 serotypes (2020, Vaccine 38(8145-8153) - Comparison of antigenic mutation during egg and cell passage cultivation of H3N2 influenza virus (2020, Clin Exp Vaccine Res) - Immunogenicity and safety of a new live attenuated herpes zoster vaccine (NBP608) compared to Zostavax® in healthy adults aged 50 years and older (2019, Vaccine. 3605-3610) - A Randomized, Double-blind, Active-controlled Phase III Trial of a Cell Culture-derived Quadrivalent Inactivated Influenza Vaccine in Healthy South Korean Children and Adolescents 6 Months to 18 Years of Age (2019, Pediatr Infect Dis J. e209-e215) - Cricket paralysis virus internal ribosome entry site-derived RNA promotes conventional vaccine efficacy by enhancing a balanced Th1/Th2 response (2019,Vaccine 37(5191-5202)) - Heterologous prime-boost vaccination with adenoviral vector and protein nanoparticles induces both Th1 and Th2 responses against Middle East respiratory syndrome coronavirus (2018, Vaccine. 3468-3476) - Vaccines, inspiring innovation in health (2018, Vaccine. 7430-7437) - Effect of apoptosis-associated speck-like protein containing a caspase recruitment domain on vaccine efficacy: Overcoming the effects of its deficiency with aluminum hydroxide adjuvant (2018, Microbiol Immunol 1348-0421) - Development of a diagnostic system for detection of specific antibodies and antigens against Middle East respiratory syndrome coronavirus (2018, Microbiol Immunol. 574-584) - A Randomized, Double-blind, Active-controlled Clinical Trial of a Cell Culture-derived Inactivated Trivalent Influenza Vaccine (NBP607) in Healthy Children 6 Months Through 18 Years of Age (2018, Pediatr Infect Dis J. 605-611) - Sahastrabudde S2. Safety and immunogenicity of a Vi-DT typhoid conjugate vaccine: Phase I trial in Healthy Filipino adults and children., 10.1016 J (2018, Vaccine.05.038) - Creation, characterization, and assignment of opsonic values for a new pneumococcal OPA calibration serum panel (Ewha QC sera panel A) for 13 serotypes (2018, Medicine (Baltimore)) - Comparative evaluation of a newly developed 13-valent pneumococcal conjugate vaccine in a mouse model (2017, Hum Vaccin Immunother. 1169-1176) - Immunogenicity and safety of a cell culture-derived inactivated quadrivalent influenza vaccine (NBP607-QIV) HUMAN VACCINES & IMMUNOTHERAPEUTICS. (2017, VOL. 13, NO. 7, 1653-1660) - Immunogenicity and safety of a cell Culture-derived inactivated trivalent influenza vaccine (NBP607). (Vaccine 33. 5437-5444, 2015) - The effect of lipopolysaccharide-induced obesity and its chronic inflammation on influenza virus-related pathology. (2015, Environmental Toxicology and Pharmacology. 40, 924-930) and others - Prophylactic and therapeutic vaccines for obesity. <p>[National assignment] Supervisor of research</p> <ul style="list-style-type: none"> - Development of mass production process and sample production for the COVID-19 vaccine based on genetic recombination technology (Korea Evaluation Institute Of Industrial Technology, 2020 - 2021) - Commercialization of human papillomavirus quadrivalent vaccine and development of human papillomavirus 10-valent vaccine (Ministry of Science, ICT and Future Planning - Biomedical Technology Development, 2015 - 2020) - Development of typhoid polysaccharide-protein conjugate vaccine production technology (Ministry of Health and Welfare - Infectious disease crisis response technology development, 2013 - 2018)

			<ul style="list-style-type: none"> - Commercialization of an influenza vaccine using cell culture technology (New Influenza universal ministerial project group (Korea Health Industry Development Institute), 2010 - 2016) - A study on virus vaccine development using the cell culture technology (rotavirus vaccine) (Ministry of Knowledge Economy, 2009 - 2013) - Development of early production technology for H1N1 influenza vaccine using animal cell culture technology (Ministry of Health and Welfare - Human Infection Response Study for Zoological Infectious Diseases, 2009 - 2010) - Smallpox vaccine development assignment (2007 - 2009) - Anthrax vaccine development assignment (2006 - 2008) and others <p>[Notable patents]</p> <ul style="list-style-type: none"> - Vero cell lines suspension-cultivated without serum and methods for preparing vaccine virus with those cell lines (date of registration: 2018-02-14) - MDCK cell lines suspension-cultivated without serum and methods for preparing vaccine virus with those cell lines (date of registration: 2015-12-09) - Manufacturing method for capsular polysaccharide having pneumococcal serotype (date of registration: 2019-01-28) - Multivalent pneumococcal polysaccharide-protein conjugate composition (date of registration: 2019-12-12)
Bio Research Division Head	Park Yong Wook	Hanyang University, Biochemistry/Molecular Biology, Bachelor's, Gwangju Institute of Science and Technology, Life Science, Master's	<p>[Papers]</p> <ul style="list-style-type: none"> - Park, Y.W.; Kim, Y.H.; Jung, H.U.; Jeong, O.S.; Hong, E.J.; Kim, H.; Lee, J. Comparison of antigenic mutation during egg and cell passage cultivation of H3N2 influenza virus. Clin. Exp. Vaccine Res. 2020, 9, 56-63. <p>[Patents]</p> <ul style="list-style-type: none"> - MDCK-derived cell lines adapted to serum-free culture and suspension culture and method for preparing vaccine virus using the cells. (KR10-1577745, 2015-12-09)
Head of Bio Office 2	Lee Soo Jin	Cheongju University, Genetic Engineering, Bachelor's; Cheongju University, Genetic Engineering, Master's; Catholic University, Biotechnology, Doctoral	<p>[Papers]</p> <p>Evaluation of glycoprotein E subunit and live attenuated varicella-zoster virus vaccines formulated with a single-strand RNA-based adjuvant. Immun Inflamm Dis. 2020 Jun;8(2):216-227. doi: 10.1002/iid3.297.</p> <p>[Patents]</p> <ul style="list-style-type: none"> - 8 domestic applications, 17 overseas applications, 2 domestic registrations (10-1577745, 10-1831284), 7 overseas registrations (2614140, 6067560, 323937, 2011299761, IDP000053063, 104862267 B, 9447383) <p>[Performance of assignment] Supervisor of assignment</p> <ul style="list-style-type: none"> - RIGHT FUND, Development of a cost-effective Hepatitis A vaccine on a low-footprint, low-cost platform, (2020)
Head of Bio Office 3	Shin Jin Hwan	B.S. in Genetic Engineering, Korea University / M.S. in Molecular Genetics, KAIST / Ph.D. in Molecular Pharmaceutics, Sungkyunkwan University	<p>[Papers]</p> <p>Immunogenicity and safety of a 12-valent pneumococcal conjugate vaccine in infants aged 6-10 weeks: a randomized double-blind active-controlled trial. Clinical and experimental pediatrics. 2020; 63 (7), 265</p> <p>Comparative evaluation of a newly developed 13-valent pneumococcal conjugate vaccine in a mouse model. Human vaccines & immunotherapeutics. 2017; 13 (5), 1169-1176</p> <p>[Patents]</p> <ul style="list-style-type: none"> - 19 domestic applications, 177 overseas applications, 3 domestic registrations, and 72 overseas registrations <ul style="list-style-type: none"> - Notable patents: US 9,981,029, US 9,636,392, US 10,058,607, US 10,034,949
Development Division Head	Sally Choe	Univ. of Michigan, College of Pharmacy (Ph. D. in Pharmaceutics) Univ. of Michigan, College of Pharmacy (MS in Pharmaceutics) Virginia Polytechnic Institute and State Univ., College of Engineering (BS in Electrical Engineering)	<p>[Proceedings]</p> <ul style="list-style-type: none"> - Keynote Speaker, FDA Generic Drugs Forum by CDER Small Business and Industry Assistance (SBIA), 2019-2022. - Keynote Speaker, Generics + Biosimilar Conference by Association for Accessible Medicines, 2019-2021. - Invited Speaker, "Complex Generics & the Prescription Drug Landscape", Hill Events, February, 2021. - Invited Speaker, "OSIS Perspective on the Impact of Inspectional Observations on Regulators Determinations on the Reliability of Your Data" -DIA 2018, Boston, June 2018. - Invited Speaker, "The Journey of APAC Company Globalization" -2015 International Bioeconomy Conference (BioEconomy), Tenjin, China, July 2015. - S Choe, "Strategic Considerations for Developing an Initial Pediatric Study Plan for a Proposed Biosimilar" Oral Presentation at 2015 DIA, Washington D.C., June 2015. - Invited Speaker, "Accelerating Time to Market through Regulatory Strategies -Developed and Emerging Markets" -2015 PAREXEL China Road Show, Taipei, Taiwan, Beijing and Shanghai, China, May 2015. - A Grignolo and S Choe, Meetings with the FDA, In: FDA Regulatory Affairs, 3rd Edition, Mantus D and Pisano DJ (Ed), CRC Press, Taylor & Francis Group, Boca Raton, FL. <p>[Related experience]</p> <ul style="list-style-type: none"> - Director of Office of Generics at US FDA (2019-2022) - Deputy Director of Office of Study Integrity and Surveillance at US FDA (2016-2019) - Senior Director at Parexel International Regulatory Consulting (2011-2016)
Medical Affairs Department Head	Kim Hye Yeong	Seoul National University, Medicine, Bachelor's and Master's; Seoul National University, Medicine, Doctoral	-

Head of Clinical License Development Office	Ryu Ji Hwa	<p>B.S. in Pharmaceutical Science, Duksung Women's University / M.S. in Pharmacy, Duksung Women's University / Ph.D. in Pharmacy, Sungkyunkwan University</p> <p>[Papers]</p> <ul style="list-style-type: none"> - Safety and immunogenicity of Vi-DT conjugate vaccine among 6-23-month-old children: Phase II, randomized, dose-scheduling, observer-blind Study. EClinicalMedicine. 2020 - Immunogenicity and safety of a 12-valent pneumococcal conjugate vaccine in infants aged 6-10 weeks: a randomized double-blind active-controlled trial. Clin Exp Pediatr. <p>2020</p> <ul style="list-style-type: none"> - Immunogenicity, safety and reactogenicity of a Phase II trial of Vi-DT typhoid conjugate vaccine in healthy Filipino infants and toddlers: A preliminary report. Vaccine. 2020 - Safety and immunogenicity of a Vi-DT typhoid conjugate vaccine: Phase I trial in Healthy Filipino adults and children. Vaccine. 2018 - Activation of phosphatidylinositol 3-kinase by oxidative stress leads to the induction of microsomal epoxide hydrolase in H4IIE cells. Toxicol Lett. 2001 - The essential role of phosphatidylinositol 3-kinase and of p38 mitogen-activated protein kinase activation in the antioxidant response element-mediated rGSTA2 induction by decreased glutathione in H4IIE hepatoma cells. Mol Pharmacol. 2000 - Role of glucose utilization in the restoration of hypophysectomy-induced hepatic cytochrome P450 2E1 by growth hormone in rats. Chem Biol Interact. 2000 <p>[Related experience]</p> <ul style="list-style-type: none"> - Performed approximately 20 Phase 1 clinical trials, 10 Phase 2 clinical trials, and 20 Phase 3 clinical trials - 2016 Member of TFT for development of the Vaccine Clinical Evaluation Guidelines of the Ministry of Food and Drug Safety - 2016-2017 Served as the head of the research department of the Korea Society for Clinical Development
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[SK Multi-Utility]

- Not applicable

(3) R&D Expenses

[SK chemicals]

(Reference date: 2023.12.31)

(Unit: KRW one million)

Account	The 7th Period	The 6th Period	The 5th Period
Raw Material Costs	2,399	2,294	1,822
Labor Costs	17,266	17,302	15,794
Depreciation	6,152	5,258	4,950
Consignment service cost	4,603	5,312	4,165

Others		13,750	12,101	12,568
Total R&D expense		44,170	42,267	39,299
Accounting	Selling, general and administrative expenses	44,016	41,582	38,635
	Cost of sales	153	685	665
	Development cost (intangible assets)	-	-	-
R&D Expenses / Sales Ratio (%) [Total R&D Expenses ÷ Current Period Sales × 100]		3.6	3.4	3.6

※ In the year before last, R&D expenses and sales related to discontinued businesses were excluded.

[SK bioscience]

(Reference date: 2023.12.31)

(Unit: KRW million)

Account		The 6th Period	The 5th Period	The 4th Period
Raw material expenses		37,681	18,404	24,688
Labor cost		29,045	31,589	22,848
Selling, general and administrative expenses, etc.		50,555	63,002	52,043
Total R&D expense		117,281	112,995	99,579
Government subsidies		(611)	(627)	(477)
External subsidies		(30,927)	(53,244)	(51,672)
Total subsidies		(31,538)	(53,871)	(52,149)
Amount after deducting the subsidies		85,743	59,124	47,430
Accounting	Selling, general and administrative expenses	85,743	57,960	47,250
	Development cost (intangible assets)	-	1,164	180
	Total amount accounted	85,743	59,124	47,430
R&D expenses / sales amount ratio (%) [Total R&D cost ÷ Sales amount for the current period × 100]		31.7	24.7	10.7

※ The ratio was calculated based on the total amount of R&D expenses before the deduction of external subsidies, etc.

[SK Multi-Utility]

- Not applicable

3) R&D and the patent application performance

(1) R&D performance

<Green Chemicals Biz.>

Year	Research task	Research results and the expected effects
2022	Established a dedicated facility for PO3G and started mass production	Successfully entered mass production system in May 2022 after constructing dedicated facilities for PO3G, a 100% bio-based eco-friendly polyol, and undergoing successful trial operation. PO3G, which is evaluated to reduce greenhouse gas emissions by 40% compared to the existing petrochemical-based polyol production process in the life cycle assessment (LCA), can provide eco-friendly solutions to polyurethane materials. It has been adopted for use in automotive interior materials, fashion and sports materials, and started full-scale supply.
	Commercialization of SKYPEL TPEE for moisture-permeable waterproof films	With the expansion of the outdoor market due to the impact of Covid-19, the demand for moisture-permeable films is also expanding. SKYPEL TX products have higher moisture permeability, water pressure resistance, and washing fastness compared to competing materials, and have begun to be sold as materials for military and general functional clothing.

2021	Commercialized PO3G for main applications	It is being applied in various fields such as spandex, waterproof and moisture-permeable clothing, synthetic leather, 3D printing, and cushioning materials for shoes, and is scheduled to be released in products of global fashion and sports brand companies and domestic automakers.
	ECOTRIA Claro-CR50 & PN-CR50 grade development completed	For grades (Claro-CR50 & PN-CR50) sold in the cosmetic packaging sector, where demand for recycling is high, products containing 50% chemically recycled raw materials have been developed. The technology capable of being applied to grades for cosmetics, which have strict quality control standards, has been secured. Production and sales are scheduled for the second half of 2021 at continuous process commercial facilities.
	ECOTRIA Claro-CR50 batch reaction commercial production was successful and the commercial sales began	For the cosmetic grade (Claro-CR50) containing 50% of chemically recycled raw materials, the production was successful for the batch type commercial facilities, which led to the immediate sales in response to the customers' urgent request for recycled products. Commercial order became possible without the additional evaluation of products to be produced in continuous process facilities in the second half of 2021.
	Obtained 2 types of recycling certification for ECOTRIA products	By obtaining both GRS and ISCC Plus recycling certifications, it is possible to selectively respond according to customer requirements. In the case of GRS certification, it is possible to clearly guarantee the recycled content included in the product, and in the case of ISCC certification, the recycled content used in manufacturing can be allocated to various products, which has the advantage of flexible utilization.
	Received biodegradability certification for 2 grades of SK's highly flexible PLA	Biodegradability certification has been obtained for 2 grades of biodegradable biopolymer (Flexible PLA) developed in 2020. Flexible PLA is a new material developed based on SK chemicals' patented technology and has been confirmed to be superior in terms of biomass content, transparency, flexibility and physical properties. It is planned to develop and commercialize the material for use in biodegradable film packaging materials, such as high-end shopping bag packaging materials.
	Developed Recycle Grade flame retardant PET and received UL material certification	Enhanced the eco-friendliness of PET compound products by developing eco-friendly flame-retardant PET compound products. - Developed flame-retardant PET compound products using PCR (Post-Consumer Recycled), obtained UL material certification, and entered the customer evaluation stage
	Successfully completed the commercialization of ECOZEN Plus	Developed a new Ecozen Plus product using alloying technology and SK chemicals' ECOZEN heat-resistant copolyester resin and PCT resin. Ecozen Plus developed this time significantly reduced the residual stress in the molded part and improved the toughness of the material. Began selling into a market for transparent, washable containers, such as airtight containers and personal water bottles, that existing materials could not enter.
	Developed PPS Compound for automobile parts and began commercial sales	Developed PPS compound products for automotive parts using SK PPS (Ecotran) manufactured by a new solvent-free polymerization process. Passed quality evaluations in the domestic and overseas automotive parts market and began sales (for use in thermostat housings, electric water pumps, impellers, lighting parts)
2019	Developed polyester elastomer for use in artificial leather	Developed and commercialized the artificial leather skin's film-forming technology. Promoting the replacement of existing artificial leather using solvent-based PU and plasticizer-containing PVC with solvent-free, plasticizer-free polyester elastomer. Planned for application to automobile interior materials, furniture, and bags.
	PPS Base Resin R&D	Developed the PPS Monofilament. Developed the PPS resin for high-strength monofilament.

<Life Science Biz.>

Classification	Assignment name	Indicant	Development phase	Note
Pharma Business	SID710	Dementia	Released in Brazil	Released Europe's first generic
	SID1806	Arthritis	Approved	Improvement of usage and dosage of original drugs
	SID1903	Diabetes	Release in Korea Overseas approval in progress	Incrementally modified drug
	SID2101	Migraine	Phase 1 clinical trial	Generic
	SID2102	Thrombocytopenia	Phase 1 clinical trial	Generic
	SID2301	Anti-inflammatory, analgesic	Formulation research	Generic
	SID2303	Diabetes, hyperlipidemia	Formulation research	Incrementally modified drug
	SID2304	Hypertension, hyperlipidemia	Formulation research	Incrementally modified drug
	SID2305	Hypertension	Formulation research	Generic
	NCE201	Non-alcoholic steatohepatitis	Non-clinical	New drug
	NCE202	Non-alcoholic steatohepatitis	Non-clinical	New drug

	NCE205	Idiopathic pulmonary fibrosis	Discovery	New drug
	NCE223	Anti-cancer	Discovery	New drug
	NCE224	Anti-cancer	Discovery	New drug
	SKR206	Non-alcoholic steatohepatitis	Non-clinical	New drug
	SKR207	Idiopathic pulmonary fibrosis	Non-clinical	New drug
	SKP201	Arthritis	Approved	Generic
	SKP205	Migraine	Approved	Incrementally modified drug
	SKP221	Dyslipidemia	Phase 1 clinical trial	Incrementally modified drug
	SKP222	Serum phosphorus regulation	Approved	Generic
	SKP231	Gastric ulcer	Phase 1 clinical trial	Generic
SK bioscience	GBP510	COVID-19	Obtained domestic product approval Received MHRA approval Listed on WHO EUL	Jointly developed
	NBP618	Typhoid (TCV)	Obtained export product approval WHO PQ certification (Note 1)	Jointly developed
	GBP410	Pneumococcus (PCV)	Applied for Phase 3 clinical trial	Jointly developed
	NBP615	Cervical cancer (HPV)	Phase 1/2 clinical trial	-
	NBP613	Rotavirus	Phase 1/2 clinical trial	-
	NBP1803	Immuno-oncology	Basic research	-
	Vaccine	Acute respiratory disease (RSV)	Basic research	-
	NBP1801	Hepatitis A	Non-clinical	-
	NBP1802	Recombinant herpes zoster	Basic research	-
	NBP623	Obesity	Basic research	-
	Combo vaccine	COVID-19 + flu	Basic research	-
	GBP511	Universal COVID-19	Non-clinical	Jointly developed
	GBP540	Mini-binder (Nasal spray)	Basic research	Jointly developed
	GBP550	mRNA COVID-19	Non-clinical	Jointly developed
	GBP560	Japanese encephalitis	Non-clinical	Jointly developed
	GBP570	Lassa fever	Basic research	Jointly developed
	GBP460	Cervical cancer (HPV)	Basic research	Jointly developed
	NBP607B	Differentiated flu	Basic research	-
	NBP625	Pandemic flu	Basic research	-
	NBP624	Botulinum toxin	Basic research	-

※ Details of products in the basic research and preclinical stages have been omitted from the detailed table.

(Note 1) Received WHO PQ certification in February 2024.

※For the detailed status, refer to 'Detailed Table-5. R&D Performance (Details) - <Life Science Biz.>'.

[SK Multi-Utility]

- Not applicable

(Performance of the completed R&Ds)

The status of new drugs whose development has been completed over the last 5 years is as follows.

Data Analysis, Retrieval and Transfer System (dart.fss.or.kr)

<Life Science Biz. (Pharma business)>

(Reference date: 2023.12.31)

Classification	Product name	Indicant	Released	Status	Note
Incrementally modified drug	Teglutik Suspension	Lou Gehrig's disease	2023	Sold domestically	Released (2023.01.01)
Generic	Cosca Tab. 25mg	Hypertension medication	2021	Sold domestically	Released (2021.07.01)
Generic	Toszet Tablet	Hyperlipidemia treatment	2021	Sold domestically	Released (2021.04.01)
Natural product	Ginexin-F Tab. 240mg	Improved blood circulation	2021	Sold domestically	High content tablet, improved intake convenience
Generic	Laton PR Tab.	Insomnia	2020	Sold domestically	-
New drug	Ongentys	Parkinson's disease	2020	Sold domestically	-
Incrementally modified drug	Renexin CR Tab.	Inhibited the recurrence of chronic arterial occlusion and cerebral infarction	2020	Sold domestically	Incrementally modified drug (sustained release)
Generic	Bromelain Enteric Coated Tab.	Edema after trauma or surgery	2020	Sold domestically	-
Incrementally modified drug	Vimsk Inj.	Epilepsy treatment	2019	Sold domestically	Lacosamide injection, first released in Korea

[SK bioscience]

(Reference date: 2023.12.31)

Item	Indicant	Year of development completion	Current status	Note
SKYCellflu Prefilled Syringe	Flu prevention	2014	Domestic sales Overseas approval in progress/on sale	-
SKYCellflu Quadrivalent Prefilled Syringe	Flu prevention	2015	Domestic sales Overseas approval in progress/on sale	-
SKYCellflu Injection	Flu prevention	2019	Obtained domestic product approval Overseas approval in progress/on sale	WHO PQ certification
SKYCellflu Multi Injection	Flu prevention	2019	Obtained domestic product approval Overseas approval in progress/on sale	WHO PQ certification
SKYCellflu Quadrivalent Injection	Flu prevention	2019	Obtained domestic product approval Overseas approval in progress/on sale	WHO PQ certification
SKYCellflu Quadrivalent Multi Injection	Flu prevention	2019	Obtained domestic product approval Overseas approval in progress/on sale	WHO PQ certification
SKYPneumo Prefilled Syringe	Prevention of Pneumococcus	2019 (Children) 2016 (Adults)	Obtained approval	Cannot be sold due to patent issues
SKYZoster Inj.	Prevention of herpes zoster	2017	Domestic sales Overseas approval in progress/on sale	-
SKYVaricella Inj.	Prevention of chickenpox	2018	Domestic sales Overseas approval in progress/on sale	WHO PQ certification
SKYTyphoid Multi Inj.	Prevention of typhoid (TCV)	2022	Obtained approval for export	WHO PQ certification (Note 1)
SKYCovione Multi Injection (Export name: SKYCovione)	Prevention of COVID-19	2022	Obtained domestic product approval Received MHRA approval Listed on WHO EUL	-

(Note 1) Received WHO PQ certification in February 2024.

[SK Multi-Utility]

- Not applicable

(2) Patent application performance results

(Reference date: 2023.12.31)

(Unit: cases)

Year	Domestic		Overseas	
	Applied	Registered	Applied	Registered
2023	51	43	127	93
2022	48	33	99	80
2021	71	34	113	103

※ The performance results above include the performance of the consolidated subsidiaries.

(3) Other R&D performance

SK bioscience, a subsidiary of the Company, is focusing on developing vaccine formulations with high potential to lead the vaccine industry in the future, based on its successful experience in developing and commercializing various vaccine products. It aims to expand its vaccine product portfolio with a pipeline consisting of cervical cancer vaccine, pediatric enteritis vaccine, typhoid vaccine, and next-generation pneumococcal vaccine, and is actively establishing a global vaccine network through joint development and collaboration with global multinational companies, international organizations, and biotech companies based on SK bioscience's R&D capabilities to strengthen its global presence in the vaccine industry. In addition, to overcome the COVID-19 pandemic situation, it has developed a COVID-19 vaccine utilizing the vaccine development experience and technology accumulated so far. In response to the transition to endemic phase, it has started the development of a universal COVID-19 vaccine. In particular, the self-developed COVID-19 vaccine SKYCovione, which received funding from BMGF/CEPI, was approved for Phase 3 clinical trial plan (IND) by the Ministry of Food and Drug Safety in August 2021, and conducted global Phase 3 clinical trials in various regions, including Korea, Europe, and Southeast Asia. It secured excellent clinical trial results and obtained marketing approval from the Ministry of Food and Drug Safety in Korea in June 2022, MRHA MA in May 2023, and was listed on the WHO EUL in June 2023.

The results of the major R&D assignments carried out by SK bioscience are as follows.

Cell-cultured influenza vaccine, which is the foundation and core product of SK bioscience's vaccine business, succeeded in developing the trivalent vaccine for the first time in Korea and the quadrivalent vaccine for the first time in the world. In addition, following the launch of the premium shingles vaccine SKYZoster in the monopolistic shingles vaccine market, the Company successfully released the chickenpox vaccine SKYVaricella. Based on the success of these products in Korea, the Company is also actively pursuing overseas market entry.

Among SK bioscience's R&D assignments in progress, the most notable project is the next-generation pneumococcal vaccine development project with Sanofi, a global vaccine company. This project, which started in 2014, has applied for global Phase 3 clinical trials, and upon commercialization, it is expected to enter the global pneumococcal vaccine market, which recorded a size of approximately KRW 10 trillion* as of 2023. In addition, SK bioscience is conducting joint research with foreign institutions with the aim of entering the global market. Regarding the typhoid vaccine jointly developed with the International Vaccine Institute, in May 2022, we obtained export product approval from the Ministry of Food and Drug Safety in Korea. We plan to secure WHO PQ certification and supply the vaccine worldwide.

SK bioscience will continue to pursue R&D projects based on its excellent technological capabilities and actively utilize networks encompassing external organizations and the government to maximize R&D performance in the future.

*Source: Evaluate Pharma, 2022

7. Other Matters of Reference

A. Related to intellectual property rights

1) Patent

As of the reference date for preparing the disclosure documents, the Company has completed a total of 1,243 patents in Korea and 1,775 patents overseas in relation to its business.

In the Green Chemicals Biz, numerous material-related patents have been obtained, and in the Life Science Biz, patents related to major pharmaceuticals such as Joins and Promac have been obtained. SK bioscience, a subsidiary, has obtained patents related to influenza vaccines and pneumococcal vaccines.

However, the number of intellectual property rights owned changes from time to time due to new acquisitions of rights, expiration of rights, abandonment and sale of rights, etc.

(Status of the patent acquisitions (cumulative))

(Reference date: 2023.12.31)

(Unit: cases)

Classification	Domestic	Overseas
Green Chemicals Biz.	995	1,141
Life Science Biz.	248	634

(Status of the patent acquisition for the last 3 years)

(Unit: cases)

Classification	2023	2022	2021
Domestic	43	33	34
Overseas	93	80	103

2) Trademark

As of the reference date for preparing the disclosure documents, the Company holds a total of 194 registered trademarks in Korea and 220 registered trademarks overseas in relation to its business.

B. Matters of regulation related to environment

In relation to the Company's business, it strives to protect the environment by thoroughly complying with legal matters such as various product environmental regulations and business site environmental regulations. In particular, in response to the government's carbon-neutral green growth policy, the Company reports the 'greenhouse gas emissions and energy consumption' generated from business sites required by relevant regulations to the government and transparently provides relevant information to stakeholders through sustainability reports, etc. In addition, by establishing and implementing the SHE (Safety, Health, Environment) system, the Company has enabled systematic execution of environmental management, and is doing its best to reduce harmful/hazardous factors to the environment in the future.

1) Air and water quality

To systematically manage our emissions of air pollutants, we have installed an automated atmospheric measurement network (TMS) and conducted continuous environmental monitoring activities. In addition, compliance with emission standards when operating air pollutant emission facilities is considered the top priority task for environmental protection and is being managed. The Company operates a wastewater treatment plant within the business site to manage the discharge of water pollutants.

To minimize the emission of pollutants, we have installed environmental pollution prevention facilities, including air and water pollution prevention facilities, and operate them to minimize the impact on the surrounding environment.

2) Hazardous chemicals

In order to respond to regulations related to hazardous chemicals and enhance workplace safety, a 'chemical accident prevention management plan' has been prepared to analyze the degree of impact on people or the environment outside the workplace due to chemical accidents. In addition, an accident prevention, off-site impact assessment, and emergency response program has been prepared and implemented. Residents have been notified of related information. Based on this, measures such as establishing an in-house response plan and notifying residents around the business site have been taken to minimize damage in the event of a chemical accident.

3) Compliance with product environmental regulations

In a situation where regulations on hazardous chemicals are being strengthened worldwide, SK chemicals produces and sells copolyester materials SKYGREEN and ECOZEN (1-15% based on biomass-derived carbon), which do not contain Bisphenol derivatives (BPA, etc.) that may be harmful to the human body and phthalate plasticizers regulated by EU RoHS, and meet the requirements for food contact materials in Korea, the United States, Europe, China, and Japan, with improved heat resistance by introducing biomass-derived components.

4) Greenhouse gas reduction and energy saving

Since 2015, the Company has been designated as an allocation target company for emission rights in accordance with Article 8 of the Act on the Allocation and Trading of Greenhouse Gas Emission Rights, and in accordance with Article 24 of the same Act and the guidelines of the authorities, it reports the Company's greenhouse gas emissions and energy consumption verified by a third-party external verification agency to the government authorities and discloses them to stakeholders, while carrying out activities to reduce greenhouse gases and energy in various ways.

C. Related laws or government regulations

The pharmaceutical industry is an industry directly related to national health, which is linked to human life and health, and is subject to strict regulations under the Pharmaceutical Affairs Act and other relevant laws. These regulations are carried out in various aspects, including approval review of clinical trial plans, permission, post-approval re-examination, sanctions on off-label use, and maintenance of sales order. In particular, in the drug approval process, the Ministry of Food and Drug Safety thoroughly verifies products that can be released to the market by reviewing all information related to the safety and efficacy of drugs, test methods, manufacturing of active ingredients, and risk management plans.

The government has strengthened the standards for punishment of both the recipient and provider of rebates by introducing a dual punishment system for rebates that punishes both the recipient and provider of rebates in order to improve fair competition in the industry and transparency in drug transactions and pricing, and allowing the lowering of insurance prices for drugs caught providing rebates. In addition, through the revision of the Pharmaceutical Affairs Act, the government has continuously legislated the economic benefit expenditure reporting system, regulations on sales agents, etc., and is making efforts to maintain the order of drug sales.

Various drug price reduction policies for the soundness of health insurance finances are also the government's efforts to stabilize the pharmaceutical industry. Unlike other businesses, the pharmaceutical industry is directly controlled by the government's drug pricing policy, which has a direct impact on the sales and profitability of individual companies, and the intensity of the drug pricing policy is managed to an appropriate level depending on the soundness of the health insurance finances at the time. The policy focuses on minimizing pharmaceutical expenditures, which are a major part of insurance finance expenditures, by adjusting and lowering drug prices based on drug prices and usage, and preventing health insurance finances from being consumed more than necessary.

Currently, the government recognizes the pharmaceutical and biotech industry as a core strategic sector that will create future national growth engines, and is systematically fostering and supporting it to enhance its international competitiveness. In accordance with the relevant special law, a 5-year comprehensive plan for fostering and supporting the pharmaceutical industry was established and implemented from 2013 to 2017. In addition, excellent companies are selected and registered as innovative pharmaceutical companies, and various incentives such as expanding R&D investment, tax support, policy fund support, tax reduction, and regulatory relaxation are provided to continuously invest in the improvement of research and development and promote the development of the pharmaceutical industry. Furthermore, in line with the commitment to support the pharmaceutical and biotech industry as a potential source of income for enhancing health security and generating national wealth, additional policies have been announced and are being actively implemented to promote the development of the pharmaceutical industry. These measures include the establishment of the 'Pharmaceutical and Bio Innovation Committee' under the Prime Minister, a long-awaited project for the pharmaceutical industry, as well as a pledge to double the government's R&D support budget from KRW 2.8 trillion to KRW 5.6 trillion.

[SK Multi-Utility]

1) Related to intellectual property rights

– Not applicable

2) Environmental regulations and related laws or government regulations

(1) Compliance with government regulations related to discharge of environmental substances or environmental protection
SK Multi-Utility thoroughly manages emission facilities such as air and water quality to meet legal requirements for environmental protection. In order to comply with continuously strengthening related regulations, the Company conducts environmental self-audits of business sites to proactively identify and improve risk factors.

① Air pollutant management

In order to minimize the discharge of air pollutants, a 24-hour remote monitoring system operates through monitors and detectors at major emission facilities. Compliance with emission standards is considered the top priority task for environmental protection when operating air pollutant emission facilities.

In addition, in the case of SK Multi-Utility, which has been selected as a designated business site for the greenhouse gas and energy target management system since 2015, it sets and complies with the greenhouse gas reduction target and energy saving target required by the relevant regulations, and has established a roadmap to achieve carbon neutrality by 2050 and is actively responding to climate change by improving the energy efficiency of its facilities.

② Water pollutant management

SK Multi-Utility thoroughly manages facilities to minimize the discharge of water pollutants and jointly treats wastewater at SK chemicals' wastewater treatment facility. To manage non-point pollutants discharged from business sites due to rainfall, we have installed non-point pollution reduction facilities to prevent water pollution caused by these pollutants.

③ Waste management

Waste generated from business sites is managed according to the waste management procedure, and properly separated and discharged waste is temporarily stored in a storage area and then discharged, linked to the government's Allbaro system and then legally transported, treated, and managed. In addition, we are establishing a positive waste cycle by enhancing the recycling rate of waste generated at our facilities.

D. Status for each business division

1) Green Chemicals Biz.

(1) Characteristics of the industry, etc.

The chemical industry is exposed to a variety of external environmental factors, including fluctuations in currency exchange rates, the global economy, and oil price volatility due to geopolitical risks in the Middle East. In particular, the domestic chemical industry has established a foundation for growth through exports due to stagnant domestic demand, but growth momentum has weakened due to factors such as a consumption slowdown in China, a major export target country, and increased supply from the Middle East and the United States, intensifying competition.

However, in the case of the Company, which mainly produces and sells high value-added specialty products, it is showing continuous growth in the global market and has unrivaled business competitiveness due to the steady increase in global demand for eco-friendly products and lightweight materials.

(2) Domestic and overseas market conditions, etc.

[Highly functional copolyester resin]

The Company has secured over 50% market share in East Asia, including Korea, China, and Japan, and is conducting business in a stable manner. In North America and Europe, local marketing corporations provide customer service to expand market share. Demand is continuously increasing through the development of new markets such as Southeast Asia and Central and South America. In addition, the Company is strengthening its cooperation with cosmetic brand owners to ensure stable demand for recycled copolyester in the future. The company is also increasing the sales ratio of high-heat-resistant/eco-friendly grades such as Ecozen and Cosmetic, while focusing on home appliances and household goods, in order to improve profitability.

Trends in the share of the global copolyester resin market

Product	2023	2022	2021
Copolyester	42%	41%	41%

※ Source: Estimated in-house

[DMT]

In Korea and Japan, we have secured a stable sales base through long-term contracts with our major customers, maintaining a market share of over 90%. Furthermore, as the only manufacturer in East Asia, the Company maintains a high market share throughout Asia, including China, Taiwan, and India. As the largest competitor in Germany suspended production and operations from 2023 due to rising costs, the shortage of DMT supply in the market intensified, resulting in an even higher DMT market share.

Trends in the market share of the DMT market of China, the main market

Product	2023	2022	2021
SKYDMT	90%	90%	90%

※ Source: Estimated in-house

[Copolyester adhesive]

Copolyester binders for adhesion and coating are used in food can coatings, coatings for steel plates for home appliances, clothing, packaging adhesives, etc. The relevant industry continues to grow steadily at an average annual rate of 3%. In particular, in the case of food can coatings, due to concerns about the environmental hormone BPA, Epoxy, which was widely used in the past, is being replaced by copolyester binders, primarily in developed countries like the United States and Europe, with a growth rate of over 10% annually. Also, in the case of coatings for steel plates for home appliances, the Company occupies more than 80% of the domestic market and is expanding sales to Asia, including China.

Trends in the market share of the global polyester adhesive market

Product	2023	2022	2021
SKYBON (based on Solid's sales)	10%	10%	9%

※ Source: Estimated in-house

[Thermoplastic Elastomers]

Thermoplastic elastomer TPEE is an elastic material with both plastic and rubber properties. It is widely used in a variety of fields, including industrial materials (such as automobiles and cables) and consumer goods (such as films, fibers, and cosmetics). In particular, as a material with excellent heat resistance and mechanical strength, it can provide various solutions to meet customer needs with a diverse portfolio. The market is growing at an average annual rate of 6%.

[Bio-polyol, eco-friendly elastic material raw material]

Along with recycled materials, sustainable biomass-based materials are increasingly being spotlighted as a future industry that solves the problem of fossil resource depletion in the near future and the environmental problems that have become a reality. In particular, due to the increasing global interest in the environment, strengthening of regulations, and the declaration of ESG management, the demand for eco-friendly materials is rapidly increasing in various industries, including the global sports and fashion industry. The Company is responding to such demands by commercializing the bio-polyol PO3G business using corn as a raw material.

[CR-PET materials and CR raw materials (r-BHET)]

Plastic recycling is a solution that reduces the impact of plastics on the global environment by minimizing discarded plastic waste and reducing the production of new plastics.

More than 100 million tons of PET are consumed annually, of which about 10%, approximately 10 million tons, are recycled. Chemical recycling is gaining attention as a way to accelerate waste reduction through improving the recycling rate.

(3) Business overview, etc.

[High-functional copolyester resins]

Copolyester is used in a wide range of applications, including various packaging materials, home appliances, and building materials, based on its safety of not using bisphenol A (BPA), an endocrine-disrupting substance, as well as its excellent physical properties, chemical resistance, and transparency. The Company is expanding the market by developing various products that meet customer needs, from high heat resistance to high strength, based on stable production technology. In the cosmetics market, sales of Claro products, which are recyclable and can include recycled materials, are growing rapidly. In the case of high-heat-resistant products, sales volume is being expanded by the newly launched Ecozen Pro with enhanced physical performance. In addition, the demand for the Ecotria series, which includes recycled materials, is also increasing rapidly. In the future, the Company plans to continuously expand its market share through new investments and product development to solve recycling problems.

[DMT]

Despite its excellent quality, DMT has been replaced by PTA, a substitute, in fields such as polyester and hot melt in recent years due to its relatively high price and limited supply. As a result of this decrease in demand, a German DMT manufacturer suspended DMT production and sales in 2023.

The Company uses DMT as a raw material for CHDM for copolyester production, securing production stability and maintaining a high market share by providing the world's highest quality products.

[Copolyester adhesive]

The adhesion and coating market has a diverse range of applications and applied substrates. The core competitiveness lies in developing various products that meet customer requirements in a timely manner and building a product portfolio for each application. Due to this characteristic, there are entry barriers for new companies. Traditionally, dominant players such as Evonik in Europe, Bostik in the United States, and Toyobo in Japan have been operating businesses exclusively within each region. But major customers, mainly paint companies, are now seeking cost-effective purchases and diversification of supply to ensure stability in raw material supply, so there are opportunities for regional expansion. The Company has competitive advantages such as technological capabilities accumulated over more than 30 years of continuing this business and price competitiveness through possessing self-produced monomers such as DMT and CHDM, and is continuously expanding its market share in overseas markets. The adhesion and coating market is a mature industry that has maintained stable growth, but depending on external environmental changes such as regulations and technologies, there are applications that require replacement of existing technologies or have high growth potential.

In particular, our products do not contain BPA, an environmental hormone, making them highly regarded for can coating applications. Our solvent-free hotmelt products, which do not contain organic solvents, have excellent washing resistance and are used as adhesives for clothing heat transfer films.

[Thermoplastic Elastomers]

The thermoplastic elastomer market is a material used in a wide range of fields from industrial materials (automobiles, cables, etc.) to consumer goods (films, fibers, cosmetics, etc.). Its core competitiveness lies in providing solutions that meet customer needs with a diverse portfolio. In addition, in a situation where environmental needs are expanding, the demand for polyester elastomer materials is increasing due to the growing demand for recycling, and substitution is taking place across industries. In this situation, the Company's product, SKYPEL, is expanding its business by meeting market needs and providing high-quality products.

[Bio-polyol, eco-friendly elastic material raw material]

The Company's PO3G has obtained bio-based certification from the USDA (United States Department of Agriculture) and TUV in Europe, and its eco-friendliness compared to fossil raw materials has also been proven through life cycle analysis. Therefore, the elastomer industry, including polyurethane and spandex, can lower the greenhouse gas emission rate of products while realizing excellent performance by applying PO3G. Since 2022, the Company has been equipped with an annual production capacity of 5,000 tons. Even in today's challenging business environment, it has achieved results with partners in various industries releasing products using PO3G. In the future, the Company will further strengthen and expand cooperation with partner companies to respond to market demands and lead the resolution of environmental problems.

[CR-PET materials and CR raw materials (r-BHET)]

The Company is promoting the 'Circular Recycling' business based on its self-developed chemical recycling technology, and is accelerating market expansion by acquiring commercial production infrastructure for CR-PET materials and CR raw materials (r-BHET) in March 2023.

CR-PET, which reproduces waste PET into the monomer r-BHET and then regenerates it into PET, realizes properties and safety equivalent to those of virgin PET, making it applicable not only to traditional PET applications such as bottles and fiber markets but also to high value-added applications like functional films, optical films, and industrial high-tenacity yarns. Therefore, it is expanding its scope by responding to the needs for eco-friendly material use by various global brand owners. Through the Circular Recycling PET business, the Company aims to continuously achieve its mission of reducing discarded PET waste by providing recycled material solutions to the market and supporting customers' environmental protection activities, while realizing the recycling of a wide range of waste beyond bottle waste, such as films, fibers, and colored waste.

(4) New businesses, etc.

Existing petroleum-based plastic materials are expected to be converted to recycled, eco-friendly, and bio-based materials in the future due to the strengthening of eco-friendly policies by governments around the world and the increase in consumer awareness of environmental pollution. The Company has secured solely domestic technological capabilities centered on copolyester through more than 20 years of continuous investment and research in the field of eco-friendly and bio materials. Unrivaled business competitiveness has been established, leading to continuous growth in the global market. By utilizing these accumulated capabilities, the Company is actively striving to produce environmentally friendly products by replacing the raw materials of copolyester materials with recycled plastics, and is actively promoting the transition to an eco-friendly material business model, while actively pursuing the transition to a Circular Recycling Solution business. In addition, the Company aims to achieve Net Zero by 2040 by actively expanding the use of eco-friendly fuels and introducing renewable energy.

① Building a circular economy business portfolio centered on green materials

In 2021, the Company commercialized copolyester produced using the chemical recycling method for the first time in the world. In addition, based on the commercial production of corn-based PO3G in 2022, the Company plans to expand investment in the value chain of the business and future promising bio materials, and aims to become a global leader in the copolyester business by 2025 through continuous application development and technology advancements in related fields, while increasing the production ratio of Recycled copolyester to 100% by 2030.

② Promoting the transition of the business model to a Circular Recycling Solution business

Based on the recycling capabilities accumulated through the copolyester business, the Company seeks to transition its business model to a Circular Recycling Solution business. To this end, the Company intends to take the lead in establishing a PET eco-friendly circular economy so that the development of the ecosystem is also linked to business success. The Company will contribute to solving social problems by utilizing PET bottle waste generated in Korea and establish a stable base for business operation through smooth supply and demand of recycled raw materials.

To this end, the Company established Shuye SK chemicals (Shantou) Co., Ltd., an overseas subsidiary, to establish a business base in China, a strategic market, and to ensure operational capabilities, laying the groundwork for the early securing of r-BHET and expanding recycling-related businesses. In addition, in order to preoccupy the emerging market of the recycling business, the Company is promoting the strengthening of price competitiveness through securing HTR (Hard to Recycle) technology and waste PET, and vertically integrating the value chain leading to the production of PET materials. At the same time, efforts are being made to establish a recycling business base in the form of a 'closed loop' with global brand owners to secure a stable profit generation base and expand the business area.

③ Achieving Net Zero

The Company has established an annual reduction plan for process conversion, eco-friendly fuel conversion, mobile combustion conversion, and renewable energy introduction to achieve the Net Zero goal by 2040, and has also established an offset reduction plan for the remaining amount. Through this, the Company will achieve greenhouse gas (Scope 1, 2) Net Zero by reducing greenhouse gas emissions by 370,000 tons by 2040.

Ultimately, the Company will achieve Net Zero by 2050 for greenhouse gases generated throughout the entire life cycle of products, that is, Scope 3 emissions. To this end, the establishment of a 'circular economy ecosystem' is essential, and in order to establish a circular economy ecosystem, the Company is communicating with various stakeholders such as partner companies, consumers, and local governments, and is actively carrying out activities such as infrastructure expansion. In addition, the Company will not only set goals but also implement performance checks for continuous reduction and manage the goals while considering the changing business environment each year.

In addition, the Company will secure stable renewable raw materials and expand their use by expanding the Recycle Cluster.

2) Life Science Biz.

(1) Characteristics of the industry, etc.

The pharmaceutical and biopharmaceutical industry, which produces and sells the medicines that are the key to human health, is an industry that is directly related to the health of the nation and its people, and takes on the characteristics of a regulated industry with strict management and control. In this context, corporate responsibility and ethics are of paramount importance. In particular, the vaccine industry not only takes the lead in public health through disease prevention, but also contributes to the promotion of the health of all mankind through overseas exports, thus contributing to the promotion of public interest.

The pharmaceutical and biopharmaceutical industry is a high value-added industry with high technology and research intensity, and is also attracting attention as a key industry for the future. In particular, biopharmaceuticals represent a high value-added business compared to traditional synthetic drugs, and their share of the overall pharmaceutical market is steadily increasing. On a national and social safety net level, the importance of stable vaccine supply is becoming more prominent worldwide. Recently, drug regulatory agencies in each country are recommending that pharmaceutical companies strengthen the stability of drug supply.

The size of the biopharmaceutical market is expected to expand from \$431 billion in 2022 to \$666 billion in 2027, an increase of \$235 billion over the next five years, which is expected to account for 35% of the total pharmaceutical market. In addition, in line with the government's plan to expand vaccine self-sufficiency and national immunization support projects, not only the growth of the domestic vaccine market but also the international vaccine market is expected to grow rapidly, centering on developing countries.

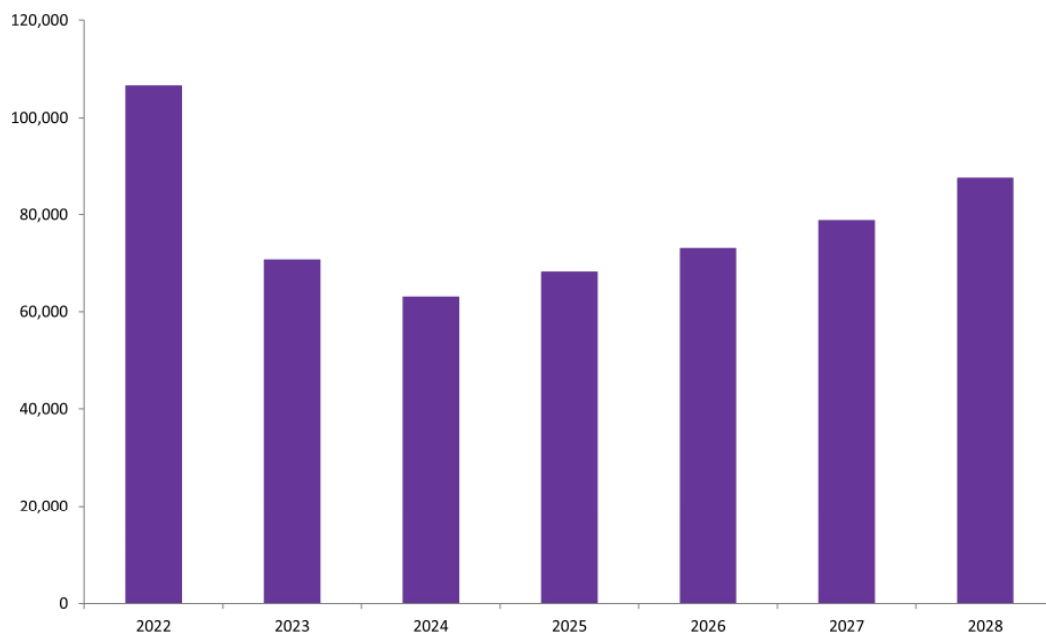
Total production of domestic pharmaceuticals, etc.

(Unit: KRW 100 million)

Year	Total production amount of pharmaceuticals, etc.	GDP		Weight Relative to GDP	
		All Industries	Manufacturing	All Industries	Manufacturing
2018	223,787	18,981,926	5,056,502	1.18%	4.43%
2019	237,985	19,244,981	4,854,012	1.24%	4.90%
2020	280,284	19,407,262	4,809,174	1.44%	5.83%
2021	276,181	20,716,580	5,274,841	1.33%	5.24%
2022	308,442	21,505,758	5,511,538	1.43%	5.60%

Source: Korea Pharmaceutical and Bio-Pharma Manufacturers Association, <2023 Pharmaceutical and biotech industry Databook>

Global vaccine market status and outlook (2022-2028, Unit: USD one million)



Source: Evaluate Pharma (2024.02)

(2) Domestic and overseas market conditions, etc.

[Pharmaceutical Business (Pharma Business)]

The domestic pharmaceutical market continues to grow, but competition within the market is expected to become fiercer due to the government's drug price management and strengthening of various regulations, ethics, and compliance activities. In order to supplement this, pharmaceutical companies are pursuing various business strategies such as expanding product portfolios through alliances and entering overseas markets. In particular, recently, there has been an increasing movement of 'open innovation strategy' to secure new drug candidates from outside in order to improve the efficiency and performance of R&D. In addition, due to drug price reductions and intensified competition, there is an increasing movement to improve business profitability through internal operational efficiency. At the same time, mergers and acquisitions (M&A) and equity investment for business diversification are expected to become more active.

[Vaccine Business (SK bioscience)]

① Growth of C(D)MO market

C(D)MO stands for Contract Development & Manufacturing Organization, which means contract development and production of pharmaceuticals. It is a business area that goes beyond the CMO area through contracts with pharmaceutical and bio companies to entrust the new drug development process, including candidate substance development, production process, and clinical commercialization. According to Evaluate Pharma, the global biopharmaceutical market size is expected to expand from \$451 billion in 2022 to \$644 billion by 2027, growing at an average annual rate of 9%. Accordingly, the size of the bio CMO market is also expected to grow at an average annual growth rate of 10% over the next five years from \$14 billion in 2022.

② Mergers and acquisitions facilitation

Companies in the pharmaceutical and biotech industry are focusing on highly profitable new drugs and pursuing mergers and acquisitions to preoccupy the new drug market. Recently, M&A is expected to become more active as an exit strategy for venture investment in the pharmaceutical and bio fields. In the case of bio ventures, they have technology and ideas but lack continuous capital power, while big pharma has both capital power and technological capabilities. If they acquire bio ventures, they can develop new products by applying them to their own pipelines.

[Life Science Biz. key products' domestic market share trend]

Business Division	Key Products	Market Share			Note
		2023	2022	2021	
Pharmaceutical business (Pharma Business)	Joins	26%	28%	28%	Source: UBIST
	Ginexin	42%	39%	38%	Source: UBIST
Vaccine business (SK bioscience)	Influenza vaccine (SKYCellflu)	30%	- (Note 1)	- (Note 1)	Source: Estimated in-house (Referring to the Ministry of Food and Drug Safety's national release approval data and CDC vaccination rates)
	Herpes zoster vaccine (SKYZoster)	44%	55%	49%	Source: IMS data (Note 2)
	Chickenpox vaccine (SKYVaricella)	43%	47%	75%	Source: IMS data (Note 2)

(Note 1) In 2021-2022, influenza vaccine production was temporarily suspended to produce COVID-19 vaccines but resumed in 2023.

(Note 2) The market share of shingles/chickenpox vaccines in 2022-2023 was calculated based on IMS data/dose.

(3) Overview of business

[Pharmaceutical business (Pharma Business)]

The Company's pharmaceutical business (Pharma business) has the main purpose of manufacturing and selling natural substance and synthetic pharmaceuticals, and is continuously growing by creating R&D results and establishing strategic partnerships with global pharmaceutical companies.

By developing and launching Joins, Korea's first natural substance arthritis treatment, and Ginexin, which has the No. 1 market share for ginkgo leaf products, the Company has solidified its position as a market leader in natural substance products, and is further strengthening its competitiveness through its product lineup. In addition, the Company has achieved R&D results based on excellent formulation technology, such as launching Mvix S, the world's first film-type erectile dysfunction treatment, and Trast, a patch-type arthritis treatment that maximizes the therapeutic effect and duration through the transdermal drug delivery system.

In order to further strengthen its accumulated new drug development capabilities, the Company established an open innovation organization in 2019,

and is promoting joint research with leading big data researchers and artificial intelligence (AI) specialized companies in Korea, as well as new drug development specialized venture companies, to effectively discover more diverse candidates. Currently, the Company is conducting joint research based on artificial intelligence technology with global-level companies such as Standigm, Dr.Noah Biotech, Deargen, and ONCOBIX for new drugs for cancer and non-alcoholic steatohepatitis. In the future, the Company will continue to promote new drug development for intractable diseases through open innovation with various companies and research centers. The establishment of partnerships with domestic and international companies will strengthen its R&D capabilities.

In addition, based on close mutual cooperation with global pharmaceutical companies, the Company plans to expand its contract development and manufacturing (C(D)MO) business area and strengthen its business competitiveness by providing high-quality pharmaceuticals through R&D capabilities and top-level production infrastructure. The Company will focus on securing excellent professional manpower and technologies, and seek to secure sustainable growth engines by establishing strategic partnerships with partner companies in various forms in the future.

[Vaccine Business (SK bioscience)]

The Company laid the foundation for its growth as a life science company by acquiring a stake in Dongshin Pharmaceutical, a vaccine company, in March 2001. Thereafter, on November 1, 2006, Dongshin Pharmaceutical, which had been incorporated as an affiliate in 2003, was officially merged. The merger with Dongshin Pharmaceutical is significant in that it is the starting point for leaping forward as a world-class life science company through the organic combination of R&D and marketing, and it was the manifestation of the ambition to become a leader in the biopharmaceutical industry through the synergy of the merger of Dongshin Pharmaceutical's vaccine business, which has incomparable competitiveness in Korea. In 2006, the Company paid attention to the fact that the paradigm of global life science was shifting from 'treatment' to 'prevention', and despite the fact that the vaccine business was an unknown field in Korea at the time, it made a large-scale investment of about KRW 500 billion in infrastructure construction and R&D from 2008 to recently. In 2012, we completed construction of the L House vaccine plant to prepare a base for the production of most vaccines developed in Korea. Andong L House not only achieves flexibility in production with the single-use system, but also promotes the best quality control with stringent aseptic requirements. Each process room maintains a clean working environment through verified HEPA filters, blocks cross-contamination by establishing an air-lock system and independent air conditioning systems for each area, and the drug substance produced in the drug substance area is refrigerated in the finished product area and then the final drug substance is prepared in a sealed disposable sterile bag, ensuring stable quality even in a mass production system. The loading area, which must be completely sealed off from contamination, is under special management with the restricted access barrier system (RABS). We also have a future expansion plan for future exports or pandemics.

Based on the Andong L House, the Company took a step closer to establishing vaccine sovereignty by achieving results such as Korea's first approval of a trivalent cell culture influenza vaccine in 2014, the world's first approval of a quadrivalent cell culture influenza vaccine in 2015, the world's second approval of a shingles vaccine in 2017, and Korea's second approval of a chickenpox vaccine in 2018. Based on these achievements, the Company established 'SK bioscience' through a physical split-off method in 2017. SK bioscience, while being recognized for its world-class R&D capabilities, collaborated with the global vaccine company Sanofi Pasteur in 2014 to develop a next-generation pneumococcal vaccine. In addition, the hemophilia A treatment 'AfstylA', which was licensed out through technology transfer to CSL, became the first Korean technology-based biopharmaceutical to enter the U.S. and EU markets by obtaining sales approval from the U.S. FDA and Canada in 2016, the European Medicines Agency (EMA) and Australia in 2017, and is expanding its approved regions. In 2018, the Company signed a contract with Sanofi for the export of cell culture influenza vaccine production platform technology and launched the chickenpox vaccine 'SKYVaricella' in Korea.

The next-generation pneumococcal vaccine development project (in collaboration with Sanofi), which began in 2014, successfully completed global Phase 2 clinical trials in December 2018 using clinical drugs produced at Andong L House under the approval of the U.S. FDA, and is preparing for global Phase 3 clinical trials. Upon successful commercialization of the vaccine, it is expected to enter the global pneumococcal vaccine market, which records a size of about KRW 10 trillion. In addition, SK bioscience is conducting joint research in various aspects with foreign institutions with the aim of entering the global market. In the case of the typhoid vaccine jointly developed with IVI, it has obtained export product approval and WHO PQ certification, and the COVID-19 vaccine 'SKYCovione (GBP510)' developed with funding from BMGF/CEPI has also received product approval from domestic (Ministry of Food and Drug Safety) and overseas (UK MHRA, etc.) authorities.

Along with this, SK bioscience plans to actively engage in expanding the bio CDMO business and securing new platforms on the global stage by constructing a Global R&PD Center in Songdo International City and strengthening cooperation with international organizations, domestic and foreign bio companies, and research institutes.

(4) New businesses, etc.

[Pharmaceutical business (Pharma Business)]

The bio business is an area where remarkable growth is expected due to the increase in the global population and the increase in the elderly population. Accordingly, the Company aims to expand its business area by maintaining its current Operation Excellence and discovering pipelines and promoting business cooperation with external partners. Currently, the Company is promoting new drug development through open innovation through cooperation while conducting joint research with numerous bio ventures,

and is building the capability to search for new drugs using AI. In addition, the Company is continuously making efforts to strengthen its R&D capabilities by searching for additional partnerships at home and abroad. Along with this, the Company is also continuously reviewing future business items and plans to explore all possibilities in areas with high connectivity to existing businesses.

[Vaccine Business (SK bioscience)]

① Expansion of preventive vaccine pipelines and new bio/platforms

A pipeline refers to a new drug development project that is being researched and developed (R&D) by a company. SK bioscience plans to make continuous efforts such as R&D investment and manpower input to develop new preventive vaccine pipelines from its existing portfolio centered on domestic premium vaccines. In particular, the value of preventive vaccines is receiving attention from the public following the COVID-19 pandemic, which is expected to significantly grow the global vaccine market. Experience in global joint development projects has already been accumulated through projects such as next-generation pneumococcal vaccines, COVID-19 vaccines, and typhoid vaccines. Currently, the Company is pursuing the acquisition of a number of premium vaccine portfolios, including global blockbuster candidates.

② Expansion of the new bio/platform

In the vaccine and biotech industry, the meaning of a platform is that the same technology can be applied to multiple pipelines, and the mRNA platform that emerged during the COVID-19 pandemic is a representative example. The core characteristic of SK bioscience's R&D and production capabilities is that it can simultaneously possess multiple platforms and flexibly and quickly convert them as needed. SK bioscience has already demonstrated its capabilities in various platforms, including synthetic antigens (SKYCovione and Novavax COVID-19 vaccines), cell culture (SKYCellflu), and viral vectors (AstraZeneca COVID-19 vaccine). Currently, the Company is carrying out a project to secure mRNA technology and production platforms through collaboration with global initiatives and will secure new innovative platforms through continuous networking and cooperation within the bio ecosystem.

In addition, platform technologies can be used to secure synergy not only in vaccines but also in the field of bio therapeutics. For example, SK bioscience's viral vector production capabilities can be utilized to expand into the bio field, including CGT, and the Company is pursuing new businesses such as M&A and partnerships that can maximize synergy with its existing capabilities.

③ Promotion of C(D)MO/CMO business

SK bioscience's C(D)MO business is making a significant contribution to the commercialization of vaccines by receiving the transfer of antigen manufacturing technology from companies with original vaccine technology, supplying commercial quantities of products, or providing development services from the process development stage.

After COVID-19, many companies are promoting the development and manufacturing of vaccines, but the number of companies with the capability to commercialize vaccines, which requires accumulated know-how, is limited. Recently, a significant number of global pharmaceutical and bio companies are outsourcing process development and mass production. There is an increasing trend of supplying products based on manufacturing partnerships and these tie-ups with C(D)MO companies are actively occurring, especially among bio ventures that lack their own development and production capabilities.

SK bioscience has demonstrated a high level of process development and production capabilities, including securing EU-GMP, through the successful launch/supply of its own product portfolio and partnerships with global partners for COVID-19 vaccines. Currently, the Company is conducting the C(D)MO business by securing vaccine development and manufacturing partnerships with global companies, and plans to expand the scope to C(D)MO of bio pharmaceuticals beyond vaccines in the future.

④ Promotion of SKYShield business

After experiencing the COVID-19 pandemic, many governments began to promote the localization of vaccine-related capabilities such as production. Accordingly, SK bioscience is striving to localize vaccine development and production infrastructure in countries around the world through partnerships with foreign governments and local companies. SK bioscience aims to promote the localization of vaccine capabilities through the know-how of vaccine-related products, technologies, and facilities possessed by SK bioscience, the institutional support at the government level of foreign countries, and the technology transfer and operation synergy of local companies. Accordingly, in August 2023, SK bioscience signed a contract with GPO, a Thai state-owned pharmaceutical company, to transfer the finished product technology of cell culture influenza vaccine. In this way, the Company is designing and promoting business models specialized for regional characteristics, focusing on key countries in each region of the world.

[SK Multi-Utility]

SK Multi-Utility operates a power and steam supply business based in Ulsan, producing and stably selling steam and electricity using raw materials such as bituminous coal to customers within the supply area. In addition, we plan to further develop the business by investing in LNG cogeneration facilities in Ulsan and promoting specialization in the power and steam utility supply business.

E. Summarized financial status for each business division (based on the consolidated financial statements)

The financial information of each business division during the period subject to disclosure is as follows.

(Unit: KRW one thousand)

Division	Classification	The 7th Period		The 6th Period		The 5th Period	
		Amount	Weight	Amount	Weight	Amount	Weight
Green Chemicals Biz.	Sales amount	1,285,198,836	73%	1,401,946,579	77%	1,037,059,042	50%
	Operating income	52,005,352	62%	88,746,511	39%	76,514,410	14%
	Depreciation (Note 1)	67,238,189	60%	51,871,909	57%	48,936,429	62%
	Total assets	1,839,934,959	44%	1,471,789,456	37%	1,253,284,966	32%
Life Science Biz.	Sales amount	745,554,322	43%	770,659,186	42%	1,229,179,081	59%
	Operating income	19,531,325	23%	148,611,013	64%	520,208,920	94%
	Depreciation (Note 1)	41,341,599	37%	34,400,077	38%	26,301,619	33%
	Total assets	2,092,798,709	50%	2,335,193,550	59%	2,308,476,688	58%
Consolidation adjustments, etc.	Sales amount	(281,975,418)	-16%	(343,414,442)	-19%	(176,606,246)	-8%
	Operating income	11,765,810	14%	(6,876,851)	-3%	(41,537,420)	-7%
	Depreciation (Note 1)	4,305,587	4%	5,193,111	6%	4,239,036	5%
	Total assets	226,041,236	5%	138,699,874	4%	393,870,740	10%

(Note 1) It is the sum of the depreciation for tangible assets, depreciation for investment real estate properties, depreciation for right-of-use assets, and the amortization cost for intangible assets.

※ Due to the sale of the PPS business, the sales and operating profit for the 5th period exclude the performance of that business.

※ For detailed information on financial information, please refer to "27. Operating Segments" in "3. Notes to the Consolidated Financial Statements" under "III. Matters Concerning Finance."

III. Matters Concerning Finance

1. Summary of Financial Information

A. Summarized consolidated financial information

(Unit: KRW one million)

Account	The 7th Period	The 6th Period	The 5th Period
[Current assets]	2,204,427	2,518,694	2,784,059
- Quick assets	1,827,509	2,035,941	2,434,759
- Inventories	376,918	482,753	349,299
[Non-current assets]	1,954,348	1,426,989	1,171,574
- Affiliates and joint ventures investments	10,418	13,309	16,328
- Tangible assets	1,601,634	1,193,131	999,246
- Intangible assets	54,204	51,777	44,422
- Other non-current assets	288,093	168,772	111,577
Total Assets	4,158,775	3,945,683	3,955,632
[Current liabilities]	830,211	1,058,819	1,086,649
[Non-current liabilities]	652,790	177,958	302,246
Total liabilities	1,483,001	1,236,777	1,388,895
[Shares owned by the controlling company]	2,118,704	2,146,699	2,053,542
- Capital stock	98,794	98,794	98,681
- Consolidated capital surplus	1,212,422	1,199,035	1,192,769
- Other items of consolidated capital	(21,645)	(21,645)	(21,346)
- Accumulated other comprehensive income on a consolidated basis	(37,378)	1,918	2,937
- Consolidated retained earnings	866,511	868,597	780,501
[Non-controlling interest]	557,070	562,207	513,196
Total equity	2,675,774	2,708,906	2,566,737
Total liabilities and stockholders' equity	4,158,775	3,945,683	3,955,632
Number of companies included in the consolidation	11	10	9
	January 1, 2023 - December 31	January 1, 2022 - December 31	January 1, 2021 - December 31
Sales amount	1,748,778	1,829,191	2,089,632
Operating profit (loss)	83,302	230,481	555,186
Net income (loss) before income tax expenses	52,419	236,701	538,622
Net income (loss) for the year	47,838	231,476	268,743
Profit (loss) attributable to			
Equity attributable to the owners of the controlling company	39,864	191,266	168,140
Non-controlling interest	7,974	40,210	100,604
Earnings per share (EPS) for the equity attributable to the owners of the controlling company			
Basic EPS (Unit: KRW)	2,072	9,910	8,586
Diluted EPS for common stocks (Unit: KRW)	2,071	9,960	8,636

Basic EPS for preferred stock (Unit: KRW)	2,122	9,870	13,921
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※ Due to the sale of the PPS business, the sales and operating profit for the 5th period exclude the performance of that business.

※ The financial statements above have been prepared in accordance with the Korean International Financial Reporting Standards (K-IFRS).

Regarding the Notes to the Consolidated Financial Statements, refer to "III. Matters Concerning Finance - 3. Notes to the Consolidated Financial Statements."

B. Summarized financial information

(Unit: KRW one million)

Account	The 7th Period	The 6th Period	The 5th Period
[Current assets]	673,098	645,373	850,386
- Quick assets	441,010	401,088	673,715
- Inventories	232,088	244,285	176,670
[Non-current assets]	1,282,620	1,165,105	1,136,764
- Affiliates and joint ventures investments	7,917	12,592	13,176
- Subsidiaries' investments	436,485	371,328	369,310
- Tangible assets	693,309	661,774	663,485
- Intangible assets	30,267	32,020	25,582
- Other non-current assets	114,642	87,391	65,212
Total Assets	1,955,718	1,810,477	1,987,150
[Current liabilities]	652,685	535,148	608,416
[Non-current liabilities]	179,147	155,731	223,150
Total liabilities	831,831	690,879	831,566
[Capital]	98,794	98,794	98,681
[Capital surplus]	157,915	157,915	155,974
[Other capital]	(12,644)	(12,644)	(12,345)
[Retained earnings]	879,822	875,533	913,274
Total equity	1,123,887	1,119,598	1,155,584
Total liabilities and stockholders' equity	1,955,718	1,810,477	1,987,150
Valuation method for the investment stocks for subsidiaries, affiliates, and joint ventures	Cost method	Cost method	Cost method
	January 1, 2023 - December 31	January 1, 2022 - December 31	January 1, 2021 - December 31
Sales amount	1,232,926	1,256,030	1,093,357
Operating income	85,435	107,527	82,293
Net income before income tax expense	56,020	88,401	540,885
Net income	41,754	69,270	302,503
Earnings per share			
Basic EPS (Unit: KRW)	2,171	3,586	15,451
Diluted EPS for common stocks (Unit: KRW)	2,169	3,575	15,501
Basic EPS for preferred stock (Unit: KRW)	2,221	3,636	20,531

※ Due to the sale of the PPS business, the sales and operating profit for the 5th period exclude the performance of that business.

※ The financial statements above have been prepared in accordance with the Korean International Financial Reporting Standards (K-IFRS). Please refer to "III. Matters Concerning Finance - 5. Notes to the Financial Statements" for the notes to the financial statements.

2. Consolidated Financial Statements

2-1. Consolidated Statement of Financial Position

Consolidated Statement of Financial Position

The 7th Period as of 2023.12.31
The 6th Period as of 2022.12.31
The 5th Period as of 2021.12.31

(Unit: KRW)

	The 7th Period	The 6th Period	The 5th Period
Assets			
Current assets	2,204,426,649,041	2,518,693,783,957	2,784,058,669,420
Cash and cash equivalents	396,012,209,626	400,028,232,546	255,615,367,155
Short-term financial instruments	1,204,421,873,960	1,319,742,323,271	1,794,156,437,313
Trade and other receivables	180,433,383,225	260,401,304,200	366,865,111,272
Current inventories	376,917,955,373	482,753,081,114	349,299,225,904
Other current assets	32,458,494,701	28,995,934,504	18,122,527,776
Non-current assets held for sale	14,182,732,156	26,772,908,322	
Non-current assets	1,954,348,254,650	1,426,989,095,787	1,171,573,724,836
Long-term financial assets	27,500,000	27,500,000	21,142,500,000
Trade and other receivables	788,675,850	863,517,000	
Long-term investment assets	102,766,368,200	38,628,272,096	35,081,486,249
Affiliates and joint ventures investments	10,417,815,909	13,309,152,533	16,328,276,602
Tangible assets	1,601,633,779,540	1,193,131,058,845	999,245,763,243
Right-to-use assets	35,317,622,145	28,609,183,615	15,386,726,242
Intangible assets	54,204,144,488	51,777,238,900	44,422,323,845
Investment real estate properties	17,297,334,222	17,339,365,662	17,212,277,612
Other non-current assets	19,430,251,122	13,365,843,649	11,327,379,952
Defined benefit assets	43,708,904,343	41,946,809,273	
Deferred income tax assets	68,755,858,831	27,991,154,214	11,426,991,091
Total Assets	4,158,774,903,691	3,945,682,879,744	3,955,632,394,256
Liabilities			
Current liabilities	830,211,385,119	1,058,819,027,627	1,086,649,251,139
Trade and other payables	246,774,769,227	219,159,227,892	452,892,821,032
Short-term borrowings	263,707,890,270	436,109,819,164	11,671,373,163
Current portion of long-term liabilities	192,405,128,296	103,986,943,744	207,864,113,268
Current portion of lease liabilities	7,677,174,616	11,685,097,812	2,788,637,923
Current portion of contract liabilities	57,125,281,869	159,925,939,743	114,455,430,866
Current portion of provisioning liabilities	12,476,761,297	22,137,940,676	22,437,979,100
Current income tax liabilities	9,535,108,378	36,222,667,153	174,009,868,314

Other current liabilities	40,492,185,159	62,031,064,860	100,529,027,473
Non-current liabilities held for sale	17,086,007	7,560,326,583	
Non-current liabilities	652,789,462,725	177,958,022,961	302,245,734,599
Debenture	164,557,090,565	154,787,348,542	256,063,406,698
Long-term borrowings	472,518,336,723	7,172,698,962	
Lease liabilities	9,022,893,722	13,185,242,385	8,343,522,232
Retirement benefit liabilities			4,869,971,132
Provisioning liabilities	5,957,148,495	2,278,409,185	
Other non-current liabilities	733,993,220	534,323,887	2,629,873,359
Deferred income tax liabilities			30,338,961,178
Total liabilities	1,483,000,847,844	1,236,777,050,588	1,388,894,985,738
Equity			
Equity attributable to owners of the parent company	2,118,704,262,794	2,146,698,895,591	2,053,541,812,523
Capital	98,793,505,000	98,793,505,000	98,681,045,000
Capital surplus	1,212,422,483,801	1,199,035,135,551	1,192,768,791,273
Other capital	(21,644,726,463)	(21,644,726,463)	(21,346,012,463)
Accumulated other comprehensive income	(37,377,777,727)	1,917,975,389	2,937,290,315
Retained earnings (losses)	866,510,778,183	868,597,006,114	780,500,698,398
Non-controlling interest	557,069,793,053	562,206,933,565	513,195,595,995
Total equity	2,675,774,055,847	2,708,905,829,156	2,566,737,408,518
Total liabilities and stockholders' equity	4,158,774,903,691	3,945,682,879,744	3,955,632,394,256

2-2. Consolidated Statement of Comprehensive Income

Consolidated Statement of Comprehensive Income

The 7th Period From 2023.01.01 to 2023.12.31

The 6th Period From 2022.01.01 to 2022.12.31

The 5th Period From 2021.01.01 to 2021.12.31

(Unit: KRW)

	The 7th Period	The 6th Period	The 5th Period
Revenue	1,748,777,740,387	1,829,191,322,924	2,089,631,876,416
Cost of sales	1,275,845,805,799	1,214,096,459,201	1,208,252,148,242
Gross profit	472,931,934,588	615,094,863,723	881,379,728,174
Selling and administrative expenses	389,629,447,509	384,614,190,356	326,193,817,735
Operating income	83,302,487,079	230,480,673,367	555,185,910,439
Other income	12,047,850,869	9,572,233,627	27,409,549,709
Other expenses	43,875,212,671	24,926,448,399	44,231,104,316
Financial income	129,105,823,303	174,295,170,527	62,588,844,094
Financial cost	125,296,928,168	151,958,375,452	63,950,494,455
Equity method gains on joint venture investment	(2,865,318,750)	(762,536,109)	1,618,945,234
Profit before tax from continuing operation	52,418,701,662	236,700,717,561	538,621,650,705
Income tax expense on continuing operations	4,580,807,884	5,224,847,889	168,012,085,990
Profit for the year from continuing operation	47,837,893,778	231,475,869,672	370,609,564,715
Profit (loss) before tax from discontinued operation			(134,418,662,607)

Income tax expense on discontinued operations			(32,552,435,910)
Profit (loss) for the year from discontinued operation			(101,866,226,697)
Profit before income tax	52,418,701,662	236,700,717,561	404,202,988,098
Income tax expense	4,580,807,884	5,224,847,889	135,459,650,080
Profit for the year	47,837,893,778	231,475,869,672	268,743,338,018
Other comprehensive income	(72,059,006,535)	14,124,172,585	(251,006,594)
Items subsequently reclassified as net income or loss	(2,254,817,283)	(929,574,283)	5,500,157,039
Equity adjustments in equity method	(26,017,874)	(4,017,338)	66,701,118
Gain (loss) from translation of foreign operations	(1,963,331,483)	(1,460,722,533)	4,238,697,803
Gains (loss) on valuation of derivatives	(265,467,926)	535,165,588	1,194,758,118
Items subsequently not reclassified as net income or loss	(69,804,189,252)	15,053,746,868	(5,751,163,633)
Loss on valuation of financial assets at fair value through other comprehensive income	(54,727,476,830)		
Remeasurement loss on defined benefit plans	(15,076,712,422)	15,053,746,868	(5,751,163,633)
Total comprehensive income, net of tax	(24,221,112,757)	245,600,042,257	268,492,331,424
Reversion of net income from continuing operations	47,837,893,778	231,475,869,672	370,609,564,715
Equity attributable to the owners of the controlling company	39,863,821,610	191,266,054,717	270,006,042,994
Non-controlling interest	7,974,072,168	40,209,814,955	100,603,521,721
Reversion of net income (loss)			
Equity attributable to the owners of the controlling company	39,863,821,610	191,266,054,717	168,139,816,297
Non-controlling interest	7,974,072,168	40,209,814,955	100,603,521,721
Reversion of total comprehensive income for the current period			
Equity attributable to the owners of the controlling company	(12,726,527,326)	203,496,793,939	168,640,349,018
Non-controlling interest	(11,494,585,431)	42,103,248,318	99,851,982,406
Earnings per share			
Basic and diluted, earnings for the year			
Basic earnings (loss) per ordinary share from continuing operation	2,072	9,910	14,007
Basic earnings (loss) per ordinary share from discontinued operation			(5,421)
Diluted earnings per ordinary share from continuing operation	2,122	9,870	13,921
Basic earnings per preferred share			
Basic earnings (loss) per preferred share from continuing operation	2,071	9,960	11,909
Basic earnings (loss) per preferred share from discontinued operation			(3,273)

2-3. Consolidated Statement of Changes in Equity

Consolidated Statement of Changes in Equity

The 7th Period From 2023.01.01 to 2023.12.31

The 6th Period From 2022.01.01 to 2022.12.31

The 5th Period From 2021.01.01 to 2021.12.31

(Unit: KRW)

	Equity							
	Equity attributable to owners of the parent company						Non-controlling interest	Total equity
	Capital	Capital surplus	Other capital	Accumulated other comprehensive income	Retained earnings	Equity attributable to owners of the parent Total		
2021.01.01 (capital at beginning of period)	66,000,330,000	264,314,596,680	(18,117,669,311)	(2,624,096,023)	643,304,793,518	952,877,954,864	6,054,838,368	958,932,793,232
Net income (loss)					168,139,816,297	168,139,816,297	100,603,521,721	268,743,338,018

Capital change in equity method				66,701,118		66,701,118		66,701,118
Profit or loss on overseas operations translation				4,238,697,803		4,238,697,803		4,238,697,803
Gains on valuation of derivatives				988,795,267		988,795,267	205,962,851	1,194,758,118
Loss on valuation of financial assets at fair value through other comprehensive income								
Remeasurement factors of defined benefit liabilities					(4,793,661,467)	(4,793,661,467)	(957,502,166)	(5,751,163,633)
Capital increase without consideration	32,630,715,000	(33,234,375,813)				(603,660,813)		(603,660,813)
Stock option granted			125,936,990			125,936,990		125,936,990
Exercise of stock option	50,000,000	861,558,500	(186,537,501)			725,020,999		725,020,999
Purchase of treasury stock			(3,167,742,641)			(3,167,742,641)		(3,167,742,641)
Retirement of treasury stock								
Cash dividend					(26,150,249,950)	(26,150,249,950)		(26,150,249,950)
Changes in non-controlling stockholders' interest		960,827,011,906		267,192,150		961,094,204,056	407,288,775,221	1,368,382,979,277
2021.12.31 (capital at end of period)	98,681,045,000	1,192,768,791,273	(21,346,012,463)	2,937,290,315	780,500,698,398	2,053,541,812,523	513,195,595,995	2,566,737,408,518
2022.01.01 (capital at beginning of period)	98,681,045,000	1,192,768,791,273	(21,346,012,463)	2,937,290,315	780,500,698,398	2,053,541,812,523	513,195,595,995	2,566,737,408,518
Net income (loss)					191,266,054,717	191,266,054,717	40,209,814,955	231,475,869,672
Capital change in equity method				(4,017,338)		(4,017,338)		(4,017,338)
Profit or loss on overseas operations translation				(1,400,684,377)		(1,400,684,377)	(60,038,156)	(1,460,722,533)
Gains on valuation of derivatives				385,472,161		385,472,161	149,693,427	535,165,588
Loss on valuation of financial assets at fair value through other comprehensive income								
Remeasurement factors of defined benefit liabilities					13,249,968,778	13,249,968,778	1,803,778,091	15,053,746,869
Capital increase without consideration								
Stock option granted			9,816,200			9,816,200		9,816,200
Exercise of stock option	112,460,000	1,940,945,008	(308,530,200)			1,744,874,808		1,744,874,808
Purchase of treasury stock								
Retirement of treasury stock					(49,982,601,979)	(49,982,601,979)		(49,982,601,979)
Cash dividend					(66,437,113,800)	(66,437,113,800)	(800,000,000)	(67,237,113,800)
Changes in non-controlling stockholders' interest		4,325,399,270		(85,372)		4,325,313,898	7,708,089,253	12,033,403,151
2022.12.31 (capital at end of period)	98,793,505,000	1,199,035,135,551	(21,644,726,463)	1,917,975,389	868,597,006,114	2,146,698,895,591	562,206,933,565	2,708,905,829,156
2023.01.01 (capital at beginning of period)	98,793,505,000	1,199,035,135,551	(21,644,726,463)	1,917,975,389	868,597,006,114	2,146,698,895,591	562,206,933,565	2,708,905,829,156
Net income (loss)					39,863,821,610	39,863,821,610	7,974,072,168	47,837,893,778
Capital change in equity method				(26,017,874)		(26,017,874)		(26,017,874)
Profit or loss on overseas operations translation				(2,004,765,458)		(2,004,765,458)	41,433,975	(1,963,331,483)
Gains on valuation of derivatives				(180,991,321)		(180,991,321)	(84,476,605)	(265,467,926)
Loss on valuation of financial assets at fair value through other comprehensive income				(37,312,222,542)		(37,312,222,542)	(17,415,254,288)	(54,727,476,830)
Remeasurement factors of defined benefit liabilities					(13,066,351,741)	(13,066,351,741)	(2,010,360,681)	(15,076,712,422)
Capital increase without consideration								
Stock option granted								
Exercise of stock option								
Purchase of treasury stock								
Retirement of treasury stock								

Cash dividend					(28,883,697,800)	(28,883,697,800)	(1,000,000,000)	(29,883,697,800)
Changes in non-controlling stockholders' interest		13,387,348,250		228,244,079		13,615,592,329	7,357,444,919	20,973,037,248
2023.12.31 (capital at end of period)	98,793,505,000	1,212,422,483,801	(21,644,726,463)	(37,377,777,727)	866,510,778,183	2,118,704,262,794	557,069,793,053	2,675,774,055,847

2-4. Consolidated Statement of Cash Flows

Consolidated Statement of Cash Flows

The 7th Period From 2023.01.01 to 2023.12.31

The 6th Period From 2022.01.01 to 2022.12.31

The 5th Period From 2021.01.01 to 2021.12.31

(Unit: KRW)

	The 7th Period	The 6th Period	The 5th Period
Cash flows from operating activities	146,064,486,206	(186,535,765,437)	509,316,464,742
Profit for the year	47,837,893,778	231,475,869,672	268,743,338,018
Non-cash adjustments to reconcile profit (loss) for the year to net cash flows provided by (used in) operating activities	184,647,287,718	135,908,098,051	352,160,892,583
Working capital adjustments	(21,843,441,674)	(359,736,960,553)	4,941,987,393
Interest received	14,824,578,916	6,663,546,566	1,351,693,026
Interest paid	(29,596,192,928)	(17,593,235,894)	(14,746,095,160)
Dividends received	1,190,000,000	2,190,000,000	3,757,950,000
Income tax paid	(50,995,639,604)	(185,443,083,279)	(106,893,301,118)
Cash flows from investment activities	(510,390,209,660)	230,967,888,504	(1,566,583,812,837)
Transfer of business			71,472,753,210
Net increase or decrease in short-term financial assets	128,727,989,334	492,087,506,548	
Decrease in short-term security deposit		47,486,775	
Decrease in short-term loans	2,363,272,510	358,680,253	7,648,508,237
Decrease in long-term security deposit	62,228,916	52,478,288	488,043,619
Decrease in long-term loans receivables	257,008,125	105,623,000	
Decrease in long-term investment assets	410,558,210		25,000,000
Decrease in long-term financial assets		45,985,232,055	990,000,000
Disposal of tangible assets and right-of-use assets	23,310,100	1,340,016,719	1,436,420,016
Disposal of intangible assets	920,000	1,264,591,806	
Receipt of government grant		3,179,262	85,756,878
Disposal of shares in affiliates		288,722,533	
Net increase in short-term financial assets			(1,460,408,834,006)
Increase in short-term security deposit	(16,248,007)	(8,338,659)	
Increase in short-term loans deposit		(12,047,663)	
Increase in long-term security deposit	(2,591,261,613)	(3,466,395,531)	(526,099,100)
Increase in long-term loans	(50,000,000)	(952,250,000)	
Increase in long-term financial instruments		(1,000,086,966)	(22,100,000,000)
Acquisition of long-term financial assets	(114,476,343,960)	(2,398,239,735)	(9,470,668,489)
Acquisition of tangible assets	(375,846,263,423)	(288,262,111,887)	(138,187,398,984)
Acquisition of tangible assets due to borrowing cost	(13,296,885,363)	(1,885,307,386)	(1,087,644,835)

borrowing cost			
Acquisition of right-of-use assets	(19,644,515)		
Acquisition of intangible assets	(10,738,887,107)	(12,580,850,908)	(6,650,456,470)
Cash outflow from business combination	(125,199,962,867)		
Disposal and dismantlement of tangible assets			(1,198,619,330)
Acquisition of investments in affiliates and joint ventures			(7,699,750,000)
Change in consolidation scope			(1,400,823,583)
Cash flows from financing activities	355,537,871,001	107,152,679,535	1,223,951,948,530
Proceeds from short-term borrowings	126,949,750,545	372,591,669,883	14,823,630,881
Net increase in foreign currency short-term borrowings		83,072,600,368	
Borrowing of long-term borrowings	469,715,903,160	7,573,158,841	
Borrowing in debentures	199,140,850,000		
Paid-In capital increase		1,744,874,808	725,021,000
Settlement of derivatives transactions	5,484,000,000		(628,085,085)
Cash inflow from consolidated capital transactions	397,598,916	2,617,945,592	1,481,370,713,920
Repayment of short-term borrowings	(290,424,994,272)	(27,845,557,184)	(79,550,000,000)
Net decrease in foreign currency short-term borrowings	(8,823,280,699)		(31,636,902,688)
Repayment of current portion of long-term borrowings			(1,003,200,000)
Repayment of current portion of bonds payable	(105,129,000,000)	(160,000,000,000)	(96,000,000,000)
Repayment of current portion of lease liabilities	(11,891,145,119)	(7,387,337,795)	(2,774,229,357)
Repayment of long-term borrowings		(48,000,000,000)	(32,059,000,000)
Acquisition of treasury stocks		(49,982,601,978)	(3,167,742,641)
Dividends paid	(29,881,811,530)	(67,232,073,000)	(26,148,257,500)
Net increase (decrease) in cash and cash equivalents	(8,787,852,453)	151,584,802,602	166,684,600,435
Cash and cash equivalents at beginning of period	407,117,941,795	255,615,367,155	86,764,151,843
Cash and cash equivalents classified as held for sale at the beginning	7,089,709,249		
Cash and cash equivalents on the statement of financial position at the beginning	400,028,232,546	255,615,367,155	
Effect of exchange rate fluctuations such as foreign currency denominated cash	5,924,327,983	(82,227,962)	2,166,614,877
Cash and cash equivalents classified as held for sale	(8,242,207,699)	(7,089,709,249)	
Cash and cash equivalents at end of period	396,012,209,626	400,028,232,546	255,615,367,155

3. Notes to the Consolidated Financial Statements

The 7th Period From January 1, 2023 to December 31, 2023

The 6th Period From January 1, 2022 to December 31, 2022

SK chemicals Co., Ltd. and its subsidiaries

1. General

1-1 Overview of the controlling company

SK chemicals Co., Ltd. (the "Parent Company") was established through a spin-off from SK discovery Co., Ltd. (formerly SK chemicals Co., Ltd.) on December 1, 2017, the date of the spin-off, for the purpose of manufacturing and selling synthetic resins and related products, and developing, producing, and selling pharmaceuticals and vaccines.

. The controlling company re-listed its stock certificates on the Korea Exchange on January 5, 2018, and operates its Ulsan and Cheongju Plants with its head office located in Seongnam-si, Gyeonggi-do.

On May 1, 2018, the Parent Company merged with SK Petrochemical Co., Ltd., a wholly owned subsidiary, and on July 1, 2018, the Company split off the business of developing, producing, and selling vaccines through a physical split-off and established SK bioscience Co., Ltd. Furthermore, the controlling company established SK Multi-Utility Co., Ltd., for the purposes of supplying utilities through a physical split-off on December 1, 2021, the date of split-off.

As of the end of the reporting period, the status of major shareholders (including preferred stocks) of the controlling company is as follows.

Name of shareholder	Common stocks		Preferred stocks	
	Number of shares held (stocks)	Equity interest (%)	Number of shares held (stocks)	Equity interest (%)
SK discovery Co., Ltd.	7,056,899	40.90	-	-
SK chemicals Co., Ltd. (Treasury shares)	30,857	0.18	148,133	7.00
Others	10,166,027	58.92	1,967,296	93.00
ToTotal	17,253,783	100.00	2,115,429	100.00

The consolidated financial statements of the Group were approved by the Board of Directors on February 7, 2024 and are scheduled to be finally approved at the general meeting of shareholders on March 26, 2024.

1-2 Status of subsidiaries

(1) As of the end of the current period, the details of subsidiaries are as follows.

Name of subsidiaries	Location	Month of settlement	Equity interest (%)	Major operating activities
SK chemicals (Suzhou) Co., Ltd. (Note 1)	China	December	100.00	Resin manufacturing
SK chemicals (Yantai) Co., Ltd.	China	December	100.00	Resin manufacturing
SK chemicals (Shanghai) Co., Ltd.	China	December	100.00	Management consulting
Shuye SK chemicals (Shantou) Co., Ltd. (Note 2)	China	December	100.00	Plastic manufacturing business
SK bioscience Co., Ltd. (Note 3)	Republic of Korea	December	67.76	Pharmaceutical manufacturing
SK bioscience USA, Inc. (Note 4)	United States of America	December	100.00	Biotechnology development
SK Multi-Utility Co., Ltd.	Republic of Korea	December	100.00	Manufacturing
SK chemicals Daejung Co., Ltd. (Note 5)	Republic of Korea	December	50.00	Organic solvent manufacturing
SK chemicals America	United States of America	December	100.00	Wholesale
SK chemicals GmbH	Germany	December	100.00	Wholesale
SK chemicals Malaysia	Malaysia	December	100.00	Management consulting

(Note 1) The Parent Company entered into a stock sale agreement to sell 100% of the shares of SK Chemical (Suzhou) Co., Ltd., to Sumeng Food Co., Ltd. in the previous period. The transaction closing date has been delayed to after the end of 2023 due to changes in the Chinese licensing process.

(Note 2) During the current period, Shuye-SK chemicals (Shantou) Co., Ltd. was newly invested in by the Parent Company and incorporated as a subsidiary.

(Note 3) During the current period, a portion of the stock options of SK bioscience Co., Ltd. was exercised, resulting in a change in equity interest.

(Note 4) During the previous period, SK bioscience USA, Inc. was newly capitalized by SK bioscience Co., Ltd. and incorporated as a subsidiary.

(Note 5) In the previous period, the Parent Company sold 50% of the shares of SK chemicals Daejung Co., Ltd., a subsidiary, to Daejung Chemicals & Metals Co., Ltd. The Parent Company has determined that it has control over SK chemicals Daejung Co., Ltd. even after the sale of shares based on the fact that the representative of the Parent Company serves as the CEO and holds decision-making authority in a deadlock situation.

(2) Summary financial information of subsidiaries

The summary financial information of major subsidiaries included in the scope of consolidation as of the end of the reporting period is as follows.

<Current period/Current period>

(Unit: KRW one thousand)

Name of company	Assets	Liabilities	Equity	Sales	Net income (loss)
SK chemicals (Suzhou) Co., Ltd.	16,069,710	17,086	16,052,624	833,285	(3,155,154)
SK chemicals (Yantai) Co., Ltd.	68,324,582	34,086,883	34,237,699	35,950,489	117,966
SK chemicals (Shanghai) Co., Ltd.	3,225,891	2,191,963	1,033,928	21,020,185	541,811
Shuye SK chemicals (Shantou) Co., Ltd.	159,831,991	110,111,889	49,720,102	16,077,437	(13,831,354)
SK bioscience Co., Ltd.	1,852,439,180	148,583,864	1,703,855,316	369,505,556	22,317,719
SK bioscience USA, Inc.	4,586,343	548,174	4,038,169	-	(2,089,243)
SK Multi-Utility Co., Ltd.	551,334,039	384,152,393	167,181,646	135,773,293	3,510,065
SK chemicals Daejung Co., Ltd.	19,273,010	4,212,600	15,060,410	20,570,517	1,744,356
SK chemicals America	40,544,296	30,766,989	9,777,307	95,430,625	2,200,589
SK chemicals GmbH	51,566,992	40,616,522	10,950,470	114,683,693	2,116,148
SK chemicals Malaysia	455,893	102,450	353,443	740,343	15,299
Total	2,767,651,927	755,390,813	2,012,261,114	810,585,423	13,488,202

<Previous period/Previous period>

(Unit: KRW one thousand)

Name of company	Assets	Liabilities	Equity	Sales	Net income (loss)
SK chemicals (Suzhou) Co., Ltd.	26,772,908	7,560,326	19,212,582	45,840,803	1,361,690
SK chemicals (Yantai) Co., Ltd.	48,880,667	14,645,528	34,235,139	-	-
SK chemicals (Shanghai) Co., Ltd.	1,202,704	698,836	503,868	2,643,234	(141,754)
SK bioscience Co., Ltd.	2,142,189,396	399,934,106	1,742,255,290	456,725,871	122,816,574
SK bioscience USA, Inc. (Note 1)	6,292,487	295,282	5,997,205	-	(364,624)
SK Multi-Utility Co., Ltd.	301,528,541	137,666,074	163,862,467	139,201,095	2,399,435
SK chemicals Daejung Co., Ltd.	18,306,557	2,963,211	15,343,346	24,455,937	2,778,764
SK chemicals America	69,064,968	60,919,851	8,145,117	122,007,603	2,433,910
SK chemicals GmbH	60,036,366	51,797,171	8,239,195	137,840,422	3,036,307
SK chemicals Malaysia	492,998	143,970	349,028	385,410	16,277
Total	2,674,767,592	676,624,355	1,998,143,237	929,100,375	134,336,579

(Note1) During the previous period, SK bioscience USA, Inc. was newly capitalized by SK bioscience Co., Ltd. and incorporated as a subsidiary.

1-3 Current status of affiliates and joint ventures investments

The status of affiliates and joint ventures investments as of the end of the reporting period is as follows.

Name of company	Location	Month of settlement	Equity interest (%)	Major operating activities
Entis Co., Ltd.	Republic of Korea	December	50.00	Manufacturing
JSI Co., Ltd.	Republic of Korea	December	40.00	Resin manufacturing
HDC Polyall Co., Ltd.	Republic of Korea	December	20.00	Manufacturing

(Note 1) During the previous period, the Group disposed of all its shares in ST Green Energy.

1-4 Details of changes in the subsidiaries

The major subsidiaries that were excluded from or added to the scope of preparation of the consolidated financial statements during the current and previous periods are as follows.

<Current period>

Classification	Name of subsidiaries	Reason
Added	Shuye SK chemicals (Shantou) Co., Ltd.	New investment

<Previous period>

Classification	Name of subsidiaries	Reason
Added	SK bioscience USA, Inc.	New investment

1-5 Non-controlling interest

(1) The details of the non-controlling interest as of the end of the reporting period are as follows.

<End of the current period>

(Unit: KRW one thousand)

Classification	SK bioscience	SK chemicals Daejung	Total
Ratio of non-controlling interest	32.24%	50.00%	
Assets	1,852,439,180	19,273,010	1,871,712,190
Liabilities	148,583,864	4,212,600	152,796,464
Net assets	1,703,855,316	15,060,410	1,718,915,726
Non-controlling interest	549,539,588	7,530,205	557,069,793

<End of the previous period>

(Unit: KRW one thousand)

Classification	SK bioscience	SK chemicals Daejung	Total
Ratio of non-controlling interest	31.82%	50.00%	
Assets	2,141,931,384	18,306,557	2,160,237,941
Liabilities	400,229,388	2,963,211	403,192,599
Net assets	1,741,701,996	15,343,346	1,757,045,342
Non-controlling interest	554,535,261	7,671,673	562,206,934

(2) The details of net income for the non-controlling interest, etc., during the current and previous periods are as follows.

<Current period>

(Unit: KRW one thousand)

Classification	SK bioscience	SK chemicals Daejung	Total
Ratio of non-controlling interest	32.24%	50.00%	
<Total comprehensive income>			
Net income	22,317,719	1,744,356	24,062,075
Other comprehensive income (loss)	(61,137,420)	(27,292)	(61,164,712)
Total comprehensive net income	(38,819,701)	1,717,064	(37,102,637)
Net income allocated for non-controlling interest	7,101,894	872,178	7,974,072
Total comprehensive income allocated for non-controlling interest	(12,353,117)	858,532	(11,494,585)
<Cash flows>			
Cash flows from operating activities	9,460,793	1,003,644	10,464,437
Cash flows from investment activities	(14,597,129)	519,787	(14,077,342)
Cash flows from financing activities	(28,879,989)	(1,090,997)	(29,970,986)
Effect of exchange rate fluctuations	2,338,304	-	2,338,304
Net change in cash and cash equivalents	(31,678,021)	432,434	(31,245,587)

<Previous period>

(Unit: KRW one thousand)

Classification	SK bioscience	SK chemicals Daejung	Total
Ratio of non-controlling interest	31.82%	50.00%	
<Total comprehensive income>			
Net income	122,451,950	2,778,764	125,230,714
Other comprehensive income (loss)	5,904,989	30,533	5,935,522
Total comprehensive net income	128,356,939	2,809,297	131,166,236
Net income allocated for non-controlling interest	38,820,433	1,389,382	40,209,815
Total comprehensive income allocated for non-controlling interest	40,698,600	1,404,648	42,103,248
<Cash flows>			
Cash flows from operating activities	(39,763,944)	1,101,792	(38,662,152)
Cash flows from investment activities	86,649,203	(166,262)	86,482,941
Cash flows from financing activities	(6,322,084)	(834,627)	(7,156,711)
Effect of exchange rate fluctuations	(67,045)	(49)	(67,094)
Net change in cash and cash equivalents	40,496,130	100,854	40,596,984

1-6 Stock options granted by the subsidiaries

- (1) A subsidiary of the consolidated companies, SK bioscience has granted stock options to its key executives, and the major issues are as follows.

Date of grant	Number of stocks to be issued	Period of exercise	Exercise price	Fair value on the date of grant
2018.12.11	218,520 shares	2021.12.12 - 2028.12.11	KRW 9,154/stock	KRW 1,649/stock

- (Note 1) In the period before the previous period, due to the stock dividend and stock split, the number of shares to be issued was adjusted from 18,209 shares to 546,270 shares, the exercise price was adjusted from KRW 274,621 per share to KRW 9,154 per share, and the fair value at the grant date was adjusted from KRW 49,465 per share to KRW 1,649 per share.

(2) The fair value of stock options granted by SK bioscience, a subsidiary of the Group, was calculated according to the binomial option pricing model. The variables applied to the model are as follows.

Classification	Portion granted on 2018.12.11
Stock price on the date of grant (Note 1)	KRW 9,154/stock
Exercise price (Note 1)	KRW 9,154/stock
Expected volatility	11.90%
Risk-free interest rate	1.94%

(Note1) In the period before the previous period, due to the stock dividend and stock split, the stock price and exercise price at the grant date were adjusted from KRW274,621 per share to KRW 9,154 per share.

(3) Changes in stock options granted by SK bioscience, a subsidiary of the Group, during the current and previous periods are as follows.

<Current period> (Unit: stocks, KRW one thousand)

Date of grant	Number of stocks to be issued			Valuation amount		
	Granted	Exercised	End of period	Beginning of period	Exercised	End of period (Note 1)
2018.12.11	546,270	(327,750)	218,520	432,364	(72,060)	360,304

(Note 1) Stock options granted by SK bioscience are included in non-controlling interests of the Group.

<Previous period> (Unit: stocks, KRW one thousand)

Date of grant	Number of stocks to be issued			Valuation amount		
	Granted	Exercised	End of period	Beginning of period	Exercised	End of period (Note 1)
2018.12.11	546,270	(284,046)	262,224	900,710	(468,345)	432,365

(Note 1) Stock options granted by SK bioscience are included in non-controlling interests of the Group.

2. Significant accounting policies and standards for the preparation of financial statements

2-1 Standards for the preparation of consolidated financial statements

The consolidated financial statements have been prepared on a historical cost basis, except for derivative financial instruments, debt and equity financial assets measured at fair value, and contingent consideration. The carrying amounts of assets and liabilities designated as hedged items of fair value hedges are not recorded at amortized cost but are recorded to reflect changes in fair value corresponding to the hedged risk within an effective hedging relationship. These consolidated financial statements are presented in Korean won, and have been rounded to the nearest thousand, unless otherwise indicated. The consolidated financial statements have been prepared on a historical cost basis, except for debt and equity financial assets measured at fair value.

2-2 Applicable accounting standards

The financial statements of the Group have been prepared in accordance with Korean International Financial Reporting Standards (KIFRS) enacted pursuant to the Act on External Audit of Stock Companies.

2-3 Consolidation standards

The consolidated financial statements consist of the financial statements of the controlling company and its subsidiaries as of December 31 of each fiscal year. Control is achieved when the Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. Specifically, the consolidated companies control the investee only if and when they have all of the following:

- Power over the investee (i.e., existing rights that give it the current ability to direct the relevant activities of the investee)
- Exposure or right to the variable gains from involvement with the investee
- The ability to use its power over the investee to affect its returns

When holding less than a majority of voting rights in the investee, the consolidated companies consider any and all facts and circumstances when assessing whether they have power over the investee, including the following:

- A contractual arrangement between the investor and other voting right holders
- Other rights arising from contractual agreements
- Voting rights and potential voting rights of the consolidated companies

The consolidated companies reassess whether they control the investee if any facts and circumstances indicate a change in one or more of the 3 elements of control. The consolidation of subsidiaries is carried out from the time the consolidated companies acquire control over the subsidiary until they lose control. The assets, liabilities, income, and expenses of a subsidiary acquired or disposed of during the year are included in the consolidated financial statements from the date the Group gains control until the date when the Group ceases to control the subsidiary.

Each component of the net income and other comprehensive income is reverted to the owners of the controlling company and the non-controlling interest even if the non-controlling interest becomes a negative balance. When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies in line with the Group's accounting policies. The assets, liabilities, equity, income, expenses, and cash flows of all consolidated companies arising from the transactions by and between the consolidated companies are derecognized in full.

A change in the ownership interest of a subsidiary, without a loss of control, is accounted for as an equity transaction. If the Group loses control over a subsidiary, it:

- Derecognition of the book amount of the assets and liabilities of the subsidiaries, including goodwill
- Derecognition of the book amount of the non-controlling interest
- Derecognition of the cumulative translation differences appropriated for equity
- Recognition of fair value of the consideration received
- Recognition of fair value of the investment interest owned
- Recognition of the difference resulting from the accounting above as profit or loss
- Reclassification of the interest of the controlling company recognized as other comprehensive income in connection with the subsidiaries as profit or loss or retained earnings in the same manner as if and when the consolidated companies had directly disposed of the relevant assets or liabilities

2-4 Business combination and goodwill

The business combinations are accounted for using the acquisition method. Acquisition cost is measured as the sum of the consideration transferred measured at fair value at the acquisition date and the amount of any non-controlling interests in the acquiree. For each business combination, the acquirer measures the non-controlling interests in the acquiree either at fair value or at the proportionate share of the acquiree's identifiable net assets. Acquisition-related costs are expensed as incurred.

The consolidated entity determines that a business has been acquired when the set of activities and assets acquired includes inputs and substantive processes that together significantly contribute to the ability to create outputs. A process (or a set of processes) is considered substantive if (1) the process (or set of processes) is critical to the ability to continue producing outputs, and the inputs acquired include an organized workforce that has the necessary skills, knowledge, or experience to perform that process (or set of processes), or (2) the process acquired significantly contributes to the ability to continue producing outputs and is considered to be unique or scarce or cannot be replaced without significant cost, effort, or delay in the ability to continue producing outputs.

At the acquisition date, the consolidated entity classifies or designates the identifiable assets acquired and liabilities assumed on the basis of the contractual terms, economic conditions, its operating or accounting policies and other pertinent conditions as they exist at the acquisition date.

If the acquirer provides contingent consideration to the acquiree, the consideration is measured at fair value at the acquisition date and included in the consideration transferred. Subsequent changes in the fair value of the contingent consideration classified as an asset or liability are recognized in profit or loss or as other comprehensive income in accordance with K-IFRS 1109. Also, contingent consideration that is classified as equity is not remeasured and its subsequent settlement is accounted for within equity.

The goodwill is measured as the sum of the transfer price and the amount of non-controlling interest and the previously held interest which exceeds the net identifiable assets acquired and liabilities assumed. If, after reassessment, the net amount of the identifiable assets acquired and liabilities assumed at the acquisition date exceeds the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree and the fair value of the acquirer's previously held interest in the acquiree (if any), the excess is recognized immediately in profit or loss as a bargain purchase gain. Even after such a reassessment, if the total amount of the consideration transferred, etc. is still less than the fair value of the net assets acquired, that difference is recognized as profit or loss.

After initial recognition, goodwill is measured at cost less any accumulated impairment losses.

For the purpose of impairment testing, goodwill acquired in a business combination is, from the acquisition date, allocated to each of the consolidated entity's cash-generating units (or groups of cash-generating units) that are expected to benefit from the synergies of the combination, irrespective of whether other assets or liabilities of the acquiree are assigned to those units or groups of units.

Where goodwill forms part of a cash-generating unit and part of the operation within that unit is disposed of, the goodwill associated with the operation disposed of is included in the carrying amount of the operation when determining the gain or loss on disposal of the operation, and it is measured based on the relative values of the operation disposed of and the portion of the cash-generating unit retained.

2-5 Investment in affiliates and joint ventures

An affiliate is an entity over which the consolidated entity has significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those policies.

A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the joint arrangement. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control.

The consolidated entity accounts for its investments in affiliates and joint ventures using the equity method. Investments in affiliates and joint ventures are initially recognized at cost and the carrying amount is increased or decreased to recognize the consolidated entity's share of the change in net assets of the affiliates or joint ventures since the date of acquisition. Goodwill relating to the affiliates or joint ventures is included in the carrying amount of the investment and is neither amortized nor individually tested for impairment.

The consolidated entity's share of the profit or loss resulting from operations of affiliates and joint ventures is directly reflected in the consolidated statement of comprehensive income, and the consolidated entity's share of changes in net assets of affiliates or joint ventures arising from equity is reflected in equity, and is disclosed in the consolidated statement of changes in equity where applicable. Unrealized gains and losses resulting from transactions between the consolidated entity and affiliates and joint ventures are eliminated to the extent of the consolidated entity's interest in the affiliates and joint ventures.

Profits from affiliates and joint ventures are presented in the consolidated statement of comprehensive income as equity method profits, representing the consolidated entity's share after deducting tax effects

The financial statements of associates and joint ventures have the same reporting period as the controlling company's financial statements, and the associates' and joint ventures' financial statements are adjusted as necessary to apply the same accounting policies as the consolidated companies for similar transactions and events occurring in similar circumstances.

When applying the equity method, the consolidated companies judge at the end of each reporting period whether there is objective evidence that the investments in associates and joint ventures are impaired in order to determine whether additional impairment losses need to be recognized for the investments. If impairment is necessary, the difference between the recoverable amount of the associate or joint venture and its carrying amount is recognized as an impairment loss in the consolidated statement of comprehensive income.

2-6 Foreign currency translation

The consolidated companies present their financial statements in Korean won, the consolidated companies' functional currency.

(1) Transactions and balance

In preparing the financial statements of the consolidated companies, transactions made in a foreign currency are recorded using the exchange rate on the transaction date. Monetary assets and liabilities denominated in foreign currencies are translated at the exchange rate of the functional currency as of the end of the reporting period. The translation differences arising therefrom are reflected in profit or loss.

Meanwhile, the foreign currency denominated non-monetary items measured at the historical cost are recognized by applying the exchange rate on the date of the initial transaction. The foreign currency denominated non-monetary items measured at fair value are recognized by applying the exchange rate on the date of fair value measurement. Profits or losses arising from the translation of non-monetary items are recognized as other comprehensive income or profit or loss in the same manner as the profits or losses arising from the changes in the fair value of the items.

The date of the transaction used to determine the exchange rate for the initial recognition of the related assets, expenses, or income (or any portion thereof) is the date on which the consolidated companies first recognize the non-monetary assets or non-monetary liabilities based on the advance payment or receipt of consideration. Where multiple advance payments or receipts are made, the consolidated companies determine the date of the transaction for each advance payment or receipt of consideration.

(2) Translation of the overseas workplaces

The assets and liabilities of overseas workplaces are translated into Korean won using the exchange rate as of the end of the reporting period, and the items in the consolidated statement of comprehensive income are translated into Korean won by applying the average exchange rate for the relevant period, with the foreign currency translation differences arising from such translations recognized as separate items of equity. Meanwhile, the accumulated foreign exchange differences recognized in equity are reflected in profit or loss at the time of disposal of the overseas workplaces. The fair value adjustments made for the book amounts of the goodwill and assets and liabilities arising from the acquisition of overseas workplaces are considered as the assets and liabilities of overseas workplaces and are translated at the exchange rate as of the end of the reporting period.

2-7 Profits from the contracts with customers

The consolidated companies operate two business divisions: Green Chemicals and Life Science. The Green Chemicals business division produces and sells PET resins, highly functional PETG resins, industrial adhesives, etc., while the Life Science business division engages in the pharmaceutical and vaccine businesses. For contracts with customers, the consolidated companies recognize revenue at an amount that reflects the consideration they expect to be entitled to in exchange for transferring the control of goods or services to the customer. The consolidated companies have concluded that they are the principal in the contracts with customers since they control each specified good or service before transferring it to the customer.

(1) Sales of goods

The sales revenue of goods is generally recognized upon delivery, when the control of the assets is transferred to the customers. The typical recovery period for receivables is 30 to 90 days after delivery. The consolidated companies consider whether other promises in the contracts constitute separate performance obligations for which a portion of the transaction consideration must be allocated. In calculating the transaction price for the sales of goods, the consolidated companies consider variable consideration, significant financing components, non-cash consideration, and the consideration payable to customers.

- Licensing: right to use

A license agreement pertains to the right to use intellectual property existing at the time the license is granted, and it means that the customer is able to direct the use of the license and to obtain substantially all the remaining benefits from the license at the point of transfer. When the consolidated companies provide a license to a customer, they recognize it as a performance obligation satisfied at a point in time.

- Licensing: right to access

The consolidated companies allow customers to use drug licenses for a certain period and receive payment for the license. Additionally, they provide research services during the contract period in addition to the obligation of license provision.

- Sales of vaccines and biopharmaceuticals

The sales revenue from vaccines and biopharmaceuticals is generally recognized upon delivery, when the control of the assets is transferred to the customer. The typical recovery period for receivables is 90 to 180 days after delivery. The consolidated companies consider whether other promises in the contracts constitute separate performance obligations for which a portion of the transaction consideration must be allocated. In calculating the transaction price for the sale of goods, the consolidated companies consider variable consideration, significant financing components, non-cash consideration, and the consideration payable to customers.

- Consigned production and development of the vaccines and biopharmaceuticals

We provide services such as the consigned production and development of vaccines and biopharmaceuticals consigned by customers, and bioanalysis. There is no substitute use for the manufactured products, and there is an enforceable right to claim payment for the completed performance. This is because the consolidated companies produce pharmaceuticals of the quality required by the customer, and if the contract is terminated by the customer, the consolidated companies can claim compensation for reasonable profits based on the cost input. Revenue from contracts with customers is recognized when a portion of the performance obligations are satisfied, and is recognized over a portion of the period. The consolidated companies measure the rate of progress based on the output method or the input method by considering the characteristics of the goods or services promised to be transferred to the customer, and recognize the revenue over a period. In accordance with the practical expedient method of Corporate Accounting Standard No. 1115, the transaction price allocated for the non-performed portion of the related contract was not disclosed.

- Contracts of joint type

The consolidated companies execute contracts with other companies not for the purpose of acquiring the outputs of a typical corporate activity, but to participate in an activity or process. If the parties to the contract share the risks and benefits arising from such activity or process, they recognize these as contracts of a joint type. Regarding the costs incurred for a collaboration agreement, intangible assets or expenses are recognized depending on whether the conditions for identifiability, control, and future economic benefits are satisfied. Residual agreements, which are agreements to provide distinguished goods or services and receive relevant consideration therefor, are recognized as revenue in accordance with the performance obligations identified under the contract. The performance obligations do not include the obligations to share the resources engaged in the activities or processes which form the substance of the contracts of joint type.

① Variable consideration

If the contract includes variable consideration, the consolidated companies estimate the amount they will receive in exchange for transferring the promised goods to the customer. When the uncertainties associated with the variable consideration are later resolved, the variable consideration is estimated at the commencement of the contract and included in the transaction price only to the extent that it is highly probable that a significant portion of the amount of accumulated revenue recognized will not be reversed. Some contracts for the sales of goods provide the customer with the right to return. The right to return corresponds to a variable consideration.

- Right to return

Certain contracts provide the customers with the right to return goods within a certain period. To estimate the goods that will not be returned, the consolidated companies use expected values at which they are expected to better predict the consideration to which they will be entitled. Among the requirements of Corporate Accounting Standard No. 1115, the restrictions on the estimation of variable consideration are applied even when determining the amount of variable consideration included in the transaction price. The consolidated companies recognize goods expected to be returned not as revenue, but as refund liabilities. The right to the returned goods and the corresponding adjustment for the cost of goods sold are recognized.

- Quantity rebate

The consolidated companies retroactively provide a quantity rebate to a specific customer for previous purchase quantities if the purchase exceeds the contractual limit. The rebate is deducted from the amount payable by the customer. To estimate the variable consideration for a rebate expected in the future, the consolidated companies apply the most probable amount method for contracts with only one quantity criterion and the expected value method for contracts with multiple quantity criteria. The consolidated companies consider the number of quantity criteria under the contract as a key factor in selecting the method which best predicts the variable consideration. The consolidated companies recognize refund liabilities for the anticipated future rebates by applying the requirements for the variable consideration's constraints.

② Significant financial elements

The consolidated companies do not reflect the effect of a significant financial component on the promised consideration (amount) if the period between the transfer of the promised goods or services to the customer at the commencement of the contract and the payment of the consideration is expected to be less than a year.

(2) Contract balance

① Contract assets

A contract asset is the right to receive consideration for the goods or services transferred to a customer. If the consolidated companies transfer goods or services to a customer before the customer pays the consideration or before the payment due date, the asset representing the company's right to receive consideration, subject to conditions other than the passage of time, is a contract asset. The contract assets are assessed for impairment.

② Trade receivables

A receivable is recognized when an amount of unconditional consideration is due for payment by and from the customer (that is, where only the lapse of time is required before the consideration is paid upon maturity). For the accounting policies related to financial assets, refer to Note 2-11.

③ Contract liabilities

A contract liability is the obligation to transfer goods or services to a customer for which the consolidated companies have received consideration from the customer. If the customer pays the consideration before the consolidated companies transfer goods or services to the customer, the contract liabilities are recognized when it is paid or when it is due, whichever is earlier. Contract liabilities are recognized as revenue when the consolidated companies perform under the contract.

(3) Contractual performance cost

Contract fulfillment costs are costs incurred in fulfilling a contract with a customer. These costs are recognized as an asset if they are directly related to a contract or an anticipated contract that the entity can specifically identify, generate or enhance resources of the entity that will be used in satisfying (or in continuing to satisfy) performance obligations in the future, and are expected to be recovered. The capitalized contract fulfillment costs are recognized as cost of sales based on the future progress of the contract.

The consolidated companies present the contractual performance costs as inventories or contract assets.

(4) Assets and liabilities arising from the right to return

① Right to recover the returned product

The right to recover the returned product is the consolidated companies' right to recover a product which the customer is expected to return. The assets are measured at the existing book amount of inventories minus the expected cost of recovering the products and any potential reduction in the value of the products returned.

② Refund liabilities

The refund liability is an obligation to return a portion or all of the consideration received or receivable from the customer. It is measured as the amount the consolidated companies expect to ultimately refund to the customer. The consolidated companies update the estimates of refund liabilities and changes in the transaction price accordingly at the end of each fiscal period. For the variable consideration, refer to the accounting policies above.

Refer to Note 3 for the disclosures on significant judgments, estimates and assumptions related to the profits from contracts with the customers.

2-8 Government subsidies

Government subsidies are recognized if and when there is a reasonable assurance of the receipt of the subsidies and the fulfillment of ancillary conditions therefor. Profit-related subsidies are recognized as profits in line with a systematic standard over the period needed to match the costs associated with the subsidies intended to cover, while the assets related subsidies are recognized as deferred revenue, and the same amount is recognized as the revenue each year over the useful life of the related assets.

When non-monetary assets are received as subsidies, the consolidated companies record the assets and subsidies in nominal amounts and recognize them as revenue in the statement of income on a straight-line basis over the estimated useful lives of the related assets. When a loan or similar aid is provided and received at an interest rate lower than the market rate, the benefit from the lower interest rate is recognized as an additional government subsidy.

2-9 Corporate tax

(1) Current income tax

The current tax liabilities (assets) for the current and previous periods are measured at the amount expected to be paid to (refunded by and from) the tax authorities using the tax rates and tax laws enacted or substantively enacted by the end of the current period.

The current income tax related to the items directly reflected in equity are reflected in equity, and are not reflected in the consolidated statements of comprehensive income. The senior management regularly assesses the recoverability of the amount of corporate tax refund in connection with the interpretation of relevant tax laws, and establishes provisioning liabilities as needed.

(2) Deferred income tax

For the purposes of financial reporting of the assets and liabilities, the consolidated companies recognize the deferred income tax assets and deferred income tax liabilities for temporary differences, which are the differences between the book amount and the tax reference amount.

The consolidated companies recognize the deferred income tax liabilities for all temporary differences, except under the following circumstances:

- Where deferred income tax liabilities arise when the goodwill is initially recognized
- Where deferred income tax liabilities arise from transactions which do not affect the accounting profits or taxable income at the time of the transaction, not a business combination transaction in which assets or liabilities are initially recognized
- Where it is highly probable that the temporary differences will not be extinguished in the foreseeable future as they are taxable temporary differences in connection with the investment interest in subsidiaries, affiliates, and joint ventures, and where the point in time of the extinction of the temporary difference may be controlled

Furthermore, deferred income tax assets are recognized when it is highly probable that the taxable income can be used for deductible temporary differences and unused tax credits and tax losses, except in the following cases:

- Where deferred income tax assets arise from transactions which do not affect the accounting profits or taxable income at the time of the transaction, not a business combination transaction in which assets or liabilities are initially recognized
- Where deductible temporary differences exist in connection with the investment interest in subsidiaries, affiliates, and joint ventures, and where it is not highly probable that the temporary differences will be extinguished in the foreseeable future, or where it is not probable that the taxable income for which the temporary difference can be used will arise

The book amount of the deferred income tax assets is reviewed at the end of each reporting period. If it is no longer probable that a sufficient taxable income will be available to use the benefits of some or all of the deferred income tax assets, the book amount of the deferred income tax assets is reduced. Meanwhile, the reduced amount is reversed to the extent that it is highly likely that a sufficient taxable income will be generated for use. Furthermore, at the end of each reporting period, the unrecognized deferred income tax assets are reviewed, and the previously unrecognized deferred income tax assets are recognized to the extent that it is highly probable that the deferred income tax assets will be recovered based on the future taxable income.

The deferred income tax assets and liabilities are measured using the tax rates expected to be applied for the fiscal period in which the assets are realized or liabilities are settled based on the tax rates (and the tax laws) enacted or substantively enacted by the end of the reporting period.

The current and deferred tax related to the items recognized other than the profit or loss are recognized as items other than profit or loss. The deferred tax items are recognized as other comprehensive income or reflected directly in equity depending on the relevant transaction.

If the tax benefits acquired as a part of a business combination did not satisfy the separate recognition criteria at the relevant point in time, yet were recognized during the measurement period as a result of new information on the facts and circumstances existing on the date of acquisition, the relevant deferred tax benefits are recognized. The recognized acquired deferred tax benefits are applied to reduce the book amount of the goodwill related to the acquisition. If the book amount of the goodwill is zero, the remaining deferred tax benefits are recognized as profit or loss.

The consolidated companies are entitled to legally enforce the offset of the current tax assets and current tax liabilities, and if the taxable companies are the same, or if the taxable companies are different yet there is an intention to settle the current tax liabilities and assets in a net amount, or if there is an intention to settle the liabilities at the same time as realizing the assets for each fiscal period in the future where the deferred income tax liabilities are settled or the deferred income tax assets are recovered in a significant amount, the deferred income tax assets and deferred income tax liabilities are appropriated and presented only if and when the deferred income tax assets and deferred income tax liabilities are related to the same tax authority.

(3) Sales tax

Revenue, expenses and assets are recognized as the net amount minus applicable sales tax. However, if the sales tax related to the purchase of an asset or service cannot be refunded by and from the tax authorities, it is recognized as part of the acquisition cost or part of the expense item, and the relevant receivables and liabilities are presented as the amount including the sales tax.

The net amount of the sales tax to be refunded by or payable to the tax authority is included in the receivables or liabilities in the statement of financial position.

2-10 Retirement benefits

The consolidated companies operate a defined benefit retirement pension plan, and the benefit cost of the defined benefit plan is determined using the projected unit credit method. Remeasurement elements, which consist of actuarial gains and losses, the return on plan assets (excluding amounts included in net interest), and the effect of the asset ceiling (if any, excluding amounts included in net interest), are recognized immediately in other comprehensive income in the period in which they occur and are not subsequently reclassified to profit or loss.

The past service cost is recognized as an expense based whichever is the earlier of the following:

- When the plan is revised or reduced
- When the relevant restructuring costs or termination benefits are recognized

The net interest is determined by multiplying the net defined benefit liabilities (assets) by the discount rate. The consolidated companies recognize the service cost and the net interest on the net defined benefit liabilities as profit or loss for the items of the cost of goods sold and the selling, general, and administrative expenses.

Meanwhile, the consolidated companies operate a defined contribution plan for some of the executives and employees, and the contribution is recognized as an expense when the executives and employees provide service at work. In the current period, the cost recognized in profit and loss related to the defined contribution plan is KRW 514,306,000 (previous period: KRW 585,314,000).

2-11 Financial instruments: initial recognition and subsequent measurements

A financial instrument is any contract which creates a financial asset for one of the parties to a transaction and a financial liability or equity instrument for the other party to the transaction.

(1) Financial assets

1) Initial recognition and measurement

Financial assets are classified into financial assets measured at amortized cost upon initial recognition, financial assets measured at fair value through other comprehensive income, and financial assets measured at fair value through profit or loss.

The classification of financial assets upon initial recognition depends on the contractual cash flow characteristics of the financial assets and the consolidated companies' business model for managing them. Excluding trade and other receivables that do not contain a significant financial element or for which the practical expedient method is applied, the consolidated companies initially measure financial assets at fair value. If they are not financial assets measured at fair value through profit or loss, the transaction costs are added or deducted. Trade and other receivables, which do not include a significant financing element or for which the practical expedient method is applied, are measured at the transaction cost determined in accordance with Corporate Accounting Standard No. 1115.

To measure the financial assets at amortized cost or fair value through other comprehensive income, the cash flows must consist of solely payments of principal and interest (SPPI). This assessment is called the SPPI test and is performed at the level of the individual instrument.

The consolidated companies' business model for the management of financial assets relates to the management of financial assets intended to generate cash flows. The business model determines whether the source of cash flows is the receipt or sale of the contractual cash flows of the financial assets, or whether it is both.

The purchase or sale of financial assets (standardized transaction) in which the financial assets are required to be transferred within a time frame established by market agreement or regulation is recognized on the date of transaction. This means the day the consolidated company agrees to purchase or sell a financial asset

2) Subsequent measurements

For the subsequent measurements, the financial assets are classified into the following four categories:

- Financial assets measured at amortized cost (debt instruments)
- Financial assets at fair value through other comprehensive income with recycling of cumulative gains and losses (debt instruments)
- Financial assets designated at fair value through other comprehensive income with no recycling of cumulative gains and losses upon derecognition (equity instruments)
- Financial assets measured at fair value through profit or loss

① Financial assets measured at amortized cost (debt instruments)

This category is most closely related to the consolidated companies. The consolidated companies measure the financial assets at amortized cost if and when all of the following terms and conditions are satisfied.

- The Company holds financial assets within a business model whose objective is to hold financial assets in order to collect contractual cash flows, and
- The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

The financial assets measured at amortized cost are subsequently measured using the effective interest rate (EIR) method, and the impairment is recognized. The profits and losses arising from the derecognition, change, or impairment of assets are recognized as profit or loss.

② Financial assets measured at fair value through other comprehensive income (debt instruments)

The consolidated companies measure the debt instruments which satisfy all of the following terms and conditions as financial assets at fair value through other comprehensive income.

- According to the contractual terms and conditions of financial assets, cash flows consist only of principal and interest payments which are generated on a specific date.
- The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

For the debt instruments measured at fair value through other comprehensive income, the interest income, foreign currency translation profits and losses, and impairment or reversal are calculated in the same manner as financial assets measured at amortized cost and are recognized as profit or loss. The rest of the changes in fair value are recognized as other comprehensive income. When the financial assets are derecognized, the accumulated change in fair value recognized as other comprehensive income is recirculated as profit or loss.

③ Financial assets measured at fair value through other comprehensive income (equity instruments)

Upon the initial recognition, the consolidated companies can make an irrevocable selection to measure the equity instruments which satisfy the definition of equity under Corporate Accounting Standard No. 1032 'Presentation of Financial Instruments' and which are not held for investment purposes at fair value through other comprehensive income.

The profits and losses arising from such financial assets are not recirculated as profit or loss. Dividends are recognized in the statement of income as other income and accounted for as other comprehensive income when the entitlement is confirmed, except when the consolidated companies profit by recovering a portion of the cost of the financial assets. No impairment is recognized for the equity instruments measured at fair value through other comprehensive income.

The consolidated companies can also make irrevocable selections for the unlisted equity instruments.

④ Financial assets measured at fair value through profit or loss

Financial assets measured at fair value through profit or loss include trading items, financial assets designated for measurement at fair value through profit or loss upon initial recognition, or financial assets required to be measured at fair value. Financial assets acquired for the purpose of sale or repurchase within a short period are classified as the trading items. Derivatives, including separated embedded derivatives, are classified as the trading items unless they are designated as effective hedging instruments. The financial assets whose cash flows do not consist only of the payment of principal and interest are classified and measured as financial assets measured at fair value through profit or loss, regardless of the business model. As described in the paragraph above, notwithstanding the fact that the debt instruments are classified as financial assets measured at amortized cost or fair value, if the accounting mismatch can be derecognized or significantly reduced, the debt instruments may be designated to be measured at fair value through profit or loss.

The financial assets measured at fair value through profit or loss are presented at fair value in the statement of financial position, and the net changes in fair value are recognized as profit or loss in the statement of income.

This category includes the derivatives and the traded equity instruments for which no irrevocable selection was made to account for the changes in fair value as other comprehensive income.

The dividends for the traded equity instruments are recognized as profit or loss when the rights are confirmed.

As for the derivatives embedded in hybrid contracts, the economic characteristics and risks are not closely related to the main contract, and the separate instruments with the same conditions as the embedded derivative satisfy the definition of derivative, and if the hybrid contract is not measured at fair value through profit or loss, it is accounted for as derivative as a separate derivative from the main contract. The embedded derivatives are measured at fair value, and the changes in fair value are recognized as profit or loss. A re-evaluation occurs only when and if there is a change in the terms and conditions of the contract which significantly changes the cash flows, or if it becomes not applicable for the category of fair value measurement through profit or loss.

In hybrid contracts for which the main contract is a financial asset, embedded derivatives are not accounted for separately. The financial assets and embedded derivatives, which are the main contracts, are classified as financial assets measured at fair value through profit or loss.

3) Derecognition

A financial asset (or a portion of a financial asset or of a group of similar financial assets) is derecognized with priority under the following circumstances:

- The right to receive cash flows from financial assets is extinct, or
- The Group transfers its contractual rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a 'pass-through' arrangement. In this case, the Group has transferred substantially all the risks and rewards of the asset, or the Group has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

When the consolidated companies transfer the right to receive cash flows from a financial asset or execute a pass-through contract, they assess whether they maintain the risks and rewards of owning the assets. If the Group has neither transferred nor retained substantially all the risks and rewards of the financial asset, the Group continues to recognize the transferred asset to the extent of its continuing involvement. In that case, the Group also recognizes an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the Group has retained.

The continuous involvement, which takes the form of providing guarantees, is measured either as the book amount of the assets transferred or the largest amount which may be required for repayment among the considerations received, whichever is the lesser.

4) Impairment of financial assets

The detailed disclosures made in connection with the impairment of financial assets are provided in the notes below.

- Disclosures on the significant assumptions
- Debt instruments measured at fair value through other comprehensive income
- Trade receivables including contract assets

The Group recognizes a loss allowance for expected credit losses (ECL) on all debt instruments not held at fair value through profit or loss. ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Group expects to receive, discounted at an approximation of the original effective interest rate. The expected cash flows include the cash flows from the disposal of collateral held or from other credit enhancements which are among the essential terms and conditions of the contract.

The expected credit loss is recognized in two stages. For credit exposures with no significant increase in the credit risk since the initial recognition, the expected credit loss reflects the credit losses (expected credit loss for 12 months) arising from any events of default likely to occur within the next 12 months. For credit exposures with a significant increase in the credit risk after the initial recognition, the loss allowance is required to measure the expected credit loss over the remainder of the surviving period for the exposure regardless of when an event of default occurs (expected credit loss over the entire period).

For trade receivables and contract assets, the Group may apply a simplified approach in calculating ECLs. Thus, in lieu of tracking changes in the credit risk, the consolidated companies recognize the loss allowance on each date of settlement as an amount equivalent to the expected credit loss over the entire period. The Group establishes a provision matrix that is based on its historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment.

For debt instruments at fair value through OCI, the Group applies the low credit risk simplification. At every reporting date, the Group evaluates whether the debt instrument is considered to have low credit risk using all reasonable and supportable information that is available without undue cost or effort. In making that evaluation, the Group reassesses the internal credit rating of the debt instrument. Furthermore, the consolidated companies consider whether there is a significant increase in the credit risk when the contractual payment exceeds 30 days.

If the consolidated companies' debt instruments measured at fair value through other comprehensive income consist only of the traded bonds with the highest investment rating, they are considered to be low-credit risk investment assets. The consolidated companies' policy is to measure such instruments at the 12-month expected credit loss. However, if there is a significant increase in the credit risk after the initial recognition, the loss allowance is calculated based on the expected credit loss over the entire period. The consolidated companies use the ratings from credit rating agencies to determine whether the credit risk of debt instruments has significantly increased and measure the expected credit loss.

The consolidated companies consider it a default if any contractual payment is overdue for over 90 days. However, in certain cases, the consolidated companies may also consider a financial asset to be in default when internal or external information indicates that the consolidated companies are unlikely to receive the outstanding contractual amounts in full before taking into account any credit enhancements held by the consolidated companies.

A financial asset is derecognized if and when there is no reasonable expectation to recover the cash flows under contract.

(2) Financial liabilities

1) Initial recognition and measurement

Upon the initial recognition, financial liabilities are appropriately classified as financial liabilities measured at fair value through profit or loss, loans and borrowings, and the accounts payable or derivative instruments are designated as effective hedging instruments.

All financial liabilities are initially recognized at fair value, and the directly related transaction costs are deducted for loans, borrowings and payables.

The consolidated companies' financial liabilities include the trade payables and other accounts payable, loans and borrowings including overdrafts and the derivatives liabilities.

2) Subsequent measurements

The measurement of financial liabilities is governed by the classifications mentioned below.

① Financial liabilities measured at fair value through profit or loss

Financial liabilities measured at fair value through profit or loss include the trading financial liabilities and the financial liabilities designated to be measured at fair value through profit or loss upon the initial recognition.

Financial liabilities are classified as trading items if they are repurchased within a short period. This category also includes derivative instruments entered into by the Group that are not designated as hedging instruments in hedge relationships as defined by K-IFRS 1109 Furthermore, the separated embedded derivatives are classified as trading items unless they are designated as effective hedging instruments.

Profits or losses on financial liabilities, which are trading items, are recognized as profit or loss.

The financial liabilities designated as items measured at fair value through profit or loss are designated only upon the initial recognition if the criteria provided under Corporate Accounting Standard No.1109 are satisfied. The Group has not designated any financial liability as at fair value through profit or loss

② Loans and borrowings

After the initial recognition, interest-bearing loans and borrowings are subsequently measured at amortized cost using the effective interest method. Any profits or losses arising from the derecognition of a liability or from the effective interest rate amortization procedures is recognized as net profit or loss.

The amortized cost is calculated by taking into account any discounts or premiums for the fees or costs which form an essential part of the effective interest rate.

This category is generally applied for interest-bearing loans or borrowings.

3) Derecognition of financial liabilities

Financial liabilities are derecognized if and when the payment obligations are fulfilled, canceled or expired. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability.

Any difference between the book amounts is recognized as a profit or loss.

(3) Offset of financial assets and financial liabilities

Financial assets and financial liabilities are offset and the net amount reported in the consolidated statement of financial position if there is a currently enforceable legal right to offset the recognized amounts and there is an intention to settle on a net basis, or to realize the assets and settle the liabilities simultaneously

2-12 Measurement of fair value

The Group measures financial instruments such as derivatives at fair value at the end of each reporting period Fair value related disclosures for financial instruments that are measured at fair value or where fair values are disclosed are summarized in Note 35

Fair value is the price which would be received in selling an asset or paid to transfer a liability in a normal transaction by and between the market participants on the date of measurement. The fair value measurement assumes that a transaction of selling an asset or transferring a liability takes place in one of the following markets:

- Primary market for assets or liabilities
- The most advantageous market only when there is no primary market for the assets or liabilities The consolidated companies must be able to access the primary (or the most advantageous) market.

The fair value of an asset or liability is measured based on the assumptions which the market participants use when determining the price for the asset or liability under the assumption that the market participants act to the best of their ability and in their economic interest.

When measuring the fair value of a non-financial asset, the ability of the market participant who sells the asset to another market participant who has best used or who will best use the asset to create economic benefits is considered.

The consolidated companies use the valuation techniques which are appropriate for the given circumstances and for which adequate data are available to measure the fair value while maximizing the use of relevant observable input variables and minimizing the use of unobservable input variables.

All assets and liabilities measured or disclosed at fair value in the consolidated financial statements are classified into the following fair value hierarchy based on the lowest level of input variables which are significant for fair value measurement.

- Level 1 - Quoted (unadjusted) price in an accessible and active market for the same asset or liability
- Level 2 - Fair value using an input variable for which the input variable of the lowest level significant for the fair value measurement is directly or indirectly observable
- Level 3 - Fair value using the unobservable input variable of the lowest level significant for the fair value measurement

Regarding the assets and liabilities which are repeatedly measured at fair value in the consolidated financial statements, at the end of each reporting period, the consolidated companies determine whether there is any movement between the levels of the hierarchy by undertaking a re-evaluation of the classification based on the input variable of the lowest level significant for the fair value measurement.

For the fair value's disclosure purposes, the consolidated companies determine the classification of assets and liabilities and the levels of the fair value hierarchy based on their nature, characteristics, and their risks.

2-13 Financial derivatives

(1) Initial recognition and subsequent measurement

The consolidated companies use derivatives such as currency futures contracts and commodity forward contracts to hedge the foreign exchange risk, interest rate risk, and commodity price risk, and such derivatives are initially recognized at fair value on the date of contract execution, and thereafter, are subsequently remeasured at fair value. Derivatives are appropriated as financial assets if their fair value is positive, and as financial liabilities if their fair value is negative, and they are subsequently remeasured. Meanwhile, any changes in the fair value of derivatives are directly reflected in the consolidated statement of comprehensive income, and the effective portion of the cash flow hedging is reflected in other comprehensive income.

For hedge accounting, hedging is classified as follows.

- Fair value hedging: Hedging against changes in the fair value of recognized assets and liabilities and unrecognized firm contracts
- Cash flow hedging: For exposure to foreign currency risk arising from recognized assets and liabilities, highly probable forecast transactions, or unrecognized firm commitments

Upon the commencement of the hedging relationship, the consolidated companies formally designate and document the hedging relationship for which they seek to apply hedge accounting, the risk management objectives and the hedging strategies.

The documentation includes the hedging instruments, the hedged items, the nature of the hedged risks, and the method of assessing whether the hedging relationship satisfies the provisions for hedging effectiveness (including the analysis of the cause of hedging ineffectiveness and the method of determining the hedging ratio). The hedging relationship shall satisfy all of the following provisions related to hedging effectiveness.

- There is an economic relationship between the hedged items and the hedging instruments.
- The effect of credit risk does not 'dominate the value changes' that result from that economic relationship between the hedged item and the hedging instrument.
- The hedge ratio of the hedging relationship is the same as that resulting from the quantity of the hedged item that the Group actually hedges and the quantity of the hedging instrument that the Group actually uses to hedge that quantity of hedged item.

The Group applied hedge accounting for hedging relationships that meet the qualifying criteria as follows:

- Fair value hedging

Changes in the fair value of the hedging instruments are recognized as profit or loss. Changes in the fair value of the hedged items attributable to the hedged risks are included in the hedged items' book amounts and recognized as profit or loss.

The book amounts' adjustments for fair value hedging of the items measured at amortized cost are amortized using the effective interest method over the surviving period of the hedging. Amortization at the effective interest rate can begin immediately after the adjustment is made, and at the latest, must begin before the adjustment of the hedged items for hedging profits or losses is discontinued.

When the hedged items are derecognized, the unamortized fair value is immediately derecognized and recognized as profit or loss.

If an unrecognized firm contract is designated as a hedged item, the cumulative change in the fair value of the firm contract attributable to the hedged risk is recognized as an asset or liability, and the corresponding profit or loss thereto is recognized as profit or loss.

- Cash flow hedging

The effective portion of profit or loss from hedging instruments is recognized as other comprehensive income within the cash flow hedge reserves, and the ineffective portion is recognized immediately as profit or loss. The cash flow hedge reserves are adjusted to the accumulated profit or loss of hedging instruments and the accumulated fair value change of the hedged items, whichever is the smaller.

The consolidated companies may hedge based on currency forward contracts against exposure to foreign currency risks in future prospective transactions or firm contracts, and the forward contracts against the commodity prices' volatility. The ineffective portion related to the currency forward contracts is recognized as other expenses. The ineffective portion related to the forward commodity contracts is recognized as other operating income or other operating expenses. For more details, please refer to Note 23.

The amount accumulated for other comprehensive income (cash flow hedge reserves) is accounted for in line with the characteristics of the hedging transactions. If the hedged transactions subsequently recognize a non-financial item, the cash flow hedge reserves are derecognized and included for the amount of the relevant asset or liability initially recognized. This is not a reclassification adjustment and does not affect other comprehensive income. This is also applied if and when the hedged transaction for a non-financial asset or non-financial liability becomes a firm contract for which fair value hedge accounting is subsequently applied.

With regard to the cash flow hedging, the cash flow hedge reserves are reclassified as profit or loss during the period in which the hedged cash flows affect the profit or loss.

If cash flow hedge accounting is discontinued, the cash flow hedge reserves are retained as other comprehensive income if and when the hedged expected cash flows are still expected to be generated. Otherwise, the cash flow hedge reserves are accounted for immediately as profit or loss based on the reclassification adjustment. If the hedged expected cash flows are generated following the discontinuation, the cash flow hedge reserves ought to be accounted for in line with the nature of the underlying transactions as explained in the above.

2-14 Cash and cash equivalents

The cash and cash equivalents in the consolidated statement of financial position consist of savings accounts, small amounts of cash, and short-term deposits with maturities of 3 months or less at the time of acquisition.

2-15 Inventories

The consolidated companies assess the inventories at the acquisition cost or the net realizable value, whichever is the lesser of the two. The acquisition cost for each inventory asset includes the purchase cost, conversion cost, and the other costs incurred in bringing the inventory asset to its present location and condition. The unit cost of inventories is determined using the moving average method.

2-16 Tangible assets

The construction in progress is the balance of the acquisition cost minus the accumulated impairment losses,

while the tangible assets are presented as the balance of the acquisition cost minus the accumulated depreciation and the accumulated impairment losses. Such costs include the reclassification costs satisfying the recognition criteria of assets and the borrowing costs for the long-term construction projects. Where a major part of tangible assets needs to be replaced regularly, the consolidated companies recognize the relevant part as an individual asset and depreciate it over the relevant useful life. Furthermore, if an asset satisfies the recognition criteria such as the comprehensive testing cost, it is included among the book amount for tangible assets. And all repair and maintenance costs are reflected in the profit or loss when incurred. In the cost estimated as required to remove, dismantle, or restore the site for the restoration of tangible assets to their original condition after their economic use has expired, the present value of the relevant expenditures is included in the acquisition cost of the tangible assets.

Meanwhile, the depreciation for tangible assets is appropriated using the straight-line method in line with the economic useful lives of each asset below.

Classification	Useful life
Building	19 - 40 years
Structure	19 - 40 years
Mechanical equipment	5 - 25 years
Vehicles and transport equipment	4 - 6 years
Other tangible assets	3 - 6 years

The tangible assets are derecognized upon disposal or when no future economic benefits are expected through their use or disposal, and the resulting difference between the net sales amount and the book amount is reflected in the profit or loss at the time of derecognition.

At the end of each reporting period, the consolidated companies review the adequacy of the estimated residual value, estimated useful life, and the depreciation method for tangible assets, and where any changes are needed, apply them in a forward-looking manner. At this time, the impacts of health, safety and environmental laws and regulations are reviewed.

2-17 Borrowing cost

Borrowing costs directly related to the acquisition, construction or production of an asset which requires a significant period to be used for the intended use or ready for sale are capitalized as part of the cost of the relevant asset. Other borrowing costs are appropriated as expenses when incurred.

2-18 Investment real estate properties

Investment real estate properties are measured at acquisition cost plus the relevant transaction costs, and include the reclassification cost that meets the recognition criteria for the assets when incurred. However, costs incurred in day-to-day management activities are recognized as expenses when they are incurred. Following the initial recognition, the investment real estate properties are appropriated at fair value reflective of the market conditions as of the end of the reporting period. The profit or loss resulting from any changes in the fair value are reflected in profit or loss when incurred.

When it is expected that future economic benefits can no longer be profited from the disposal or use of the investment real estate properties, the consolidated companies derecognize them from the consolidated financial statements. The resulting difference between the net amount of disposal and the book amount is reflected in profit or loss when derecognized. The consideration (amount) to be included in the profit or loss arising from the derecognition of investment real estate properties is calculated in accordance with the requirements on the calculation of transaction price as provided under Corporate Accounting Standard No. 1115.

In addition, if and only if the purpose of use of the relevant asset is changed, it is transferred from the investment real estate properties to another account or from another account to the investment real estate properties. When it is transferred from the investment real estate properties to tangible assets, the fair value at the point where the purposes of use are changed is applied as the deemed cost. Furthermore, when the tangible assets are reclassified to investment real estate properties, the relevant real estate properties are accounted for in the same manner as the tangible assets until the purposes of use are changed.

2-19 Lease

At the point of a contractual commitment, the consolidated companies determine whether the contract itself is a lease or includes a lease

by considering whether the contract transfers control over the use of the identified asset for a certain period in exchange for consideration under contract.

(1) Consolidated companies as the lessee

The consolidated companies apply the single recognition and measurement approach for all leases, with the exception of short-term leases and leases for the underlying assets of small amounts. The consolidated companies recognize a lease liability presenting an obligation to make lease payments and the right-to-use assets presenting the right to use the underlying assets.

1) Right-to-use assets

The consolidated companies recognize the right-to-use assets on the date of commencement of the lease (that is, when the underlying assets are available for use). The right-to-use assets are measured at cost, and a cost model was applied for the subsequent measurement. In order to apply the cost model, accumulated depreciation and accumulated impairment losses are deducted, and adjustments are made to reflect the remeasurement of lease liabilities. The cost of the right-to-use asset includes the amount of the recognized lease liability, initial direct cost, and the lease payments made on or before the date of commencement of the lease minus any lease incentives received. The right-to-use assets are depreciated on a straight-line basis over the lease term or the estimated useful lives of the assets, whichever is the shorter.

If the ownership of the underlying assets transfers to the consolidated companies at the end of the lease term, or if the cost of the right-to-use assets reflects the fact that the consolidated companies will exercise the purchase option, the depreciation is calculated using the estimated useful lives of the underlying assets.

The right-to-use assets are also subject to impairment, and are explained under Note 2-23 concerning the accounting policy on the impairment of non-financial assets.

2) Lease liabilities

On the date of commencement of the lease, the consolidated companies measure the lease liability at the present value of the lease payments to be paid over the lease term. Lease payments consist of fixed payments (including in-substance fixed payments, less any lease incentives receivable), variable lease payments that depend on an index or a rate, and amounts expected to be payable under residual value guarantees.

Lease payments also include the exercise price of the purchase option if it is reasonably certain that the consolidated companies will exercise the purchase option and the amount they would pay to terminate the lease if the lease term reflects the consolidated companies' exercise of the termination option.

Variable lease payments other than those that depend on an index or rate are recognized as expenses for the period in which the event or condition giving rise to the lease payment occurs unless it is incurred to produce inventories.

When calculating the present value of lease payments, the consolidated companies use the incremental borrowing rate on the date of commencement of the lease since the implied interest rate of the lease cannot be calculated with ease. After the date of commencement of the lease, the amount of the lease liability increases by reflecting the interest and decreases by reflecting the lease payments made. Furthermore, the book amount of the lease liability is remeasured if there is any change in the lease term, change in the lease payments (for example, changes in future lease payments resulting from changes in the index or rate used to calculate the lease payments) or change in the assessment of options to purchase the underlying assets.

3) Short-term leases and the underlying asset leases of small amount

The consolidated companies apply the provisions on recognition exemption for short-term leases of machinery and equipment (that is, such leases operate on a lease term of 12 months or less from the date of commencement and do not include a purchase option). In addition, the consolidated companies apply the provisions on recognition exemption for leases of assets of small amounts for the leases of office supplies that are considered assets of small amounts.

Lease payments for the short-term leases and leases of assets of small amounts are recognized as expenses on a straight-line basis over the lease term.

(2) Accounting as lessor

The consolidated companies classify the leases which do not substantially transfer all of the risks and rewards of ownership of the underlying asset as operating leases. The revenue from lease payments is recognized on a straight-line basis over the lease term and is included in the sales in the income statement depending on the nature of the business. The direct cost of establishing an operating lease is added to the book amount of the underlying assets and recognized as an expense over the lease term on the same basis as the lease payment income. Conditional rent payments are recognized as sales when the rent payment is received.

2-20 Classification of liquidity and illiquidity

The consolidated companies present assets and liabilities separately in the statement of financial position as current and non-current.

Assets are classified as current assets where any of the following apply.

- Where the asset is expected to be realized within the normal operating cycle, or intended to be sold or consumed within the normal operating cycle
- Where the asset is primarily held for trading purposes
- Where the asset is expected to be realized within 12 months after the reporting period
- Where, as cash or cash equivalents, the period of restriction on the use of the asset for exchange or debt repayment purposes is not more than 12 months after the reporting period

Any and all other assets are classified as the non-current assets.

Liabilities are classified as current liabilities where any of the following apply.

- Where it is expected that payment will be made within the normal operating cycle
- Where the asset is primarily held for trading purposes
- Where the payment is due within 12 months after the reporting period
- Where the unconditional right to defer the settlement of liabilities for more than 12 months after the reporting period is not granted

Any and all other liabilities are classified as the non-current liabilities.

2-21 Cash dividend

The consolidated companies recognize liabilities when the distribution is authorized to pay the dividends out and the company no longer has discretion. Distribution for the shareholders requires approval by the shareholders. The corresponding amount is reflected directly in equity.

2-22 Intangible assets

The consolidated companies appropriate the intangible assets acquired individually at acquisition cost, and appropriate the intangible assets acquired in a business combination at fair value at the point of purchase, and following the initial acquisition, directly deduct the accumulated amortization and accumulated impairment losses and present them accordingly. Meanwhile, the internally created intangible assets, excluding the development costs, are reflected in profit or loss as expense items when created.

The intangible assets are classified into intangible assets with a finite useful life and intangible assets with an indefinite useful life. The former are amortized over their useful lives, and are reviewed to determine whether there are any signs of impairment. Furthermore, the adequacy of the useful lives and amortization method is reviewed at the end of each reporting period. If any changes are needed due to changes in the expected period of use or changes in the consumption patterns of economic benefits, they are accounted for through changes in estimates. Intangible assets

Amortization of intangible assets is reflected in the profit or loss as an expense item consistent with the function of the relevant intangible asset.

Meanwhile, the intangible assets with indefinite useful lives are not amortized, yet are each tested for impairment individually or included for the cash-generating units each year. Furthermore, each year, whether it is appropriate to apply an indefinite useful life for the intangible asset is reviewed, and if not appropriate, it is changed to a finite useful life in a forward-looking manner.

Upon the derecognition of intangible assets, the consolidated companies reflect any profit or loss arising from the differences between the net sales amount and the book amount of the intangible assets when derecognized.

- Research and development (R&D) expenses

The consolidated companies recognize research expenses as an expense when incurred. However, for development costs related to individual projects, they are appropriated as intangible assets if and where i) it is possible to demonstrate the technical feasibility of completing the intangible asset for use or sale; ii) there is the intention and ability to complete and use or sell the intangible assets; iii) adequate resources are secured towards that end; iv) it is possible to demonstrate how the intangible assets can generate future economic benefits; and v) the expenditures related to the intangible assets incurred during the development phase can be reliably measured.

The new drug development project of the consolidated companies proceeds through stages such as preclinical studies, Phase 1 clinical trials, Phase 2 clinical trials, Phase 3 clinical trials, government approval application, government approval completion, and commencement of product sales for each candidate substance for the new drug.

Typically, the consolidated companies recognize expenditures incurred after a project has entered the Phase 3 clinical trial stage as intangible assets, and consider expenditures incurred in earlier stages as R&D expenses, treating them as expenses of the current period.

Meanwhile, the development costs recognized as assets are directly deducted from the acquisition cost by deducting the accumulated amortization and the accumulated impairment losses through applying the cost model. They are also amortized over the expected period of continuity for the economic benefits from the time development is completed and available for use and are appropriated as the cost of sales. The consolidated companies conduct an annual impairment test for the development costs recognized as assets during the development period.

- Patents and licenses

The patents are licensed by the government for a period of 10 years, with the right to renew granted at the end of the term.

The amortization expenses for the consolidated companies' intangible assets are appropriated using the straight-line method in line with the economic useful lives of each asset below.

Classification	Useful life
Industrial property rights	5 - 10 years
Software	5 years
Development costs	10 years
Memberships	Not subject to amortization

2-23 Impairment of non-financial assets

At the end of each reporting period, the consolidated companies review whether there are any signs of the impairment of assets. Where such signs exist or when an annual impairment test is required for the assets, the consolidated companies estimate the assets' recoverable amount. The recoverable amount of the assets is net fair value of the assets or the cash-generating unit or the value in use, whichever is the larger, and it is determined for each individual asset; however, if the cash inflow of the individual asset is not generated almost independently of the cash inflow of the other assets or groups of assets, it is determined by the cash-generating unit to which the individual asset belongs. If the asset's book amount exceeds its recoverable amount, the asset is deemed to be impaired and its book amount is reduced to its recoverable amount.

The value in use is determined by discounting the estimated future cash flows of the asset at a pre-tax discount rate reflective of the market's assessment of the time value of money and the risk of the asset. As for the net fair value, a most recent transaction price is considered. If no such transaction is identified, it is determined using an appropriate valuation model. Valuation multiples, market prices of listed stocks, or other fair value indicators are used for such calculations.

The consolidated companies calculate the impairment amount based on the specific financial budgets and forecasts prepared for each cash-generating unit for which the individual assets are allocated. The financial budgeting and forecasting generally cover a period of 5 years. For longer periods, a long-term growth rate is calculated and applied to the period over 5 years.

Impairment loss is reflected in the profit or loss as an expense item consistent with the function of the impaired asset. However, if there is a previously recognized re-evaluation surplus as an asset for which the re-evaluation model is applied, it is offset against the re-evaluation surplus with the previous re-evaluation amount as the ceiling.

For assets other than goodwill, at the end of each reporting period, an assessment is made as to whether there are any signs that an impairment loss on any previously recognized assets is no longer present or has decreased, and if such signs exist, the recoverable amount is estimated. The impairment loss on an asset, other than the goodwill recognized in the past, increases the book amount to the recoverable amount for the amortized balance of the asset's book amount if no recognition of the impairment loss is made; however, this is limited to cases in which there is any change in the estimates used to determine the recoverable amount of the relevant asset after the point of recognition of the immediately previous impairment loss. However, for the assets for which the re-evaluation model is applied, the relevant reversal amount is accounted for an increase in the re-evaluation surplus.

For the following assets, each criterion is additionally applied for the asset impairment testing.

(1) Goodwill

The consolidated companies conduct an impairment test for goodwill on December 31 of each year and whenever any signs of impairment are present.

The impairment test for goodwill is carried out by estimating the recoverable amount of each cash-generating unit or group of cash-generating units related to the goodwill. If the recoverable amount of the cash-generating unit should be less than the book amount, the impairment loss is recognized, and the impairment loss recognized for goodwill is not reversed thereafter.

(2) Other intangible assets

As for the other intangible assets with indefinite useful lives, the consolidated companies conduct the impairment testing for each individual asset or cash-generating unit on December 31 of each year and whenever any signs of impairment are present.

The consolidated companies assess the areas where climate-related issues may have a significant impact, such as the introduction of legislation to regulate greenhouse gas emissions which may increase the manufacturing costs. Such issues related to climate change are included as the key assumptions if they have a material impact on the measurement of the recoverable amount.

2-24 Provisioning liabilities

The consolidated companies recognize the provisioning liabilities if and where a present obligation (legal or constructive obligation) exists as a result of any past event, and it is probable that an outflow of resources embodying economic benefits will be released to settle the obligation, and where it is possible to reliably estimate the amount required to fulfill the obligation. Where it is expected that a third party will pay for some or all of the expenses needed to settle the provisioning liabilities, provided that it is almost a certainty that the consolidated companies will receive reimbursement if the consolidated companies fulfill the obligations, they are accounted for as separate assets. The expenses recognized in the consolidated statements of comprehensive income in connection with the provisioning liabilities are presented by offsetting the amount recognized in connection with the reimbursement by a third party.

Where the time value effect of money is material, the provisioning liabilities are discounted at the current pre-tax interest rate reflective of the risk specific to the liabilities. Where the provisioning liabilities are assessed at the present value, any increase in the book amount over time is recognized as a financial cost.

2-25 Greenhouse gas emission rights and emission liabilities

The consolidated companies received free emission rights as a result of the greenhouse gas emission trading system. These emission rights are paid for each year, and the same number of emission rights must be used in response to the actual emissions. The consolidated companies account for the emission rights received using the net debt approach, and accordingly, they are recognized as the provisioning liabilities if and only if the actual amount of carbon emitted exceeds the given emission rights, and the emission costs are recognized as the operating costs. Where the emission rights are purchased from a third party, they are appropriated at acquisition cost, and thereafter, remeasured at fair value in line with the emission liabilities, as they are considered as the right of repayment, and the changes in fair value are appropriated in the consolidated statements of comprehensive income.

2-26 Treasury stocks

The consolidated companies account for the treasury stocks as a deduction from the equity. Profit or loss on the acquisition, sale, issuance, or cancellation of treasury stocks is not reflected in the consolidated statements of comprehensive income. The differences between the book amount and the consideration for disposal are accounted for as other capital surplus.

2-27 Convertible preferred stocks

Convertible preferred stocks are recognized separately as the liability component and the equity component based on the contractual terms and conditions.

In the issuance of convertible preferred shares, the fair value of the liability component is determined using the market interest rate of non-convertible bonds of a similar nature. The relevant amount is classified as a financial liability measured at amortized cost until it is derecognized by conversion or redemption.

The residual value after deducting the fair value of the liability component from the issuing price is allocated for the conversion right recognized as the shareholders' interest after the transaction costs are deducted. The book amount of the conversion right is not reassessed after the initial recognition.

The transaction costs are allocated in proportion to the issuance amount allocated for the liability component and the equity component at the time the relevant liability is initially recognized.

2-28 Share-based payment transaction

The consolidated companies operate a system (share-settled, share-based payment transaction) in which stock options are granted for the executives' and employees' labor and services.

The share-settled share-based payment costs are measured at fair value of the date of grant using an appropriate valuation model.

The share-based payment costs are recognized as employee benefits over the period in which the service provision related terms and conditions (or performance condition) are satisfied (hereinafter, 'vesting period'), and the corresponding increase in equity is recognized. At the end of each reporting period, the measurement of the cumulative cost of compensation reflects an estimate of whether the vesting period is completed and the final number of equity instruments to be granted. The change in cumulative compensation cost between the beginning and end of the reporting period is added to or deducted from the current period's consolidated statement of comprehensive income.

The service provision terms and conditions and the non-market conditions are not considered if and when estimating the fair value of share options as of the date of grant, yet are reflected in the estimation of the number of equity instruments which ultimately are vested, and the market conditions are reflected when measuring the fair value as of the date of grant. The other conditions granted for the share-based payments (unless there are relevant service conditions) are considered to be non-vesting conditions. Non-vesting conditions are reflected when the fair value of share-based payment costs is measured. If there are no service provision terms and conditions (or performance conditions), they are recognized as expenses immediately.

No expense is recognized for share-based payments which ultimately are not vested. However, the stock-settled transactions with market conditions or non-vesting conditions are accounted for as vested regardless of whether the market conditions or non-vesting conditions are satisfied if and where all other performance and service conditions are satisfied.

Changes in the conditions of the share-settled share-based payment are recognized at the minimum cost which would have been recognized if and where the conditions were not changed, except where the equity instruments are not vested as the specified vesting conditions are not met. An additional effect of the change is recognized when it increases the total fair value of the share-based payment agreement or changes the terms to the benefit of employees. When the share-settled compensation is canceled, it is deemed as vested on the date of cancellation and the unrecognized compensation costs are recognized immediately thereby.

The dilutive effect of the issued options is reflected as the diluted shares when calculating the diluted earnings per share.

2-29 Non-current assets held for sale and discontinued operations

The consolidated companies classify the non-current assets (or groups of assets for disposal) as held for sale if their book amount will be recovered primarily through the sale transaction or distribution rather than the continued use. The non-current assets and disposal groups classified as held for sale are measured at the fair value or the book amount, whichever is the lesser, after the deduction of the costs to sell. The costs to sell are the incremental costs (excluding the financial cost and the income tax expenses) directly reverted to the disposal of assets (or disposal group).

The condition for classification as held for sale is deemed to be satisfied if and when the sale is highly probable and the non-current asset (or disposal group) is available for immediate sale in its present condition. The measures required to complete the sale ought to demonstrate the fact that the sale is unlikely to be significantly altered or withdrawn, and the sale must be expected to be completed within 1 year of the sale being classified as held for sale.

Tangible and intangible assets classified as held for sale are not depreciated or amortized. Assets and liabilities classified as held for sale or for distribution are presented as separate current items in the statement of financial position.

The consolidated companies exclude the after-tax income from discontinued operations from the results of continuing operations, and present it as a single amount in the statement of income.

3. Significant accounting judgments, estimations and assumptions

When preparing the consolidated financial statements, the senior management of the consolidated companies is required to make and offer judgments, estimates and assumptions which may affect the reported amounts of income, expenses, assets and liabilities as of the end of the reporting period and the disclosures for the notes to the contingent liabilities. However, the uncertainties of such estimates and assumptions could cause material adjustments to the book amounts of the assets and liabilities that will be affected in the future.

3-1 Important accounting judgments

In the process of applying the consolidated companies' accounting policies, the senior management's judgments which have had the most significant impact on the amounts recognized in the consolidated financial statements are as follows.

(1) Calculation of the lease term of contracts with options for extension and termination

The consolidated companies calculate the lease term inclusive of the non-cancellable period of the lease and the term of the option if and when it is reasonably certain to exercise the option to extend the lease, or the period over which the option to terminate the lease is reasonably certain not to be exercised.

The consolidated companies have the lease agreements which include the extension and termination options. The consolidated companies apply judgments when assessing whether it is reasonably certain to exercise the option to extend or terminate the lease. That is, they consider any and all relevant facts and circumstances which give rise to an economic incentive to exercise an extension option or not to exercise a termination option. After the date of commencement, the consolidated companies reassess the lease term if any significant events or changes in circumstances under the consolidated companies' control affect the ability to exercise an extension or not to exercise an option to terminate.

The consolidated companies include extended periods as part of the lease term for the leases of equipment and machinery with short non-cancellable periods. The Group typically exercises its option to renew leases as there would be a significant negative impact on production if a replacement asset is not readily available.

The extended periods for the long non-cancellable leases of equipment and machinery are not included as part of the lease term since it is not significantly certain that the extension option will be exercised. Furthermore, the consolidated companies generally lease vehicles for 5 years or less and do not exercise the option to extend the lease, and thus, the option to extend the vehicle lease is not included as part of the lease term. Moreover, the period covered by the termination option is included as part of the lease term if and only if it is reasonably certain that it will not be exercised.

3-2 Accounting estimates and changes

The other major sources of uncertainties for material assumptions and estimates on the future as of the end of the reporting period having a significant risk of causing a material adjustment to the book amounts of assets and liabilities in the next fiscal year are as follows. Assumptions and estimates are based on the variables available at the time the consolidated financial statements are prepared. The current circumstances and assumptions about the future may change given changes in the market or circumstances beyond the control of the consolidated companies. When such changes occur, they are reflected in the assumptions.

Meanwhile, the Group considers climate-related risks in its estimates and assumptions due to climate change and the future global greenhouse gas reduction implementation system. Climate-related risks increase the uncertainty of estimates and assumptions considered in various items of the consolidated financial statements. Although they do not currently have a significant impact on the measurements, the Group is carefully monitoring climate-related changes and developments, such as new climate-related laws.

(1) Impairment of non-financial assets

The consolidated companies assess all non-financial assets for any signs of impairment at the end of each reporting period. Goodwill and intangible assets with indefinite useful lives are tested for impairment each year or when there are signs of impairment. The other non-financial assets are tested for impairment when there are signs that their book amount will not be recoverable. To calculate the value in use, the senior management must estimate the expected future cash flows from the asset or the cash-generating unit, and select an appropriate discount rate to calculate the present value of the expected future cash flows.

(2) Retirement benefit plan

The present value of the defined benefit liability is determined based on the actuarial valuation method. To apply the actuarial valuation method, it is necessary to establish various assumptions, and the establishment of such assumptions includes the discount rate, rate of future wage increase, and the mortality rate. Given the complexity of the valuation method and the underlying assumptions and the long-term nature of the valuation method, the defined benefit liability fluctuates sensitively according to these assumptions. All assumptions are reviewed at the end of each reporting period.

(3) Provisions for expected loss on trade and other receivables and contract assets

The consolidated companies use the provision setting table to calculate the expected credit loss (ECL) for trade and other receivables and contract assets. The provision setting rate is based on the number of delinquent days in a bundle for different customer segments with similar loss patterns (i.e., geographic location, product type, customer type and credit rating, collateral or transactional credit insurance).

(4) R&D expenses

The consolidated companies appropriate development expenses as assets as described in Note 2 'Significant accounting policies and the standards for the preparation of financial statements.' The development costs recognized as assets of the consolidated companies are based on the senior management's judgment that there is technical and economic feasibility, which means that a certain level of target selected according to project management techniques has been reached.

New development projects are carried out in stages such as discovery of new drug candidates, preclinical studies, Phase 1 clinical trials, Phase 2 clinical trials, Phase 3 clinical trials, government approval application, government approval completion, and commencement of product sales. In general, the consolidated companies recognize as intangible assets the expenses incurred after the project enters into a Phase 3 clinical trial. Expenses incurred in the previous phase are treated as R&D expenses for the current period. The development costs subject to assetization were calculated based on senior management's assumptions about the expected future cash flow, discount rate, and period of economic benefits from the respective asset. As of the end of the current period, the book amount of development costs recognized as assets based on the best estimate was KRW 8,280,894,000.

(5) Deferred income tax assets

Where it is highly likely that the future taxable income for which the tax loss can be used is probable, the deferred income tax assets are recognized for the unused tax loss within the scope. The consolidated companies' senior management makes major judgments to determine the amount of deferred income tax assets that can be recognized based on the future tax strategies and the timing and extent of tax income. The relevant details are provided under Note 31.

(6) Fair value of financial instruments

The fair value of financial instruments without an active market was calculated by applying valuation techniques including the discounted cash flow method. When the observable market information is not available for the input factors used for such valuation techniques, the determination of fair value requires a considerable estimation. Such judgments include the consideration of input variables such as liquidity risk, credit risk and volatility. Changes in such factors may affect the fair value of financial instruments.

(7) Share-based compensation

The consolidated companies measure the compensation cost of share-settled, share-based payment transactions based on the fair value on the date of granting of equity instruments, and the fair value is estimated by applying an appropriate valuation model in consideration of the conditions for granting equity instruments. Furthermore, it is necessary to determine the most appropriate pricing factors for the valuation model, including the expected lifetime of stock options, volatility, and dividend rate, and to establish assumptions for these factors. The assumptions and valuation models used to estimate the fair value of share-based payment transactions are provided under Note 26-3.

(8) Calculation of the incremental borrowing rate of a lease

The consolidated companies use the incremental borrowing rate to measure the lease liability, as the implicit interest rate of the lease cannot be easily determined. The incremental borrowing rate is the interest rate which the consolidated companies would be required to pay if the consolidated companies borrow the funds needed to acquire an asset of similar value to the right-to-use asset with similar collateral over a similar period in a similar economic environment. Accordingly, the incremental borrowing rate reflects the matters which the consolidated companies 'must pay' for which measurement is required if and when there is no observable rate, or when it has to be adjusted to reflect the terms of the lease. The consolidated companies must measure the incremental borrowing rate using observable input variables where possible, and prepare company-specific estimates.

(9) Inventory valuation allowance

The consolidated companies must estimate the conversion cost and other costs incurred in bringing the inventory to its present location and condition for the net realizable value assessment of the inventories. The balance of the inventory valuation allowance may change depending on the estimation of operational cost and cost of goods sold.

(10) Provisioning liabilities

If there exist legal obligations and constructive obligations as a result of past events as of the end of the reporting period, the consolidated companies must estimate the likelihood and amount of resource outflow required to fulfill such obligations. For this estimation, the consolidated companies take all available evidence into consideration, and significant estimation and judgment are required.

4. Standards for which enactment or revision has been announced or enforced

4-1 Application of the enacted or revised standards

The consolidated companies applied the standards and revisions for the first time for the first fiscal year beginning on January 1, 2023. The consolidated companies have not applied early the standards, interpretations or revisions which have been announced yet have not been enforced.

(1) The Company defined and required the disclosure of significant accounting policy information of Disclosures in Corporate Accounting Standard No. 1001 Presentation of Financial Statements - Accounting Policies.

The application of these amendments does not have a significant impact on the Company's financial statements.

(2) Corporate Accounting Standard No. 1008 Accounting Policies, Changes in Accounting Estimates and Errors - Definition of 'Accounting Estimates' This defines accounting estimates and clarifies how to distinguish them from changes in accounting policies.

The application of these amendments does not have a significant impact on the Company's financial statements.

(3) Corporate Accounting Standard No. 1012 Income Taxes - Deferred Income Taxes for Assets and Liabilities Arising from a Single Transaction

A requirement stipulating that the transaction should not generate taxable temporary differences and deductible temporary differences and should have the same time of transaction was added to the exception requirement for the initial recognition of the transaction where the assets or liabilities are initially recognized.

The consolidated companies do not have any single transactions that fall within the scope of these amendments, so the amendments have no impact on the consolidated financial statements.

(4) Enactment of Corporate Accounting Standard No. 1117 Insurance Contracts

Corporate Accounting Standard No. 1117 Insurance Contracts replaces Corporate Accounting Standard No. 1104 Insurance Contracts. It requires that all cash flows under insurance contracts be estimated, and insurance liabilities be measured using a discount rate that reflects the assumptions and risks at the reporting date. Moreover, it requires that revenue is recognized on an accrual basis, reflecting the services (insurance coverage) provided to the policyholder for each fiscal year. It also excludes investment elements (surrender/maturity refunds) paid to policyholder regardless of the occurrence of insurance events from insurance income and clearly distinguishes between insurance profit and investment profit to allow information users to verify the sources of profit

The consolidated companies do not have any insurance contracts that fall within the scope of these amendments, so the amendments have no impact on the consolidated financial statements.

(5) K-IFRS 1001 Presentation of Financial Statements - Disclosure of valuation gains and losses on financial liabilities with exercise price adjustment clauses

In cases where all or part of financial instruments with conditions that adjust the exercise price according to the issuer's stock price fluctuations are classified as financial liabilities, it is stipulated that the book amount of the financial liability and the related profit or loss should be disclosed.

The consolidated companies do not have any financial liabilities that fall within the scope of these amendments, so the amendments have no impact on the consolidated financial statements.

(6) Corporate Accounting Standard No. 1012 Corporate Tax Amendment - International Tax Reform - Pillar 2 Model Rules

The global minimum tax applies to multinational enterprise groups that have annual revenue of EUR 750 million or more in at least two of the four preceding fiscal years and whose constituent entities (subsidiaries included in the consolidated financial statements) have an effective tax rate of less than 15%. The difference is to be paid to the tax authorities in the jurisdiction of the controlling company that meets certain requirements.

The Republic of Korea enacted tax laws related to the global minimum tax in 2023, which are to be applied to fiscal years beginning on or after January 1, 2024. In other words, there is no current corporate tax effect related to the global minimum tax for this period because the tax law related to the global minimum tax in the Republic of Korea is effective from January 1, 2024.

For the fiscal years 2021 and 2022, SK discovery Co., Ltd., the Company's ultimate controlling company, reported consolidated financial statements with annual revenue exceeding EUR 750 million. There are no countries where the Company's subsidiaries operate that have a statutory tax rate below 15%. Based on the current financial statements, the Company reviewed whether the transition period exemption requirements under Article 80 of the Adjustment of International Taxes Act are met in each country where the Company's subsidiaries are located. All countries meet these requirements. For countries meeting the transition period exemption requirements, there would be no additional global minimum tax liability for the current period, even if the global minimum tax law was in effect.

The ultimate controlling company applies the temporary/mandatory exemption rule for deferred tax accounting for Pillar 2 corporate tax and recognizes it as current corporate tax when it arises. Even if Pillar 2 corporate tax had been applied in the current period, the average effective tax rate would not have changed.

The remaining disclosure requirements apply to accounting periods starting on or after January 1, 2023, but do not apply to interim periods ending on or before December 31, 2023.

These amendments have no significant impact on the Company's financial statements. 4-2 Accounting standards announced but not yet enforced

The details of the enacted or revised standards and interpretations which have been enacted or announced as of the date of approval for issuance of the financial statements of the consolidated companies, yet which have not been applied early since the date of enforcement has not yet arrived, are as follows.

(1) Revision to Corporate Accounting Standard No. 1001 Presentation of Financial Statements - Classification of Liabilities as Current/Non-current Liabilities, Non-current Liabilities with Covenants

They are classified as current or non-current based on the actual rights that exist as of the end of the reporting period, not taking into account the possibility of deferring the settlement of the liability or management's expectations. Furthermore, settlement of liability includes the transfer of equity instruments, but it excludes cases where the option to settle with equity instruments in a compound financial instrument has been recognized separately because it meets the definition of equity. Furthermore, covenants that an entity must comply with after the end of the reporting period do not affect the classification of the liability at the end of the reporting period. If a liability is classified as non-current at the end of the reporting period even though the entity is required to comply with covenants within 12 months after the reporting period, the entity should disclose information about the risk that the liability could become payable within 12 months after the reporting period.

This revision is applied from the fiscal year beginning on January 1, 2024, and early application is permitted. The consolidated companies do not anticipate significant effects on the consolidated financial statements due to this revision.

(2) Revision to Corporate Accounting Standard No. 1007 Statement of Cash Flows and Corporate Accounting Standard No. 1107 'Financial Instruments: Disclosures' - Disclosures on Supplier Financing Arrangements

When applying supplier financing arrangements, information about these arrangements must be disclosed to allow financial statement users to evaluate the impact of supplier financing arrangements on the company's liabilities, cash flows, and liquidity risk exposure. This revision is applied from the fiscal year beginning on January 1, 2024, and early application is permitted. The consolidated companies do not anticipate significant effects on the consolidated financial statements due to this revision.

(3) Revision to Corporate Accounting Standard No. 1116 Leases - When subsequently measuring lease liabilities arising from a sale and leaseback, the lease payments or modified lease payments are determined in a manner that does not recognize gains or losses related to the right of use retained by the seller-lessee. This revision is applied from the fiscal year beginning on January 1, 2024, and early application is permitted. The consolidated companies do not anticipate significant effects on the consolidated financial statements due to this revision.

(4) Revision to Corporate Accounting Standard No. 1021 Effects of Exchange Rate Fluctuations and K-IFRS No. 1101 First-time Adoption of Korean International Financial Reporting Standards - Lack of Exchangeability

The revised Corporate Accounting Standard No. 1021 Effects of Exchange Rate Fluctuations and Corporate Accounting Standard No. 1101 'First-time Adoption of Korean International Financial Reporting Standards' require the assessment of the exchangeability between currencies and the estimation of the spot exchange rate if exchangeability is lacking, along with additional disclosures about the impact of this lack of exchangeability. These amendments are intended to help financial statement users understand the risks and impacts of a lack of exchangeability between currencies.

These amendments apply from the fiscal year beginning on or after January 1, 2025. Early adoption is permitted, and this fact must be disclosed.

These amendments are not expected to have a significant impact on the financial statements.

5. Financial instruments

5-1 Financial assets

The category specific amounts of the financial assets as of the end of the reporting period are as follows.

<End of the current period>

(Unit: KRW one thousand)

Classification	Financial assets measured at fair value through profit or loss	Financial assets measured at amortized cost	Financial assets measured at fair value through other comprehensive income	Total
Current assets:				
Short-term financial assets (Note 1)	871,919,247	332,502,627	-	1,204,421,874
Trade and other receivables	435,251	179,998,132	-	180,433,383
Other current assets (Note 2)	-	145,669	-	145,669
SubTotal	872,354,498	512,646,428	-	1,385,000,926
Non-current assets:				
Long-term financial assets	-	27,500	-	27,500
Long-term investment assets	58,536,974	-	44,229,394	102,766,368
Trade and other receivables	-	788,676	-	788,676
Other non-current assets (Note 2)	5,055,776	7,069,256	-	12,125,032
SubTotal	63,592,750	7,885,432	44,229,394	115,707,576
ToTotal	935,947,248	520,531,860	44,229,394	1,500,708,502

(Note 1) Included are the money market financial instruments deposited with financial institutions.

(Note 2) Included are the derivatives and the short- and long-term security deposits.

<End of the previous period>

(Unit: KRW one thousand)

Classification	Financial instruments measured at fair value Financial assets	Financial assets measured at amortized cost	Financial assets measured at fair value through other comprehensive income Assets	Derivatives assets of hedging accounting	Total
Current assets:					
Short-term financial assets (Note 1)	1,314,442,323	5,300,000	-	-	1,319,742,323
Trade and other receivables	5,742,705	249,940,377	-	4,718,222	260,401,304
Other current assets (Note 2)	-	132,481	-	-	132,481
SubTotal	1,320,185,028	255,372,858	-	4,718,222	1,580,276,108
Non-current assets:					
Long-term financial assets	-	27,500	-	-	27,500
Long-term investment assets	34,628,158	-	4,000,114	-	38,628,272
Trade and other receivables	-	863,517	-	-	863,517
Other non-current assets (Note 2)	1,237,613	4,640,745	-	-	5,878,358
SubTotal	35,865,771	5,531,762	4,000,114	-	45,397,647
Total	1,356,050,799	260,904,620	4,000,114	4,718,222	1,625,673,755

(Note 1) Included are the money market financial instruments deposited with financial institutions.

(Note 2) Included are the derivatives and the short- and long-term security deposits.

5-2 Financial liabilities

The category specific amounts of the financial liabilities as of the end of the reporting period are as follows.

<End of the current period>

(Unit: KRW one thousand)

Classification	Financial liabilities measured at fair value through profit or loss	Financial liabilities measured at amortized cost	Total
Current liabilities:			
Trade and other payables	110,856	246,663,913	246,774,769
Short-term borrowings	-	263,707,890	263,707,890
Current portion of long-term liabilities	-	192,405,128	192,405,128
Current portion of lease liabilities (Note 1)	-	7,677,175	7,677,175
Other current liabilities (Note 2)	-	5,315,700	5,315,700
SubTotal	110,856	715,769,806	715,880,662
Non-current liabilities:			
Debenture	-	164,557,091	164,557,091
Long-term borrowings	-	472,518,337	472,518,337
Lease liabilities (Note 1)	-	9,022,894	9,022,894
SubTotal	-	646,098,322	646,098,322
Total	110,856	1,361,868,128	1,361,978,984

(Note 1) Lease liabilities correspond to the liabilities recognized in accordance with Corporate Accounting Standard No. 1116.

(Note 2) Included are the deposits received and the dividends payable.

<End of the previous period>

(Unit: KRW one thousand)

Classification	Financial liabilities measured at fair value through profit or loss	Financial liabilities measured at amortized cost	Total
Current liabilities:			
Trade and other payables	67,152	219,092,076	219,159,228
Short-term borrowings	-	436,109,819	436,109,819
Current portion of long-term liabilities	-	103,986,944	103,986,944
Current portion of lease liabilities (Note 1)	-	11,685,098	11,685,098
Other current liabilities (Note 2)	-	4,940,675	4,940,675
SubTotal	67,152	775,814,612	775,881,764
Non-current liabilities:			
Debenture	-	154,787,349	154,787,349
Long-term borrowings	-	7,172,699	7,172,699
Lease liabilities (Note 1)	-	13,185,242	13,185,242
SubTotal	-	175,145,290	175,145,290
Total	67,152	950,959,902	951,027,054

(Note 1) Lease liabilities correspond to the liabilities recognized in accordance with Corporate Accounting Standard No. 1116.

(Note 2) Included are the deposits received and the dividends payable.

5-3 Profit and loss by the category of financial instruments

The breakdown of profit and loss by financial instrument category for the current period and previous period is as follows.

<Current period>

(Unit: KRW one thousand)

Classification	Financial instruments measured at fair value Financial assets	Financial assets measured at fair value through other comprehensive income Financial assets	Financial assets measured at amortized cost	Derivative liabilities of hedging accounting	Financial liabilities measured at amortized cost	Total
Profit or loss:						
Interest income (expense)	-	-	19,430,230	-	(32,047,152)	(12,616,922)
Profits or losses on valuation of financial instruments measured at fair value through profit or loss	6,746,381	-	-	-	-	6,746,381
Profits or losses on transaction of financial instruments measured at fair value through profit or loss	10,285,019	-	-	-	-	10,285,019
Dividend income	1,190,000	-	-	-	-	1,190,000
Profit or loss on foreign currency translation	-	-	4,554,552	-	(287,699)	4,266,853
Profit and loss on foreign currency transactions	-	-	9,915,992	-	1,340,366	11,256,358
Profit or loss on the valuation of derivatives	4,142,559	-	-	-	-	4,142,559
Profit or loss on the transaction of derivatives	(22,586,012)	-	-	1,124,659	-	(21,461,353)
Bad debt expenses	-	-	(551,125)	-	-	(551,125)
Other bad debt expenses (reversal)	-	-	397,316	-	-	397,316
Subtotal	(222,053)	-	33,746,965	1,124,659	(30,994,485)	3,655,086
Other comprehensive income:						
Profit or loss on the valuation of derivatives (Note 1)	-	-	-	(265,468)	-	(265,468)
Gains (losses) on valuation of financial assets at fair value through other comprehensive income (Note 1)	-	(54,727,477)	-	-	-	(54,727,477)
Subtotal	-	(54,727,477)	-	(265,468)	-	(54,992,945)
Total	(222,053)	(54,727,477)	33,746,965	859,191	(30,994,485)	(51,337,859)

(Note 1) This amount is obtained from deducting the corporate tax.

<Previous period>

(Unit: KRW one thousand)

Classification	Financial instruments measured at fair value Financial assets	Financial assets measured at amortized cost	Derivative liabilities of hedging accounting	Financial liabilities measured at amortized cost	Total
Profit or loss:					
Interest income (expense)	-	7,255,858	-	(15,461,271)	(8,205,413)
Profits or losses on valuation of financial instruments measured at fair value through profit or loss	(5,614,828)	-	-	-	(5,614,828)
Profits or losses on transaction of financial instruments measured at fair value through profit or loss	45,433,828	-	-	-	45,433,828
Dividend income	1,190,000	-	-	-	1,190,000
Profit or loss on foreign currency translation	-	(7,640,449)	-	989,853	(6,650,596)
Profit and loss on foreign currency transactions	-	35,637,343	-	(16,680,990)	18,956,353
Profit or loss on the valuation of derivatives	6,545,164	-	2,454,000	-	8,999,164
Profit or loss on the transaction of derivatives	(31,771,712)	-	-	-	(31,771,712)
Bad debt expenses	-	(478,766)	-	-	(478,766)
Other bad debt expenses	-	(91,789)	-	-	(91,789)
SubTotal	15,782,452	34,682,197	2,454,000	(31,152,408)	21,766,241
Other comprehensive income:					
Profit or loss on the valuation of derivatives (Note 1)	-	-	535,165	-	535,165
SubTotal	-	-	535,165	-	535,165
Total	15,782,452	34,682,197	2,989,165	(31,152,408)	22,301,406

(Note 1) This amount is obtained from deducting the corporate tax.

5-4 Deposits of restricted use

The details of the deposits of restricted use as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period	Details of the restriction
Short-term financial assets	5,300,000	5,300,000	Provision of loan collateral of the treasury share association
Short-term financial assets	55,022,832	-	Establishment of pledge rights
Long-term financial assets	27,500	27,500	Security deposit for opening current deposit account
Total	60,350,332	5,327,500	

6. Trade and other receivables

6-1 As of the end of the reporting period, the details of trade and other receivables are as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period
Trade and other receivables:		
Trade receivables	157,843,734	188,942,419
Allowance for bad debts for trade receivables	(4,116,420)	(4,714,759)
Accounts receivable	19,936,059	64,068,419
Allowance for bad debts for accounts receivable	(119,964)	(144,517)
Short-term loans	3,040,000	3,400,877
Allowance for bad debts for short-term loans	(3,040,000)	(3,400,000)
Accrued revenue	6,454,723	1,787,938
Derivative financial assets	435,251	10,460,927
SubTotal	180,433,383	260,401,304
Long-term trade and other receivables:		
Long-term loans	788,676	863,517
Total	181,222,059	261,264,821

6-2 The changes in allowance for bad debts for trade and other receivables for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Beginning of period	8,259,276	8,750,082
Set	153,809	570,555
Removal, exchange rate fluctuations, etc.	(1,136,701)	(679,634)
Held for sale classification	-	(381,727)
End of period (Note 1)	7,276,384	8,259,276

(Note 1) At the end of the current period, some trade receivables are secured by collateral, and trade receivables credit insurance has been obtained.

6-3 As of the end of the current period, the details of the subsidiaries are as follows.

(Unit: KRW one thousand)

	End of the current period	End of the previous period
Unmatured	166,698,508	194,813,921
Within 90 days	14,822,315	46,160,540
Within 180 days	4,641,830	21,843,756
Over 180 days	2,335,790	6,705,880
SubTotal	188,498,443	269,524,097
(Deducted: allowance for bad debts)	(7,276,384)	(8,259,276)
Deductions	181,222,059	261,264,821

6-4 If the transferred or discounted trade receivables do not satisfy the requirements for the derecognition of financial instruments, the consolidated companies continue to recognize them as the trade and other receivables, whose details are as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period	Reason
Trade receivables (Note 1)	68,989,049	78,359,823	Resource obligation

(Note 1) The consolidated companies recognize short-term borrowings equal to the nominal amount of trade receivables transferred or discounted (refer to Note 17-2).

7. Inventories

7-1 The details of the inventories as of the end of the reporting period are as follows.

<End of the current period>

(Unit: KRW one thousand)

Classification	Acquisition cost	Assessment allowance	Book amount
Goods	29,573,909	(557,015)	29,016,894
Products	144,430,750	(6,449,883)	137,980,867
Processed products	42,155,957	(1,561,534)	40,594,423
Half finished products	40,416,968	(20,513,018)	19,903,950
Goods in process	24,218,535	(8,048,160)	16,170,375
Raw materials	116,560,009	(48,628,325)	67,931,684
Stored goods	57,245,236	(22,052,900)	35,192,336
Goods to arrive	29,442,806	-	29,442,806
Other inventories	684,620	-	684,620
Total (Note 1)	484,728,790	(107,810,835)	376,917,955

(Note 1) This includes an amount of KRW 1,274,485,000 related to contract assets for CMO (refer to Note 21).

<End of the previous period>

(Unit: KRW one thousand)

Classification	Acquisition cost	Assessment allowance	Book amount
Goods	24,328,964	(2,673,766)	21,655,198
Products	171,502,022	(4,547,730)	166,954,292
Processed products	31,293,747	(1,018,094)	30,275,653
Half finished products	75,945,901	(10,519,829)	65,426,072
Goods in process	17,445,220	-	17,445,220
Raw materials	107,045,895	(11,152,871)	95,893,024
Stored goods	87,444,483	(26,542,443)	60,902,040
Goods to arrive	23,286,515	-	23,286,515
Other inventories	915,067	-	915,067
Total (Note 1)	539,207,814	(56,454,733)	482,753,081

(Note 1) Included are KRW 37,092,497,000 for the amount of contract assets related to the CMO and CDMO (refer to Note 21).

7-2 During the current period, the loss on the valuation of inventories recognized in connection with the inventories was KRW 51,356,102,000 (previous period: KRW 45,147,937,000) which was added to or deducted from cost of sales.

8. Other assets

8-1 The details of other assets as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period
Other current assets:		
Security deposits	145,669	132,481
Advance payments	6,645,891	21,020,251
Prepaid expenses	7,927,212	6,536,242
Prepaid corporate taxes	1,859,014	339,349
Prepaid VATs	133,995	612,027
Carbon emission right assets	430,508	220,926
Other assets	15,316,206	134,659
Total	32,458,495	28,995,935
Other non-current assets:		
Derivative financial assets (Note 1)	5,055,776	1,237,613
Long-term security deposits	7,069,256	4,640,745
Long-term prepaid expenses	1,255,384	-
Long-term prepaid expenses	4,861,602	6,473,357
Other assets	1,188,233	1,014,129
Total	19,430,251	13,365,844

(Note 1) This is a put option that allows for the sale of SK chemicals Daejung Co., Ltd.'s net assets or HDC Polyall Co., Ltd.'s affiliates' investment stocks to Daejung Chemicals & Metals Co., Ltd. or HDC Hyundai EP Co., Ltd.

9. Long-term and short-term financial assets

The details of the long-term and short-term financial assets as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period
Short-term financial assets:		
Financial assets measured at fair value through profit or loss (Note 1)	871,919,247	1,314,442,323
Time deposits (Note 2)	177,479,795	5,300,000
Short-term trading financial assets (Note 3)	55,022,832	-
Promissory notes	100,000,000	-
Subtotal	1,204,421,874	1,319,742,323
Long-term financial assets:		
Security deposit for opening current deposit account	27,500	27,500
Total	1,204,449,374	1,319,769,823

- (Note 1) Included are the money market financial instruments deposited with financial institutions and the overseas bonds.
- (Note 2) Some financial assets are provided as collateral for borrowings (refer to Note 5-4).
- (Note 3) Pledge rights have been established (refer to Note 5-4).

10. Long-term investment assets

The changes in long-term investment assets for the current and previous periods are as follows.

<Current period>

(Unit: KRW one thousand)

Classification	Beginning of period	Acquired	Disposed	Assessed	End of period
Financial assets measured at fair value through profit or loss:					
Unmarketable equity securities					
Eastman Fiber Korea Ltd. (Note 1)	25,128,024	-	-	438,199	25,566,223
Yongyeon Industrial District 4 Industrial Water Management Association	419,199	-	-	-	419,199
Standigm Inc. (Notes 2)	3,000,008	-	-	-	3,000,008
SML Biopharma Co., Ltd. (Note 3)	-	1,000,001	-	-	1,000,001
Subtotal	28,547,231	1,000,001	-	438,199	29,985,431
Debt securities					
Korea Investment Bio Global Fund	2,712,054	-	(373,000)	(385,439)	1,953,615
Sante Health Ventures IV, LP (Note 3)	3,368,873	2,079,993	-	1,149,067	6,597,933
TiumBio Co., Ltd. (Note 3)	-	19,999,995	-	-	19,999,995
Subtotal	6,080,927	22,079,988	(373,000)	763,628	28,551,543
Financial assets measured at fair value through other comprehensive income					
Unmarketable equity securities					
J2H Biotech Co., Ltd.	1,500,052	-	-	-	1,500,052
Oncobix Co., Ltd.	999,980	-	-	-	999,980
CT Cells Co., Ltd.	1,000,076	-	-	-	1,000,076
CLIPS BnC Co., Ltd.	500,006	-	-	-	500,006
Subtotal	4,000,114	-	-	-	4,000,114
Marketable equity securities					
Novavax Inc. (Note 4)	-	111,396,350	-	(71,167,070)	40,229,280
Total	38,628,272	134,476,339	(373,000)	(69,965,243)	102,766,368

- (Note 1) The consolidated companies hold a put option for the interest in the preferred stocks of Eastman Fiber Korea Co., Ltd. and have granted a call option of the same amount for Eastman Chemical Korea B.V., the largest shareholder, and considering this option, the assessment of the investment assets was reflected at fair value.
- (Note 2) These are redeemable convertible preferred stocks (RCPS) with the right to convert to common stocks for 10 years from the date of completion of the transaction, and the right to require redemption from the consolidated companies 3 years after the date of completion of the transaction.
- (Note 3) During the current period, the Group made new investments in Tium Bio Co., Ltd. and SML Biopharma Co., Ltd., and made additional investments in Sante Health Ventures IV, LP.
- (Note 4) During the current period, Novavax Inc. acquired 6,500,000 common shares and designated the financial instrument as measured at fair value through other comprehensive income upon initial recognition, as it is not held for trading purposes. The valuation of these shares includes a loss of KRW 45.501 billion recognized in other comprehensive income upon initial recognition.

<Previous period>

(Unit: KRW one thousand)

Classification	Beginning of period	Acquired	Disposed	Assessed	End of period
Financial assets measured at fair value through profit or loss:					
Unmarketable equity securities					
Eastman Fiber Korea Ltd. (EFKL) (Note 1)	23,506,094	-	-	1,621,930	25,128,024
Yongyeon Industrial District 4 Industrial Water Management Association	419,199	-	-	-	419,199
Standigm Inc. (Notes 2)	3,000,008	-	-	-	3,000,008
Subtotal	26,925,301	-	-	1,621,930	28,547,231
Debt securities					
Korea Investment Bio Global Fund	4,185,525	-	-	(1,473,471)	2,712,054
Sante Health Ventures IV, LP (Note 3)	970,633	2,398,240	-	-	3,368,873
Subtotal	5,156,158	2,398,240	-	(1,473,471)	6,080,927
Financial assets measured at fair value through other comprehensive income:					
Unmarketable equity securities					
J2H Biotech Co., Ltd.	1,500,052	-	-	-	1,500,052
Oncobix Co., Ltd.	999,980	-	-	-	999,980
Citi Cells Co., Ltd. (Note 3)	499,995	500,081	-	-	1,000,076
Clips BNC Co., Ltd. (Note 3)	-	500,006	-	-	500,006
Subtotal	3,000,027	1,000,087	-	-	4,000,114
Total	35,081,486	3,398,327	-	148,459	38,628,272

- (Note 1) The consolidated companies hold a put option for the interest in the preferred stocks of Eastman Fiber Korea Co., Ltd. and have granted a call option of the same amount for Eastman Chemical Korea B.V., the largest shareholder, and considering this option, the assessment of the investment assets was reflected at fair value.
- (Note 2) These are redeemable convertible preferred stocks (RCPS) with the right to convert to common stocks for 10 years from the date of completion of the transaction, and the right to require redemption from the consolidated companies 3 years after the date of completion of the transaction.
- (Note 3) During the previous period, the consolidated companies made a new investment in Clips BNC Co., Ltd., and made additional investments in Citi Cells Co., Ltd. and Sante Health Ventures IV, LP.

11. Affiliates and joint ventures investments

11-1 The details of the affiliates and joint ventures investments as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Name of Company	Location	End of the current period		End of the previous period	
		Equity interest (%)	Book amount	Equity interest (%)	Book amount
Entis Co., Ltd.	Republic of Korea	50.00	7,221,645	50.00	6,184,859
JSI Co., Ltd.	Republic of Korea	40.00	635,199	40.00	515,887
HDC Polyall Co., Ltd. (Notes 1, 2)	Republic of Korea	20.00	2,560,972	20.00	6,608,407
Total			10,417,816		13,309,153

(Note 1) Prior to the previous period, the PPS Business Division was transferred to HDC Polyall Co., Ltd., and a 20% interest-1 share was acquired from HDC Polyall Co., Ltd. The consolidated companies are determined to have influence over HDC Polyall Co., Ltd. based on the fact that the consolidated companies can appoint one of the five directors.

(Note 2) The consolidated companies have put options for all of their interest in HDC Polyall Co., Ltd.

11-2 The changes in investments in affiliates and joint ventures for the current and previous periods are as follows.

<Current period>

(Unit: KRW one thousand)

Name of company	Beginning of period	Profits or losses on valuation using equity method	Others (Note 1)	End of period
Entis Co., Ltd.	6,184,859	1,036,786	-	7,221,645
JSI Co., Ltd.	515,887	119,312	-	635,199
HDC Polyall Co., Ltd.	6,608,407	(4,021,417)	(26,018)	2,560,972
Total	13,309,153	(2,865,319)	(26,018)	10,417,816

(Note 1) These are the changes due to the recognition of other comprehensive income, etc.

<Previous period>

(Unit: KRW one thousand)

Name of company	Beginning of period	Profits or losses on valuation using equity method	Dividends	Disposed	Others (Note 1)	End of period
Entis Co., Ltd.	6,863,112	321,747	(1,000,000)	-	-	6,184,859
JSI Co., Ltd.	534,172	(18,285)	-	-	-	515,887
HDC Polyall Co., Ltd.	7,699,750	(1,091,343)	-	-	-	6,608,407
ST Green Energy	1,231,243	25,345	-	(1,282,987)	26,399	-
Total	16,328,277	(762,536)	(1,000,000)	(1,282,987)	26,399	13,309,153

(Note 1) These are the changes due to the recognition of other comprehensive income, etc.

11-3 The summarized financial information of the affiliates and joint ventures investments as of the end of the reporting period is as follows.

<Current period>

(Unit: KRW one thousand)

Name of company	Current assets	Non-current assets	Current liabilities	Non-current liabilities	Equity	Sales	Net income (loss)
Entis Co., Ltd.	19,276,406	1,895,395	6,632,757	95,753	14,443,291	41,143,718	2,073,571
JSI Co., Ltd.	2,322,818	6,992,523	9,925,968	1,445,689	(2,056,316)	9,022,270	298,279
HDC Polyall Co., Ltd.	37,238,324	11,751,311	32,156,816	4,027,542	12,805,277	36,190,369	(20,107,733)

<Previous period>

(Unit: KRW one thousand)

Name of company	Current assets	Non-current assets	Current liabilities	Non-current liabilities	Equity	Sales	Net income (loss)
Entis Co., Ltd.	19,738,992	2,487,488	9,856,762	-	12,369,719	49,903,660	643,497
JSI Co., Ltd.	2,464,346	7,128,554	10,602,005	1,345,490	(2,354,595)	10,996,961	(45,715)
HDC Polyall Co., Ltd.	32,705,030	16,586,616	12,024,282	4,224,259	33,043,104	36,218,521	(5,456,896)

12. Tangible assets

12-1 The changes in the book amount of tangible assets of the consolidated company for the current and previous periods are as follows.

<Current period>

(Unit: KRW one thousand)

Classification	Beginning of period	Acquired	Disposed	Depreciation	Impairment	Business combination	Others (Note 1)	End of period
Land	226,247,548	950,936	-	-	-	-	573,443	227,771,927
Building	323,152,004	988,599	(374)	(12,968,715)	(287,856)	44,046,445	8,879,471	363,809,574
Structure	125,065,241	4,924,663	(164,939)	(7,646,677)	(811,323)	-	7,035,988	128,402,953
Mechanical equipment	271,694,558	16,929,705	(38,877)	(59,144,349)	(5,836,375)	65,492,138	33,282,218	322,379,018
Vehicles and transport equipment	253,955	281,237	(8)	(129,521)	-	-	2,316	407,979
Other tangible assets	18,934,090	11,225,577	(21,389)	(7,748,976)	(1,073)	-	3,539,389	25,927,618
Assets under construction in progress	225,755,603	357,180,959	(125,364)	-	-	-	(57,887,434)	524,923,764
Machineries in transit	2,028,060	7,299,175	-	-	-	-	(1,316,288)	8,010,947
Total	1,193,131,059	399,780,851	(350,951)	(87,638,238)	(6,936,627)	109,538,583	(5,890,897)	1,601,633,780

(Note 1) Included are the main account reclassification of construction in progress, reclassification of the intangible assets, receipt of government subsidies, and the effects of exchange rate fluctuations.

<Previous period>

(Unit: KRW one thousand)

Classification	Beginning of period	Acquired	Disposed	Depreciation	Held for sale	Others (Note 1)	End of period
Land	194,574,507	36,912,914	(9,699,741)	-	-	4,459,868	226,247,548
Building	310,483,796	14,108,432	(1,852)	(10,388,053)	(1,565,890)	10,515,571	323,152,004
Structure	112,274,999	6,685,264	(356,517)	(3,742,913)	-	10,204,408	125,065,241
Mechanical equipment	277,177,363	28,605,828	(4,436,264)	(53,206,859)	(1,540,403)	25,094,893	271,694,558
Vehicles and transport equipment	212,153	136,817	-	(89,688)	(5,355)	28	253,955
Other tangible assets	13,993,207	6,889,017	(127,688)	(6,088,310)	(447,661)	4,715,525	18,934,090
Assets under construction in progress	88,183,666	198,364,269	(213,866)	-	-	(60,578,466)	225,755,603
Machineries in transit	2,346,072	2,180,140	-	-	-	(2,498,152)	2,028,060
Total	999,245,763	293,882,681	(14,835,928)	(73,515,823)	(3,559,309)	(8,086,325)	1,193,131,059

(Note 1) Included are the main account reclassification for construction in progress, reclassification of investment real estate properties with the intangible assets, receipt of government subsidies, and the effects of exchange rate fluctuations.

12-2 The capitalized borrowing costs during the current period are KRW 13,296,885,000 (previous period: KRW 2,070,480,000). The interest rate for capitalization used to calculate the borrowing costs available for capitalization is 3.52% - 6.79% (previous period: 3.13% - 4.96%).

12-3 Insured assets

As of the end of the current period, the Company has subscribed to a property risk insurance policy with an insured amount of KRW 2,722,576,293,000 and CNY 373,550,602 (previous period: KRW 2,406,787,021,000) for tangible assets.

12-4 New facility investment

On February 8, 2023, the Board of Directors of SK bioscience Co., Ltd. approved an investment in infrastructure for the expansion of the vaccine business and new business initiatives. The total investment amount is KRW 283,800,000,000, and the expected completion date is December 31, 2025.

13. Lease

(1) Company as a lessee

13-1 The changes in the book value of right-to-use assets for the current and previous periods are as follows.

<Current period>

(Unit: KRW one thousand)

Classification	Beginning of period	Acquired	Disposed	Depreciation	Business combination	Others (Note 1)	End of period
Land	3,850,072	-	-	(394,444)	15,661,380	(296,909)	18,820,099
Building	16,509,397	1,947,615	-	(9,307,807)	-	(54,584)	9,094,621
Structure	3,113,476	-	-	(117,121)	-	-	2,996,355
Mechanical equipment	2,438,382	-	-	(670,031)	-	-	1,768,351
Vehicles and transport equipment	2,697,857	2,147,589	(328,022)	(1,879,327)	-	99	2,638,196
Total	28,609,184	4,095,204	(328,022)	(12,368,730)	15,661,380	(351,394)	35,317,622

(Note 1) They consist of the effects of exchange rate fluctuations, etc.

<Previous period>

(Unit: KRW one thousand)

Classification	Beginning of period	Acquired	Disposed	Depreciation	Held for sale	Others (Note 1)	End of period
Land	3,913,234	365,037	-	(90,958)	(221,482)	(115,759)	3,850,072
Building	2,791,007	19,303,528	(204,861)	(5,382,590)	-	2,313	16,509,397
Structure	3,230,597	-	-	(117,121)	-	-	3,113,476
Mechanical equipment	3,219,419	-	-	(781,037)	-	-	2,438,382
Vehicles and transport equipment	2,232,469	2,061,131	(290,710)	(1,222,638)	(78,457)	(3,938)	2,697,857
Total	15,386,726	21,729,696	(495,571)	(7,594,344)	(299,939)	(117,384)	28,609,184

(Note 1) They consist of the effects of exchange rate fluctuations, etc.

13-2 The details of the lease liabilities as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	End of the current period		End of the previous period	
	Minimum lease payment	Present value	Minimum lease payment	Present value
1 year or less	7,901,030	7,677,175	12,000,694	11,685,098
2 years or less	3,126,809	2,933,661	6,637,793	6,145,838
5 years or less	4,688,348	4,137,374	5,089,589	4,393,522
Over 5 years	3,533,831	1,951,859	4,526,978	2,645,882
Total	19,250,018	16,700,069	28,255,054	24,870,340

13-3 The changes in lease liabilities for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Beginning of period	24,870,340	11,132,160
Increase	4,075,559	21,729,696
Disposed	(329,030)	(506,492)
Interest expenses	996,956	797,301
Lease payments made	(12,888,101)	(8,184,639)
Held for sale	-	(80,762)
Others (Note 1)	(25,655)	(16,924)
End of period	16,700,069	24,870,340

(Note 1) They consist of the effects of exchange rate fluctuations, etc.

13-4 The expenses recognized from the lease contracts for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Other operating expenses such as consumables		
Short-term lease	950,013	879,308
Lease of small amount	402,980	408,000
Depreciation		
Amortization of right-to-use assets	12,368,730	7,594,344
Net financial cost		
Lease liabilities' interest expenses	996,956	797,301

The consolidated companies had a cash outflow of KRW 14,241,094,000 in total (previous period: KRW 9,371,947,000) for the leases.

The consolidated companies have a number of lease agreements executed with the options for extension and termination included. Such options are negotiated by the senior management to provide flexibility in the management of the portfolio of leased assets and to meet the business needs of the consolidated companies. The senior management applies their material judgment in determining whether it is significantly certain that such extension and termination options will be exercised.

(2) Company as a lessor

The consolidated companies have executed operating lease agreements for a portfolio of investment real estate properties consisting of specific office and manufacturing properties. The terms of these leases range from 1 to 50 years. Included in all leases is a provision that allows for an annual increase in rental payments based on current market conditions. The lessee must also guarantee the residual value of the real estate properties. The rental income recognized during the reporting period was KRW 2,172,493,000 (previous period: KRW 1,889,576,000).

As of the end of the reporting period, the future minimum rent receivables under the non-cancellable operating leases are as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period
Within 1 year	2,413,094	1,959,166
Over 1 year, 2 years or less	1,065,131	775,417
Over 2 years, 3 years or less	874,080	775,417
Over 3 years, 4 years or less	708,851	647,142
Over 4 years, 5 years or less	708,851	490,252
Over 5 years	8,436,347	8,364,801
Total	14,206,354	13,012,195

14. Intangible assets

14-1 The changes in the book amount of intangible assets for the current and previous periods are as follows.

<Current period>

(Unit: KRW one thousand)

Classification	Beginning of period	Acquired	Disposed	Redemption cost	Impairment	Others (Note 1)	End of period
Goodwill	86,234	-	-	-	-	-	86,234
Industrial property rights	5,099,426	5,644,728	(1)	(1,768,154)	-	1,149,727	10,125,726
Memberships	9,373,215	-	-	-	-	-	9,373,215
Development costs	11,882,434	-	-	(2,447,902)	(1,153,638)	-	8,280,894
Software	25,335,930	4,991,267	(1,969)	(8,619,464)	-	4,532,176	26,237,940
Other intangible assets	-	102,892	-	(857)	-	(1,900)	100,135
Total	51,777,239	10,738,887	(1,970)	(12,836,377)	(1,153,638)	5,680,003	54,204,144

(Note 1) They consist of the main account reclassification for construction in progress, the effects of exchange rate fluctuations, etc.

<Previous period>

(Unit: KRW one thousand)

Classification	Beginning of period	Acquired	Disposed	Redemption cost	Others (Note 1)	End of period
Goodwill	86,234	-	-	-	-	86,234
Industrial property rights	5,956,048	168,531	(401,481)	(1,244,902)	621,230	5,099,426
Memberships	7,056,505	3,246,996	(930,286)	-	-	9,373,215
Development costs	13,088,066	1,163,867	-	(2,369,499)	-	11,882,434
Software	18,235,471	8,001,457	(8,650)	(6,698,497)	5,806,149	25,335,930
Total	44,422,324	12,580,851	(1,340,417)	(10,312,898)	6,427,379	51,777,239

(Note 1) They consist of the main account reclassification for construction in progress, the effects of exchange rate fluctuations, etc.

14-2 The details of the development costs as of the end of the reporting period are as follows.

<End of the current period>

(Unit: KRW one thousand)

Phase	Classification	Name of individual asset	Amount of the R&D expenses "assetized" (cumulative amount)			Development costs		Residual amortization period
			Phase 3 clinical trial	Approved sales	Total	Book amount	Impairment loss accumulated amount	
Completed development	Genetic recombination	NBP601 (Note 1)	-	5,100,000	5,100,000	1,530,000	-	3 years
	Vaccines	NBP607 (Note 2)	4,354,658	-	4,354,658	1,129,082	-	2 years
	Vaccines	NBP608 Herpes Zoster (Note 3)	10,199,115	-	10,199,115	3,994,654	-	4 years
	Vaccines	NBP608 Chickenpox (Note 4)	3,486,768	-	3,486,768	1,627,158	-	5 years
	Vaccines	GBP510 COVID-19 (Note 5)	1,344,045	-	1,344,045	-	(1,153,638)	-
Subtotal			19,384,586	5,100,000	24,484,586	8,280,894	(1,153,638)	

(Note 1) NBP 601 is a treatment for hemophilia that has received marketing approval in Europe, the United States, etc.

(Note 2) NBP 607 is an influenza vaccine product that has been on the market since receiving marketing approval in 2015.

(Note 3) This herpes zoster vaccine product for adults has been on the market since receiving marketing approval in 2017.

(Note 4) This chickenpox vaccine for infants and toddlers has been on the market since receiving marketing approval in 2018. GBP 510 is a COVID-19 vaccine product, and is currently on sale after securing approval for sales in 2022.

(Note 5) During the current period, an indication of impairment was identified for GBP510 development costs, and an impairment loss was recognized.

<End of the previous period>

(Unit: KRW one thousand)

Phase	Classification	Name of individual asset	Amount of the R&D expenses assetized (cumulative amount)			Development costs		Residual amortization period
			Phase 3 clinical trial	Approved sales	Total	Book amount	Impairment loss accumulated amount	
Completed development	Genetic recombination	NBP601 (Note 1)	-	5,100,000	5,100,000	2,040,000	-	4 years
	Vaccine	NBP607 (Note 2)	4,354,658	-	4,354,658	1,563,991	-	3 years
	Vaccine	NBP608 Herpes Zoster (Note 3)	10,199,115	-	10,199,115	5,014,565	-	5 years
	Vaccine	NBP608 Chickenpox (Note 4)	3,486,768	-	3,486,768	1,975,835	-	6 years
Development in progress	Vaccine	GBP510 COVID-19 (Note 5)	1,344,045	-	1,344,045	1,288,043	-	9 years
Subtotal			19,384,586	5,100,000	24,484,586	11,882,434	-	

(Note 1) NBP 601 is a treatment for hemophilia that has received marketing approval in Europe, the United States, etc.

(Note 2) NBP 607 is an influenza vaccine product that has been on the market since receiving marketing approval in 2015.

(Note 3) This herpes zoster vaccine product for adults has been on the market since receiving marketing approval in 2017.

(Note 4) This chickenpox vaccine for infants and toddlers has been on the market since receiving marketing approval in 2018

(Note 5) GBP 510 is a COVID-19 vaccine product, and is currently on sale after securing approval for sales in 2022.

14-3 The changes in the book amount of development costs for the current and previous periods are as follows.

<Current period>

(Unit: KRW one thousand)

Classification	NBP601	NBP607	NBP608		GBP510	Total
			Herpes zoster	Chickenpox		
Book amount at beginning of period	2,040,000	1,563,991	5,014,565	1,975,835	1,288,043	11,882,434
Acquired	-	-	-	-	-	-
Redeemed	(510,000)	(434,909)	(1,019,911)	(348,677)	(134,405)	(2,447,902)
Impairment	-	-	-	-	(1,153,638)	(1,153,638)
Book amount at end of period	1,530,000	1,129,082	3,994,654	1,627,158	-	8,280,894

<Previous period>

(Unit: KRW one thousand)

Classification	NBP601	NBP607	NBP608		GBP510	Total
			Herpes zoster	Chickenpox		
Book amount at beginning of period	2,550,000	1,998,900	6,034,477	2,324,511	180,178	13,088,066
Acquired	-	-	-	-	1,163,867	1,163,867
Redeemed	(510,000)	(434,909)	(1,019,912)	(348,676)	(56,002)	(2,369,499)
Book amount at end of period	2,040,000	1,563,991	5,014,565	1,975,835	1,288,043	11,882,434

14-4 The total R&D related expenditures recognized as expenses for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Selling and administrative expenses	161,831,075	152,369,384
External subsidies, etc.	(31,537,424)	(52,149,264)
Total	130,293,651	100,220,120

15. Investment real estate properties

15-1 The changes in the book value of investment real estate properties for the current and previous periods are as follows.

<Current period>

(Unit: KRW one thousand)

Classification	Beginning of period	Redeemed	End of period
Land	16,797,406	-	16,797,406
Building	541,960	(42,032)	499,928
Total	17,339,366	(42,032)	17,297,334

<Previous period>

(Unit: KRW one thousand)

Classification	Beginning of period	Redeemed	Reclassification	End of period
Land	16,797,406	-	-	16,797,406
Building	414,872	(42,031)	169,119	541,960
Total	17,212,278	(42,031)	169,119	17,339,366

15-2 During the current period, the rental income from investment real estate properties was KRW 2,172,493,000 (previous period: KRW 1,889,576,000), and as of the end of the current period, the fair value of investment real estate properties is KRW 55,764,741,000.

16. Trade and other payables

The details of the trade and other payables as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period
Trade payables	112,561,365	95,186,888
Accounts payable	75,372,068	50,943,258
Accrued expenses	58,730,480	72,961,930
Derivative financial liabilities	110,856	67,152
Total	246,774,769	219,159,228

17. Debenture and borrowings

17-1 The details of the bonds and borrowings as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period
Short-term borrowings	263,707,890	436,109,819
Current portion of long-term liabilities:		
Current portion of bonds payable	189,855,128	103,986,944
Current portion of long-term borrowings	2,550,000	-
Subtotal	192,405,128	103,986,944
Debenture	164,557,091	154,787,349
Long-term borrowings	472,518,337	7,172,699
Total	1,093,188,446	702,056,811

17-2 The details of the short-term borrowings as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Lender	Details	Annual interest rate at end of current period (%)	End of the current period	End of the previous period
Hana Bank, etc.	General borrowings from banks	3.60 - 6.19	144,718,841	202,200,000
Hana Bank, etc.	Trade receivable discounts	4.00 - 7.64	68,989,049	78,359,823
Shinhan Bank, etc.	Commercial paper (CP)	5.24	50,000,000	110,000,000
Coalition for Epidemic Preparedness Innovations (CEPI)	Other borrowings (Note 1)	-	-	45,549,996
Total			263,707,890	436,109,819

(Note 1) The entire amount was reimbursed during the current period as the product was commercialized with a subsidy intended to support the research and development of the COVID-19 vaccine candidate GBP510, which is under development by the consolidated companies.

17-3 The details of the bonds as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	Date of maturity	Annual interest rate at end of current period (%)	End of the current period	End of the previous period
The 9-2nd public placement bonds	2023.04.30	-	-	66,000,000
The 11-2nd public placement bonds	2024.01.31	2.91	80,000,000	80,000,000
The 12-2nd public placement bonds	2024.10.30	2.77	75,000,000	75,000,000
The 13-1st public placement bonds	2024.08.23	4.47	35,000,000	-
The 13-2nd public placement bonds	2025.02.24	4.61	95,000,000	-
The 13-3rd public placement bonds	2026.02.24	4.60	70,000,000	-
Overseas bonds	2023.06.29	-	-	38,019,000
Total			355,000,000	259,019,000
(Deducted: discount on bonds premium)			(587,781)	(244,707)
(Deducted: current portion of bonds payable)			(189,855,128)	(103,986,944)
Deductions			164,557,091	154,787,349

17-4 The details of the long-term borrowings from financial institutions as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Lender	Details	End of the current period annual interest rate (%)	End of the current period	End of the previous period
Hana Bank, etc.	Facility capital loan	4.30 - 6.13	23,127,085	7,172,699
Agricultural Bank of China	General capital loan	3.70 - 3.90	86,371,059	-
KB Kookmin Bank, etc.	Project financing loan	3.70 - 6.70	365,570,193	-
Subtotal			475,068,337	7,172,699
(Deducted: Current portion of long-term borrowings)			(2,550,000)	-
Deductions			472,518,337	7,172,699

18. Other liabilities

18-1 The details of the other liabilities as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period
Other current liabilities		
Advance payment	29,051,177	43,047,175
Deposits	5,213,733	12,855,826
Deposits received	5,305,897	4,932,758
Carbon emission liabilities	75,353	210,984
Dividends payable	9,803	7,917
Unearned revenue	362,854	229,524
Others	473,368	746,881
Total	40,492,185	62,031,065
Other non-current liabilities		
Long-term employee benefit liabilities	733,993	534,324

19. Emission rights and emission liabilities

19-1 As of the end of the current term, the number of emission rights allocated free of charge for each year of performance within the planned period is as follows.

(Unit: tons)

Classification	2021	2022	2023	2024	2025	Total
Emission rights allocated free of charge	530,173	530,173	530,173	525,208	525,208	2,640,935

Meanwhile, as of the end of the current period, there are no greenhouse gas emission rights provided as collateral.

19-2 As of the end of the current term, the changes in the greenhouse gas emission rights for each year of performance within the planned period are as follows.

(Unit: tons, KRW one thousand)

Classification	2021		2022		2023		2024		2025		Total	
	Quantity	Book amount	Quantity	Book amount	Quantity	Book amount	Quantity	Book amount	Quantity	Book amount	Quantity	Book amount
Allocated amount	652,295	-	619,877	-	578,932	-	574,120	-	574,120	-	2,999,344	-
Allocated free of charge	530,173	-	530,173	-	530,173	-	525,208	-	525,208	-	2,640,935	-
Allocation canceled/Additionally allocated	122,941	-	90,523	-	49,578	-	49,723	-	49,723	-	362,488	-
Sales of business divisions	(819)	-	(819)	-	(819)	-	(811)	-	(811)	-	(4,079)	-
Emission amounts	(654,219)	(270,895)	(609,844)	-	-	-	-	-	-	-	(1,264,063)	(270,895)
Government expenditure	(654,219)	(270,895)	(609,844)	-	-	-	-	-	-	-	(1,264,063)	(270,895)
Changes due to split-off and merger	-	-	-	-	-	-	-	-	-	-	-	-
Changes due to emission rights transactions	(13,328)	45,025	1,430	446,796	16,661	209,583	-	-	-	-	4,763	701,404
Purchased	1,300	45,025	12,600	446,796	16,661	209,583	-	-	-	-	30,561	701,404
Sold	(14,628)	-	(11,170)	-	-	-	-	-	-	-	(25,798)	-
Borrowed	7,585	270,895	(7,585)	(270,895)	-	-	-	-	-	-	-	-
Carried over from the previous period	38,220	-	30,553	45,025	34,431	220,926	-	-	-	-	103,204	265,951
Carried over to next period	(30,553)	(45,025)	(34,431)	(220,926)	-	-	-	-	-	-	(64,984)	(265,951)
End of period	-	-	-	-	630,024	430,509	574,120	-	574,120	-	1,778,264	430,509

19-3 The changes in emission rights assets for the current and previous periods are as follows.

(Unit: tons, KRW one thousand)

Classification	Current period		Previous period	
	Quantity	Amount	Quantity	Amount
Beginning of period	6,315	220,926	1,300	45,025
Emission rights purchased	16,661	209,583	12,600	446,796
Others	-	-	(7,585)	(270,895)
End of period	22,976	430,509	6,315	220,926

19-4 The changes in emission rights liabilities for the current and previous periods are as follows.

(Unit: tons, KRW one thousand)

Classification	Current period		Previous period	
	Quantity	Amount	Quantity	Amount
Beginning of period	7,585	210,984	12,170	430,388
Emissions cost	(1,389)	(135,631)	(4,585)	(219,404)
End of period	6,196	75,353	7,585	210,984

19-5 The confirmed value of the greenhouse gas emissions for the previous period is 609,844 tCO₂-eq. The estimate of the greenhouse gas emissions for the current period is 584,328 tCO₂-eq.

20. Defined benefit liabilities (assets)

The consolidated companies operate a defined benefit plan for the employees and have used the projected unit credit method for the actuarial valuation of the defined benefit liabilities.

20-1 The changes in defined benefit liabilities (assets) for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Changes in the defined benefit liabilities (assets):		
Beginning of period	(41,946,809)	(2,233,525)
Decrease in defined benefit liabilities (retirement benefit payments)	(1,588,295)	(1,736,794)
Total expenses recognized as net income	16,530,835	19,939,875
Remeasurement elements	19,597,939	(20,491,488)
Contributions paid	(35,768,000)	(46,664,320)
Affiliates' transfers, reclassifications to other accounts, etc.	(534,574)	9,239,443
End of period	(43,708,904)	(41,946,809)
Components in the statement of financial position:		
Present value of defined benefit liabilities	162,132,222	127,954,661
Fair value of plan assets	(205,841,126)	(169,901,470)
Total	(43,708,904)	(41,946,809)
Defined benefit assets	(43,708,904)	(41,946,809)

20-2 The profits and losses recognized in connection with the defined benefit plans for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Current service cost	18,675,936	19,984,651
Interest expenses	6,333,018	3,211,398
Expected return on plan assets	(8,478,119)	(3,256,174)
Total	16,530,835	19,939,875

20-3 The changes in the present value of defined benefit liabilities for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Beginning of period	127,954,661	131,211,458
Current service cost	18,675,936	19,984,651
Interest expenses	6,333,018	3,211,398
Remeasurement elements	19,716,685	(21,227,294)
Retirement benefits paid	(10,631,556)	(14,930,107)
Affiliates' transfers, reclassifications to other accounts, etc.	83,478	9,704,555
End of period	162,132,222	127,954,661

20-4 The changes in the fair value of plan assets for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Beginning of period	169,901,470	133,444,983
Expected return	8,478,119	3,256,174
Remeasurement elements	118,746	(735,806)
Retirement benefits paid	(9,043,261)	(13,193,313)
Contributions paid	35,768,000	46,664,320
Affiliates' transfers, reclassifications to other accounts, etc.	618,052	465,112
End of period	205,841,126	169,901,470

Meanwhile, the plan assets as of the end of the reporting period consist of time deposits, etc.

20-5 As of the end of the reporting period, the major assumptions used for the actuarial valuation are as follows.

Classification	End of the current period	End of the previous period
Discount rate	3.98% - 4.91%	5.13% - 5.21%
Expected return on plan assets (percentage)	3.98% - 4.91%	5.13% - 5.21%
Future rate of wage growth	2.00% - 7.81%	2.00% - 6.59%

20-6 The details of remeasurement elements for the defined benefit plans for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Demographic assumptions	114,376	-
Financial assumptions	17,574,394	(24,316,022)
Changes adjusted	2,027,915	3,088,728
Remeasurement elements of plan assets	(118,746)	735,806
Total	19,597,939	(20,491,488)

20-7 The results of sensitivity analysis on the effect of changes in the major assumptions used for the actuarial evaluation of the defined benefit liabilities on the changes in the present value of the defined benefit liabilities for both the current and previous periods are as follows.

<Current period>

(Unit: KRW one thousand)

Classification	Discount rate		Future rate of wage growth	
	1% point increase	1% point decrease	1% point increase	1% point decrease
Defined benefit obligations	(12,587,605)	14,685,785	14,673,980	(12,807,557)

<Previous period>

(Unit: KRW one thousand)

Classification	Discount rate		Future rate of wage growth	
	1% point increase	1% point decrease	1% point increase	1% point decrease
Defined benefit obligations	(11,096,062)	12,964,132	12,973,260	(11,303,481)

21. Contract assets and contract liabilities

21-1 The details of the contract balance as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period
Inventories (Note 1)	1,274,485	37,092,497
Contract liabilities	57,125,282	159,925,940

(Note 1) The contract performance costs, which are the contract assets of the consolidated companies, are recognized as inventory. The contract performance costs included in inventory consist of costs incurred for technology transfer and production activities to produce products ordered by customers. Since the activities are not those which must precede to manufacture the products ordered by customers or those intended to transfer goods or services to the customer, they are not included in the performance obligation and have been recognized as contract assets.

21-2 The changes in contract assets during the current period are as follows.

(Unit: KRW one thousand)

Classification	Amount
Beginning of period	37,092,497
Set	1,274,485
Decrease	(37,092,497)
End of period	1,274,485

21-3 The changes in contract liabilities for the current and previous periods are as follows.

<Current period> (Unit: KRW one thousand)

Classification	Contract liabilities		
	Refund liabilities (Note 1)	Unearned revenue (Note 2)	Subtotal
Beginning of period	10,670,184	149,255,756	159,925,940
Placement and reversal	(6,726,742)	(96,073,916)	(102,800,658)
End of period	3,943,442	53,181,840	57,125,282

- (Note 1) The consolidated companies appropriate the contract liabilities for returned goods based on past experience with returns for the products sold. All assumptions applied for the contract liability calculations above were based on the current products' sales levels and the currently available information on the returns expected to occur during the returnable period for products sold under returnable conditions.
- (Note 2) This is an amount received from the customer for the contract with the customer to be performed over the period.

<Previous period> (Unit: KRW one thousand)

Classification	Contract liabilities		
	Refund liabilities (Note 1)	Unearned revenue (Note 2)	Subtotal
Beginning of period	5,015,603	109,439,828	114,455,431
Placement and reversal	5,654,581	39,815,928	45,470,509
End of period	10,670,184	149,255,756	159,925,940

- (Note 1) The consolidated companies appropriate the contract liabilities for returned goods based on past experience with returns for the products sold. All assumptions applied for the contract liability calculations above were based on the current products' sales levels and the currently available information on the returns expected to occur during the returnable period for products sold under returnable conditions.
- (Note 2) This is an amount received from the customer for the contract with the customer to be performed over the period.

22. Provisioning liabilities

The details of the provisioning liabilities as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period
Current portion of provisioning liabilities		
Provisioning liabilities for contribution (Note 1)	-	19,326,700
Onerous contracts (Note 2)	-	2,811,241
Provisioning liabilities for litigation (Note 3)	11,013,136	-
Other provisioning liabilities	1,463,625	-
Subtotal	12,476,761	22,137,941
Non-current portion of provisioning liabilities		
Onerous contracts (Note 2)	-	2,278,409
Provisioning liabilities for litigation (Note 4)	5,957,148	-
Total	18,433,909	24,416,350

- (Note 1) Special Act on Remedy for Damage Caused by Humidifier Disinfectants, which was confirmed for payment during the current period and classified as accounts payable.
- (Note 2) In certain contracts, the consolidated companies have recognized a provision for liabilities for onerous contracts, estimating the excess amount by which the unavoidable costs of fulfilling the contractual obligations are expected to exceed the economic benefits anticipated from those contracts.
- (Note 3) Due to a partial loss in the second instance of the patent infringement and damages claim litigation with Novartis AG, the loss amount has been recognized as provisioning liability.
- (Note 4) This is the contribution for the relief of victims under the Provisioning liabilities have been recognized based on the best estimate regarding the ongoing litigation involving humidifier disinfectants.

23. Risk management activities and derivatives

The consolidated companies are exposed to certain risks in connection with their ongoing business operations. The main risks managed using derivatives are foreign exchange risk, commodity price risk, and interest rate risk. The risk management strategy and methods of the consolidated companies are described in Note 34.

23-1 Risk management activities

(1) Fair value hedging for the foreign exchange risk

As of the end of the current period, the consolidated companies have currency swap contracts designated as the hedging instruments to hedge the foreign currency risk for the foreign currency bonds.

The terms and conditions of the currency swap contract above were executed to be consistent with the redemption schedule of the foreign currency bonds. The parties to the contract have executed currency swap contracts with cash as the collateral, which effectively reduces the credit risk associated with the contract (the counterparty's and the consolidated companies' credit risk). As a result, hedging was very effectively evaluated.

(2) Hedging cash flows for the interest rate risk

The consolidated companies borrow funds at the fixed and variable interest rates, and thus, are exposed to the interest rate risk. To manage the interest rate risk, consolidated companies maintain an appropriate balance between the fixed rate borrowings and the variable rate borrowings and have executed the interest-rate swap contracts. The consolidated companies exchange the difference calculated by applying the difference between the fixed and variable interest rates for the predetermined nominal principal under the interest-rate swap contract. Such a contract allows for the consolidated companies to mitigate the risk of fluctuations in the cash flows of variable rate liabilities due to fluctuations in the interest rates. Hedging activities are regularly evaluated to appropriately adjust the interest rate status and the defined risk appetite to ensure that the optimal hedging strategy is applied.

(3) Other risk management activities

The consolidated companies are exposed to the foreign currency risk for some of their sales and purchases in international transactions. To mitigate such risk, the consolidated companies regularly monitor the net exposures in major currencies (the dollar, euro, and yen) based on projected sales and purchases over the next 12 months. Furthermore, the consolidated companies enter into foreign currency forward contracts to avoid such exposures.

For business and sales purposes, the consolidated companies have not designated such currency forward contracts for hedging. Thus, the changes in the fair value of all forward contracts are recognized as profit or loss for the relevant period.

23-2 The details of derivative instruments held by the consolidated companies as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	Details	End of the current period	End of the previous period
Derivative instruments not designated as the hedging instruments:			
Current derivative financial assets	Currency forward contracts	435,251	5,742,705
Current derivative financial liabilities	Currency forward contracts	110,856	67,152
Non-current derivative financial assets	Put Option	5,055,776	1,237,613
Derivative instruments designated as the hedging instruments:			
Current derivative financial assets	Currency interest-rate swap	-	4,718,222
Non-current derivative financial assets	Currency interest-rate swap	-	-

23-3 The details of the derivative financial instruments not designated as the hedging instruments by the consolidated companies as of the end of the reporting period are as follows.

<End of the current period> (Unit: KRW one thousand)

Contracting party	Classification	Contract amount	Fair value
Hana Bank, etc.	Buy	42,276,270	172,896
	Sell	17,052,646	151,499
Total		59,328,916	324,395

<End of the previous period> (Unit: KRW one thousand)

Contracting party	Classification	Contract amount	Fair value
Hana Bank, etc.	Buy	7,554,696	(20,875)
	Sell	307,850,362	5,696,428
Total		315,405,058	5,675,553

23-4 As of the end of the reporting period, the details of the non-current derivative financial instruments not designated as hedging instruments by the consolidated companies are as follows.

<End of the current period> (Unit: KRW one thousand)

Classification	Type	Fair value
Derivatives assets	Put option for HDC Polyall's common stocks (Note 1)	4,336,776
	Put option for SK chemicals Daejung's common stocks (Note 2)	719,000

- (Note 1) This is a put option which allows for HDC Polyall Co., Ltd.'s affiliates' investment stocks to be sold to HDC Hyundai EP Co., Ltd.
- (Note 2) This is a put option which allows for SK chemicals Daejung Co., Ltd.'s subsidiaries' investment stocks to be sold to Daejung Chemicals & Metals Co., Ltd.

<End of the previous period> (Unit: KRW one thousand)

Classification	Type	Fair value
Derivatives assets	Put option for HDC Polyall's common stocks (Note 1)	948,024
	Put option for SK chemicals Daejung's common stocks (Note 2)	289,589

- (Note 1) This is a put option which allows for HDC Polyall Co., Ltd.'s affiliates' investment stocks to be sold to HDC Hyundai EP Co., Ltd.
- (Note 2) This is a put option which allows for SK chemicals Daejung Co., Ltd.'s subsidiaries' investment stocks to be sold to Daejung Chemicals & Metals Co., Ltd.

23-5 As of the end of the current period, there are no details of the derivative financial instruments designated as hedging instruments by the consolidated companies and for which hedging account is applied. The details as of the end of the previous period are as follows.

<End of the previous period>

(Unit: KRW one thousand)

Classification	Details
Contracting party	Hana Bank
Items subject to hedging risk	Variable interest rate foreign currency privately placed bonds (par value of USD 30,000,000)
Contract period	2018.06.29 - 2023.06.29
Buy/Sell	Buy
Purpose of transaction	Exchange rate risk and interest rate risk hedging
Contract amount	33,645,000
Fair value	4,718,222
Valuation profit and loss:	
Amount reclassified as profit or loss	2,454,000
Other comprehensive income (Note 1)	535,156

(Note 1) This amount is obtained from deducting the corporate tax.

24. Contingencies and agreements

24-1 The details of important litigations related to the consolidated companies as of the end of the current period are as follows.

(Unit: KRW one thousand)

Details of litigations	Plaintiff	Defendant	Litigation value	Note
Indemnity claims (Notes 1, 2)	Korea Environmental Industry and Technology Institute	Controlling company and 12 others	2,240,000	1st trial in progress
Indemnity claims (Notes 1, 2)	Korea Environmental Industry and Technology Institute	Controlling company and 12 others	294,414	1st trial in progress
Indemnity claims (Notes 1, 2)	National Health Insurance Service	Controlling company and 12 others	6,970,000	1st trial in progress
Indemnity claims (Notes 1, 2)	Republic of Korea	Controlling company and 19 others	1,345,525	1st trial in progress
Claims for damages (Note 2)	Kang Chan Ho and 297 others	Controlling company and 19 others	11,200,000	1st trial in progress
Claim for damages	Republic of Korea	Controlling company and 26 others	19,700,000	1st trial in progress
Claims for the prohibition of patent infringements and for damages (Note 3)	Novartis AG	Controlling company	27,500,000	2nd trial in progress
Claims for the revocation of corrective order, etc.	Controlling company and 1 other	Fair Trade Commission	163,000	2nd trial in progress
Claims for the revocation of corrective order, etc.	Controlling company and 1 other	Fair Trade Commission	161,667	2nd trial in progress
Prohibition of patent infringements	Wyeth LLC, Pfizer Korea	SK bioscience	100,000	2nd trial in progress

(Note 1) As of the end of the current term, part of the land owned by the controlling company has been temporarily seized in connection with the litigation above. This is a civil lawsuit against the controlling company related to damages caused by a humidifier disinfectant, etc.,

(Note 2) and a number of other civil lawsuits are in progress. A provisioning liability has been recognized based on the best estimate as of the end of the current period (see Note 38).

(Note 3) In January 2024, a partial loss was incurred, and the amount of the judgment was recognized as a provisioning liability, with an appeal filed to the Supreme Court.

In addition to the aforementioned litigation, the controlling company has been indicted for violating the Special Act on Remedy for Damage Caused by Humidifier Disinfectants. This is based on allegations that the company submitted false information to the Ministry of Environment, as required for data submission, and a related criminal trial is currently underway.

While the outcome of ongoing litigation as of the end of the current period cannot be predicted at this time, a provisioning liability has been recognized based on the best estimate considering the likelihood of winning or losing the case (refer to Note 22).

24-2 Collateral for debt

24-2-1 Assets provided for collateral

The consolidated companies have entered into a real estate collateral trust contract with financial companies as the joint first beneficiary for the land located at 137-3, Hwangseong-dong, Nam-gu, Ulsan Metropolitan City, and other properties, setting the contract amount at 120% of KRW 530 billion.

24-2-2 First priority insurance collateral right contract

A first priority collateral right has been established for the consolidated companies' claims for insurance benefits, etc., with the maximum amount of debt set to the equivalent of 120% of KRW 530 billion.

24-2-3 First priority deposit collateral right contract

A first priority collateral right has been established for the consolidated companies' bank deposits, whether already deposited or to be deposited, with the collateral limit set to the equivalent of 120% of KRW 530 billion. As of the end of the current period, the deposited amount with collateral rights set up is KRW 55.023 billion, classified as a short-term financial asset (refer to Note 5-4).

24-2-4 Debt assignment collateral contract

The consolidated companies have transferred all receivables related to construction contracts that they have already acquired or will acquire in the future, to financial companies, within the scope of the secured debt.

* These construction contracts are agreements that the consolidated companies will enter into with a third party related to this project, where the consolidated companies expect to receive payments or acquire property rights as stipulated in the contract, and financial companies request to include it in the transferable contract.

24-2-5 Movable property assignment collateral contract

The consolidated companies provide collateral for various facilities, including but not limited to existing facilities, all existing project-related facilities, and the constructed parts of buildings under construction on the project site, as well as structures, equipment, machinery, apparatus, and other facilities that have been or will be constructed or installed on the project site.

24-2-6 The controlling company has established collateral rights on all shares and shareholder loans in lieu of capital that it currently holds or will hold in the future in SK Multi-Utility Co., Ltd., for the project financing agreement with a limit of 120% of the loan agreement amount (530 billion).

24-3 In accordance with Article 530-9 Paragraph 1 of the Commercial Act, the controlling company is jointly and severally liable for repaying the existing liabilities of the controlling company and SK discovery Co., Ltd., the surviving company after split-off that occurred on or before December 1, 2017, the date of the split-off.

24-4 Other agreements

Other agreements executed by the consolidated companies with financial institutions as of the end of the current period are as follows.

Counterparty to the agreement	Details of the agreement
Hana Bank, etc.	An agreement on a limit of KRW 818 billion and another on the foreign currency borrowings of CNY 835 million
	An agreement on the opening of a letter of credit of USD 121 million and EUR 46.8 million, etc.
	An agreement on the limit with the exemption of security deposit for derivatives of KRW 25 billion, USD 324.5 million.
Seoul Guarantee Insurance, etc.	A contractual performance payment guarantee with a limit of KRW 43.913 billion

24-5 Fair Trade Commission's corrective actions

The Fair Trade Commission determined that the act of labeling the humidifier disinfectants before the controlling company's split-off violated the Act on Fair Labeling and Advertising, and took corrective actions, imposed fines, and filed a complaint with the prosecutors' office. The controlling company must carry out such corrective actions and comply with the order to pay fines jointly with SK discovery Co., Ltd., the surviving company after the split-off, issued by the Fair Trade Commission.

24-6 Technology transfer agreement and joint development

On March 19, 2014, the consolidated companies executed an agreement with Sanofi Pasteur Inc. of the United States for the joint development and sales of a next-generation pneumococcal conjugate vaccine. The total size of the agreement is USD 45,000,000, which includes the initial technology royalties and milestones for each phase of the development. The consolidated companies recognize revenue when the requirements for the right to receive consideration for each phase are satisfied, and they are currently in Phase 2 of clinical trials.

24-7 Contract Manufacturing Organization (CMO) and Contract Development & Manufacturing Organization (CDMO) contracts

The consolidated companies executed a COVID-19 vaccine CDMO contract with Novavax, Inc. on August 11, 2020, and the amount related to the contract is recognized as revenue in installments until the contract-related obligations are terminated. The consolidated companies have entered into an amended agreement to terminate the existing CMO and CDMO contracts with Novavax during the current period.

Meanwhile, on February 12, 2021, they executed an agreement with Novavax granting the exclusive right to develop, produce, and sell the COVID-19 vaccine developed by Novavax in the target territories under the contract. During the current period, the existing agreement was amended to grant exclusive rights to develop, produce, and sell the COVID-19 vaccine (including variant antigens) developed by Novavax within the Republic of Korea until February 12, 2029, and non-exclusive rights for Thailand and Vietnam until June 30, 2028.

The consolidated companies recognized revenue of KRW 181.618 billion from the CMO and CDMO contracts during the current period.

24-8 On December 27, 2021, the consolidated companies executed a sales contract for land located in Songdo-dong, Yeonsu-gu, Incheon, with the Incheon Free Economic Zone Authority for the purpose of building new research facilities. The consolidated companies must carry out all procedures, such as the facility construction plans and authorization of their use, within a certain period from the date of execution of the sales contract. Any failure to do so may result in the rescission of the sales contract.

24-9 The consolidated companies hold the right to purchase the land if HDC Polyall Co., Ltd. or Toray Advanced Materials Korea Inc. relocates or closes the business sites acquired from them.

24-10 The controlling company holds the right to purchase the land of SK chemicals Daejung Co., Ltd. if it exercises the put option on its shares of SK chemicals Daejung Co., Ltd. or if SK chemicals Daejung Co., Ltd. closes its business.

24-11 The controlling company has agreed to transfer its obligation to pay the registered capital of its subsidiary Shuye SK chemicals (Shantou) Co., Ltd., to Shuye Environmental Technology Co., Ltd. The transferred obligation to pay the registered capital will be fulfilled by transferring half of the shares in related patents and utility model rights held by Shuye Environmental Technology Co., Ltd. After payment, Shuye Environmental Technology Co., Ltd. will secure up to 44.9% of the shares in Shuye SK chemicals (Shantou) Co., Ltd., subject to change based on the agreement terms.

24-12 As of the end of the current term, the consolidated companies have lost a bill of Shinhan Bank and are proceeding with the nullification judgment procedures. On January 8, 2024, they received a declaratory judgment declaring that the lost note was void.

25. Related parties

25-1 As of the end of the current period, the details of the consolidated companies' related parties are as follows.

Classification	Current period	Previous period
Controlling company	SK discovery Co., Ltd. (Note 1)	SK discovery Co., Ltd. (Note 1)
Affiliates and joint ventures	JSI Co., Ltd., Entis Co., Ltd., HDC Polyall Co., Ltd.	JSI Co., Ltd., Entis Co., Ltd., HDC Polyall Co., Ltd.
Others	Subsidiaries and affiliates of SK discovery Co., Ltd., affiliates of SK corporate group, etc. (Note 2), TiumBio Co., Ltd. (Note 3)	Subsidiaries and affiliates of SK discovery Co., Ltd., affiliates of SK corporate group, etc. (Note 2)

(Note 1) During the previous period, SK discovery Co., Ltd. acquired additional shares in the controlling company and has incorporated the controlling company as its subsidiary.

(Note 2) The affiliates of the large-scale corporate groups designated by the Fair Trade Commission were determined to be related parties, in accordance with the substantive relationship outlined in Paragraph 10 of Korean International Financial Reporting Standards No. 1024.

(Note 3) During the current period, shares of TiumBio Co., Ltd. were acquired, and since the controlling company holds the right to appoint directors, it has significant influence. Therefore, TiumBio Co., Ltd. has been included as a related party.

25-2 The details of major transactions conducted with related parties for the current and previous periods are as follows.

<Current period>

(Unit: KRW one thousand)

Classification	Names of related parties	Sales	Other income, asset sales, etc.	Purchase	Other expenses, capital expenditures, etc.(Note 1)
Controlling company	SK discovery Co., Ltd.	31,818	509,321	-	1,421,634
Affiliates and joint ventures	Entis Co., Ltd.	1,661,857	4,866,953	-	429
	JSI Co., Ltd.	184,240	124,458	88,440	87,014
	HDC Polyall Co., Ltd.	10,210,258	-	-	-
Others	SK Gas Co., Ltd.	351,960	-	6,709,690	3,495,417
	SK Plasma Co., Ltd.	3,029,323	421,576	-	15,251
	SK Advanced Co., Ltd.	4,212,839	746,425	8,048,471	359,801
	Huvis Co., Ltd.	558,924	-	14,815,138	-
	SK Ecoplant Co., Ltd. (Note 2)	-	-	-	22,157,967
	SK Ecoengineering Co., Ltd.	150,322	141,477	-	221,460,600
	SK Networks Co., Ltd.	12,283,871	-	10,897,571	136,882
	SK NETWORKS HONG KONG	-	-	18,396,661	-
	SK Energy Co., Ltd.	27,098,647	-	-	2,366,345
	SK Geo Centric Co., Ltd.	-	-	4,129,688	-
	SK Co., Ltd.	-	-	-	14,214,426
	SK Hynix Co., Ltd.	898,088	-	-	9,399
	Happy Narae Co., Ltd.	-	-	1,748,479	8,432,890
	Others	3,733,370	163	343,856	12,847,038
Total		64,405,517	6,810,373	65,177,994	287,005,093

(Note 1) The consolidated companies have acquired the tangible assets worth KRW 248,593,566,000 from SK Ecoengineering Co., Ltd. during the current period.

(Note 2) The consolidated companies have entered into a construction contract with SK Ecoplant Co., Ltd., for the Incheon Songdo Global R&PD Center project, with a total contract amount of KRW 250.514 billion, during the current period.

<Previous period>

(Unit: KRW one thousand)

Classification	Name of related parties	Sales	Other income, asset sales, etc.	Purchase	Other expenses, capital expenditures, etc. (Note 2)
Controlling company	SK discovery Co., Ltd.	63,636	217,167	-	2,243,746
Affiliates and joint ventures	Entis Co., Ltd.	1,379,230	1,648,924	2,901,813	454
	JSI Co., Ltd.	127,360	101,128	90,930	4,200
	HDC Polyall Co., Ltd.	11,158,311	480,942	-	378,650
	ST Green Energy (Note 1)	-	4,642	-	18,229,596
Others	SK Gas Co., Ltd.	327,323	-	10,203,085	2,905,308
	SK Plasma Co., Ltd.	2,073,259	1,920,096	(22,685)	29,974
	SK Advanced Co., Ltd.	5,104,953	260,742	12,416,767	53,872
	Huvis Co., Ltd.	981,958	11,871	4,633,606	3,935
	SK Ecoplant Co., Ltd.	-	-	-	221,356
	SK Ecoengineering Co., Ltd.	-	-	-	121,005,600
	SK Networks Co., Ltd.	14,285,425	-	11,997,810	6,460
	SK NETWORKS HONG KONG	-	-	23,755,898	-
	SKC Co., Ltd.	2,371,089	-	222,326	-
	SK Energy Co., Ltd.	30,161,404	-	-	2,091,634
	SK Geo Centric Co., Ltd.	-	-	20,673,932	-
	SK Co., Ltd.	-	-	-	13,073,498
	SK Hynix Co., Ltd.	63,356	-	-	-
	Happy Narae Co., Ltd.	-	-	1,986,456	9,577,140
	Others	565,734	2,014	1,504,796	12,315,524
Total		68,663,038	4,647,526	90,364,734	182,140,947

(Note 1) These are transactions prior to the disposal of ST Green Energy's shares.

(Note 2) The consolidated companies have acquired the tangible assets worth KRW 137,239,627,000 from SK Ecoengineering Co., Ltd. during the previous period.

25-3 The details of major receivables and liabilities concerning the related parties as of the end of the reporting period are as follows.

<End of the current period>

(Unit: KRW one thousand)

Classification of the relationship of special interest	Name of related parties	Receivables		Payables	
		Trade receivables	Other receivables	Trade payables	Other payables
Controlling company	SK discovery Co., Ltd.	35,000	53,388	-	270,921
Affiliates and joint ventures	Entis Co., Ltd.	264,945	1,000,174	-	-
	JSI Co., Ltd. (Note 1)	-	3,040,000	12,144	6,699
	HDC Polyall Co., Ltd.	1,161,838	-	-	-
Others	SK Gas Co., Ltd.	32,263	765,252	423,297	4,054,341
	SK Plasma Co., Ltd.	87,315	183,098	-	400,325
	SK Advanced Co., Ltd.	475,938	-	-	2,848,072
	Huvis Co., Ltd.	91,520	-	5,325,863	-
	SK Ecoplant Co., Ltd.	-	164,426	-	8,855,000
	SK Ecoengineering Co., Ltd.	12,252	21,981	-	184,150
	SK Networks Co., Ltd.	785,678	-	1,148,477	-
	SK NETWORKS HONG KONG	-	208,843	1,570,700	-
	SK Energy Co., Ltd.	1,841,836	-	-	803,010
	SK Geo Centric Co., Ltd.	-	-	117,658	-
	SK Co., Ltd.	-	-	-	2,402,285
	SK Hynix Co., Ltd.	-	-	-	1,430
	Happy Narae Co., Ltd.	-	-	30,638	955,231
	Others	677,186	-	331,069	1,948,822
Total		5,465,771	5,437,162	8,959,846	22,730,286

(Note 1) The consolidated companies have placed an allowance for bad debts for the loan to JSI Co., Ltd. worth KRW 3.040 billion in full.

<End of the previous period>

(Unit: KRW one thousand)

Classification of the relationship of special interest	Name of related parties	Receivables		Payables	
		Trade receivables	Other receivables	Trade payables	Other payables
Controlling company	SK discovery Co., Ltd.	-	22,146	-	263,235
Affiliates and joint ventures	Entis Co., Ltd.	119,340	969,014	156,417	-
	JSI Co., Ltd. (Note 1)	-	3,400,000	-	-
	HDC Polyall Co., Ltd.	1,486,566	-	-	-
Others	SK Gas Co., Ltd.	32,263	765,252	1,163,251	4,675,533
	SK Plasma Co., Ltd.	156,169	116,611	-	4,766
	SK Advanced Co., Ltd.	308,691	-	1,382,240	2,962,283
	SK Ecoplant Co., Ltd.	-	164,426	-	-
	SK Networks Co., Ltd.	62,594	-	887,085	8,877
	SK NETWORKS HONG KONG	-	625,620	1,245,827	-
	SKC Co., Ltd.	260,392	-	-	-
	SK Energy Co., Ltd.	3,313,507	-	-	229,198
	SK Geo Centric Co., Ltd.	-	-	327,237	-
	SK Co., Ltd.	-	-	-	1,273,023
	Happy Narae Co., Ltd.	-	-	53,143	1,062,403
	Others	464,769	-	11,969	2,885,405
Total		6,204,291	6,063,069	5,227,169	13,364,723

(Note 1) The consolidated companies have placed an allowance for bad debts for the loan to JSI Co., Ltd. worth KRW 3,400 million in full.

25-4 Capital expenditure agreement amount

As of the end of the reporting period, the pending capital expenditure agreement amount with related parties is as follows.

(Unit: KRW one thousand)

Classification	Name of related parties	End of the current period	End of the previous period
Other related parties	SK Ecoengineering Co., Ltd. (Note 1)	167,718,600	388,994,400

(Note 1) It is an agreed amount in accordance with the tangible asset construction contract.

25-5 The details of financial transactions conducted with related parties for the current and previous periods are as follows.

① Investments

<Current period>

(Unit: KRW one thousand)

Classification	Name of related parties	Investments
Other related parties	TiumBio Co., Ltd.	19,999,995

② Loan of funds

<Current period>

(Unit: KRW one thousand)

Classification	Target companies	Beginning of period	Recovered	End of period
SK chemicals Co., Ltd.	JSI Co., Ltd. (Note 1)	3,400,000	(360,000)	3,040,000

(Note 1) The consolidated companies have placed an allowance for bad debts for the loan to JSI Co., Ltd. worth KRW 3.040 billion in full.

<Previous period>

(Unit: KRW one thousand)

Classification	Target companies	Beginning of period	Recovered	End of period
SK chemicals Co., Ltd.	JSI Co., Ltd. (Note 1)	3,750,000	(350,000)	3,400,000

(Note 1) The consolidated companies have placed an allowance for bad debts for the loan to JSI Co., Ltd. worth KRW 3,400 million in full.

25-6 The details of dividends received from related parties during the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Name of Company	Current period	Previous period
Affiliates	Entis Co., Ltd.	-	1,000,000

25-7 The details of dividends paid to related parties during the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Name of Company	Current period	Previous period
Controlling company	SK discovery Co., Ltd.	10,585,349	23,625,809

25-8 The controlling company has entered into agreements for shareholder loans in lieu of capital and collateral provisions for the project financing of its subsidiary, SK Multi-Utility Co., Ltd. (refer to Note 24).

25-9 The details of the compensation made for the key senior management of the consolidated companies for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Short-term benefits	11,960,069	12,227,575
Retirement benefits	3,036,089	2,944,102
Share-based compensation	-	9,816
Total	14,996,158	15,181,493

The key senior management of the consolidated companies consists of the directors who are registered executives and the members of the Audit Committee.

26. Equity

26-1 Capital

The details of the capital as of the end of the reporting period are as follows.

Classification	Unit	End of the current period		End of the previous period	
		Common stocks	Preferred stocks	Common stocks	Preferred stocks
Total number of stocks to be issued	Shares	40,000,000	10,000,000	40,000,000	10,000,000
Par value of 1 share	KRW	5,000	5,000	5,000	5,000
Number of issued stocks	Shares	17,253,783	2,115,429	17,253,783	2,115,429
Capital (Note 1)	KRW one thousand	88,216,360	10,577,145	88,216,360	10,577,145

(Note 1) During the previous period, the controlling company has retired 389,489 of its own shares, resulting in a mismatch between the total par value of the controlling company's capital stock and the total par value of issued shares as of the end of the current period.

26-2 Consolidated capital surplus

The details of the consolidated capital surplus as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period
Paid-in capital in excess of par value	237,858,538	237,858,538
Other capital surplus (Notes 1, 2)	974,563,946	961,176,598
Total	1,212,422,484	1,199,035,136

(Note 1) SK bioscience Co., Ltd., a subsidiary, experienced a change in equity due to the exercise of stock options during the current period. The profits and losses on capital transactions related to the change have been recognized and are included in the reported amount of other capital surplus.

(Note 2) During the current period, the controlling company has made a contribution in kind of a portion of its interest in its subsidiary, SK bioscience Co., Ltd., to TiumBio Co., Ltd. The related profits and losses on capital transactions have been recognized and are included in the reported amount of other capital surplus.

26-3 Consolidated other equity

(1) The details of the consolidated other equity as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period
Treasury stocks (Note 1)	(8,921,443)	(8,921,443)
Stock options	1,532,450	1,532,450
Other capital adjustments	(14,255,733)	(14,255,733)
Total	(21,644,726)	(21,644,726)

(Note 1) The controlling company acquired the shares of the controlling company at the market price following the acquisition of fractional shares and the exercise of appraisal rights by the shareholders. As of the end of the current period, the controlling company owns 30,857 common stocks and 148,133 preferred stocks in its treasury.

(2) The controlling company has granted stock options for key executives. Major issues related to this are as follows.

(Unit: stocks, KRW)

Date of grant	Number of stocks to be issued (Note 1)	Period of exercise (Note 2)	Exercise price (Note 1)	Fair value on the date of grant (Note 1)
2018.3.6	29,988	2020.3.7 - 2025.3.6	71,785	15,864
2018.3.26 (1st)	22,491	2020.3.27 - 2025.3.26	72,009	16,226
2018.3.26 (2nd)	22,492	2021.3.27 - 2025.3.26	77,724	13,717
2019.3.25 (1st)	22,491	2021.3.26 - 2026.3.25	47,749	9,184
2019.3.25 (2nd)	22,492	2022.3.26 - 2026.3.25	51,517	7,856

(Note 1) Following the capital increase without consideration prior to the previous period, the number of shares to be issued and the exercise price have been adjusted, and the fair value on the date of grant has been adjusted and recorded.

(Note 2) As of December 31, 2023, the weighted average residual maturity of the unexercised stock options is 1.6 years.

(3) The fair value of stock options was calculated in line with the binary option pricing model. The variables applied thereto are as follows.

(Unit: KRW)

Classification	Portion granted on 2018.3.6	Portion granted on 2018.3.26 (1st)	Portion granted on 2018.3.26 (2nd)	Portion granted on 2019.3.25 (1st)	Portion granted on 2019.3.25 (2nd)
Stock price on the date of grant (Note 1)	69,667	70,000	70,000	45,267	45,267
Exercise price (Note 1)	71,785	72,009	77,724	47,749	51,517
Expected volatility	15.07%	15.75%	15.75%	18.37%	18.37%
Risk-free interest rate	2.66%	2.57%	2.57%	1.92%	1.92%

(Note 1) Following the capital increase without consideration prior to the previous period, the exercise price has been adjusted, and the stock price on the date of grant has been adjusted and entered.

(4) The changes in stock options for the year are as follows.

(Unit: stocks, KRW one thousand)

Date of grant	Number of stocks to be issued			Valuation amount		
	Beginning of period	Change	End of period	Beginning of period	Change	End of period
2018.3.6 (Note 1)	29,988	-	29,988	475,721	-	475,721
2018.3.26 (1st) (Note 1)	22,491	-	22,491	364,940	-	364,940
2018.3.26 (2nd) (Note 1)	22,492	-	22,492	308,530	-	308,530
2019.3.25 (1st) (Note 1)	22,491	-	22,491	206,567	-	206,567
2019.3.25 (2nd) (Note 1)	22,492	-	22,492	176,691	-	176,691
Total	119,954	-	119,954	1,532,449	-	1,532,449

(Note 1) Following the capital increase without consideration prior to the previous period, the number of shares to be issued has been adjusted.

26-4 Accumulated other comprehensive income on a consolidated basis

The details of the accumulated other comprehensive income on a consolidated basis as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period
Profit or loss on the valuation of derivatives	228,244	180,991
Gain and loss on valuation of financial assets measured at fair value through other comprehensive income	(37,312,223)	-
Capital change in equity method	332,289	358,307
Profit or loss on overseas operations translation	(626,088)	1,378,677
Total	(37,377,778)	1,917,975

26-5 Consolidated retained earnings

The details of the consolidated retained earnings as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period
Earned surplus reserve (Note 1)	12,868,504	9,781,033
Unappropriated retained earnings	853,642,274	858,815,973
Total	866,510,778	868,597,006

(Note 1) In accordance with the provisions of the Commercial Act, the controlling company is required to accumulate over 10% of the dividends in cash as an earnings surplus reserve for each settlement period until it reaches 50% of the capital, and this reserve can only be used to compensate for losses and for capitalization.

26-6 Dividends

The details of cash dividends proposed for approval by the controlling company at the general meeting of shareholders for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period		Previous period	
	Common stocks	Preferred stocks	Common stocks	Preferred stocks
Number of shares to be distributed	17,222,926 shares	1,967,296 shares	17,222,926 shares	1,967,296 shares
Dividend per share	KRW 250	KRW 300	KRW 1,100	KRW 1,150
Dividend rate	5%	6%	22%	23%
Amount of cash dividend	4,305,731	590,189	18,945,219	2,262,390

The controlling company decided to pay dividends of KRW 21,207,609,000 for the fiscal period ending on December 31, 2022, and paid them in April 2023 with an interim dividend of KRW 7,676,090,000.

27. Sales division

The consolidated companies have 2 reporting divisions, which are strategic operating units. The strategic business units provide different products and services, and operate separately since the technologies and marketing strategies required for each business unit are different. The chief operating decision maker reviews the internal reporting data for each strategic business unit at least on a quarterly basis.

27-1 The reporting divisions of the consolidated companies are as follows.

Classification	Goods (or services)
Green Chemicals Biz.	PET resin, DMT, highly functional PETG resin, polyester adhesive, utilities, etc.
Life Science Biz.	Pharmaceuticals, medical devices, etc.

27-2 The information on the reporting divisions for the current and previous periods is as follows.

<Current period> (Unit: KRW one thousand)

Classification	Green Chemicals Biz.	Life Science Biz.	Internal transactions, etc.	Total
Sales amount	1,285,198,836	745,554,322	(281,975,418)	1,748,777,740
Operating income	52,005,352	19,531,325	11,765,810	83,302,487
Depreciation (Note 1)	67,238,189	41,341,599	4,305,587	112,885,375

(Note 1) It is the sum of the depreciation for tangible assets, depreciation for investment real estate properties, depreciation for right-to-use assets, and the amortization cost for intangible assets.

<Previous period> (Unit: KRW one thousand)

Classification	Green Chemicals Biz.	Life Science Biz.	Internal transactions, etc.	Total
Sales amount	1,401,946,579	770,659,186	(343,414,442)	1,829,191,323
Operating income	88,746,511	148,611,013	(6,876,851)	230,480,673
Depreciation (Note 1)	51,871,909	34,400,077	5,193,111	91,465,097

(Note 1) It is the sum of the depreciation for tangible assets, depreciation for investment real estate properties, depreciation for right-to-use assets, and the amortization cost for intangible assets.

27-3 As of the end of the reporting period, the assets by reportable segment are as follows. Most of the liabilities are not managed by reportable segment, and thus, the liabilities by reportable segment are not disclosed.

<End of the current period> (Unit: KRW one thousand)

Classification	Green Chemicals Biz	Life Science Biz.	Others	Total
Total assets	1,839,934,959	2,092,798,709	226,041,236	4,158,774,904
Fixed assets (Note 1)	1,180,733,192	426,023,062	101,696,626	1,708,452,880

(Note 1) Included are the tangible assets, intangible assets, right-to-use assets, and the investment real estate properties.

<End of the previous period> (Unit: KRW one thousand)

Classification	Green Chemicals Biz	Life Science Biz.	Others	Total
Total assets	1,471,789,456	2,335,193,550	138,699,874	3,945,682,880
Fixed assets (Note 1)	797,734,448	395,523,175	97,599,224	1,290,856,847

(Note 1) Included are the tangible assets, intangible assets, right-to-use assets, and the investment real estate properties.

28. Profits from the contracts with customers

The revenue from the contracts with customers of the consolidated companies for the current and previous periods is classified as follows.

<Current period> (Unit: KRW one thousand)

Classification	Green Chemicals Biz.	Life Science Biz.	Consolidation procedures	Total
Types of goods or services:				
Sales of products	1,240,106,172	314,421,174	(266,111,530)	1,288,415,816
Sales of goods	9,137,893	186,736,643	(15,160,904)	180,713,632
Sales of services	29,394,661	128,399,625	(4,187,883)	153,606,403
Other sales	6,560,110	115,996,880	3,484,899	126,041,889
Total	1,285,198,836	745,554,322	(281,975,418)	1,748,777,740
Geographic markets:				
Korea	360,296,002	453,240,537	(90,847,705)	722,688,834
China	277,422,487	-	(27,138,520)	250,283,967
Japan	92,056,782	-	-	92,056,782
Asia (excluding China and Japan)	92,783,287	4,470,538	-	97,253,825
Americas	170,400,863	237,072,154	(66,766,235)	340,706,782
Europe	251,676,458	40,869,683	(97,110,277)	195,435,864
Others	40,562,957	9,901,410	(112,681)	50,351,686
Total	1,285,198,836	745,554,322	(281,975,418)	1,748,777,740
Point of revenue recognition:				
Recognized at a point in time	1,256,766,678	615,173,897	(278,012,895)	1,593,927,680
Recognized over time	28,432,158	130,380,425	(3,962,523)	154,850,060
Total	1,285,198,836	745,554,322	(281,975,418)	1,748,777,740

<Previous period>

(Unit: KRW one thousand)

Classification	Green Chemicals Biz.	Life Science Biz.	Consolidation procedures	Total
Types of goods or services:				
Sales of products	1,315,038,997	407,063,627	(297,760,618)	1,424,342,006
Sales of goods	9,220,088	116,097,847	(2,416,479)	122,901,456
Sales of services	76,267,615	219,511,087	(44,867,097)	250,911,605
Other sales	1,419,879	27,986,624	1,629,753	31,036,256
Total	1,401,946,579	770,659,185	(343,414,441)	1,829,191,323
Geographic markets:				
Korea	345,817,977	502,240,654	(67,720,298)	780,338,333
China	255,839,134	1,449,147	(25,327,592)	231,960,689
Japan	111,912,788	-	-	111,912,788
Asia (excluding China and Japan)	115,478,213	259,033	-	115,737,246
Americas	256,933,175	220,872,854	(123,004,580)	354,801,449
Europe	282,350,320	42,632,759	(125,416,020)	199,567,059
Others	33,614,972	3,204,738	(1,945,951)	34,873,759
Total	1,401,946,579	770,659,185	(343,414,441)	1,829,191,323
Point of revenue recognition:				
Recognized at a point in time	1,325,787,336	549,612,480	(298,547,345)	1,576,852,471
Recognized over time	76,159,243	221,046,705	(44,867,096)	252,338,852
Total	1,401,946,579	770,659,185	(343,414,441)	1,829,191,323

Meanwhile, only one customer accounted for over 10% of sales during the current period, and the sales amounted to KRW 229,112,975,000. Only one customer accounted for over 10% of sales during the previous period, and the sales amounted to KRW 209,944,964,000.

29. Operating expenses

29-1 The details of the cost of goods sold and the selling, general and administrative expenses for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Changes in inventories	65,451,621	(57,809,148)
Use of raw materials	653,623,610	755,705,015
Cost of merchandise sold	150,870,263	111,836,103
Depreciation (Note 1)	112,885,375	91,465,096
Labor cost	274,577,061	284,383,791
Logistics cost	64,437,749	104,568,373
Fees and expenses	80,741,924	88,738,790
Marketing cost	21,284,838	18,776,282
Other expenses	241,602,812	201,046,348
Total	1,665,475,253	1,598,710,650

(Note 1) It is the sum of the depreciation for tangible assets, depreciation for investment real estate properties, depreciation for right-to-use assets, and the amortization cost for intangible assets.

29-2 The details of the selling, general, and administrative expenses for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Salary	95,386,969	95,169,986
Retirement benefits	7,026,819	7,571,756
Welfare benefits	18,322,864	18,605,282
Travel expenses	9,348,395	6,991,705
Communication expenses	814,093	702,272
Utilities expenses	833,587	590,462
Taxes and public dues	2,589,523	1,715,204
Rents	861,403	577,278
Share based compensation expenses	-	9,816
Depreciation	6,433,176	4,425,481
Repairs and maintenance	758,467	612,038
Insurance premiums	2,355,309	1,888,426
Entertainment expenses	2,061,816	1,855,422
Freight expenses and custody charges	14,081,487	54,150,595
Consumables expenses for office	950,091	752,147
Vehicle maintenance cost	1,176,975	1,079,012

Education and training expenses	6,613,214	5,872,579
Books	144,524	117,891
Commissions and fees	48,209,887	41,684,412
R&D expenses	130,293,651	100,220,120
Advertising expenses	19,980,010	17,573,696
Sales commissions	6,220,133	7,726,338
Promotions	388,086	562,797
Samples expenses	867,661	603,316
Packaging cost	4,227,893	4,387,888
Bad debt expenses	551,125	478,766
Meetings and conferences	797,162	716,805
Amortization of intangible assets	5,961,129	4,545,841
Miscellaneous expenses and others	2,373,999	3,426,859
Total	389,629,448	384,614,190

30. Non-operating income

30-1 The details of the other income and other expenses for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Other income:		
Gain on disposal of tangible assets	15,650	159,549
Gain on disposal of right-to-use assets	8,998	10,921
Gain on disposal of intangible assets	-	302,598
Reversal of allowance for other bad debts	397,316	-
Miscellaneous gains	11,625,887	9,099,166
Total	12,047,851	9,572,234
Other expenses:		
Losses on disposal of inventories	14,980	-
Losses on disposal of tangible assets	284,834	7,305,463
Losses on disposal of right-to-use assets	7,990	-
Losses on disposal of intangible assets	59,507	377,624
Impairment losses on tangible assets	6,936,627	-
Impairment losses on intangible assets	1,153,638	-
Loss on disposal of stocks invested in associates	-	577,051
Loss on disposal of trade receivables	134,602	-
Other bad debt expenses	-	91,789
Contributions	5,309,695	6,860,709
Miscellaneous expenses and others	29,973,340	9,713,812
Total	43,875,213	24,926,448

30-2 The details of the financial income and financial cost for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Financial income:		
Interest income	19,430,230	7,255,858
Gains on transaction of financial instruments measured at fair value through profit or loss	16,340,080	47,952,577
Gains on valuation of financial instruments measured at fair value through profit or loss	7,131,820	2,061,727
Dividend income	1,190,000	1,190,000
Gains on foreign currency transactions	37,079,540	66,735,500
Gains on foreign currency translation	9,767,591	8,370,857
Gains on transaction of derivatives	33,913,147	31,583,923
Gains on valuation of derivatives	4,253,415	9,144,729
Total	129,105,823	174,295,171
Financial cost:		
Interest expenses	32,047,152	15,461,271
Losses on transaction of financial instruments measured at fair value through profit or loss	6,055,061	2,518,749
Losses on valuation of financial instruments measured at fair value through profit or loss	385,439	7,676,555
Losses on foreign currency transactions	25,823,182	47,779,147
Losses on foreign currency translation	5,500,738	15,021,453
Losses on transaction of derivatives	55,374,500	63,355,635
Losses on valuation of derivatives	110,856	145,565
Total	125,296,928	151,958,375

31. Income tax expense

31-1 The details of the income tax expense for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Current tax	15,398,655	49,102,117
Adjustments recognized for the current period for the current income tax for the previous periods	8,324,739	(983,675)
Changes in the deferred income tax due to temporary differences	(40,764,705)	(46,915,070)
Income tax expense directly reflected in equity	21,622,119	4,021,476
Income tax expense	4,580,808	5,224,848

31-2 The details of the income tax expense directly reflected in equity for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Income tax expense directly reflected in equity:		
Derivatives liabilities	-	(151,092)
Remeasurement factors for defined benefit plan	21,622,753	(4,913,251)
Income tax effect of stock options	-	9,415,164
Others	(634)	(329,345)
Total	21,622,119	4,021,476

31-3 The relationship between the net income before income tax expense and income tax expense for the current and previous periods is as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Net income before income tax expense	52,418,702	236,700,718
Corporate tax according to applicable tax rate	19,157,832	21,599,712
Adjustments:		
Non-taxable income	(959,354)	(568,651)
Non-deductible expenses	1,574,496	774,514
Deferred tax effect due to tax credits	(20,783,600)	(13,808,792)
Non-recognition effect of deferred tax among temporary differences	(4,352)	68,241
Adjustments recognized for the current period for the current income tax for the previous periods	5,832,539	(2,705,305)
Corporate tax effect on non-reflux income	(583,077)	(1,410,659)
Others (Note 1)	346,324	1,275,788
Income tax expense	4,580,808	5,224,848
Effective tax rate (income tax expense/net income before income tax expense)	8.74%	2.21%

(Note 1) Included are adjustments due to the intra-consolidated companies merger during the current and previous periods, the non-recognition effect of deferred income tax among the temporary differences, etc.

31-4 The changes in deferred income tax assets (liabilities) for the current and previous periods are as follows.

<Current period>

(Unit: KRW one thousand)

Classification	Amount at beginning of period	Profit or loss reflected	Directly reflected in equity	End of the current period
Government subsidies	2,322,027	(35,990)	-	2,286,037
Allowance for bad debts	2,009,861	(55,500)	-	1,954,361
Tangible assets	(21,072,343)	5,927,512	-	(15,144,831)
Right-to-use assets	(6,967,081)	14,667	-	(6,952,414)
Lease liabilities	7,263,616	8,603	-	7,272,219
Intangible assets	8,155,032	(2,901,812)	-	5,253,220
Inventories	18,331,545	8,204,917	-	26,536,462
Accrued interest	(504,808)	(938,260)	-	(1,443,068)
Accrued expenses	13,547,248	(3,218,927)	-	10,328,321
Derivatives	(1,381,754)	120,457	93,413	(1,167,884)
Securities	1,960,307	(1,666,870)	16,439,593	16,733,030
Advanced depreciation provision	(5,862,260)	25,995	-	(5,836,265)
Provisioning liabilities	7,902,078	(3,214,891)	-	4,687,187
Contract liabilities	333,084	202,878	-	535,962
Retirement benefits	(2,175,998)	(3,937,813)	4,523,760	(1,590,051)
Stock options	460,628	(595,813)	575,422	440,237
Contributions	-	131,973	-	131,973
Tax credits carried forward	4,986,609	18,204,785	-	23,191,394
Others	(1,316,637)	2,866,675	(10,069)	1,539,969
Total	27,991,154	19,142,586	21,622,119	68,755,859
Deferred income tax assets	27,991,154			68,755,859
Deferred income tax liabilities	-			-

<Previous period>

(Unit: KRW one thousand)

Classification	Amount at beginning of period	Profit or loss reflected	Directly reflected in equity	End of the previous period
Government subsidies	4,433,697	(374,436)	-	4,059,261
Allowance for bad debts	1,728,752	281,109	-	2,009,861
Tangible assets	(25,315,516)	2,505,938	-	(22,809,578)
Right-to-use assets	(2,766,367)	(4,295,172)	-	(7,061,539)
Lease liabilities	2,944,627	4,413,447	-	7,358,074
Intangible assets	11,650,818	(3,495,786)	-	8,155,032
Inventories	6,797,665	11,533,880	-	18,331,545

Accrued interest	1,548,386	(614,078)	-	934,308
Accrued expenses	11,972,543	1,569,192	-	13,541,735
Derivatives	(485,906)	(744,756)	(151,092)	(1,381,754)
Securities	(527,871)	1,047,780	1,283	521,192
Advanced depreciation provision	(6,141,519)	279,259	-	(5,862,260)
Provisioning liabilities	5,523,006	185,894	-	5,708,900
Contract liabilities	478,526	2,047,735	-	2,526,261
Retirement benefits	(3,306)	2,740,559	(4,913,251)	(2,175,998)
Stock options	661,114	(200,486)	-	460,628
Tax credits carried forward	3,312,466	1,679,657	-	4,992,123
Others	(34,723,084)	33,737,075	(330,628)	(1,316,637)
To tal	(18,911,969)	52,296,811	(5,393,688)	27,991,154
Deferred income tax assets	11,426,991			27,991,154
Deferred income tax liabilities	(30,338,960)			-

The possibility of future realization for the deferred income tax assets depends on various factors such as the consolidated companies' ability to generate taxable income during the period in which the temporary differences are realized, and the overall economic environment and outlook for the industry. The consolidated companies regularly review such matters and have recognized the deferred income tax assets for the temporary differences to be deducted, which are determined to be realizable as of the end of the current period.

31-5 The tax effect, due to deductible temporary differences, unused tax losses, unused tax credits, etc., that are not recognized as deferred income tax assets in the consolidated financial statements, is KRW 52,343,864,000 (previous period: KRW 52,498,409,000).

32. Earnings per share (EPS)

32-1 The calculation details of the basic earnings per share for the current and previous periods are as follows.

(Unit: KRW one thousand, stocks)

Classification	Current period	Previous period
Net income	47,837,894	231,475,870
Net income attributable to the owners of the controlling company	39,863,822	191,266,055
Net income from non-controlling interest	7,974,072	40,209,815
Deducted: preferred stock dividend	(1,377,107)	(3,049,309)
Deducted: portion reverted for preferred stocks among additional profits available for dividend	(2,797,836)	(16,545,151)
Net income reverted for common stock ownership	35,688,880	171,671,595
Net income reverted for preferred stock ownership	4,174,942	19,594,460
Number of weighted average common stocks outstanding	17,222,926	17,322,897
Number of weighted average preferred stocks outstanding	1,967,296	1,967,296
Basic earnings per common share	2,072	9,910
Basic earnings per preferred share (Note 1)	2,122	9,960
Diluted earnings per common share	2,071	9,880

(Note 1) The preferred stocks issued in accordance with the old Commercial Act before its revision in 1997 have the same order of payment as the general common stocks when dividends are paid out or the residual assets are distributed.

32-2 The calculation details of the controlling company's number of weighted average common shares outstanding for the current and previous periods are as follows.

<Current period>

(Unit: stocks)

Classification	Initial date	Date of settlement	Number of days	Number of shares	Number of weighted average common shares outstanding
Outstanding shares at beginning of period	2023.1.1	2023.12.31	365	17,222,926	17,222,926
Number of weighted average common shares outstanding				17,222,926	17,222,926

<Previous period>

(Unit: stocks)

Classification	Initial date	Date of settlement	Number of days	Number of shares	Number of weighted average common shares outstanding
Outstanding shares at beginning of period	2022.1.1	2022.12.31	365	17,589,923	17,589,923
Acquisition of treasury stock	2022.3.24	2022.12.31	283	(10,000)	(7,753)
Acquisition of treasury stock	2022.3.25	2022.12.31	282	(8,000)	(6,181)
Acquisition of treasury stock	2022.3.28	2022.12.31	279	(10,000)	(7,644)
Acquisition of treasury stock	2022.3.29	2022.12.31	278	(10,000)	(7,616)
Acquisition of treasury stock	2022.3.30	2022.12.31	277	(1,914)	(1,453)
Acquisition of treasury stock	2022.3.31	2022.12.31	276	(10,000)	(7,562)
Acquisition of treasury stock	2022.4.1	2022.12.31	275	(10,000)	(7,534)
Acquisition of treasury stock	2022.4.4	2022.12.31	272	(8,000)	(5,962)
Acquisition of treasury stock	2022.4.5	2022.12.31	271	(10,000)	(7,425)
Acquisition of treasury stock	2022.4.6	2022.12.31	270	(8,009)	(5,924)
Acquisition of treasury stock	2022.4.7	2022.12.31	269	(7,825)	(5,767)
Acquisition of treasury stock	2022.4.8	2022.12.31	268	(10,000)	(7,342)
Acquisition of treasury stock	2022.4.11	2022.12.31	265	(10,000)	(7,260)
Acquisition of treasury stock	2022.4.12	2022.12.31	264	(10,000)	(7,233)
Acquisition of treasury stock	2022.4.13	2022.12.31	263	(10,000)	(7,205)
Acquisition of treasury stock	2022.4.14	2022.12.31	262	(10,000)	(7,178)
Acquisition of treasury stock	2022.4.15	2022.12.31	261	(10,000)	(7,151)
Acquisition of treasury stock	2022.4.18	2022.12.31	258	(10,000)	(7,068)
Acquisition of treasury stock	2022.4.19	2022.12.31	257	(2,796)	(1,969)
Acquisition of treasury stock	2022.4.20	2022.12.31	256	(10,000)	(7,014)
Acquisition of treasury stock	2022.4.21	2022.12.31	255	(10,000)	(6,986)
Acquisition of treasury stock	2022.4.22	2022.12.31	254	(6,000)	(4,175)
Acquisition of treasury stock	2022.4.25	2022.12.31	251	(10,000)	(6,877)
Acquisition of treasury stock	2022.4.26	2022.12.31	250	(10,000)	(6,849)
Acquisition of treasury stock	2022.4.27	2022.12.31	249	(10,000)	(6,822)
Acquisition of treasury stock	2022.4.28	2022.12.31	248	(9,187)	(6,242)

Acquisition of treasury stock	2022.4.29	2022.12.31	247	(7,479)	(5,061)
Acquisition of treasury stock	2022.5.2	2022.12.31	244	(5,894)	(3,940)
Acquisition of treasury stock	2022.5.3	2022.12.31	243	(10,000)	(6,658)
Acquisition of treasury stock	2022.5.4	2022.12.31	242	(10,000)	(6,630)
Acquisition of treasury stock	2022.5.6	2022.12.31	240	(10,000)	(6,575)
Acquisition of treasury stock	2022.5.9	2022.12.31	237	(10,000)	(6,493)
Acquisition of treasury stock	2022.5.10	2022.12.31	236	(10,000)	(6,466)
Acquisition of treasury stock	2022.5.11	2022.12.31	235	(14,641)	(9,426)
Acquisition of treasury stock	2022.5.12	2022.12.31	234	(10,000)	(6,411)
Acquisition of treasury stock	2022.5.13	2022.12.31	233	(7,585)	(4,842)
Acquisition of treasury stock	2022.5.16	2022.12.31	230	(9,159)	(5,771)
Acquisition of treasury stock	2022.5.17	2022.12.31	229	(10,000)	(6,274)
Acquisition of treasury stock	2022.5.18	2022.12.31	228	(10,000)	(6,247)
Acquisition of treasury stock	2022.5.19	2022.12.31	227	(10,000)	(6,219)
Acquisition of treasury stock	2022.5.20	2022.12.31	226	(8,000)	(4,953)
Acquisition of treasury stock	2022.5.23	2022.12.31	223	(10,000)	(6,110)
Acquisition of treasury stock	2022.5.24	2022.12.31	222	(4,000)	(2,433)
Acquisition of treasury stock	2022.5.25	2022.12.31	221	(1,000)	(605)
Exercise of stock option	2022.11.25	2022.12.31	37	22,492	2,280
Number of weighted average common shares outstanding				17,222,926	17,322,897

32-3 The calculation details of the controlling company's number of weighted average preferred shares outstanding for the current and previous periods are as follows.

<Current period>

(Unit: stocks)

Classification	Initial date	Date of settlement	Number of days	Number of shares	Number of weighted average preferred shares outstanding
Outstanding shares at beginning of period	2023.1.1	2023.12.31	365	1,967,296	1,967,296
Number of weighted average preferred shares outstanding				1,967,296	1,967,296

<Previous period>

(Unit: stocks)

Classification	Initial date	Date of settlement	Number of days	Number of shares	Number of weighted average preferred shares outstanding
Outstanding shares at beginning of period	2022.1.1	2022.12.31	365	1,967,296	1,967,296
Number of weighted average preferred shares outstanding				1,967,296	1,967,296

32-4 Diluted earnings per share

The diluted earnings per share were calculated by applying the number of weighted average common shares outstanding adjusted under the assumption that all dilutive potential common shares would be converted into common shares. The dilutive potential common shares held by the consolidated companies include stock options. The number of stocks resulting from stock options is calculated by determining the number of stocks to be acquired at fair value based on the monetary value of exercising the right, adding it to the stock options, and comparing this total with the number of stocks that would be issued if the stock options were assumed to have been exercised.

(Unit: stocks)

Classification	Current period	Previous period
Net income for common shares	35,688,880	171,671,595
Adjustments: Stock options	-	7,441
Net income for common shares for calculation of diluted earnings per share	35,688,880	171,679,036
Number of weighted average common stocks outstanding	17,222,926	17,322,897
Adjustments: Stock options	13,555	54,190
Number of weighted average common shares outstanding for calculation of diluted earnings per share	17,236,481	17,377,087
Diluted earnings per share (KRW/share)	2,071	9,880

33. Consolidated statement of cash flows

33-1 The details of the adjustments made for the consolidated cash flows generated from operations for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Income tax expense	4,580,808	5,224,848
Interest income	(19,430,230)	(7,255,858)
Interest expenses	32,047,152	15,461,271
Loss on the valuation of inventories	51,356,102	45,147,937
Losses on disposal of inventories	14,980	-
Loss on disposal of trade receivables	134,602	-
Retirement benefits	16,530,835	19,939,875
Bad debt expenses	551,125	478,766
Other bad debt expenses (reversal of other bad debt provisions)	(397,316)	91,789
Depreciation (Note 1)	100,049,000	81,152,198
Amortization of intangible assets	12,836,377	10,312,898
Gain on disposal of tangible assets	(15,650)	(159,549)
Gain on disposal of right-to-use assets	(8,998)	(10,921)
Losses on disposal of tangible assets	284,834	7,305,463
Losses on disposal of right-to-use assets	7,990	-
Gain on disposal of intangible assets	-	(302,598)
Losses on disposal of intangible assets	59,507	377,624
Impairment losses on tangible assets	6,936,627	-
Impairment losses on intangible assets	1,153,638	-
Gains on foreign currency translation	(9,767,591)	(8,370,857)
Losses on foreign currency translation	5,500,738	15,021,453
Gains on foreign currency transactions	(1,125,002)	-
Losses on foreign currency transactions	1,110,000	-
Gains on valuation of derivatives	(4,253,415)	(9,144,729)
Losses on valuation of derivatives	110,856	145,565
Dividend income	(1,190,000)	(1,190,000)
Profits or losses on valuation using equity method	2,865,319	762,536
Loss on disposal of stocks invested in associates	-	577,051
Gain on transaction of financial assets measured at fair value through profit or loss	(16,340,080)	(47,952,577)
Loss on transaction of financial assets measured at fair value through profit or loss	6,055,061	2,518,749
Gain on valuation of financial assets measured at fair value through profit or loss	(7,131,820)	(2,061,727)
Loss on valuation of financial assets measured at fair value through profit or loss	385,439	7,676,555
Share based compensation expenses	-	9,816

Others	1,736,400	152,520
Total	184,647,288	135,908,098

(Note 1) This is the depreciation for tangible assets, investment real estate properties, and the right-to-use assets.

33-2 The changes in assets and liabilities from operating activities for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Trade receivables	38,189,814	(29,633,811)
Other receivables	40,390,662	125,598,409
Inventories	53,171,598	(178,194,406)
Other current assets	2,987,720	(9,276,944)
Long-term accounts receivable	-	(58,099)
Other non-current assets	(1,520,771)	(6,543,064)
Trade payables	6,934,731	(68,847,992)
Other payables	(18,822,151)	(151,889,943)
Other current liabilities	(22,123,319)	(42,472,260)
Other non-current liabilities	42,167	-
Retirement benefits paid	(481,029)	(41,669)
Plan assets paid	(35,768,000)	(46,664,320)
Current portion of contract liabilities	(101,276,392)	45,396,068
Current portion of provisioning liabilities	8,201,896	(300,038)
Provisioning liabilities	3,678,739	2,278,409
Derivatives transactions settled	4,550,893	912,699
Total	(21,843,442)	(359,736,961)

33-3 The details of major transactions with no cash inflows and outflows for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Reclassification of construction in progress to another account	59,518,705	61,547,132
Acquisition of accounts payable for construction in progress	10,637,703	2,799,911
Increase in capitalized borrowing payable	-	185,173
Reclassification of current portion for long-term liabilities	192,160,529	103,882,273
Reclassification of current portion for lease liabilities	5,647,438	18,505,485
Reclassification of investment real estate properties for tangible assets	-	169,119
Receivables from tangible asset exchange	-	6,350,000
Recognition of right-to-use assets and lease liabilities	4,095,204	2,110,026
Write-off of trade and other receivables	476,850	27,687,267
Changes in accounts payable for retirement benefits	4,257,924	671,572
Accounts payable for affiliates' investment shares	-	10,528,466
Assets held for sale classification	-	15,353,157
Liabilities held for sale classification	-	7,560,327
Transfer of tangible assets held for sale	2,024,512	-

33-4 Changes in the liabilities arising from financing activities are as follows.

<Current period>

(Unit: KRW one thousand)

Classification	Beginning of period	Cash flow from financing activities	Exchange rate fluctuations	Others (Note 1)	End of period
Short-term borrowings	436,109,819	(172,298,524)	(1,672,495)	1,569,090	263,707,890
Current portion of long-term borrowings	-	-	-	2,550,000	2,550,000
Long-term borrowings	7,172,699	469,715,903	-	(4,370,265)	472,518,337
Current portion of bonds payable	103,986,944	(105,129,000)	1,110,000	189,887,184	189,855,128
Debenture	154,787,349	199,140,850	-	(189,371,108)	164,557,091
Current portion of lease liabilities	11,685,098	(11,891,145)	-	7,883,222	7,677,175
Lease liabilities	13,185,242	-	-	(4,162,348)	9,022,894
Total	726,927,151	379,538,084	(562,495)	3,985,775	1,109,888,515

(Note 1) Included are the account reclassification effect for bonds and long-term borrowings, reclassification of current portion following the lapse of time for lease liabilities and liabilities under installment purchase agreements, and the accrued interest on the interest-bearing borrowings. The consolidated companies classify the payment of interest as cash flows from operating activities.

<Previous period>

(Unit: KRW one thousand)

Classification	Beginning of period	Cash flow from financing activities	Exchange rate fluctuations	Others (Note 1)	End of period
Short-term borrowings	11,671,373	427,818,713	1,287,869	(4,668,136)	436,109,819
Long-term borrowings	-	(40,426,841)	-	47,599,540	7,172,699
Current portion of bonds payable	207,864,113	(160,000,000)	-	56,122,831	103,986,944
Debenture	256,063,407	-	2,454,000	(103,730,058)	154,787,349
Current portion of lease liabilities	2,788,638	(7,021,630)	-	15,918,090	11,685,098
Lease liabilities	8,343,522	-	-	4,841,720	13,185,242
Total	486,731,053	220,370,242	3,741,869	16,083,987	726,927,151

(Note 1) Included are the account reclassification effect for bonds and long-term borrowings, reclassification of current portion following the lapse of time for lease liabilities and liabilities under installment purchase agreements, and the accrued interest on the interest-bearing borrowings. The consolidated companies classify the payment of interest as cash flows from operating activities.

34. Purpose and policies of the financial risk management

The consolidated companies' major financial liabilities, excluding derivatives, consist of trade and other payables, borrowings and bonds. The main purpose of these financial liabilities is to raise funds for the operation of the consolidated companies. The consolidated companies' major financial assets include trade receivables and the cash and short-term deposits directly derived from operating activities. The consolidated companies also have investments in debt and equity instruments and trade derivatives.

The consolidated companies are exposed to market, credit, and liquidity risks. The consolidated companies' senior management supervises the management of such risks. All derivative activities for the purpose of risk management are carried out by a team of professionals equipped with the appropriate skills, experiences, and oversight. It is the policy of the consolidated companies to avoid conducting any trading of derivatives for speculative purposes.

34-1 Market risk

Market risk is the risk related to the fair value or future cash flows of financial instruments fluctuating due to changes in the market prices. Market risk consists of the following three types of risk: interest rate risk, foreign currency risk, and other price risk. The financial instruments affected by the market risk include borrowings and bonds, deposits, debt, and equity investments and derivatives.

The following sensitivity analysis is related to the statement of financial position as of the end of the current and previous periods.

The sensitivity analysis has been prepared based on the designation of a hedging interest rate while the net amount of liabilities, fixed interest rate of liabilities and derivatives, variable interest rate and the ratio of foreign currency financial instruments were all constant as of the end of the current period.

This analysis excludes the effect of movements of the market variables on the book values of retirement pensions and other post-retirement liabilities and provisions.

The following assumptions are required when calculating the sensitivity analysis.

- The sensitivity of the relevant income statement is the effect of an assumed change in each market risk. This is based on the financial assets and financial liabilities held at the end of the current and previous periods, including the effect of hedge accounting.

(1) Interest rate risk

Interest rate risk is the risk related to the fluctuation of the fair value of financial instruments or future cash flows due to the fluctuations in the market interest rates. The consolidated companies internally measure the interest rate risk based on a 1% change in the interest rate, and the rate of change above is reflective of the senior management's assessment of the reasonably possible interest rate change risk.

The consolidated companies' changes in the market interest rate risk relate primarily to the consolidated companies' long-term liabilities subject to the variable interest rates. The consolidated companies' senior management manages the risk of fluctuations in the future cash flows of financial instruments related to fluctuations in the market interest rates by executing currency swap and interest-rate swap contracts.

The book amount of the financial instruments exposed to the variable interest risk, which are held by the consolidated companies as of the end of the reporting period, is as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period
Short-term borrowings	142,718,841	243,049,996
Long-term borrowings	317,568,337	-
Debenture	-	38,019,000
Total	460,287,178	281,068,996

As of the current and previous periods, when all other variables are constant and the interest rate changes by 1%, the effect on the profit and loss before tax is as follows.

(Unit: KRW one thousand)

Classification	Current period		Previous period	
	1% point increase	1% point decrease	1% point increase	1% point decrease
Short-term borrowings	(1,427,188)	1,427,188	(2,430,500)	2,430,500
Long-term borrowings	(3,175,683)	3,175,683	-	-
Debenture	-	-	(380,190)	380,190
Total	(4,602,871)	4,602,871	(2,810,690)	2,810,690

(2) Exchange risk

Exchange risk is the risk where the fair value of financial instruments or future cash flows will fluctuate due to the fluctuations in the exchange rates. The book amounts of the monetary assets and liabilities denominated in foreign currencies other than the functional currency as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	End of the current period		End of the previous period	
	Assets	Liabilities	Assets	Liabilities
USD	81,771,660	(60,674,198)	283,760,059	95,426,426
CNY	24,935,031	(144,742,567)	3,610,762	542,830
EUR	23,896,005	(79,185,096)	3,764,548	18,599,899
GBP	-	-	433,923	130,384
JPY	2,954,389	(41,754)	6,820,072	233,047
Others	396,319	(102,450)	-	-
Total	133,953,404	(284,746,065)	298,389,364	114,932,586

(Note 1) The foreign currency borrowings and foreign currency bonds for which currency swaps are executed are excluded since they are not exposed to the exchange risk.

As of the end of the reporting period, if the exchange rate of the functional currency for each foreign currency fluctuates by 5%, the effect on the profit and loss before tax for the current period and the previous period is as follows.

(Unit: KRW one thousand)

Classification	End of the current period		End of the previous period	
	5% increase	5% decrease	5% increase	5% decrease
USD	7,122,293	(7,122,293)	9,416,682	(9,416,682)
CNY	8,483,880	(8,483,880)	153,397	(153,397)
EUR	5,154,055	(5,154,055)	(741,768)	741,768
GBP	-	-	15,177	(15,177)
JPY	149,807	(149,807)	329,351	(329,351)
Others	24,938	(24,938)	-	-
Total	20,934,973	(20,934,973)	9,172,839	(9,172,839)

The consolidated companies internally measure the foreign exchange risk for the exchange rate fluctuations on a regular basis, and effectively manage the foreign exchange risk via currency futures trading. Thus, the effect on profit and loss is restricted.

(3) Other price risks

Other price risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate due to changes in market prices other than interest rate risk or currency risk. Meanwhile, listed equity securities included in financial assets measured at fair value through other comprehensive income held by the consolidated companies are exposed to price fluctuation risk. As of the end of the current period, the impact on other comprehensive income of a 5% change in the stock price of these listed equity securities is as follows.

<End of the current period>

(Unit: KRW one thousand)

Classification	5% increase	5% decrease
Other comprehensive income before corporate tax effects	2,011,464	(2,011,464)
Corporate tax effects	(464,648)	464,648
Other comprehensive income after corporate tax effects	1,546,816	(1,546,816)

34-2 Credit risk

Credit risk is the risk of financial loss against the consolidated companies due to the transaction counterparty's failure to perform its obligations.

(1) Trade and other receivables

The consolidated companies in principle conduct creditworthiness verification procedures for all transaction counterparties seeking to trade on credit, and only execute transactions with counterparties of sound creditworthiness. Furthermore, the consolidated companies continuously manage the balance of trade receivables, other receivables and contract assets, such as by continuously reassessing credit ratings to ensure that the consolidated companies' exposure to bad debt risk is maintained at an insignificant level. As of the end of the reporting period, the consolidated companies individually recognize whether major customers' receivables and contract assets are impaired. In addition, for multiple receivables of small amounts, they review their impairment by including them in the group of financial assets having similar credit risk related characteristics. As of the end of the reporting period, the extent of maximum exposure to the credit risk is the book amount of the financial assets described under Note 5.

(2) Other assets

The credit risk arising from the consolidated companies' other assets consisting of cash equivalents, long-term and short-term deposits, long-term and short-term loans arises from the default of the transaction counterparty, etc. In such an event, the consolidated companies' credit risk exposure will be equal to the maximum book amount of the relevant financial instrument. Meanwhile, the consolidated companies deposit the cash equivalents and short-term financial instruments with financial institutions including Woori Bank, and trade with financial institutions having excellent credit ratings. Thus, the credit risk from the financial institutions is limited.

34-3 Liquidity risk

Liquidity risk is the risk of being unable to raise funds to meet all financial contractual commitments to maturity.

The consolidated companies manage risks arising from a lack of funds through the liquidity strategies and plans. They match the maturities of financial assets and liabilities by considering the maturities of financial instruments and estimates of the operating cash flows.

The undiscounted contractual amounts for the repayment plan for each financial liability for the current and previous periods are as follows.

<Current period>

(Unit: KRW one thousand)

Classification	Less than 1 year	2 years or less	5 years or less	Over 5 years	Total
Trade and other payables	246,774,769	-	-	-	246,774,769
Short-term borrowings	263,707,890	-	-	-	263,707,890
Current portion of long-term liabilities	192,550,000	-	-	-	192,550,000
Current portion of lease liabilities	7,901,430	-	-	-	7,901,430
Other current liabilities (Note 1)	5,315,700	-	-	-	5,315,700
Debenture (Note 2)	-	95,000,000	70,000,000	-	165,000,000
Long-term borrowings	-	12,927,084	96,591,253	363,000,000	472,518,337
Lease liabilities	-	3,126,809	4,688,348	3,533,831	11,348,988
Total	716,249,789	111,053,893	171,279,601	366,533,831	1,365,117,114

(Note 1) They are the deposits received and unpaid dividends.

(Note 2) Included are the interest expenses.

<Previous period>

(Unit: KRW one thousand)

Classification	Less than 1 year	2 years or less	5 years or less	Over 5 years	Total
Trade and other payables	219,159,228	-	-	-	219,159,228
Short-term borrowings	436,109,819	-	-	-	436,109,819
Current portion of long-term liabilities	104,019,000	-	-	-	104,019,000
Current portion of lease liabilities	12,000,694	-	-	-	12,000,694
Other current liabilities (Note 1)	4,932,758	-	-	-	4,932,758
Debenture (Note 2)	-	-	155,000,000	-	155,000,000
Long-term borrowings	7,172,699	-	-	-	7,172,699
Lease liabilities	-	6,637,793	5,089,589	4,526,978	16,254,360
Total	783,394,198	6,637,793	160,089,589	4,526,978	954,648,558

(Note 1) They are the deposits received and unpaid dividends.

(Note 2) Included are the interest expenses.

34-4 Capital management

The primary purpose of capital management is to maintain a high credit rating and sound capital ratios with a view to maintaining the consolidated companies' operating activities and maximizing the shareholder value.

The consolidated companies amend their capital structure in line with the changes in the economic environment, and towards this end, they require amendments to be made for their dividend policy, capital reduction be made, and the issuance of new shares be considered. Meanwhile, no changes were made to the purposes, policies and the procedures of capital management during the current period.

As of the end of the reporting period, the consolidated companies' debt-to-equity ratio is as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period
Total liabilities	1,483,000,848	1,236,777,051
(Adjustments: cash and cash equivalents)	(396,012,210)	(400,028,233)
Adjusted liabilities	1,086,988,638	836,748,818
Equity capital	2,675,774,056	2,708,905,829
Debt-to-equity ratio	40.62%	30.89%

35. Fair value

35-1 Fair value hierarchy

The consolidated companies classify the fair value measurements according to the fair value hierarchy which reflects the significance of the input variables used for the fair value measurement. The levels of the fair value hierarchy are as follows.

Level 1: (Unadjusted) quoted price level in the active markets for the same asset or liability

Level 2: Inputs to assets or liabilities that are directly or indirectly observable

Level 3: Inputs to assets or liabilities that are not based on the observable market data (unobservable input variables)

35-2 The fair value measurements for each level of financial instruments as of the end of the reporting period are as follows.

<End of the current period> (Unit: KRW one thousand)

Classification	Level 1	Level 2	Level 3 (Note 2)	Total
Financial assets				
Trade and other receivables (Note 1)	-	435,251	-	435,251
Short-term financial assets	-	871,919,247	-	871,919,247
Long-term investment assets	-	-	102,766,368	102,766,368
Other non-current assets (Note 1)	-	-	5,055,776	5,055,776
Total	-	872,354,498	107,822,144	980,176,642
Financial liabilities				
Trade and other payables (Note 1)	-	110,856	-	110,856
Total	-	110,856	-	110,856

(Note1) As for the financial instruments whose book amount is a reasonable approximation of fair value, the separate fair value disclosure has been omitted.

(Note2) Except as otherwise provided, they consist of unlisted stocks, etc., whose cost can be an appropriate estimate of their fair value (refer to Note 35-3).

<End of the previous period>

(Unit: KRW one thousand)

Classification	Level 1	Level 2	Level 3 (Note 2)	Total
Financial assets				
Trade and other receivables (Note 1)	-	10,460,927	-	10,460,927
Short-term financial assets	-	1,314,442,323	-	1,314,442,323
Long-term investment assets	-	-	38,628,272	38,628,272
Other non-current assets (Note 1)	-	-	1,237,613	1,237,613
Total	-	1,324,903,250	39,865,885	1,364,769,135
Financial liabilities				
Trade and other payables (Note 1)	-	67,152	-	67,152
Total	-	67,152	-	67,152

(Note1) As for the financial instruments whose book amount is a reasonable approximation of fair value, the separate fair value disclosure has been omitted.

(Note2) Except as otherwise provided, they consist of unlisted stocks, etc., whose cost can be an appropriate estimate of their fair value (refer to Note 35-3).

35-3 Valuation techniques

The valuation techniques used to measure the fair value of Level 3 are as follows.

<End of the current period>

(Unit: KRW one thousand)

Categories of financial instruments	Type	Fair value	Valuation techniques	Input variables
Derivatives assets	Put option on SK chemicals Daejung Co., Ltd.	719,000	Discounted cash flow method	Liquidation cash flow, weighted average cost of capital
Derivatives assets	Put option on HDC Polyall Co., Ltd.	4,336,776	Discounted cash flow method	Liquidation cash flow, weighted average cost of capital
Long-term investment assets	Eastman Fiber Korea Ltd. Preferred stocks	25,566,223	Expected price considering the value of call options and put options	Exchange rate

<End of the previous period>

(Unit: KRW one thousand)

Categories of financial instruments	Type	Fair value	Valuation techniques	Input variables
Derivatives assets	Put option on SK chemicals Polyall Co., Ltd.	289,589	Discounted cash flow method	Liquidation cash flow, weighted average cost of capital
Derivatives assets	Put option on HDC Polyall Co., Ltd.	948,024	Discounted cash flow method	Liquidation cash flow, weighted average cost of capital
Long-term investment assets	Eastman Fiber Korea Ltd. Preferred stocks	25,128,024	Expected price considering the value of call options and put options	Exchange rate

36. Assets held for sale

During the previous period, the consolidated companies classified the assets and liabilities of SK chemicals (Suzhou) Co., Ltd. as assets and liabilities held for sale, and as of the end of the current period, the local procedures related to the sale are ongoing. The details of the assets and liabilities held for sale as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period
Assets held for sale		
Cash and cash equivalents	8,242,208	7,089,709
Short-term financial assets	-	9,344
Trade and other receivables	4,059,213	15,247,313
Inventories	-	500,450
Other current assets	-	66,844
Tangible assets	1,660,561	3,559,309
Right-to-use assets	220,750	299,939
Total	14,182,732	26,772,908
Liabilities held for sale		
Trade and other payables	14,889	7,466,311
Current portion of lease liabilities	-	43,046
Other current liabilities	2,197	13,254
Lease liabilities	-	37,716
Total	17,086	7,560,327

37. Business combination

37-1 Overview

To establish a business foundation and secure operational capabilities in the strategic market of China, the controlling company established Shuye-SK chemicals (Shantou) Co., Ltd. in accordance with the resolution of the Board of Directors on March 6, 2023 and acquired the asset group related to Shuye's r- BHET and CR-PET. The acquired asset group is considered a business.

37-2 Identifiable acquired assets and assumed liabilities

The amounts of identifiable assets and liabilities as of the acquisition date are as follows.

(Unit: KRW one thousand)

Classification	Amount
Consideration transferred	125,199,963
Fair value of identifiable assets	125,199,963
Tangible assets	109,538,583
Right-to-use assets	15,661,380
Goodwill	-

37-3 The consolidated companies have entered into contingent consideration payment agreements based on performance conditions of the company (refer to Note 24-11).

Meanwhile, as of the end of the current period, the initial accounting for the business combination has not been completed and provisional amounts have been determined.

38. Events following the reporting period

38-1 Events following the reporting period for which corrections are required

(1) Provisioning liabilities for humidifier disinfectant litigation

On January 11, 2024, the controlling company recognized the harmfulness of the raw materials used in its humidifier disinfectants in a criminal lawsuit. Considering the impact of the criminal lawsuit on the ongoing litigation, a provisioning liability of KRW 5,957,148,000 was recognized based on the best estimate.

(2) Provisioning liabilities for patent infringement litigation

On January 18, 2024, the controlling company made a partial loss in the second instance of the patent infringement lawsuit with Novartis AG, and on January 26, 2024, paid the principal amount of KRW 11,013,136,000 as a provisional payment, which was recognized as a provisioning liability.

4. Financial Statements

4-1. Statement of Financial Position

Statement of Financial Position

The 7th Period	as of 2023.12.31
The 6th Period	as of 2022.12.31
The 5th Period	as of 2021.12.31

(Unit: KRW)

	The 7th Period	The 6th Period	The 5th Period
Assets			
Current assets	673,098,061,775	645,372,556,816	850,385,823,428
Cash and cash equivalents	245,211,541,679	119,021,281,023	102,201,908,694
Short-term financial assets		60,299,856,319	214,551,624,180
Trade and other receivable	178,673,436,835	201,878,626,367	349,597,114,345
inventories	232,088,238,896	244,284,687,595	176,670,484,280
Other current assets	5,705,093,360	8,468,354,507	7,364,691,929
Non-current assets held for sale	11,419,751,005	11,419,751,005	
Non-current assets	1,282,620,098,546	1,165,104,636,664	1,136,764,094,471
Long-term financial assets	27,500,000	27,500,000	32,500,000
Other investment assets	60,037,005,604	37,128,190,250	34,581,491,369
Long-term trade and other receivables			2,245,126,852
Investments in affiliates or joint ventures	7,916,946,105	12,591,618,325	13,175,778,325
Investment in subsidiaries	436,484,938,218	371,327,871,982	369,310,002,987
Property, plant and equipment	693,308,754,458	661,774,467,404	663,484,729,233
Right-to-use assets	1,790,310,080	1,759,660,337	1,078,904,249
Intangible assets	30,267,026,107	32,019,684,682	25,581,562,950
Investment properties	17,297,334,222	17,339,365,662	17,212,277,612
Other non-current assets	7,046,940,725	3,115,139,356	8,859,518,669

Net defined benefit assets	23,877,527,090	27,038,748,434	
Deferred income tax assets	4,565,815,937	982,390,232	1,202,202,225
Total Assets	1,955,718,160,321	1,810,477,193,480	1,987,149,917,899
Liabilities			
Current liabilities	652,684,624,167	535,148,432,470	608,416,133,260
Trade and other payables	188,998,359,447	151,015,407,038	334,166,345,831
Short-term borrowings	238,989,048,940	273,359,823,015	
Current portion of long-term liabilities	192,405,128,296	65,978,484,288	159,886,421,716
Current portion of lease liabilities	844,576,287	838,788,199	615,347,491
Current portion of contract liabilities	4,812,601,259	4,105,993,293	15,475,431,335
Current portion of provisions	12,476,761,297	19,326,700,000	22,437,979,100
Income taxes payable	7,249,206,994	13,816,417,201	70,778,733,402
Other current liabilities	6,908,941,647	6,706,819,436	5,055,874,385
Non-current liabilities	179,146,772,609	155,730,714,611	223,149,669,532
Bonds Payable	164,557,090,565	154,787,348,542	220,560,771,999
Long-term borrowings	7,650,000,000		
Lease liabilities	982,533,549	943,366,069	478,871,282
Provisioning liabilities	5,957,148,495		
Other non-current liabilities			2,110,026,251
Total liabilities	831,831,396,776	690,879,147,081	831,565,802,792
Equity			
Issued Capital	98,793,505,000	98,793,505,000	98,681,045,000
Capital surplus	157,915,326,106	157,915,326,106	155,974,381,098
Other components of equity	(12,644,103,915)	(12,644,103,915)	(12,345,389,915)
Retained earnings (losses)	879,822,036,354	875,533,319,208	913,274,078,924
Total equity	1,123,886,763,545	1,119,598,046,399	1,155,584,115,107
Total liabilities and equity	1,955,718,160,321	1,810,477,193,480	1,987,149,917,899

4-2. Comprehensive Income Statement

Comprehensive Income Statement

The 7th Period From 2023.01.01 to 2023.12.31

The 6th Period From 2022.01.01 to 2022.12.31

The 5th Period From 2021.01.01 to 2021.12.31

(Unit: KRW)

	The 7th Period	The 6th Period	The 5th Period
Revenue	1,232,925,641,365	1,256,030,178,624	1,093,356,680,705
Cost of sales	947,103,926,906	956,492,002,988	829,072,845,806
Gross profit	285,821,714,459	299,538,175,636	264,283,834,899
Selling and administrative expenses	200,386,437,771	192,011,238,386	181,990,857,414
Operating income	85,435,276,688	107,526,937,250	82,292,977,485

Other income	23,667,872,352	6,950,988,177	488,792,502,374
Other expenses	41,680,756,525	17,565,112,804	41,362,691,966
Financial income	39,204,884,498	57,716,968,597	43,397,938,556
Financial cost	50,606,822,107	66,229,076,757	32,235,463,899
Profit before tax from continuing operation	56,020,454,906	88,400,704,463	540,885,262,550
Income tax expenses from continuing operation	14,266,718,520	19,130,274,915	136,417,287,717
Profit for the year from continuing operation	41,753,736,386	69,270,429,548	404,467,974,833
Profit (loss) before tax from discontinued operation			(134,518,761,720)
Income tax expense from discontinued operations			(32,553,540,336)
Profit (loss) for the year from discontinued operation			(101,965,221,384)
Profit before income tax	56,020,454,906	88,400,704,463	406,366,500,830
Income tax expense (income)	14,266,718,520	19,130,274,915	103,863,747,381
Profit for the year	41,753,736,386	69,270,429,548	302,502,753,449
Other comprehensive loss	(8,581,321,440)	9,408,526,514	(2,921,264,291)
Other comprehensive loss not to be reclassified to profit or loss in subsequent period	(8,581,321,440)	9,408,526,514	(2,921,264,291)
Remeasurement loss on defined benefit plans	(8,581,321,440)	9,408,526,514	(2,921,264,291)
Total comprehensive income, net of tax	33,172,414,946	78,678,956,062	299,581,489,158
Earnings per share			
Basic and diluted, earnings for the year			
Basic earnings (loss) per ordinary share from continuing operation	2,171	3,586	20,659
Basic earnings (loss) per ordinary share from discontinued operation			(5,208)
Diluted earnings per ordinary share from continuing operation	2,221	3,636	20,531
Basic earnings per preferred share			
Basic earnings (loss) per preferred share from continuing operation	2,169	3,575	20,726
Basic earnings (loss) per preferred share from discontinued operation			(5,225)

4-3. Statement of Changes in Equity

Statement of Changes in Equity

The 7th Period From 2023.01.01 to 2023.12.31

The 6th Period From 2022.01.01 to 2022.12.31

The 5th Period From 2021.01.01 to 2021.12.31

(Unit: KRW)

	Equity				
	Capital	Capital surplus	Other capital	Retained earnings	Total equity
2021.01.01 (capital at beginning of period)	66,000,330,000	188,347,198,411	(9,117,046,764)	639,842,839,716	885,073,321,363
Net income (loss)				302,502,753,449	302,502,753,449
Remeasurement factors of defined benefit liabilities				(2,921,264,291)	(2,921,264,291)
Stock option granted			125,936,990		125,936,990
Exercise of stock option	50,000,000	861,558,500	(186,537,500)		725,021,000
Cash dividend				(26,150,249,950)	(26,150,249,950)
Capital increase without consideration	32,630,715,000	(33,234,375,813)			(603,660,813)
Purchase of treasury stock			(3,167,742,641)		(3,167,742,641)
Retirement of treasury stock					
2021.12.31 (capital at end of period)	98,681,045,000	155,974,381,098	(12,345,389,915)	913,274,078,924	1,155,584,115,107

2022.01.01 (capital at beginning of period)	98,681,045,000	155,974,381,098	(12,345,389,915)	913,274,078,924	1,155,584,115,107
Net income (loss)				69,270,429,548	69,270,429,548
Remeasurement factors of defined benefit liabilities				9,408,526,514	9,408,526,514
Stock option granted			9,816,200		9,816,200
Exercise of stock option	112,460,000	1,940,945,008	(308,530,200)		1,744,874,808
Cash dividend				(66,437,113,800)	(66,437,113,800)
Capital increase without consideration					
Purchase of treasury stock			(49,982,601,978)		(49,982,601,978)
Retirement of treasury stock			49,982,601,978	(49,982,601,978)	
2022.12.31 (capital at end of period)	98,793,505,000	157,915,326,106	(12,644,103,915)	875,533,319,208	1,119,598,046,399
2023.01.01 (capital at beginning of period)	98,793,505,000	157,915,326,106	(12,644,103,915)	875,533,319,208	1,119,598,046,399
Net income (loss)				41,753,736,386	41,753,736,386
Remeasurement factors of defined benefit liabilities				(8,581,321,440)	(8,581,321,440)
Stock option granted					
Exercise of stock option					
Cash dividend				(28,883,697,800)	(28,883,697,800)
Capital increase without consideration					
Purchase of treasury stock					
Retirement of treasury stock					
2023.12.31 (capital at end of period)	98,793,505,000	157,915,326,106	(12,644,103,915)	879,822,036,354	1,123,886,763,545

4-4. Statement of Cash Flows Statement of Cash Flows

The 7th Period From 2023.01.01 to 2023.12.31

The 6th Period From 2022.01.01 to 2022.12.31

The 5th Period From 2021.01.01 to 2021.12.31

(Unit: KRW)

	The 7th Period	The 6th Period	The 5th Period
Cash flows from operating activities	141,767,040,414	(58,255,118,545)	(35,881,104,237)
Profit for the year	41,753,736,386	69,270,429,548	302,502,753,449
Non-cash adjustments to reconcile profit (loss) for the year to net cash flows provided by operating activities	84,769,885,745	99,406,824,404	(187,191,487,993)
Working capital adjustments	55,609,214,568	(137,690,046,624)	(53,245,780,477)
Interest received	4,617,858,210	1,731,141,535	579,673,872
Interest paid	(25,337,121,945)	(15,118,134,622)	(11,479,551,082)
Dividends received	2,190,000,000	2,990,000,000	8,952,750,000
Income tax paid	(21,836,532,550)	(78,845,332,786)	(95,999,462,006)
Cash flows from investment activities	(95,310,672,516)	72,500,789,344	333,451,555,417
Business transfer			71,472,753,210
Net increase or decrease in short-term financial assets	62,314,943,170	156,601,754,137	
Decrease in short-term money lending	360,000,000	350,000,000	300,000,000
Decrease in long-term deposits	55,165,666	52,478,288	339,043,619
Decrease in long-term financial assets		5,000,000	
Disposal of long-term investment assets	410,558,210		25,000,000

Disposal of tangible assets and right-of-use assets	22,775,100	1,306,234,469	2,447,014,817
Disposal of intangible assets	520,000	1,264,591,806	735,778,790
Disposal of shares in affiliates		288,722,533	
Receipt of government grant			85,756,878
Disposal of subsidiaries' investment shares			498,114,884,460
Net change in short-term financial assets			(65,382,558,834)
Increase in deposits	(110,000,000)	(463,583,831)	(141,541,000)
Acquisition of long-term financial assets	(2,079,993,210)	(2,398,239,735)	(8,970,673,609)
Acquisition of tangible assets	(85,244,701,706)	(61,770,720,065)	(83,994,724,969)
Acquisition of tangible assets due to borrowing cost	(1,396,613,587)	(363,198,742)	(943,630,987)
Disposal and overthual of tangible assets			(1,198,619,330)
Acquisition of intangible assets	(3,549,326,159)	(8,934,629,516)	(5,598,777,628)
Decrease in cash due to split-off			(57,000,000,000)
Acquisition of investments in subsidiaries and affiliates	(66,094,000,000)	(13,437,620,000)	(16,838,150,000)
Cash flows from financing activities	79,722,242,679	2,573,701,530	(232,034,724,175)
Net increase in foreign currency short-term borrowings		83,072,600,368	
Borrowing of short-term borrowings	70,000,000,000	205,000,000,000	
Borrowing of long-term borrowings	10,200,000,000		
Borrowing in debentures	199,140,850,000		
Stock options exercised		1,744,874,808	725,021,000
Net decrease in short-term borrowings in foreign currency	(8,823,280,699)		(31,636,902,688)
Repayment of short-term borrowings	(95,000,000,000)	(10,000,000,000)	(75,000,000,000)
Repayment of current portion of bonds	(66,000,000,000)	(160,000,000,000)	(85,000,000,000)
Repayment of current portion of long-term borrowings			(1,003,200,000)
Repayment of current portion of lease liabilities	(913,515,092)	(829,098,668)	(1,428,642,346)
Repayment of long-term borrowings			(9,375,000,000)
Acquisition of treasury stock		(49,982,601,978)	(3,167,742,641)
Dividend paid	(28,881,811,530)	(66,432,073,000)	(26,148,257,500)
Net increase (decrease) in cash and cash equivalents	126,178,610,577	16,819,372,329	65,535,727,005
Cash and cash equivalents at beginning of period	119,021,281,023	102,201,908,694	36,666,181,689
Effects of exchange rate fluctuations on cash and cash equivalents denominated in foreign currencies	11,650,079		
Cash and cash equivalents at end of period	245,211,541,679	119,021,281,023	102,201,908,694

5. Notes to the Financial Statements

The 7th Period From January 1, 2023 to December 31, 2023

The 6th Period From January 1, 2022 to December 31, 2022

SK chemicals Co., Ltd.

1. Overview of the Company

For the purpose of manufacturing and selling synthetic resins and related products, as well as the development, production and sales of pharmaceuticals and vaccines, SK chemicals Co., Ltd. (hereinafter, the “Company”) was established on December 1, 2017 via a split-off from SK discovery Co., Ltd. (formerly SK chemicals Co., Ltd.). The Company re-listed its stock certificates on the Korea Exchange on January 5, 2018, and operates its Ulsan and Cheongju Plants with its head office located in Seongnam-si, Gyeonggi-do.

On May 1, 2018, the Company merged with SK Petrochemical Co., Ltd., a subsidiary in which it holds 100% of the stake, and on July 1, 2018, the date of split-off, established SK bioscience Co., Ltd., for the development and production of vaccines through a physical split-off. Furthermore, the Company established SK Multi-Utility Co., Ltd., for the purpose of supplying utilities through a physical split-off on December 1, 2021, the date of split-off.

As of the end of the reporting period, the status of major shareholders (including preferred stocks) of the Company is as follows.

Name of shareholder	Common stocks		Preferred stocks	
	Number of shares held (stocks)	Equity interest (%)	Number of shares held (stocks)	Equity interest (%)
SK discovery Co., Ltd.	7,056,899	40.90	-	-
SK chemicals Co., Ltd. (Treasury shares)	30,857	0.18	148,133	7.00
Others	10,166,027	58.92	1,967,296	93.00
Total	17,253,783	100.00	2,115,429	100.00

The Board of Directors approved the financial statements of the Company on February 7, 2024. The final approval is expected to be made at the general meeting of shareholders on March 26, 2024.

2. Significant accounting policies and standards for the preparation of financial statements

2-1 Preparation standards for the financial statements

The financial statements of the Company have been prepared in accordance with the Korean International Financial Reporting Standards (K-IFRS) enacted in accordance with the Act on External Audit of Stock Companies, Etc.

The financial statements are prepared on a historical cost basis, excluding the liabilities and equity interest's financial assets valued at fair value. The book amounts of the assets and liabilities designated as hedging targets for fair value hedging are not recorded at amortized cost, but are recorded by reflecting the changes in the fair value corresponding to the risks hedged within an effective hedging relationship. These financial statements are presented in the Korean won and are also expressed in the Korean won unless otherwise provided.

2-2 Subsidiaries, affiliates, and joint ventures

The Company's financial statements are separate financial statements prepared in accordance with Corporate Accounting Standard No. 1027, and the investment assets of subsidiaries, affiliates and joint ventures are presented as accounting practices based on direct equity investment rather than based on the reported performance and net assets of the investee. The Company selected the cost method in accordance with Corporate Accounting Standard No. 1027 for accounting for the investments in subsidiaries, affiliates and joint ventures. However, as for all investments in subsidiaries, affiliates and joint ventures, Corporate Accounting Standard No. 1101 (first adoption of the K-IFRS) was applied and the book amount according to the previous accounting standards on the date of transition to the K-IFRS was used for the deemed cost, and the cost method was applied. Meanwhile, the dividends received from subsidiaries, affiliates and joint ventures are recognized as profit or loss when the right to receive dividends is confirmed.

2-3 Foreign currency translation

The Company presents its financial statements in the Korean won, the Company's functional currency.

1) Transactions and balance

In preparing the financial statements of the Company, the transactions conducted in a currency other than the functional currency are recorded using the exchange rate on the date of transaction. The monetary assets and liabilities denominated in foreign currencies are translated at the exchange rate of the functional currency as of the end of the reporting period. The translation differences arising therefrom are reflected in the profit or loss.

Meanwhile, the foreign currency denominated non-monetary items measured at the historical cost are recognized by applying the exchange rate on the date of the initial transaction. The foreign currency denominated non-monetary items measured at fair value are recognized by applying the exchange rate on the date of fair value measurement. Profits or losses arising from the translation of non-monetary items are recognized as other comprehensive income or profit or loss in the same manner as the profits or losses arising from the changes in the fair value of the items.

The date of the transaction intended for determining the exchange rate to use for the initial recognition of the related assets, expenses or income (or any portion thereof) is the date on which the Company first recognizes the non-monetary assets or non-monetary liabilities based on the advance payment or receipt of consideration. Where multiple advance payments or receipts are made, the Company determines the date of the transaction for the advance payment or receipt of consideration each.

2-4 Profits from the contracts with customers

The Company operates two business divisions: Green Chemicals and Life Science. The Green Chemicals Business Division produces and sells the PET resins, highly functional PETG resins, industrial adhesives, etc., while the Life Science Business Division is engaged in the pharmaceutical business. For contracts with its customers, when control over a good or service transfers to the customer, the Company recognizes revenue at an amount reflective

of the consideration to which it expects to be entitled in consideration for that good or service. The Company has reached the conclusion for itself since it controls each of the goods or services specified under the contracts with the customers before the goods or services are provided to the customers.

(1) Sales of goods

The sales profits of goods are generally recognized upon the delivery of the goods, where the control of the assets is transferred to the customers. The typical recovery period for receivables is 30 to 90 days after delivery. The Company shall consider whether other promises under the contracts are separate performance obligations for which a part of the consideration for the transaction must be allocated. In calculating the transaction price for the sales of goods, the Company considers variable consideration, significant financing factors, non-cash consideration and the consideration payable to the customers.

① Variable consideration

As for the contract for supplying goods to its customers, the Company may have the consideration received or to be received from the customers changed since it provides discounts and incentives for the purpose of increasing the customers' sales or allows for returns of goods. If the contract includes variable consideration, the Company estimates the amount it will receive in consideration for transferring the promised goods to the customer. When the uncertainties associated with the variable consideration are later addressed, the variable consideration is estimated at the point of commencement of the contract and is included in the transaction price only to the extent that it is highly probable that a significant portion of the amount of accumulated profits recognized will not be returned. Some contracts provide the customers with the right to return goods and quantity rebates. The right to return goods and quantity rebates are equivalent to the variable consideration.

- Right to return

Certain contracts provide the customers with the right to return goods within a certain period. As a method of estimating goods which will not be returned, the Company uses the expected values which are expected to better predict the consideration to which it will be entitled. Among the requirements of Corporate Accounting Standard No. 1115, the restrictions on the estimation of variable consideration are also applied even when the amount of variable consideration included in the transaction price is determined. The Company recognizes the goods which are expected to be returned, not as profits, but as the refund liabilities. The right to the returned goods and the corresponding adjustment for the cost of goods sold are recognized.

- Quantity rebate

The Company provides a quantity rebate to a specific customer retroactively for the previous purchase quantity if the purchase exceeds the contractual limit. The rebate is deducted from the amount payable by the customer. To estimate the variable consideration for the rebate expected in the future, the Company applies the most probable method for contracts with only one quantity criterion and the expected value method for the contracts with multiple quantity criteria. The Company considers the number of quantity criteria under the contract as a key factor in selecting the method which best predicts the variable consideration. The Company recognizes the refund liabilities for the anticipated future rebates by applying the requirements for the variable consideration's constraints.

② Significant financial elements

By applying the practical expedient method of Corporate Accounting Standard No. 1115, the Company, when commencing the contract, does not reflect the effect of a significant financing component on the promised consideration (amount) if the period between the point of transferring the promised goods or services to the customer and the point of paying the consideration thereto is expected to be 1 year or less.

(2) Contract balance

① Contract assets

A contract asset is the right to receive consideration for the goods or services transferred to a customer. If the Company transfers goods or services to a customer before the customer pays the consideration or before the date on which payment is due, the asset which is the company's right to take consideration and whose right is subject to conditions other than the lapse of time is a contract asset. Impairment is assessed for the contract assets.

② Trade receivables

A receivable is recognized when an amount of unconditional consideration is due for payment by and from the customer (that is, where only the lapse of time is required before the consideration is paid upon maturity). For the financial assets related accounting policies, refer to Note 2-8.

③ Contract liabilities

A contract liability is a company's obligation to transfer goods or services to a customer equivalent to the consideration which the Company has already taken from the customer (or the consideration for which the payment is due). If the customer pays the consideration before the Company transfers goods or services to the customer, the contract liabilities are recognized when it is paid or when it is due, whichever is earlier. Contract liabilities are recognized as profits when the Company carries out its performance obligations pursuant to the contract.

(3) Assets and liabilities arising from the right to return

① Right to recover the returned product

The right to recover the returned product is the Company's right to recover a product which the customer is expected to return. The assets are measured at the existing book amount of inventories minus the expected cost of recovering the products and any potential reduction in the value of the products returned.

② Refund liabilities

The refund liability is an obligation to return a portion or all of the consideration received or receivable from the customer. It is measured as the amount the Company expects to ultimately refund to the customer. The Company updates the estimates of refund liabilities and changes in the transaction price accordingly at the end of each fiscal period. For the variable consideration, refer to the accounting policies above.

Refer to Note 3 for the disclosures on significant judgments, estimates and assumptions related to the profits from contracts with the customers.

2-5 Government subsidies

Government subsidies are recognized if and when there is a reasonable assurance of the receipt of the subsidies and the fulfillment of ancillary conditions therefor. Profit-related subsidies are recognized as profits in line with a systematic standard over the period needed to match the costs associated with the subsidies intended to cover, while the assets related subsidies are recognized as deferred revenue, and the same amount is recognized as the revenue each year over the useful life of the related assets.

When non-monetary assets are received as the subsidies, the Company records the assets and subsidies in nominal amounts and recognizes them as revenue in the statement of income on a straight-line basis over the estimated useful lives of the related assets. When a loan or similar aid is provided and received at an interest rate lower than the market rate, the benefit from the lower interest rate is recognized as an additional government subsidy.

2-6 Corporate tax

(1) Current income tax

The current tax liabilities (assets) for the current and previous periods are measured at the amount expected to be paid to (refunded by and from) the tax authorities using the tax rates and tax laws enacted or substantively enacted by the end of the current period.

The current income tax related to the items directly reflected in equity are reflected in equity, and are not reflected in the statements of income. The senior management regularly assesses the recoverability of the amount of corporate tax refund in connection with the interpretation of relevant tax laws and establishes provisioning liabilities as needed.

(2) Deferred income tax

For the purpose of financial reporting of the assets and liabilities, the Company recognizes the deferred income tax assets and deferred income tax liabilities for temporary differences, which are the differences between the book amount and the tax reference amount.

The Company recognizes the deferred income tax liabilities for all taxable temporary differences, except under the following circumstances:

- Where deferred income tax liabilities arise when the goodwill is initially recognized
- Where deferred income tax liabilities arise from transactions which do not affect the accounting profits or taxable income at the time of the transaction, not a business combination transaction in which assets or liabilities are initially recognized
- Where it is highly probable that the temporary differences will not be extinct in the foreseeable future as they are taxable temporary differences in connection with the investment interest in subsidiaries, affiliates and joint ventures, and where the point in time of the extinction of the temporary difference may be controlled

Furthermore, deferred income tax assets are recognized when it is highly probable that the taxable income can be used for deductible temporary differences and unused tax credits and tax losses, except in the following cases:

- Where deferred income tax assets arise from transactions which do not affect the accounting profits or taxable income at the time of the transaction, not a business combination transaction in which assets or liabilities are initially recognized
- Where it is not probable that the temporary differences will not be extinct in the foreseeable future as they are deductible temporary differences in connection

with the investment interest in subsidiaries, affiliates and joint ventures, or where it is not probable that taxable income will be available against which the temporary differences can be utilized

The book amount of the deferred income tax assets is reviewed at the end of each reporting period. If it is no longer probable that a sufficient taxable income will be available to use the benefits of some or all of the deferred income tax assets, the book amount of the deferred income tax assets is reduced. Meanwhile, the reduced amount is reversed to the extent that it is highly likely that a sufficient taxable income will be generated for use. Furthermore, at the end of each reporting period, the unrecognized deferred income tax assets are reviewed, and the previously unrecognized deferred income tax assets are recognized to the extent that it is highly probable that the deferred income tax assets will be recovered based on the future taxable income.

The deferred income tax assets and liabilities are measured using the tax rates expected to be applied for the fiscal period in which the assets are realized or liabilities are settled based on the tax rates (and the tax laws) enacted or substantively enacted by the end of the reporting period.

The current and deferred tax related to the items recognized other than the profit or loss are recognized as items other than profit or loss. The deferred tax items are recognized as other comprehensive income or reflected directly in equity depending on the relevant transaction.

If the tax benefits acquired as a part of a business combination did not satisfy the separate recognition criteria at the relevant point in time, yet were recognized during the measurement period as a result of new information on the facts and circumstances existing on the date of acquisition, the relevant deferred tax benefits are recognized. The recognized acquired deferred tax benefits are applied to reduce the book amount of the goodwill related to the acquisition. If the book amount of the goodwill is zero, the remaining deferred tax benefits are recognized as profit or loss.

The Company is entitled to legally enforce the offset of the current tax assets and current tax liabilities, and if the taxable companies are the same, or if the taxable companies are different yet there is an intention to settle the current tax liabilities and assets in a net amount, or if there is an intention to settle the liabilities at the same time as realizing the assets for each fiscal period in the future where the deferred income tax liabilities are settled or the deferred income tax assets are recovered in a significant amount, the deferred income tax assets and deferred income tax liabilities are appropriated and presented only if and when the deferred income tax assets and deferred income tax liabilities are related to the same tax authority.

(3) Sales tax

Revenue, expenses and assets are recognized as the net amount minus applicable sales tax. However, if the sales tax related to the purchase of an asset or service cannot be refunded by and from the tax authorities, it is recognized as part of the acquisition cost or part of the expense item. The relevant receivables and liabilities are presented as the amount including the sales tax.

The net amount of the sales tax to be refunded by or payable to the tax authority is included in the receivables or liabilities in the statement of financial position.

2-7 Retirement benefits

The Company operates a defined benefit retirement pension plan, with the benefit cost of the defined benefit plan being determined using the projected unit credit method. The actuarial profits and losses, revenue from the plan assets, excluding amounts included in net interest, and the remeasurement elements consisting of changes in the asset ceiling effect, excluding amounts

included in net interest, are recognized as other comprehensive income when incurred and are not subsequently reclassified as profit or loss

The past service cost is recognized as an expense based whichever is the earlier of the following:

- When the plan is revised or reduced
- When the relevant restructuring costs or termination benefits are recognized

The net interest is determined by multiplying the net defined benefit liabilities (assets) by the discount rate. The Company recognizes the service cost and the net interest on the net defined benefit liabilities as profit or loss for the items of the cost of goods sold and the selling, general and administrative expenses.

Meanwhile, the Company operates a defined contribution plan for some of the executives and employees, and the contribution is recognized as an expense when the executives and employees provide service at work. In the current period, the cost recognized in the profit and loss related to the defined contribution plan is KRW 456,371,000 (previous period: KRW 523,321,000).

2-8 Financial instruments: initial recognition and subsequent measurement

A financial instrument is any contract which creates a financial asset for one of the parties to a transaction and a financial liability or equity instrument for the other party to the transaction.

(1) Financial assets

1) Initial recognition and measurement

Financial assets are classified into financial assets measured at amortized cost upon initial recognition, financial assets measured at fair value through other comprehensive income, and financial assets measured at fair value through profit or loss.

The classification of financial assets upon initial recognition varies depending on the contractual cash flows' characteristics of the financial assets and the business model of the Company for managing the financial assets. Excluding the trade and other receivables which do not contain a significant financial element or for which the practical expedient method is applied, the Company initially measures the financial assets at fair value, and unless they are not the financial assets measured at fair value through profit or loss, they add or subtract the transaction cost. Trade and other receivables, which do not include a significant financing element or for which the practical expedient method is not applied, are measured at the transaction cost determined in accordance with Corporate Accounting Standard No. 1115.

To measure the financial assets at amortized cost or fair value through other comprehensive income, the cash flows must consist of solely payments of principal and interest (SPPI). This assessment is called the SPPI test and is performed at the level of the individual instrument. Please refer to Note 2-4 on the accounting policy for revenue.

The Company's business model for the management of financial assets relates to the management of financial assets intended to generate cash flows. The business model determines whether the source of cash flows is the receipt or sale of the contractual cash flows of the financial assets, or whether it is both.

The purchase or sale of financial assets (standardized transaction) in which the financial assets are required to be transferred within a time frame established by market agreement or regulation is recognized on the date of transaction. That is, it is recognized on the date on which the Company agrees to purchase or sell the financial assets.

2) Subsequent measurements

For the subsequent measurements, the financial assets are classified into the following four categories:

- Financial assets measured at amortized cost (debt instruments)

- Financial assets measured at fair value through other comprehensive income (debt instruments) which recirculate the accumulated profit or loss as profit or loss
- Financial assets measured at fair value through other comprehensive income (equity instruments) which do not recirculate the accumulated profit or loss as profit or loss
- Financial assets measured at fair value through profit or loss

① Financial assets measured at amortized cost (debt instruments)

The Company measures the financial assets at amortized cost if and when all of the following terms and conditions are satisfied.

- Financial assets are held under a business model whose purpose is to receive contractual cash flows, and
- According to the contractual terms of financial assets, cash flows are generated and which consist only of principal and interest payments on the principal balance on a specific date.

The financial assets measured at amortized cost are subsequently measured using the effective interest rate (EIR) method, and the impairment is recognized. The profits and losses arising from the derecognition, change, or impairment of assets are recognized as profit or loss.

② Financial assets measured at fair value through other comprehensive income (debt instruments)

The Company measures the debt instruments which satisfy all of the following terms and conditions as financial assets at fair value through other comprehensive income.

- Financial assets are held under a business model which achieves purposes through both the receipt of contractual cash flows and the sale of financial assets, and
- According to the contractual terms and conditions of financial assets, cash flows consist only of principal and interest payments which are generated on a specific date.

For the debt instruments measured at fair value through other comprehensive income, the interest income, foreign currency translation profits and losses, and impairment or reversal are calculated in the same manner as financial assets measured at amortized cost and are recognized as profit or loss. The rest of the changes in fair value are recognized as other comprehensive income. When the financial assets are derecognized, the accumulated change in fair value recognized as other comprehensive income is recirculated as profit or loss.

③ Financial assets measured at fair value through other comprehensive income (equity instruments)

Upon the initial recognition, the Company can make an irrevocable selection to measure the equity instruments which satisfy the definition of equity under Corporate Accounting Standard No. 1032 Presentation of Financial Instruments, and which are not held for investment purposes at fair value through other comprehensive income.

The profits and losses arising from such financial assets are not recirculated as profit or loss. Dividends are recognized in the statement of income as other income and accounted for as other comprehensive income when the entitlement is confirmed, except when the Company gains profits by recovering a portion of the cost of the financial assets. No impairment is recognized for the equity instruments measured at fair value through other comprehensive income.

The Company can also make irrevocable selections for the unlisted equity instruments.

④ Financial assets measured at fair value through profit or loss

Financial assets measured at fair value through profit or loss include trading items, financial assets designated for measurement at fair value through profit or loss upon initial recognition, or financial assets required to be measured at fair value. Financial assets acquired for the purpose of sale or repurchase within a short period are classified as the trading items. Derivatives, including separated embedded derivatives, are classified as the trading items unless they are designated as effective hedging instruments. The financial assets whose cash flows do not consist only of the payment of principal and interest are classified and measured as financial assets measured at fair value through profit or loss, regardless of the business model. As described in the paragraph above, notwithstanding the fact that the debt instruments are classified as financial assets measured at amortized cost or fair value, if the accounting mismatch can be derecognized or significantly reduced, the debt instruments may be designated to be measured at fair value through profit or loss.

The financial assets measured at fair value through profit or loss are presented at fair value in the statement of financial position, and the net changes in fair value are recognized as profit or loss in the statement of income.

This category includes the derivatives and the traded equity instruments for which no irrevocable selection was made to account for the changes in fair value as other comprehensive income. The dividends for the traded equity instruments are recognized as profit or loss when the rights are confirmed.

As for the derivatives embedded in hybrid contracts, the economic characteristics and risks are not closely related to the main contract, and the separate instruments with the same conditions as the embedded derivative satisfy the definition of derivative, and if the hybrid contract is not measured at fair value through profit or loss, it is accounted for as derivative as a separate derivative from the main contract.

The embedded derivatives are measured at fair value, and the changes in fair value are recognized as profit or loss. A re-evaluation occurs only when and if there is a change in the terms and conditions of the contract which significantly changes the cash flows, or if it becomes not applicable for the category of fair value measurement through profit or loss.

In hybrid contracts for which the main contract is a financial asset, embedded derivatives are not accounted for separately. The financial assets and embedded derivatives, which are the main contracts, are classified as financial assets measured at fair value through profit or loss.

3) Derecognition

A financial asset (or a portion of a financial asset or of a group of similar financial assets) is derecognized with priority under the following circumstances:

- The right to receive cash flows from financial assets is extinct, or
- The Company has the obligation to transfer the right to receive cash flows of financial assets or pay the entire cash flows received under a pass-through contract to a third party without a material delay. In such an event, the Company neither transfers substantially most of the risks and rewards of holding the financial assets, nor transfers or holds most of the risks and rewards of holding the financial assets, yet transfers the control over the assets.

When the Company transfers the right to receive cash flows from a financial asset or executes a pass-through contract, they assess whether they maintain the risks and rewards of owning the assets. If the Company has neither held nor transferred most of the risks and rewards of a financial asset, it would continue to recognize the financial asset to the extent that it continues to be involved with it. In such an event, the Company recognizes the relevant liabilities.

The liabilities related to the transferred assets are measured by reflecting the rights and obligations of the Company.

The continuous involvement, which takes the form of providing guarantees, is measured either as the book amount of the assets transferred or the largest amount which may be required for repayment among the considerations received, whichever is the lesser.

4) Impairment of financial assets

The detailed disclosures made in connection with the impairment of financial assets are provided in the notes below.

- Disclosures on the significant assumptions- Note 3
- Trade receivables including contract assets - Note 5

The Company recognizes the allowance for expected credit loss (ECL) for all debt instruments, except for the items measured at fair value through profit or loss. The expected credit loss is estimated by discounting the differences between the cash flows agreed to be received under contract and all cash flows expected to be received by the Company, discounted at the initial effective interest rate. The expected cash flows include the cash flows from the disposal of collateral held or from other credit enhancements which are among the essential terms and conditions of the contract.

The expected credit loss is recognized in two stages. For credit exposures with no significant increase in the credit risk since the initial recognition, the expected credit loss reflects the credit losses (expected credit loss for 12 months) arising from any events of default likely to occur within the next 12 months. For credit exposures with a significant increase in the credit risk after the initial recognition, the loss allowance is required to measure the expected credit loss over the remainder of the surviving period for the exposure regardless of when an event of default occurs (expected credit loss over the entire period).

For the trade and other receivables and contract assets, the Company may apply the simplified method for the calculation of the expected credit loss.

Thus, in lieu of tracking changes in the credit risk, the Company recognizes the loss allowance on each date of settlement as an amount equivalent to the expected credit loss over the entire period. The Company places a provisioning rate table based on the past credit loss experiences adjusted to reflect the future prospects for specific debtors and economic environments.

For the debt instruments measured at fair value through other comprehensive income, the Company applies the low credit risk expedient method. On each date of settlement, the Company assesses whether a debt instrument is considered to have a low credit risk using all reasonable and supportable information available without undue cost or effort. For such assessment, the Company re-evaluates the internal credit ratings of the relevant debt instrument. Furthermore, the Company considers whether there is a significant increase in the credit risk when the contractual payment exceeds 30 days.

If the Company's debt instruments measured at fair value through other comprehensive income consist only of the traded bonds with the highest investment rating, they are considered to be low-credit risk investment assets. The Company's policy is to measure such instruments at the 12-month expected credit loss. However, if there is a significant increase in the credit risk after the initial recognition, the loss allowance is calculated based on the expected credit loss over the entire period. The Company uses the ratings of credit rating agencies to determine whether the credit risk of debt instruments has significantly increased and measure the expected credit loss.

The Company considers it a default if any contractual payment is overdue for over 90 days. However, under certain circumstances, the Company may consider that an event of default has occurred against financial assets if and when internal or external information indicates that the Company will not be able to receive the principal in full under contract until all credit enhancements by the Company are considered. A financial asset is derecognized if and when there is no reasonable expectation of recovering the cash flows under contract.

(2) Financial liabilities

1) Initial recognition and measurement

Upon the initial recognition, financial liabilities are appropriately classified as financial liabilities measured at fair value through profit or loss, loans and borrowings, and the accounts payable or derivative instruments are designated as effective hedging instruments.

All financial liabilities are initially recognized at fair value, and the directly related transaction costs are deducted for loans, borrowings and payables.

The Company's financial liabilities include the trade payables and other accounts payable, loans and borrowings including overdrafts and the derivatives liabilities.

2) Subsequent measurements

The measurement of financial liabilities is governed by the classifications mentioned below.

① Financial liabilities measured at fair value through profit or loss

Financial liabilities measured at fair value through profit or loss include the trading financial liabilities and the financial liabilities designated to be measured at fair value through profit or loss upon the initial recognition.

The financial liabilities are classified as trading items if they are repurchased within a short period. This category also includes the derivatives which are not designated as hedging instruments in a hedging relationship

as defined in Corporate Accounting Standard No. 1109. Furthermore, the separated embedded derivatives are classified as trading items unless they are designated as effective hedging instruments.

Profits or losses on financial liabilities, which are trading items, are recognized as profit or loss.

The financial liabilities designated as items measured at fair value through profit or loss are designated only upon the initial recognition if the criteria provided under Corporate Accounting Standard No.1109 are satisfied. The Company has not designated any financial liabilities interest bearing loans fair value through profit or loss.

② Loans and borrowings

After the initial recognition, interest-bearing loans and borrowings are subsequently measured at amortized cost using the effective interest method. Any profits or losses arising from the derecognition of a liability or from the effective interest rate amortization procedures is recognized as net profit or loss.

The amortized cost is calculated by taking into account any discounts or premiums for the fees or costs which form an essential part of the effective interest rate.

This category is generally applied for interest-bearing loans or borrowings.

3) Derecognition of financial liabilities

Financial liabilities are derecognized if and when the payment obligations are fulfilled, canceled or expired. If and where an existing financial liability is exchanged for a financial liability with the same borrower yet under substantially different terms and conditions, or where the terms and conditions of the existing liability are materially changed, such exchange or change causes the derecognition of the initial liability and the recognition of the new liability. Each difference between the book amounts is recognized as profit or loss.

(3) Offset of financial assets and financial liabilities

Financial assets and financial liabilities are appropriated and presented as the net amount in the statement of financial position if and when one currently has a legally enforceable right to offset against the recognized assets and liabilities, or has the intent to settle the difference or realize the assets while settling the liabilities.

2-9 Measurement of fair value

The Company assesses the financial instruments such as derivatives at fair value as of the end of the reporting period. Disclosures made on the fair value of financial instruments measured at fair value or for which fair value is disclosed are provided under Note 35.

Fair value is the price which would be received in selling an asset or paid to transfer a liability in a normal transaction by and between the market participants on the date of measurement. The fair value measurement assumes that a transaction of selling an asset or transferring a liability takes place in one of the following markets:

- Primary market for assets or liabilities
- The most advantageous market only when there is no primary market for the assets or liabilities

The Company must be able to access the primary (or the most advantageous) market.

The fair value of an asset or liability is measured based on the assumptions which the market participants use when determining the price for the asset or liability under the assumption that the market participants act to the best of their ability and in their economic interest.

When measuring the fair value of a non-financial asset, the ability of the market participant who sells the asset to another market participant who has best used or who will best use the asset to create economic benefits is considered.

The Company uses the valuation techniques which are appropriate for the given circumstances and for which adequate data are available to measure the fair value while maximizing the use of relevant observable input variables and minimizing the use of unobservable input variables.

All assets and liabilities measured or disclosed at fair value in the financial statements are classified into the following fair value hierarchy based on the lowest level of input variables which are significant for fair value measurement.

- Level 1 - Quoted (unadjusted) price in an accessible and active market for the same asset or liability
- Level 2 - Fair value using an input variable for which the input variable of the lowest level significant for the fair value measurement is directly or indirectly observable
- Level 3 - Fair value using the unobservable input variable of the lowest level significant for the fair value measurement

Regarding the assets and liabilities which are repeatedly measured at fair value in the financial statements, at the end of each reporting period, the Company determines whether there is any movement between the levels of the hierarchy by undertaking a re-evaluation of the classification based on the input variable of the lowest level significant for the fair value measurement.

For the fair value's disclosure purposes, the Company determines the classification of assets and liabilities and the levels of the fair value hierarchy based on their nature, characteristics, and their risks.

2-10 Financial derivatives

(1) Initial recognition and subsequent measurement

The Company uses the derivatives such as currency futures contracts and commodity forward contracts to hedge the foreign exchange risk, interest rate risk, and the commodity price risk, and such derivatives are initially recognized at fair value on the date of contract execution, and thereafter, are subsequently remeasured at fair value. Derivatives are appropriated as financial assets if their fair value is positive, and as financial liabilities if their fair value is negative, and they are subsequently remeasured. Meanwhile, any changes in the fair value of derivatives are directly reflected in the statement of comprehensive income, and the effective portion of the cash flow hedging is reflected in other comprehensive income.

For hedge accounting, hedging is classified as follows.

- Fair value hedging: hedging against changes in the fair value of recognized assets and liabilities and unrecognized firm contracts
- Cash flow hedging: hedging against changes in the cash flows arising from the foreign currency risk of recognized assets and liabilities, highly probable expected transactions, or unrecognized firm contracts

Upon the commencement of the hedging relationship, the Company formally designates and documents the hedging relationship for which it seeks to apply hedging accounting, the risk management objectives and hedging strategies.

The documentation includes the hedging instruments, the hedged items, the nature of the hedged risks, and the method of assessing whether the hedging relationship satisfies the provisions for hedging effectiveness (including the analysis of the cause of hedging ineffectiveness and the method of determining the hedging ratio).

The hedging relationship shall satisfy all of the following provisions related to hedging effectiveness.

- There is an economic relationship between the hedged items and the hedging instruments.
- The effect of credit risk does not account for most of the changes in value resulting from the economic relationship between the hedged items and the hedging instruments.
- The hedging ratio for a hedging relationship is the ratio of the number of hedged items which a company actually hedges and the number of hedging instruments the company actually uses to hedge the risk of the number of the hedged items.

The hedging practices satisfying all of the criteria for hedge accounting are accounted for as follows.

- Fair value hedging

Changes in the fair value of the hedging instruments are recognized as profit or loss. Changes in the fair value of the hedged items attributable to the hedged risks are included in the hedged items' book amounts and recognized as profit or loss.

The book amounts' adjustments for fair value hedging of the items measured at amortized cost are amortized using the effective interest method over the surviving period of the hedging. Amortization at the effective interest rate can begin immediately after the adjustment is made, and at the latest, must begin before the adjustment of the hedged items for hedging profits or losses is discontinued.

When the hedged items are derecognized, the unamortized fair value is immediately derecognized and recognized as profit or loss.

If an unrecognized firm contract is designated as a hedged item, the cumulative change in the fair value of the firm contract attributable to the hedged risk is recognized as an asset or liability, and the corresponding profit or loss thereto is recognized as profit or loss.

- Cash flow hedging

The effective portion of profit or loss from hedging instruments is recognized as other comprehensive income within the cash flow hedge reserves, and the ineffective portion is recognized immediately as profit or loss. The cash flow hedge reserves are adjusted to the accumulated profit or loss of hedging instruments and the accumulated fair value change of the hedged items, whichever is the smaller.

The Company may hedge based on currency forward contracts against exposure to foreign currency risks in future prospective transactions or firm contracts, and the forward contracts against the commodity prices' volatility. The ineffective portion related to the currency forward contracts is recognized as other expenses. The ineffective portion related to the forward commodity contracts is recognized as other operating income or other operating expenses. For more details, please refer to Note 23.

The amount accumulated for other comprehensive income (cash flow hedge reserves) is accounted for in line with the characteristics of the hedging transactions. If the hedged transactions subsequently recognize a non-financial item, the cash flow hedge reserves are derecognized and included for the amount of the relevant asset or liability initially recognized. This is not a reclassification adjustment and does not affect other comprehensive income. This is also applied if and when the hedged transaction for a non-financial asset or non-financial liability becomes a firm contract for which fair value hedge accounting is subsequently applied.

With regard to the cash flow hedging, the cash flow hedge reserves are reclassified as profit or loss during the period in which the hedged cash flows affect the profit or loss.

If cash flow hedge accounting is discontinued, the cash flow hedge reserves are retained as other comprehensive income if and when the hedged expected cash flows are still expected to be generated. Otherwise, the cash flow hedge reserves are accounted for immediately as profit or loss based on the reclassification adjustment. If the hedged expected cash flows are generated following the discontinuation, the cash flow hedge reserves ought to be accounted for in line with the nature of the underlying transactions as explained in the above.

2-11 Cash and cash equivalents

The cash and cash equivalents in the statement of financial position consist of savings accounts, small amounts of cash, and short-term deposits with maturities of 3 months or less at the time of acquisition.

2-12 Inventories

The Company assesses the inventories at the acquisition cost or the net realizable value, whichever is the less of the two, and the acquisition cost for each inventory asset includes the purchase cost, conversion cost, and the other costs incurred in bringing the inventory asset to its present location and condition. The unit cost of inventories is determined using the moving average method.

2-13 Tangible assets

Construction in progress is the balance of acquisition cost minus the accumulated impairment losses, and the tangible assets are presented as the balance of acquisition cost minus the accumulated depreciation and accumulated impairment losses. Such costs include the reclassification costs satisfying the recognition criteria of assets and the borrowing costs for the long-term construction projects. Where a major part of tangible assets needs to be replaced regularly, the Company recognizes the relevant part as an individual asset and depreciates it over the relevant useful life. Furthermore, if an asset satisfies the recognition criteria such as the comprehensive testing cost, it is included among the book amount for tangible assets, and all repair and maintenance costs are reflected in the profit or loss when incurred. In the cost estimated as required to remove, dismantle, or restore the site for the restoration of tangible assets to their original condition after their economic use has expired, the present value of the relevant expenditures is included in the acquisition cost of the tangible assets.

Meanwhile, the depreciation for tangible assets is appropriated using the straight-line method in line with the economic useful lives of each asset below.

Classification	Useful life
Building	40 years
Structure	40 years
Mechanical equipment	10 - 15 years
Vehicles and transport equipment	5 years
Other tangible assets	5 years

The tangible assets are derecognized upon disposal or when no future economic benefits are expected through their use or disposal, and the resulting difference between the net sales amount and the book amount is reflected in the profit or loss at the time of derecognition.

At the end of each reporting period, the Company reviews the adequacy of the estimated residual value, estimated useful life, and the depreciation method for tangible assets, and where any changes are needed, applies them in a forward-looking manner, and at this time, the impacts of health, safety and environmental laws and regulations are reviewed.

2-14 Borrowing cost

Borrowing costs directly related to the acquisition, construction or production of an asset which requires a significant period to be used for the intended use or ready for sale are capitalized as part of the cost of the relevant asset. Other borrowing costs are appropriated as expenses when incurred. The borrowing costs consist of the interests incurred in connection with the borrowing of funds and the other costs.

2-15 Investment real estate properties

Investment real estate properties are measured at acquisition cost plus the relevant transaction costs, and include the reclassification cost that meets the recognition criteria for the assets when incurred. However, costs incurred in day-to-day management activities are recognized as expenses when they are incurred. Following the initial recognition, the investment real estate properties are presented as the balance of the acquisition cost minus the accumulated depreciation and the accumulated impairment losses.

When it is expected that the future economic benefits can no longer be profited from the disposal or use of investment real estate properties, the Company derecognizes them from the consolidated financial statements, and the resulting difference between the net amount of disposal and the book amount is reflected in the profit or loss when derecognized. The consideration (amount) to be included in the profit or loss arising from the derecognition of investment real estate properties is calculated in accordance with the requirements on the calculation of transaction price as provided under Corporate Accounting Standard No. 1115.

In addition, if and only if the purpose of use of the relevant asset is changed, it is transferred from the investment real estate properties to another account or from another account to the investment real estate properties. When it is transferred from the investment real estate properties to tangible assets, the fair value at the point where the purposes of use are changed is applied as the deemed cost. Furthermore, when the tangible assets are reclassified to investment real estate properties, the relevant real estate properties are accounted for in the same manner as the tangible assets until the purposes of use are changed.

2-16 Lease

At the point of a contractual commitment, the consolidated companies determine whether the contract itself is a lease or includes a lease

by considering whether the contract transfers control over the use of the identified asset for a certain period in exchange for consideration under contract.

(1) Accounting as lessee

The Company applies the single recognition and measurement approach for all leases, with the exception of short-term leases and leases for the underlying assets of small amounts. The Company recognizes a lease liability presenting an obligation to make lease payments and the right-to-use assets presenting the right to use the underlying assets.

1) Right-to-use assets

The Company recognizes the right-to-use assets on the date of commencement of the lease (that is, when the underlying assets are available for use). The right-of-use assets are measured at cost, and a cost model was applied for the subsequent measurements made. To apply the cost model, the accumulated depreciation and accumulated impairment losses are deducted, and the adjustments following the remeasurement of lease liabilities are reflected. The cost of the right-to-use asset includes the amount of the recognized lease liability, initial direct cost, and the lease payments made on or before the date of commencement of the lease minus any lease incentives received. The right-to-use assets are depreciated on a straight-line basis over the lease term or the estimated useful lives of the assets, whichever is the shorter.

If the ownership to the underlying assets transfers to the Company at the end of the lease term, or if the cost of the right-to-use assets reflects the fact that the Company will exercise the purchase option, the depreciation is calculated using the estimated useful lives of the assets' underlying assets.

The right-to-use assets are also subject to impairment, and are explained under Note 2-20 concerning the accounting policy on the impairment of non-financial assets.

2) Lease liabilities

On the date of commencement of the lease, the Company measures the lease liability at the present value of the lease payments to be paid over the lease term. The lease payments consist of fixed lease payments (including the actual fixed lease payments minus the lease incentives to be received), variable lease payments that depend on an index or rate, and the amount expected to be paid under the residual value guarantee. Lease payments also include the exercise price of the purchase option if it is reasonably certain that the Company will exercise the purchase option and the amount they would pay to terminate the lease if the lease term reflects the Company's exercise of the termination option.

Variable lease payments other than those that depend on an index or rate are recognized as expenses for the period in which the event or condition giving rise to the lease payment occurs unless it is incurred to produce inventories.

When calculating the present value of lease payments, the Company uses the incremental borrowing rate on the date of commencement of the lease since the implied interest rate of the lease cannot be calculated with ease. After the date of commencement of the lease, the amount of the lease liability increases by reflecting the interest and decreases by reflecting the lease payments made. Furthermore, the book amount of the lease liability is remeasured if there is any change in the lease term, change in the lease payments (for example, changes in future lease payments resulting from changes in the index or rate used to calculate the lease payments) or change in the assessment of options to purchase the underlying assets.

3) Short-term leases and the asset leases of small amount

The Company applies the provisions on recognition exemption for short-term leases of machinery and equipment (that is, such leases operate on a lease term of 12 months or less from the date of commencement and do not include a purchase option). Furthermore, the Company applies the recognition exemption for the leases of assets of small amounts for the leases of office supplies that are considered the assets of small amounts. Lease payments for the short-term leases and leases of assets of small amounts are recognized as expenses on a straight-line basis over the lease term.

(2) Accounting as lessor

The Company classifies the leases which do not substantially transfer all of the risks and rewards of ownership of the underlying asset as the operating leases. The revenue from lease payments is recognized on a straight-line basis over the lease term and is included in the sales in the income statement depending on the nature of the business. The direct cost of establishing an operating lease is added to the book amount of the underlying assets and recognized as an expense over the lease term on the same basis as the lease payment income. Conditional rent payments are recognized as sales when the rent payment is received.

2-17 Classification of liquidity and illiquidity

The Company presents assets and liabilities separately in the statement of financial position as current and non-current.

Assets are classified as current assets where any of the following apply.

- Where the asset is expected to be realized within the normal operating cycle, or intended to be sold or consumed within the normal operating cycle
- Where the asset is primarily held for trading purposes
- Where the asset is expected to be realized within 12 months after the reporting period
- Where, as cash or cash equivalents, the period of restriction on the use of the asset for exchange or debt repayment purposes is not more than 12 months after the reporting period

Any and all other assets are classified as the non-current assets.

Liabilities are classified as current liabilities where any of the following apply.

- Where it is expected that payment will be made within the normal operating cycle • Where the asset is primarily held for trading purposes
- Where the payment is due within 12 months after the reporting period
- Where the unconditional right to defer the settlement of liabilities for more than 12 months after the reporting period is not granted Any and all other liabilities are classified as the non-current liabilities.

The deferred income tax assets (liabilities) are classified as the non-current assets (liabilities).

2-18 Cash dividend

The Company recognizes liabilities when the distribution is authorized to pay the dividends out and the company no longer has discretion. Distribution for the shareholders requires approval by the shareholders. The corresponding amount is reflected directly in equity.

2-19 Intangible assets

The Company appropriates the intangible assets acquired individually at acquisition cost, and appropriates the intangible assets acquired in a business combination at fair value at the point of purchase, and following the initial acquisition, directly deducts the accumulated amortization and accumulated impairment losses and presents them accordingly. Meanwhile, the internally created intangible assets, excluding the development costs, are reflected in profit or loss as expense items when created.

The intangible assets are classified into intangible assets with a finite useful life and intangible assets with an indefinite useful life. The former are amortized over their useful lives, and are reviewed to determine whether there are any signs of impairment. Furthermore, the adequacy of the useful lives and amortization method is reviewed at the end of each reporting period, and if any changes are needed due to changes in the expected period of use or changes in the consumption patterns of economic benefits, they are accounted for through changes in estimates. Amortization of intangible assets is reflected in the profit or loss as an expense item consistent with the function of the relevant intangible asset.

Meanwhile, the intangible assets with indefinite useful lives are not amortized, yet are each tested for impairment individually or included for the cash-generating units each year. Furthermore, each year, whether it is appropriate to apply an indefinite useful life for the intangible asset is reviewed, and if not appropriate, it is changed to a finite useful life in a forward-looking manner.

The intangible assets are derecognized upon disposal (that is, the date on which the acquirer gains the control over the relevant assets) or when no future economic benefits are expected from their use or disposal. Upon the derecognition of intangible assets, the Company reflects the profit or loss arising from the differences between the net sale amount and the book amount on the profit or loss.

- Research and development (R&D) expenses

The Company recognizes the research expenses as an expense when incurred. However, for development costs related to individual projects, they are appropriated as intangible assets if and where i) it is possible to demonstrate the technical feasibility of completing the intangible asset for use or sale; ii) there is the intention and ability to complete and use or sell the intangible assets; iii) adequate resources are secured towards that end; iv) it is possible to demonstrate how the intangible assets can generate future economic benefits; and v) the expenditures related to the intangible assets incurred during the development phase can be reliably measured.

- Patents

The patents are licensed by the government for a period of 10 years, with the right to renew granted at the end of the term.

The amortization expenses for the Company's intangible assets are appropriated using the straight-line method in line with the economic useful lives of each asset below.

Classification	Useful life
Industrial property rights	5 - 10 years
Software	5 years
Memberships	Not subject to amortization

2-20 Impairment of non-financial assets

At the end of each reporting period, the Company reviews whether there are any signs of the impairment of assets. Where such signs exist or when an annual impairment test is required for the assets, the Company estimates the assets' recoverable amount. The recoverable amount of the assets is net fair value of the assets or the cash-generating unit or the value in use, whichever is the larger, and it is determined for each individual asset; however, if the cash inflow of the individual asset is not generated almost independently of the cash inflow of the other assets or groups of assets, it is determined by the cash-generating unit to which the individual asset belongs. If the asset's book amount exceeds its recoverable amount, the asset is deemed to be impaired and its book amount is reduced to its recoverable amount.

The value in use is determined by discounting the estimated future cash flows of the asset at a pre-tax discount rate reflective of the market's assessment of the time value of money and the risk of the asset. As for the net fair value, a most recent transaction price is considered. If no such transaction is identified, it is determined using an appropriate valuation model. Valuation multiples, market prices of listed stocks, or other fair value indicators are used for such calculations.

The Company calculates the impairment amount based on the specific financial budgets and forecasts prepared for each cash-generating unit for which the individual assets are allocated. The financial budgeting and forecasting generally cover a period of 5 years, while for longer periods, the long-term growth rates are calculated and applied for the period over 5 years.

Impairment loss is reflected in the profit or loss as an expense item consistent with the function of the impaired asset. However, if there is a previously recognized re-evaluation surplus as an asset for which the re-evaluation model is applied, it is offset against the re-evaluation surplus with the previous re-evaluation amount as the ceiling.

For assets other than goodwill, at the end of each reporting period, an assessment is made as to whether there are any signs that an impairment loss on any previously recognized assets is no longer present or has decreased, and if such signs exist, the recoverable amount is estimated. The impairment loss on an asset, other than the goodwill recognized in the past, increases the book amount to the recoverable amount for the amortized balance of the asset's book amount if no recognition of the impairment loss is made; however, this is limited to cases in which there is any change in the estimates used to determine the recoverable amount of the relevant asset after the point of recognition of the immediately previous impairment loss. However, for the assets for which the re-evaluation model is applied, the relevant reversal amount is accounted for an increase in the re-evaluation surplus.

For the following assets, each criterion is additionally applied for the asset impairment testing.

As for the other intangible assets with indefinite useful lives, the Company conducts the impairment testing for each individual asset or cash-generating unit on December 31 of each year and whenever any signs of impairment are present.

The Company assesses the areas where climate related issues may have a significant impact, such as the introduction of legislation to regulate the greenhouse gas emissions which may increase the manufacturing costs. Such issues related to climate changes are included as the key assumptions if they have a material impact on the measurement of recoverable amounts.

2-21 Provisioning liabilities

The Company recognizes the provisioning liabilities if and where a present obligation (legal or constructive obligation) exists as a result of any past event, and it is probable that an outflow of resources embodying economic benefits will be released to settle the obligation, and where it is possible to reliably estimate the amount required to fulfill the obligation. Where it is expected that a third party will pay for some or all of the expenses needed to settle for the provisioning liabilities, and limited to the cases in which it is almost certain that the Company will receive reimbursement if the Company fulfills the obligations, they are accounted for as separate assets. The expenses recognized in the statements of income in connection with the provisioning liabilities are presented by offsetting the amount recognized in connection with the reimbursement by a third party.

Where the time value effect of money is material, the provisioning liabilities are discounted at the current pre-tax interest rate reflective of the risk specific to the liabilities. Where the provisioning liabilities are assessed at the present value, any increase in the book amount over time is recognized as a financial cost.

1) Onerous contracts

If the Company has executed onerous contracts, the related present obligations are recognized and measured as provisioning liabilities. Before recognizing the provisioning liabilities for the onerous contracts, the impairment loss on the assets used to perform the onerous contracts is recognized first.

An onerous contract is a contract in which the unavoidable costs required to perform the contractual obligations exceed the economic benefits expected to be received therefrom. The unavoidable cost is the lesser of the cost required to perform the contract at the minimum net cost which exists under the contract and the compensation or penalty payable in the event of its non-performance.

2-22 Greenhouse gas emission rights and emission liabilities

The Company received free emission rights as a result of the greenhouse gas emission trading system. These emission rights are paid for each year, and the same number of emission rights must be used in response to the actual emissions. The Company accounts for the emission rights received using the net debt approach, and accordingly, they are recognized as the provisioning liabilities if and only when the actual amount of carbon emitted exceeds the given emission rights, and the emission costs are recognized as the operating costs. Where the emission rights are purchased from a third party, they are appropriated at acquisition cost, and thereafter, remeasured at fair value in line with the emission liabilities, as they are considered as the right of repayment, and the changes in fair value are appropriated in the statements of comprehensive income.

2-23 Treasury stocks

The Company accounts for the treasury stocks as a deduction from the equity. The profit or loss on the acquisition, sale, issuance, or cancellation of treasury stocks is not reflected in the consolidated statements of comprehensive income, and the differences between the book amount and the consideration for disposal is accounted for as other capital surplus.

2-24 Share-based payment transaction

The Company operates a system (the share-settled share-based payment transaction) by which stock options are granted for the executives' and employees' labor and services.

The share-settled share-based payment costs are measured at fair value of the date of grant using an appropriate valuation model.

The share-based payment costs are recognized as employee benefits over the period in which the service provision related terms and conditions (or performance condition) are satisfied (hereinafter, 'vesting period'), and the corresponding increase in equity is recognized. At the end of each reporting period, the measurement of the cumulative cost of compensation reflects an estimate of whether the vesting period is completed and the final number of equity instruments to be granted. Changes in the accumulated compensation costs at the beginning of the reporting period and at the end of the reporting period are added or subtracted for the statement of income.

The service provision terms and conditions and the non-market conditions are not considered if and when estimating the fair value of share options as of the date of grant, yet are reflected in the estimation of the number of equity instruments which ultimately are vested, and the market conditions are reflected when measuring the fair value as of the date of grant. The other conditions granted for the share-based payments (unless there are relevant service conditions) are considered to be non-vesting conditions. Non-vesting conditions are reflected when the fair value of share-based payment costs is measured. If there are no service provision terms and conditions (or performance conditions), they are recognized as expenses immediately.

No expense is recognized for share-based payments which ultimately are not vested. However, the stock-settled transactions with market conditions or non-vesting conditions are accounted for as vested regardless of whether the market conditions or non-vesting conditions are satisfied if and where all other performance and service conditions are satisfied.

Changes in the conditions of the share-settled share-based payment are recognized at the minimum cost which would have been recognized if and where the conditions were not changed, except where the equity instruments are not vested as the specified vesting conditions are not met. An additional effect of the change is recognized when it increases the total fair value of the share-based payment agreement or changes the terms to the benefit of employees. When the share-settled compensation is canceled, it is deemed as vested on the date of cancellation and the unrecognized compensation costs are recognized immediately thereby.

The dilutive effect of the issued options is reflected as the diluted shares when calculating the diluted earnings per share.

2-25 Business combination and goodwill

The business combinations are accounted for using the acquisition method. The acquisition cost is measured as the sum of the transfer price measured at fair value on the date of acquisition, and the amount of non-controlling interest for the acquiree. For each business combination, the acquirer measures its non-controlling interest in the acquiree at fair value or pro rata interest of the acquiree's identifiable net assets, and the acquisition related costs are recognized as the expenses as incurred.

The Company determines that a business has been acquired when the group of activities and assets acquired includes input variables and substantive processes which contribute significantly to its ability to create outputs. It is considered substantive if (1) the acquired process (or set of processes) is crucial for the ability to continue to create outputs, and the acquired input variables include an organized labor with skills, knowledge or experiences needed for carrying out the relevant process (or set of processes), or (2) if the acquired process is deemed to significantly contribute to its ability to continue to produce an output or considered unique or scarce, or for reclassification,

if any significant cost or effort is required, or if the ability to continue to produce outputs is delayed.

The Company classifies or designates the acquired assets and assumed liabilities identifiable on the date of acquisition based on the contractual terms, economic conditions, the acquirer's operating and accounting policies, and any other relevant conditions available on the date of acquisition. Included in such classification is the separation of the embedded derivatives from the acquiree's main contract.

If the acquirer provides contingent consideration for the acquiree, the relevant consideration is measured at the fair value on the date of acquisition and included in the transfer price, and any subsequent changes in the fair value of contingent consideration classified as assets or liabilities are recognized at profit or loss or other comprehensive income in accordance with Corporate Accounting Standard No. 1109. In addition, the contingent consideration classified as equity is not remeasured and is accounted for within equity at the time of settlement. If the contingent consideration is not applicable within the scope of Corporate Accounting Standard No. 1109, it is measured in accordance with the appropriate Corporate Accounting Standard.

The goodwill is measured as the sum of the transfer price and the amount of non-controlling interest and the previously held interest which exceeds the net identifiable assets acquired and liabilities assumed. If the fair value of the acquired net assets should exceed the total amount of transfer price, the consolidated companies review as to whether all assets acquired and liabilities assumed are accurately identified and the procedures used to measure the amount recognized on the date of acquisition. If, after such a re-review, the total amount of transfer price, etc., is still lower than the fair value of the net assets acquired, the relevant difference is recognized as profit or loss.

Following the initial recognition, the goodwill is appropriated at cost minus the accumulated impairment losses. For impairment testing purposes, the goodwill acquired from a business combination is allocated for each cash-generating unit or group of units expected to benefit from the synergies of the business combination on the date of acquisition, which is allocated for the cash-generating unit or group of units irrespective of whether other assets or liabilities of the acquiree are allocated.

In the case of disposing of an operation within the cash-generating unit for which the goodwill has been allocated, the goodwill related to the operation to be disposed of is included in the book amount of the operation when determining the profit or loss on disposal, and is also measured based on the relative value of the portion remaining within the cash-generating unit and the portion being disposed of.

2-26 Assets held for sale and discontinued operations

The Company classifies the non-current assets (or groups of assets for disposal) as held for sale if their book amount will be recovered primarily through the sale transaction or distribution rather than the continued use. The non-current assets and disposal groups classified as held for sale are measured at the lesser of the fair value and book amount, after the deduction of the costs to sell. The costs to sell are the incremental costs (excluding the financial cost and the Income tax expense) directly reverted to the disposal of assets (or disposal group).

The condition for classification as held for sale is deemed to be satisfied if and when the sale is highly probable and the non-current asset (or disposal group) is available for immediate sale in its present condition. The measures required to complete the sale ought to demonstrate the fact that the sale is unlikely to be significantly altered or withdrawn, and the sale must be expected to be completed within 1 year of the sale being classified as held for sale.

The tangible and intangible assets classified as held for sale are not depreciated or amortized.

The assets and liabilities classified as held for sale or for distribution are presented as the separate current items in the statement of financial position.

The Company excludes the after-tax income from discontinued operations from the results of continuing operations, and presents it as a single amount in the statement of income.

3. Significant accounting judgments, estimations and assumptions

When preparing the financial statements, the senior management of the consolidated companies is required to make and offer judgments, estimates and assumptions which may affect the reported amounts of income, expenses, assets and liabilities as of the end of the reporting period and the disclosures for the notes to the contingent liabilities. However, the uncertainties of such estimates and assumptions could cause material adjustments to the book amounts of the assets and liabilities that will be affected in the future.

3-1 Important accounting judgments

In the process of applying the Company's accounting policies, the senior management's judgments which have had the most significant impact on the amounts recognized in the consolidated financial statements are as follows.

(1) Calculation of the lease term of contracts with options for extension and termination

The Company calculates the lease term inclusive of the non-cancellable period of the lease and the term of the option if and when it is reasonably certain to exercise the option to extend the lease, or the period over which the option to terminate the lease is reasonably certain not to be exercised.

The Company has the lease agreements which include the extension and termination options. The Company applies judgments when assessing whether it is reasonably certain whether to exercise the option to extend or terminate the lease. That is, it considers any and all relevant facts and circumstances which give rise to an economic incentive to exercise an extension option or not to exercise a termination option. After the date of commencement, the Company reassesses the lease term if any significant events or changes in circumstances under the Company's control affect the ability to exercise an extension or not to exercise an option to terminate.

The Company includes extended periods as part of the lease term for the leases of equipment and machineries with short non-cancellable periods. The Company generally exercises the option to extend the lease since there is a significant negative impact on the production if reclassification assets are not readily available. The extended periods for the long non-cancellable leases of equipment and machineries are not included as part of the lease term since it is not significantly certain that the extension option will be exercised. Furthermore, the Company generally leases vehicles for 5 years or less and does not exercise the option to extend the lease, and thus, the option to extend the vehicle lease is not included as part of the lease term. Moreover, the period covered by the termination option is included as part of the lease term only if and when it is reasonably certain that it will not be exercised.

3-2 Accounting estimates and changes

The other major sources of uncertainties for material assumptions and estimates on the future as of the end of the reporting period having a significant risk of causing a material adjustment to the book amounts of assets and liabilities in the next fiscal year are as follows. Assumptions and estimates are based on the variables available at the time the financial statements are prepared. The current circumstances and assumptions about the future may change given the changes in the market or circumstances beyond the control of the Company. When such changes occur, they are reflected in the assumptions.

Meanwhile, the Company takes into account climate-related risks in its estimates and assumptions due to climate change and the establishment of global greenhouse gas reduction commitments in the future. Climate-related risks increase the uncertainty of estimates and assumptions considered in various items of the financial statements. Although they do not significantly impact current measurements, the Company closely monitors climate-related changes and developments, such as new climate laws.

(1) Impairment of non-financial assets

The Company assesses all non-financial assets for any signs of impairment at the end of each reporting period. Goodwill and intangible assets with indefinite useful lives are tested for impairment each year or when there are signs of impairment. The other non-financial assets are tested for impairment when there are signs that their book amount will not be recoverable. To calculate the value in use, the senior management must estimate the expected future cash flows from the asset or the cash-generating unit, and select an appropriate discount rate to calculate the present value of the expected future cash flows.

(2) Retirement benefit plan

The present value of the defined benefit liability is determined based on the actuarial valuation method. To apply the actuarial valuation method, it is necessary to establish various assumptions, and the establishment of such assumptions includes the discount rate, rate of future wage increase, and the mortality rate. Given the complexity of the valuation method and the underlying assumptions and the long-term nature of the valuation method, the defined benefit liability fluctuates sensitively according to these assumptions. All assumptions are reviewed at the end of each reporting period.

(3) Provisions for expected loss on trade and other receivables and contract assets

The Company uses the provision setting table to calculate the expected credit loss (ECL) for trade and other receivables and contract assets. The provision setting rate is based on the number of delinquent days in a bundle for different customer segments with similar loss patterns (i.e., geographic location, product type, customer type and credit rating, collateral or transactional credit insurance).

(4) Deferred income tax assets

Where it is highly likely that the future taxable income for which the tax loss can be used is probable, the deferred income tax assets are recognized for the unused tax loss within the scope. The Company's senior management performs major judgments to determine the amount of deferred income tax assets that can be recognized based on the future tax strategies and the timing and extent of tax income. The relevant details are provided under Note 31.

(5) Fair value of financial instruments

The fair value of financial instruments without an active market was calculated by applying valuation techniques including the discounted cash flow method. When the observable market information is not available for the input factors used for such valuation techniques, the determination of fair value requires a considerable estimation. Such judgments include the consideration of input variables such as liquidity risk, credit risk and volatility. Changes in such factors may affect the fair value of financial instruments.

(6) Share-based compensation

The Company measures the compensation cost of the share-settled share-based payment transactions based on the fair value on the date of grant of equity instruments, and the fair value is estimated by applying an appropriate valuation model in consideration of the conditions for granting equity instruments. Furthermore, it is necessary to determine the most appropriate pricing factors for the valuation model, including the expected lifetime of stock options, volatility, and dividend rate, and establish assumptions for these factors.

(7) Calculation of the incremental borrowing rate of a lease

The Company uses the incremental borrowing rate to measure the lease liability since the implicit interest rate of the lease cannot be easily determined. The incremental borrowing rate is the interest rate which the Company would be required to pay if the Company borrows the funds needed to acquire an asset of similar value to the right-to-use asset with similar collateral over a similar period in a similar economic environment. Accordingly, the incremental borrowing rate reflects what the Company must pay when there is no observable rate or when it has to be adjusted to reflect the terms of the lease. The Company must measure the incremental borrowing rate using observable input variables where possible and prepare company-specific estimates.

(8) Inventory valuation allowance

The Company must estimate the conversion cost and other costs incurred in bringing the inventory to its present location and condition for the net realizable value assessment of the inventories. The balance of the inventory valuation allowance may change depending on the estimation of operational cost, cost of goods sold, etc.

(9) Provisioning liabilities

If legal obligations and constructive obligations exist as a result of past events as of the end of the reporting period, the Company must estimate the likelihood and amount of resource outflow required to fulfill these obligations. For this estimation, all available evidence is taken into consideration and significant estimation and judgment are required.

4. Changes in the accounting policy and announcements

4-1 Application of the enacted and revised standards

The Company applied the standards and revisions for the first time for the first fiscal year beginning on or after January 1, 2023. The Company has not applied early the standards, interpretations or the revisions which have been announced yet have not been enforced.

(1) The Company defined and required the disclosure of significant accounting policy information of Disclosures in Corporate Accounting Standard No. 1001 'Presentation of Financial Statements' - 'Accounting Policies'.

The application of these amendments does not have a significant impact on the Company's financial statements.

(2) Corporate Accounting Standard No. 1008 'Accounting Policies, Changes in Accounting Estimates and Errors' - Definition of 'Accounting Estimates' This defines accounting estimates and clarifies how to distinguish them from changes in accounting policies.

The application of these amendments does not have a significant impact on the Company's financial statements.

(3) Corporate Accounting Standard No. 1012 'Income Taxes' - Deferred Income Taxes for Assets and Liabilities Arising from a Single Transaction

A requirement stipulating that the transaction should not generate taxable temporary differences and deductible temporary differences and should have the same time of transaction was added to the exception requirement for the initial recognition of the transaction where the assets or liabilities are initially recognized.

As the Company does not have any single transaction within the scope of this revision, there are no impacts on the financial statements.

(4) Enactment of Corporate Accounting Standard No. 1117 'Insurance Contracts'

Corporate Accounting Standard No. 1117 'Insurance Contracts' replaces Corporate Accounting Standard No. 1104 'Insurance Contracts'. It requires that all cash flows under insurance contracts be estimated, and insurance liabilities be measured using a discount rate that reflects the assumptions and risks at the reporting date. Moreover, it requires that revenue is recognized on an accrual basis, reflecting the services (insurance coverage) provided to the policyholder for each fiscal year. It also excludes investment elements (surrender/maturity refunds) paid to policyholder regardless of the occurrence of insurance events from insurance income and clearly distinguishes between insurance profit and investment profit to allow information users to verify the sources of profit

As the Company does not have any insurance contracts within the scope of this revision, there are no impacts on the financial statements.

(5) Corporate Accounting Standard No. 1001 'Financial Statement Presentation' - Disclosure of the Valuation Profit and Loss of Financial Liabilities with an Exercise Price Adjustment Condition

In cases where all or part of financial instruments with conditions that adjust the exercise price according to the issuer's stock price fluctuations are classified as financial liabilities,

it is stipulated that the book amount of the financial liability and the related profit or loss should be disclosed.

As the Company does not have any financial liabilities within the scope of this revision, there are no impacts on the financial statements.

(6) Corporate Accounting Standard No. 1012 'Corporate Tax' Amendment - International Tax Reform - Pillar 2 Model Rules
The global minimum tax applies to multinational enterprise groups that have annual revenue of EUR 750 million or more in at least two of the four preceding fiscal years and whose constituent entities (subsidiaries included in the consolidated financial statements) have an effective tax rate of less than 15%. The difference is to be paid to the tax authorities in the jurisdiction of the controlling company that meets certain requirements.

The Republic of Korea enacted tax laws related to the global minimum tax in 2023, which are to be applied to fiscal years beginning on or after January 1, 2024. In other words, there is no current corporate tax effect related to the global minimum tax for this period because the tax law related to the global minimum tax in the Republic of Korea is effective from January 1, 2024.

For the fiscal years 2021 and 2022, SK discovery Co., Ltd., the Company's ultimate controlling company, reported consolidated financial statements with annual revenue exceeding EUR 750 million. There are no countries where the Company's subsidiaries operate that have a statutory tax rate below 15%. Based on the current financial statements, the Company reviewed whether the transition period exemption requirements under Article 80 of the Adjustment of International Taxes Act are met in each country where the Company's subsidiaries are located. All countries meet these requirements. For countries meeting the transition period exemption requirements, there would be no additional global minimum tax liability for the current period, even if the global minimum tax law was in effect.

The ultimate controlling company applies the temporary/mandatory exemption rule for deferred tax accounting for Pillar 2 corporate tax and recognizes it as current corporate tax when it arises. Even if Pillar 2 corporate tax had been applied in the current period, the average effective tax rate would not have changed.

The remaining disclosure requirements apply to accounting periods starting on or after January 1, 2023, but do not apply to interim periods ending on or before December 31, 2023.

These amendments have no significant impact on the Company's financial statements.

4-2 Accounting standards announced but not yet enforced

The details of the enacted or revised standards and interpretations which have been enacted or announced as of the date of approval for issuance of the financial statements of the Company, yet which have not been applied early since the date of enforcement has not yet arrived, are as follows.

(1) Revision to Corporate Accounting Standard No. 1001 Presentation of Financial Statements - Classification of Liabilities as Current/Non-current Liabilities, Non-current Liabilities with Covenants

They are classified as current or non-current based on the actual rights that exist as of the end of the reporting period, not taking into account the possibility of deferring the settlement of the liability or management's expectations. Furthermore, settlement of liability includes the transfer of equity instruments, but it excludes cases where the option to settle with equity instruments in a compound financial instrument has been recognized separately because it meets the definition of equity. Additionally, agreements that the Company must comply with after the end of the reporting period do not affect the classification of the related liabilities at the end of the reporting period. If non-current liabilities classified at the end of the reporting period must be complied with within 12 months after the reporting period, information regarding the risk that the liabilities may be repaid within 12 months

after the reporting period must be disclosed. This revision is applied from the fiscal year beginning on January 1, 2024, and early application is permitted. The Company does not anticipate significant effects on the financial statements due to this revision.

(2) Revision to Corporate Accounting Standard No. 1007 Statement of Cash Flows and Corporate Accounting Standard No. 1107 Financial Instruments: Disclosures - Disclosures on Supplier Financing Arrangements

When applying supplier financing arrangements, information about these arrangements must be disclosed to allow financial statement users to evaluate the impact of supplier financing arrangements on the company's liabilities, cash flows, and liquidity risk exposure. This revision is applied from the fiscal year beginning on January 1, 2024, and early application is permitted. The Company does not anticipate significant effects on the financial statements due to this revision.

(3) Revision to Corporate Accounting Standard No. 1116 Leases - When subsequently measuring lease liabilities arising from a sale and leaseback, the lease payments or modified lease payments are determined in a manner that does not recognize gains or losses related to the right of use retained by the seller-lessee. This revision is applied from the fiscal year beginning on January 1, 2024, and early application is permitted. The Company does not anticipate significant effects on the financial statements due to this revision.

(4) Revision to Corporate Accounting Standard No. 1021 Effects of Exchange Rate Fluctuations and K-IFRS No. 1101 First-time Adoption of Korean International Financial Reporting Standards - Lack of Exchangeability

The revised Corporate Accounting Standard No. 1021 Effects of Exchange Rate Fluctuations and Corporate Accounting Standard No. 1101 'First-time Adoption of Korean International Financial Reporting Standards' require the assessment of the exchangeability between currencies and the estimation of the spot exchange rate if exchangeability is lacking, along with additional disclosures about the impact of this lack of exchangeability. These amendments are intended to help financial statement users understand the risks and impacts of a lack of exchangeability between currencies.

These amendments apply from the fiscal year beginning on or after January 1, 2025. Early adoption is permitted, and this fact must be disclosed.

These amendments are not expected to have a significant impact on the financial statements.

5. Financial instruments

5-1 Financial assets

The category specific amounts of the financial assets as of the end of the reporting period are as follows.

<End of the current period> (Unit: KRW one thousand)

Classification	Financial assets measured at fair value through profit or loss	Financial assets measured at fair value through other comprehensive income	Financial assets measured at amortized cost	Total
Current assets:				
Trade and other receivables	215,849	-	178,457,588	178,673,437
Other current assets (Note 1)	-	-	37,362	37,362
SubTotal	215,849	-	178,494,950	178,710,799
Non-current assets:				
Long-term financial assets	-	-	27,500	27,500
Long-term investment assets	57,536,973	2,500,033	-	60,037,006
Other non-current assets (Note 1)	5,055,776	-	1,003,912	6,059,688
SubTotal	62,592,749	2,500,033	1,031,412	66,124,194
Total	62,808,598	2,500,033	179,526,362	244,834,993

(Note 1) These are short and long-term security deposits and derivatives.

<End of the previous period>

(Unit: KRW one thousand)

Classification	Financial assets measured at fair value through profit or loss	Financial assets measured at fair value through other comprehensive income	Financial assets measured at amortized cost	Total
Current assets:				
Short-term financial assets (Note 1)	60,299,856	-	-	60,299,856
Trade and other receivables	823,372	-	201,055,254	201,878,626
Other current assets (Note 2)	-	-	39,814	39,814
SubTotal	61,123,228	-	201,095,068	262,218,296
Non-current assets:				
Long-term financial assets	-	-	27,500	27,500
Long-term investment assets	34,628,158	2,500,032	-	37,128,190
Other non-current assets (Note 2)	1,237,613	-	949,078	2,186,691
SubTotal	35,865,771	2,500,032	976,578	39,342,381
Total	96,988,999	2,500,032	202,071,646	301,560,677

(Note 1) Included are the money market financial instruments deposited with financial institutions.

(Note 2) These are short and long-term security deposits and derivatives.

5-2 Financial liabilities

The category specific amounts of the financial liabilities as of the end of the reporting period are as follows.

<End of the current period>

(Unit: KRW one thousand)

Classification	Financial liabilities measured at fair value through profit or loss	Financial liabilities measured at amortized cost	Total
Current liabilities:			
Trade and other payables	81,934	188,916,425	188,998,359
Short-term borrowings	-	238,989,049	238,989,049
Current portion of long-term liabilities	-	192,405,128	192,405,128
Current portion of lease liabilities (Note 1)	-	844,576	844,576
Other current liabilities (Note 2)	-	2,947,754	2,947,754
SubTotal	81,934	624,102,932	624,184,866
Non-current liabilities:			
Debenture	-	164,557,091	164,557,091
Long-term borrowings	-	7,650,000	7,650,000
Lease liabilities (Note 1)	-	982,534	982,534
SubTotal	-	173,189,625	173,189,625
Total	81,934	797,292,557	797,374,491

(Note 1) Lease liabilities correspond to the liabilities recognized in accordance with Corporate Accounting Standard No. 1116.

(Note 2) They are the deposits received and unpaid dividends.

<End of the previous period>

(Unit: KRW one thousand)

Classification	Financial liabilities measured at amortized cost
Current liabilities:	
Trade and other payables	151,015,407
Short-term borrowings	273,359,823
Current portion of long-term liabilities	65,978,484
Current portion of lease liabilities (Note 1)	838,788
Other current liabilities (Note 2)	2,979,919
SubTotal	494,172,421
Non-current liabilities:	
Debenture	154,787,349
Lease liabilities (Note 1)	943,366
SubTotal	155,730,715
Total	649,903,136

(Note 1) Lease liabilities correspond to the liabilities recognized in accordance with Corporate Accounting Standard No. 1116.

(Note 2) They are the deposits received and unpaid dividends.

5-3 Profit and loss by the category of financial instruments

The breakdown of profit and loss by financial instrument category for the current period and previous period is as follows.

<Current period>

(Unit: KRW one thousand)

Classification	Financial instruments measured at fair value Financial instruments	Financial assets measured at amortized cost	Financial liabilities measured at amortized cost	Total
Interest income (expense)	-	5,520,538	(27,275,283)	(21,754,745)
Profits or losses on valuation of financial instruments measured at fair value through profit or loss	1,201,827	-	-	1,201,827
Profits or losses on transaction of financial instruments measured at fair value through profit or loss	2,052,645	-	-	2,052,645
Dividend income	2,190,000	-	-	2,190,000
Profit or loss on foreign currency translation	-	(888,898)	605,928	(282,970)
Profit and loss on foreign currency transactions	-	5,069,536	(2,507,967)	2,561,569
Profit or loss on the valuation of derivatives	3,952,078	-	-	3,952,078
Profit or loss on the transaction of derivatives	(1,322,343)	-	-	(1,322,343)
Bad debt expenses	-	95,629	-	95,629
Other bad debt expenses	-	408,790	-	408,790
Total	8,074,207	10,205,595	(29,177,322)	(10,897,520)

<Previous period>

(Unit: KRW one thousand)

Classification	Financial instruments measured at fair value Financial instruments	Financial assets measured at amortized cost	Financial liabilities measured at amortized cost	Total
Interest income (expense)	-	1,663,932	(13,204,740)	(11,540,808)
Profits or losses on valuation of financial instruments measured at fair value through profit or loss	556,997	-	-	556,997
Profits or losses on transaction of financial instruments measured at fair value through profit or loss	1,941,449	-	-	1,941,449
Dividend income	1,190,000	-	-	1,190,000
Profit or loss on foreign currency translation	-	(6,443,399)	4,772,000	(1,671,399)
Profit and loss on foreign currency transactions	-	11,599,200	(14,223,871)	(2,624,671)
Profit or loss on the valuation of derivatives	1,692,984	-	-	1,692,984
Profit or loss on the transaction of derivatives	143,341	-	-	143,341
Reversal of allowance for bad debts	-	(27,362)	-	(27,362)
Reversal of allowance for other bad debts	-	(74,035)	-	(74,035)
Total	5,524,771	6,718,336	(22,656,611)	(10,413,504)

5-4 Deposits of restricted use
The details of the deposits of restricted use as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period	Details of the restriction
Long-term financial assets	27,500	27,500	Security deposit for opening current deposit account

6. Trade and other receivables

6-1 As of the end of the current period, the details of the subsidiaries are as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period
Trade receivables	172,140,591	193,715,248
Allowance for bad debts for trade receivables	(3,813,874)	(3,914,419)
Accounts receivable	9,265,955	11,340,980
Allowance for bad debts for accounts receivable	(138,090)	(186,881)
Short-term loans	3,040,000	3,400,000
Allowance for bad debts for short-term loans	(3,040,000)	(3,400,000)
Accrued revenue	1,003,006	100,326
Derivative financial assets	215,849	823,372
Total	178,673,437	201,878,626

6-2 The changes in allowance for bad debts for trade and other receivables for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Beginning of period	7,501,299	7,930,046
Placements (reversal)	(504,419)	101,396
Write offs	(4,916)	(530,143)
End of period (Note 1)	6,991,964	7,501,299

(Note 1) At the end of the current period, some trade receivables are secured by collateral, and trade receivables credit insurance has been obtained.

6-3 As of the end of the current period, the details of the subsidiaries are as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period
Unmatured	175,572,648	198,895,401
Within 90 days	3,803,091	3,886,242
Within 180 days	2,473,730	450,361
Over 180 days	3,815,932	6,147,921
Subtotal	185,665,401	209,379,925
(Deducted: allowance for bad debts)	(6,991,964)	(7,501,299)
Deductions	178,673,437	201,878,626

6-4 If the transferred or discounted trade receivables do not satisfy the requirements for the derecognition of financial instruments, the Company continues to recognize them as the trade and other receivables, whose details are as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period	Reason
Trade receivables (Note 1)	68,989,049	78,359,823	Provision for the right of recourse

(Note 1) The Company recognized the short-term borrowings as much as the nominal amount of the transferred or discounted trade receivables (refer to Note 17-2).

7. Inventories

7-1 The details of the inventories as of the end of the reporting period are as follows.

<End of the current period>

(Unit: KRW one thousand)

Classification	Acquisition cost	Assessment allowance	Book amount
Goods	28,523,639	(394,219)	28,129,420
Products	109,443,589	(5,642,673)	103,800,916
Processed products	33,975,240	(483,765)	33,491,475
Half finished products	10,203,529	(2,796)	10,200,733
Goods in process	4,177,243	-	4,177,243
Raw materials	44,262,214	(17,888)	44,244,326
Stored goods	2,239,648	(4,417)	2,235,231
Goods to arrive	5,242,545	-	5,242,545
Other inventories	566,350	-	566,350
Total (Note 1)	238,633,997	(6,545,758)	232,088,239

(Note 1) Included are KRW 1,274,485,000 for the amount of contract assets related to the CMOs (refer to Note 21).

<End of the previous period>

(Unit: KRW one thousand)

Classification	Acquisition cost	Assessment allowance	Book amount
Goods	19,156,568	(164,212)	18,992,356
Products	136,905,993	(4,411,935)	132,494,058
Processed products	31,245,092	(1,018,094)	30,226,998
Half finished products	10,885,553	(7,198)	10,878,355
Goods in process	4,561,160	-	4,561,160
Raw materials	36,940,746	(21,836)	36,918,910
Stored goods	1,779,065	(578)	1,778,487
Goods to arrive	7,696,927	-	7,696,927
Other inventories	737,437	-	737,437
Total	249,908,541	(5,623,853)	244,284,688

7-2 The loss on the valuation of inventories recognized in connection with the inventories during the current period is KRW 921,905,000 (previous period: inventory valuation losses of KRW 1,283,720,000).

8. Other assets

8-1 The details of other assets as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period
Other current assets:		
Advance payments	1,525,517	4,181,675
Prepaid expenses	3,618,127	4,001,980
Security deposits	37,362	39,814
Prepaid corporate taxes	296,889	184,612
Other assets	227,198	60,274
Total	5,705,093	8,468,355
Other non-current assets:		
Derivative assets (Note 1)	5,055,776	1,237,613
Long-term security deposits	1,003,912	949,078
Other assets	987,253	928,448
Total	7,046,941	3,115,139

(Note 1) This is a put option which allows for SK chemicals Daejung Co., Ltd. or HDC Polyall Co., Ltd.'s subsidiaries and affiliates' investment stocks to be sold to Daejung Chemicals & Metals Co., Ltd. or HDC Hyundai EP Co., Ltd.

9. Long-term and short-term financial assets

The details of the financial assets as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period
Short-term financial assets:		
Financial assets measured at fair value through profit or loss (Note 1)	-	60,299,856
Long-term financial assets:		
Deposits	27,500	27,500

(Note 1) Included are the money market financial instruments deposited with financial institutions.

10. Long-term investment assets

The changes in long-term investment assets for the current and previous periods are as follows.

<Current period>

(Unit: KRW one thousand)

Classification	Beginning of period	Acquired	Disposed	Assessed	End of period
Financial assets measured at fair value through profit or loss:					
Unmarketable equity securities					
Eastman Fiber Korea Ltd. (Note 1)	25,128,024	-	-	438,199	25,566,223
Yongyeon Industrial District 4 Industrial Water Management Association	419,199	-	-	-	419,199
Standigm Inc. (Notes 2)	3,000,007	-	-	-	3,000,007
Subtotal	28,547,230	-	-	438,199	28,985,429
Debt securities					
Korea Investment Bio Global Fund (Note 3)	2,712,054	-	(373,000)	(385,439)	1,953,615
Sante Health Ventures IV, LP (Note 4)	3,368,874	2,079,993	-	1,149,068	6,597,935
TiumBio Co., Ltd. (Note 5)	-	19,999,995	-	-	19,999,995
Subtotal	6,080,928	22,079,988	(373,000)	763,629	28,551,545
Financial assets measured at fair value through other comprehensive income					
Unmarketable equity securities					
J2H Biotech Co., Ltd.	1,500,052	-	-	-	1,500,052
Oncobix Co., Ltd.	999,980	-	-	-	999,980
Subtotal	2,500,032	-	-	-	2,500,032
Total	37,128,190	22,079,988	(373,000)	1,201,828	60,037,006

- (Note 1) The Company holds a put option for the interest in the preferred stocks of Eastman Fiber Korea Ltd. and have granted a call option of the same amount for Eastman Chemical Korea B.V., the largest shareholder, and considering this option, the assessment of the investment assets was reflected at fair value.
- (Note 2) These are redeemable convertible preferred stocks (RCPS) with the right to convert to common stocks for 10 years from the date of completion of the transaction, and the right to require redemption from the Company 3 years after the date of completion of the transaction.
- (Note 3) During the current period, the Company disposed of part of its debt securities Korea Investment Bio Global Fund.
- (Note 4) During the current period, the Company has made additional investments in Sante Health Ventures IV, LP.
- (Note 5) During the current period, the Company made an in-kind contribution of 290,276 shares of SK bioscience Co., Ltd., its subsidiary, to acquire 2,320,185 convertible preferred shares of TiumBio Co., Ltd. These shares were classified as financial assets measured at fair value through profit or loss. Based on one director nomination right granted to the Company and the right to approve significant management decisions, the Company determined that it has significant influence over TiumBio Co., Ltd.

<Previous period>

(Unit: KRW one thousand)

Classification	Beginning of period	Acquired	Assessed	End of period
Financial assets measured at fair value through profit or loss:				
Unmarketable equity securities				
Eastman Fiber Korea Ltd. (Note 1)	23,506,094	-	1,621,930	25,128,024
Yongyeon Industrial District 4 Industrial Water Management Association	419,199	-	-	419,199
Standigm Inc. (Notes 2)	3,000,007	-	-	3,000,007
Subtotal	26,925,300	-	1,621,930	28,547,230
Debt securities				
Korea Investment Bio Global Fund	4,185,526	-	(1,473,472)	2,712,054
Sante Health Ventures IV, LP (Note 3)	970,633	2,398,241	-	3,368,874
Subtotal	5,156,159	2,398,241	(1,473,472)	6,080,928
Financial assets measured at fair value through other comprehensive income				
Unmarketable equity securities				
J2H Biotech Co., Ltd.	1,500,052	-	-	1,500,052
Oncobix Co., Ltd.	999,980	-	-	999,980
Subtotal	2,500,032	-	-	2,500,032
Total	34,581,491	2,398,241	148,458	37,128,190

- (Note 1) The Company holds a put option for the interest in the preferred stocks of Eastman Fiber Korea Ltd. and have granted a call option of the same amount for Eastman Chemical Korea B.V., the largest shareholder, and considering this option, the assessment of the investment assets was reflected at fair value.
- (Note 2) These are redeemable convertible preferred stocks (RCPS) with the right to convert to common stocks for 10 years from the date of completion of the transaction, and the right to require redemption from the Company 3 years after the date of completion of the transaction.
- (Note 3) During the previous period, the Company has made additional investments in Sante Health Ventures IV, LP.

11. Subsidiaries' investments and the affiliates and joint ventures investments

11-1 The changes in the subsidiaries' investment for the current and previous periods are as follows.

<Current period>

(Unit: KRW one thousand)

Classification	Beginning of period	Increase (Note 1)	Decrease (Note 2)	End of period
Subsidiaries' investment shares	371,327,872	66,094,000	(936,934)	436,484,938

(Note 1) During the current period, a paid-in capital increase was executed for Shuye-SK chemicals (Shantou) Co., Ltd.

(Note 2) During the current period, the Company made an in-kind contribution of 290,276 shares of SK bioscience Co., Ltd., which has been held to TiumBio Co., Ltd.

<Previous period>
thousand)

(Unit: KRW one

Classification	Beginning of period	Increase (Note 1)	Decrease (Note 2)	End of period
Subsidiaries' investment shares	369,310,003	13,437,620	(11,419,751)	371,327,872

(Note 1) During the previous period, a paid-in capital increase was executed for SK Chemiclas (Yantai) Co., Ltd.

(Note 2) During the previous period, 100% of the shares of SK chemicals (Suzhou) Co., Ltd. were substituted with assets held for sale.

11-2 The details of the subsidiaries' investments as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Name of Company	Location	End of the current period		End of the previous period	
		Equity interest (%)	Book amount	Equity interest (%)	Book amount
Shuye-SK chemicals (Shantou) Co., Ltd (Note 1)	China	100.00	66,094,000	100.00	-
SK chemicals (Suzhou) Co., Ltd. (Note 2)	China	100.00	-	100.00	-
SK chemicias (Yantai) Co., Ltd.	China	100.00	33,847,804	100.00	33,847,804
SK chemicals (Shanghai) Co., Ltd.	China	100.00	101,938	100.00	101,938
SK bioscience Co., Ltd. (Note 3)	Republic of Korea	67.76	168,034,950	68.18	168,971,884
SK chemicals Daejung Co., Ltd. (Notes 4)	Republic of Korea	50.00	6,140,521	50.00	6,140,521
SK Multi-Utility	Republic of Korea	100.00	160,011,654	100.00	160,011,654
SK chemicals America	United States of America	100.00	1,448,304	100.00	1,448,304
SK chemicals GmbH	Germany	100.00	432,843	100.00	432,843
SK chemicals Malaysia	Malaysia	100.00	372,924	100.00	372,924
Total			436,484,938		371,327,872

(Note 1) During the current period, a paid-in capital increase was executed for Shuye-SK chemicals (Shantou) Co., Ltd.

(Note 2) Prior to the previous period, the Company executed a stock purchase and sales agreement to sell 100% of the shares of SK chemicals (Suzhou) Co., Ltd. to Sumong Foods Co., Ltd. and the local procedures related to the sale are ongoing.

(Note 3) During the current period, the Company made an in-kind contribution of 290,276 shares of SK bioscience Co., Ltd., which has been held to TiumBio Co., Ltd.

(Note 4) The Company has a put option for all of its interest in SK chemicals Daejung Co., Ltd.

11-3 The details of the affiliates and joint ventures investments as of the end of the reporting period are as follows.

<End of the current period>

(Unit: KRW one thousand)

Name of company	Location	Equity interest (%)	Book amount
Entis Co., Ltd.	Republic of Korea	50.00	4,891,868
JSI Co., Ltd.	Republic of Korea	40.00	-
HDC Polyall Co., Ltd. (Notes 1, 2, 3)	Republic of Korea	20.00	3,025,078
Total			7,916,946

(Note 1) The Company is determined to have influence over HDC Polyall Co., Ltd. based on the fact that the Company can appoint one of the five directors.

(Note 2) The Company has put options for all of its interest in HDC Polyall.

(Note 3) During the current period, the Company recognized an impairment loss of KRW 4,674,672,000 for the carrying amount exceeding the estimated recoverable amount based on value in use.

<End of the previous period>

(Unit: KRW one thousand)

Name of company	Location	Equity interest (%)	Book amount
Entis Co., Ltd.	Republic of Korea	50.00	4,891,868
ST Green Energy (Note 1)	Singapore	-	-
JSI Co., Ltd.	Republic of Korea	40.00	-
HDC Polyall Co., Ltd. (Notes 2, 3)	Republic of Korea	20.00	7,699,750
Total			12,591,618

(Note 1) The company disposed of all the shares it held in ST Green Energy during the previous period.

(Note 2) The Company is determined to have influence over HDC Polyall Co., Ltd. based on the fact that the Company can appoint one of the five directors.

(Note 3) The Company has put options for all of its interest in HDC Polyall.

Additionally, during the current period, the Company determined that there were indications of asset impairment for its investment in HDC Polyall Co., Ltd. Consequently, an impairment test was performed, and the recoverable amount was assessed based on value in use. The future cash flows used to estimate the value in use were determined based on the Company's past operating performance and future business plans. The key assumptions used in the value in use calculation are as follows.

Discount rate	Permanent growth rate
13.26%	0%

12. Tangible assets

12-1 The changes in the book amount of tangible assets for the current and previous periods are as follows.

<Current period>

(Unit: KRW one thousand)

Classification	Beginning of period	Acquired	Disposed	Depreciation	Impairment (Note 1)	Others (Note 2)	End of period
Land	151,955,782	524,060	-	-	-	563,507	153,043,349
Building	188,265,535	449,110	(374)	(6,294,049)	(287,856)	188,675	182,321,041
Structure	84,161,380	4,639,364	(164,939)	(2,628,183)	(811,323)	3,039,825	88,236,124
Mechanical equipment	190,134,128	7,395,278	(31,512)	(32,699,143)	(5,836,375)	6,973,806	165,936,182
Vehicles and transport equipment	248,304	58,959	(8)	(102,497)	-	-	204,758
Other tangible assets	13,732,264	9,089,870	(21,383)	(5,859,707)	(1,073)	2,496,849	19,436,820
Assets under construction in progress	31,877,386	59,324,510	(58,457)	-	-	(13,902,190)	77,241,249
Machineries in transit	1,399,688	6,805,831	-	-	-	(1,316,288)	6,889,231
Total	661,774,467	88,286,982	(276,673)	(47,583,579)	(6,936,627)	(1,955,816)	693,308,754

(Note 1) An impairment was recognized for idle tangible assets resulting from the transfer of SKYBON production facilities to SK Chemiclas (Yantai) Co., Ltd.

(Note 2) They consist of the main account reclassification for construction in progress and reclassification to intangible assets.

<Previous period>

(Unit: KRW one thousand)

Classification	Beginning of period	Acquired	Disposed	Depreciation	Others (Note 1)	End of period
Land	155,792,514	5,798,623	(9,699,741)	-	64,386	151,955,782
Building	181,240,706	3,941,484	(1,851)	(6,200,818)	9,286,014	188,265,535
Structure	70,573,374	6,453,254	(646,797)	(2,396,861)	10,178,410	84,161,380
Mechanical equipment	192,607,661	18,729,999	(4,270,303)	(35,741,228)	18,807,999	190,134,128
Vehicles and transport equipment	189,806	136,817	-	(78,319)	-	248,304
Other tangible assets	9,490,763	4,211,469	(32,146)	(4,405,944)	4,468,122	13,732,264
Assets under construction in progress	51,738,448	25,680,565	(16,028)	-	(45,525,599)	31,877,386
Machineries in transit	1,851,457	2,046,383	-	-	(2,498,152)	1,399,688
Total	663,484,729	66,998,594	(14,666,866)	(48,823,170)	(5,218,820)	661,774,467

(Note 1) They consist of the main account reclassification for construction in progress, reclassification of investment real estate properties and intangible assets, the acquisition of tangible assets following the receipt of government subsidies, etc.

12-2 The capitalized borrowing costs during the current period are KRW 1,396,614,000 (previous period: KRW 363,199,000). The interest rate for capitalization used to calculate the borrowing costs available for capitalization is 4.51% (previous period: 3.21%).

12-3 Insured assets

As of the end of the current period, the Company has subscribed to a property risk insurance policy with an insured amount of KRW 1,575,455,553,000 (previous period: KRW 1,490,723,894,000) for tangible assets.

13. Lease

(1) Company as a lessee

13-1 The changes in the book amount of right-to-use assets for the current and previous periods are as follows.

<Current period> (Unit: KRW one thousand)

Classification	Beginning of period	Acquired	Disposed	Depreciation	End of period
Building	645,812	63,636	-	(193,834)	515,614
Vehicles and transport equipment	1,113,848	1,062,063	(164,609)	(736,606)	1,274,696
Total	1,759,660	1,125,699	(164,609)	(930,440)	1,790,310

<Previous period> (Unit: KRW one thousand)

Classification	Beginning of period	Acquired	Disposed	Depreciation	Change of lease	End of period
Building	102,673	719,202	-	(170,714)	(5,349)	645,812
Vehicles and transport equipment	976,231	941,789	(135,464)	(667,536)	(1,172)	1,113,848
Total	1,078,904	1,660,991	(135,464)	(838,250)	(6,521)	1,759,660

13-2 The details of the lease liabilities as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	End of the current period		End of the previous period	
	Minimum lease payment	Present value	Minimum lease payment	Present value
1 year or less	862,603	844,576	852,163	838,788
2 years or less	620,625	582,475	556,662	526,257
5 years or less	443,564	400,059	466,017	417,109
Over 5 years	-	-	-	-
Total	1,926,792	1,827,110	1,874,842	1,782,154

13-3 The changes in lease liabilities for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Beginning of period	1,782,154	1,094,218
Increase	1,125,699	1,660,991
Disposed	(167,228)	(137,436)
Interest expenses	71,657	47,024
Lease payments made	(985,172)	(876,122)
Change of lease	-	(6,521)
End of period	1,827,110	1,782,154

13-4 The expenses recognized from the lease contracts for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Other operating expenses such as consumables		
Short-term lease	737,781	551,171
Lease of small amount	228,261	205,786
Depreciation		
Amortization of right-to-use assets	930,440	838,250
Net financial cost		
Lease liabilities' interest expenses	71,657	47,024

The Company had a cash outflow of KRW 1,951,214,000 in total during the current period (previous period: KRW 1,633,079,000) for the leases.

The Company has a number of lease agreements executed with the options for extension and termination included. Such options are negotiated by the senior management to provide flexibility in the management of the portfolio of leased assets and to meet the business needs of the Company. The senior management applies their material judgment in determining whether it is significantly certain that such extension and termination options will be exercised.

(2) Company as a lessor

The Company has executed operating lease agreements for a portfolio of investment real estate properties consisting of specific office and manufacturing properties. The terms of these leases range from 1 to 50 years. Included in all leases is a provision that allows for an annual increase in rental payments based on current market conditions. The lessee must also guarantee the residual value of the real estate properties. The rental income recognized during the reporting period was KRW 5,173,064,000 (previous period: KRW 4,318,018,000).

As of the end of the reporting period, the future minimum rent receivables under the non-cancellable operating leases are as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period
Within 1 year	5,400,854	4,579,889
Over 1 year, 2 years or less	1,065,131	775,417
Over 2 years, 3 years or less	874,080	775,417
Over 3 years, 4 years or less	708,851	647,142
Over 4 years, 5 years or less	708,851	490,252
Over 5 years	8,436,347	8,364,801
Total	17,194,114	15,632,918

14. Intangible assets

14-1 The changes in the book amount of intangible assets for the current and previous periods are as follows.

<Current period>

(Unit: KRW one thousand)

Classification	Beginning of period	Acquired	Disposed	Redeemed	Reclassification (Note 1)	End of period
Industrial property rights	4,411,193	172,690	-	(1,177,374)	1,016,149	4,422,658
Software	19,602,713	3,376,636	(924)	(6,079,503)	939,667	17,838,589
Memberships	8,005,779	-	-	-	-	8,005,779
Total	32,019,685	3,549,326	(924)	(7,256,877)	1,955,816	30,267,026

(Note 1) These are the main account reclassifications from the construction in progress.

<Previous period>

(Unit: KRW one thousand)

Classification	Beginning of period	Acquired	Disposed	Redeemed	Reclassification (Note 1)	End of period
Industrial property rights	5,482,070	109,659	(389,987)	(1,156,479)	365,930	4,411,193
Software	13,042,989	6,945,410	(124,388)	(4,945,068)	4,683,770	19,602,713
Memberships	7,056,505	1,879,560	(930,286)	-	-	8,005,779
Total	25,581,564	8,934,629	(1,444,661)	(6,101,547)	5,049,700	32,019,685

(Note 1) These are the main account reclassifications from the construction in progress.

14-2 The details for the R&D expenses recognized as expenses for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Total R&D related expenditures	44,169,825	42,266,979
R&D expenses recognized as expenses	44,169,825	42,266,979

15. Investment real estate properties

15-1 The changes in the book value of investment real estate properties for the current and previous periods are as follows.

<Current period>

(Unit: KRW one thousand)

Classification	Beginning of period	Depreciation	End of period
Land	16,797,406	-	16,797,406
Building	541,960	(42,032)	499,928
Total	17,339,366	(42,032)	17,297,334

<Previous period>

(Unit: KRW one thousand)

Classification	Beginning of period	Depreciation	Reclassification	End of period
Land	16,797,406	-	-	16,797,406
Building	414,871	(42,031)	169,120	541,960
Total	17,212,277	(42,031)	169,120	17,339,366

15-2 During the current period, the rental income from investment real estate properties was KRW 5,173,064,000 (previous period: KRW 4,318,018,000). As of the end of the current period, the fair value of investment real estate properties is KRW 55,764,741,000.

16. Trade and other payables

The details of the trade and other payables as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period
Trade payables	104,962,434	77,640,362
Accounts payable	53,182,554	37,033,128
Accrued expenses	30,771,437	36,341,917
Derivative financial liabilities	81,934	-
Total	188,998,359	151,015,407

17. Debenture and borrowings

17-1 The details of the bonds and borrowings as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period
Short-term borrowings	238,989,049	273,359,823
Current portion of long-term liabilities		
Current portion of bonds payable	189,855,128	65,978,484
Current portion of long-term borrowings	2,550,000	-
Subtotal	192,405,128	65,978,484
Debenture	164,557,091	154,787,349
Long-term borrowings	7,650,000	-
Total	603,601,268	494,125,656

17-2 The details of the short-term borrowings as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Lender	Details	Interest rate (%) at the end of the current period	End of the current period	End of the previous period
Hana Bank, etc.	General borrowings from banks	5.21 - 6.19	120,000,000	85,000,000
Shinhan Bank, etc.	Commercial paper (CP)	5.24	50,000,000	110,000,000
Hana Bank, etc.	Trade receivable discounts	4.00 - 7.64	68,989,049	78,359,823
Total			238,989,049	273,359,823

17-3 The details of the bonds as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	Date of maturity	Interest rate (%) at the end of the current period	End of the current period	End of the previous period
The 9-2nd public placement bonds	2023.04.30	-	-	66,000,000
The 11-2nd public placement bonds	2024.01.31	2.91	80,000,000	80,000,000
The 12-2nd public placement bonds	2024.10.30	2.77	75,000,000	75,000,000
The 13-1st public placement bonds	2024.08.23	4.47	35,000,000	-
The 13-2nd public placement bonds	2025.02.24	4.61	95,000,000	-
The 13-3rd public placement bonds	2026.02.24	4.60	70,000,000	-
Total			355,000,000	221,000,000
(Deducted: discount on bonds premium)			(587,781)	(234,167)
(Deducted: current portion of bonds payable)			(189,855,128)	(65,978,484)
Deductions			164,557,091	154,787,349

17-4 The details of the long-term borrowings from financial institutions as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Lender	Details	Interest rate (%) at the end of the current period	End of the current period
NH NongHyup Bank	Facility capital loan	6.13	10,200,000
(Deducted: Current portion of long-term borrowings)			(2,550,000)
Deductions			7,650,000

18. Other liabilities

The details of the other liabilities as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period
Other current liabilities		
Advance payment	1,254,234	1,051,301
Unearned revenue	362,854	229,524
Deposits	2,344,100	2,446,075
Deposits received	2,937,951	2,972,002
Dividends payable	9,803	7,917
Total	6,908,942	6,706,819

19. Emission rights and emission liabilities

19-1 As of the end of the current period, the number of emission rights allocated free of charge for each year of performance within the planned period is as follows.

(Unit: tons)

Classification	2021	2022	2023	2024	2025	Total
Emission rights allocated free of charge	530,173	530,173	530,173	525,208	525,208	2,640,935

Meanwhile, as of the end of the current period, there are no greenhouse gas emission rights provided as collateral.

19-2 During the current period, the changes in the greenhouse gas emission rights for each year of performance within the planned period are as follows.

(Unit: tons, KRW one thousand)

Classification	2021		2022		2023		2024		2025		Total	
	Quantity	Book amount	Quantity	Book amount	Quantity	Book amount	Quantity	Book amount	Quantity	Book amount	Quantity	Book amount
Allocated amount	301,823	-	269,405	-	228,460	-	226,930	-	226,930	-	1,253,548	-
Allocated free of charge	530,173	-	530,173	-	530,173	-	525,208	-	525,208	-	2,640,935	-
Allocation canceled/Additionally allocated	122,941	-	90,523	-	49,578	-	49,723	-	49,723	-	362,488	-
Changes due to split-off and merger	(351,291)	-	(351,291)	-	(351,291)	-	(348,001)	-	(348,001)	-	(1,749,875)	-
Emission amounts	(296,162)	-	(263,601)	-	-	-	-	-	-	-	(559,763)	-
Government expenditure	(296,162)	-	(263,601)	-	-	-	-	-	-	-	(559,763)	-
Changes due to emission rights transactions	(13,328)	45,025	(11,270)	15,249	12,251	166,925	-	-	-	-	(12,347)	227,199
Purchased	1,300	45,025	12,600	446,797	12,251	166,925	-	-	-	-	26,151	658,747
Sold	(14,628)	-	(23,870)	(431,548)	-	-	-	-	-	-	(38,498)	(431,548)
Carried over from the previous period	38,220	-	30,553	45,025	25,087	60,274	-	-	-	-	93,860	105,299
Carried over to next period	(30,553)	(45,025)	(25,087)	(60,274)	-	-	-	-	-	-	(55,640)	(105,299)
End of period	-	-	-	-	265,798	227,199	226,930	-	226,930	-	719,658	227,199

19-3 The changes in emission rights assets for the current and previous periods are as follows.

(Unit: tons, KRW one thousand)

Classification	Current period		Previous period	
	Quantity	Amount	Quantity	Amount
Beginning of period	1,730	60,274	1,300	45,025
Emission rights purchased	12,251	166,925	12,600	446,797
Emission rights sold (transferred)	-	-	(12,170)	(431,548)
End of period	13,981	227,199	1,730	60,274

19-4 There are no changes in emission rights liabilities for the current period.

19-5 The confirmed value of the greenhouse gas emissions for the previous period is 263,601 tCO2-eq. The estimate of the greenhouse gas emissions for the current period is 228,060 tCO2-eq.

20. Defined benefit liabilities (assets)

The Company operates a defined benefit plan for the employees and has used the projected unit credit method for the actuarial valuation of the defined benefit liabilities.

20-1 The changes in defined benefit liabilities (assets) for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Changes in the defined benefit liabilities (assets):		
Beginning of period	(27,038,748)	(7,103,496)
Decrease in plan assets (retirement benefits paid)	(1,193,200)	5,873,020
Total expenses recognized as net income	8,831,690	9,947,189
Remeasurement elements	11,162,145	(12,381,080)
Contributions paid	(15,000,000)	(25,000,000)
Affiliates' transfers, other account reclassifications, etc.	(639,414)	1,625,619
End of period	(23,877,527)	(27,038,748)
Components in the statement of financial position:		
Present value of defined benefit liabilities	113,649,551	96,697,514
Fair value of plan assets	(137,527,078)	(123,736,262)
Total	(23,877,527)	(27,038,748)

20-2 The profits and losses recognized in connection with the defined benefit plans for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Current service cost	10,205,756	10,116,504
Interest expenses	4,771,628	2,439,315
Expected return on plan assets	(6,145,694)	(2,608,630)
Total	8,831,690	9,947,189

20-3 The changes in the present value of defined benefit liabilities for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Beginning of period	96,697,514	100,722,597
Current service cost	10,205,756	10,116,504
Interest expenses	4,771,628	2,439,315
Remeasurement elements	10,539,391	(12,841,190)
Retirement benefits paid	(7,644,001)	(5,477,193)
Affiliates' transfers	(920,737)	1,737,481
End of period	113,649,551	96,697,514

20-4 The changes in the fair value of plan assets for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Beginning of period	123,736,262	107,826,093
Expected return	6,145,694	2,608,630
Remeasurement elements	(622,754)	(460,110)
Contributions paid	15,000,000	25,000,000
Affiliates' transfers	(281,323)	111,862
Retirement benefits paid	(6,450,801)	(11,350,213)
End of period	137,527,078	123,736,262

Meanwhile, the plan assets as of the end of the reporting period consist of time deposits, etc.

20-5 As of the end of the reporting period, the major assumptions used for the actuarial valuation are as follows.

Classification	End of the current period	End of the previous period
Discount rate	3.98%	5.15%
Expected return on plan assets (percentage)	3.98%	5.15%
Future rate of wage growth	6.31%	6.36%

20-6 The details of remeasurement elements for the defined benefit plans for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Demographic assumptions	105,540	-
Financial assumptions	7,901,193	(14,819,909)
Changes adjusted	2,532,658	1,978,719
Remeasurement elements of plan assets	622,754	460,110
Total	11,162,145	(12,381,080)

20-7 The results of sensitivity analysis on the effect of changes in the major assumptions used for the actuarial evaluation of the defined benefit liabilities on the changes in the present value of the defined benefit liabilities for both the current and previous periods are as follows.

<Current period>

(Unit: KRW one thousand)

Classification	Discount rate		Future rate of wage growth	
	1% point increase	1% point decrease	1% point increase	1% point decrease
Defined benefit obligations	(7,393,200)	8,411,458	8,449,361	(7,558,619)

<Previous period>

(Unit: KRW one thousand)

Classification	Discount rate		Future rate of wage growth	
	1% point increase	1% point decrease	1% point increase	1% point decrease
Defined benefit obligations	(6,839,507)	7,841,905	7,961,277	(7,056,906)

21. Contract assets and contract liabilities

21-1 The details of the contract balance as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period
Contract assets - contractual performance cost (Note 1)	1,274,485	-
Contract liabilities	4,812,601	4,105,993

(Note 1) They consist of the costs of production activities performed to manufacture the products ordered by customers. Since the activities are not those which must precede to manufacture the products ordered by customers or those intended to transfer goods or services to the customer, they are not included in the performance obligation and have been recognized as contract assets. The contractual performance cost for the Company is included in the inventories.

21-2 The changes in contract assets during the current period are as follows.

(Unit: KRW one thousand)

Classification	Current period
Beginning of period	-
Set	1,274,485
End of period	1,274,485

21-3 The changes in contract liabilities for the current and previous periods are as follows.

<Current period> (Unit: KRW one thousand)

Classification	Contract liabilities		
	Refund liabilities (Note 1)	Unearned revenue (Note 2)	Subtotal
Beginning of period	1,072,707	3,033,286	4,105,993
Placement and reversal	(454,405)	1,161,013	706,608
End of period	618,302	4,194,299	4,812,601

- (Note 1) The Company appropriates the contract liabilities for returned goods based on past experience with returns for the products sold. All assumptions applied for the contract liability calculations above were based on the current products' sales levels and the currently available information on the returns expected to occur during the returnable period for products sold under returnable conditions.
- (Note 2) The amounts received in advance from the customers related to the product production and relocation activities were recognized as the contract liabilities.

<Previous period> (Unit: KRW one thousand)

Classification	Contract liabilities		
	Refund liabilities (Note 1)	Unearned revenue (Note 2)	Subtotal
Beginning of period	2,974,758	12,500,673	15,475,431
Placement and reversal	(1,902,051)	(9,467,387)	(11,369,438)
End of period	1,072,707	3,033,286	4,105,993

- (Note 1) The Company appropriates the contract liabilities for returned goods based on past experience with returns for the products sold. All assumptions applied for the contract liability calculations above were based on the current products' sales levels and the currently available information on the returns expected to occur during the returnable period for products sold under returnable conditions.
- (Note 2) The amounts received in advance from the customers related to the product production and relocation activities were recognized as the contract liabilities.

22. Provisioning liabilities

The details of the provisioning liabilities as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period
Current portion of provisioning liabilities		
Provisioning liabilities for contribution (Note 1)	-	19,326,700
Provisioning liabilities for litigation (Note 2)	11,013,136	-
Other provisioning liabilities	1,463,625	-
Subtotal	12,476,761	19,326,700
Non-current portion of provisioning liabilities		
Provisioning liabilities for litigation (Note 3)	5,957,148	-
Total	18,433,909	19,326,700

- (Note 1)

Special Act on Remedy for Damage Caused by Humidifier Disinfectants, which was confirmed for payment during the current period and classified as accounts payable.
- (Note 2)

Due to a partial loss in the second instance of the patent infringement and damages claim litigation with Novartis AG, the loss amount has been recognized as provisioning liability (refer to Notes 24, 36).
- (Note 3)

This is the contribution for the relief of victims under the Provisioning liabilities have been recognized based on the best estimate regarding the ongoing litigation involving humidifier disinfectants.

23. Hedging activities and derivatives

23-1 Risk management activities

The Company is exposed to the foreign currency risk for some of the sales and purchases following the international transactions conducted. To mitigate such risk, the Company regularly monitors the net exposure in major currencies (dollar, euro, and yen) based on the sales and purchases expected over the next 12 months. Furthermore, the Company executes foreign currency forward contracts to avoid such exposure.

For business and sales purposes, the Company has not designated such currency forward contracts for hedging. Thus, changes in the fair value of all forward contracts are recognized as profit or loss for the current period.

23-2 The details of derivative financial instruments held by the Company as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	Details	End of the current period	End of the previous period
Derivative instruments not designated as the hedging instruments:			
Current assets in derivative financial instruments	Currency forward contracts	215,849	823,372
Current liabilities in derivative financial instruments	Currency forward contracts	81,934	-
Non-current assets in derivative financial instruments	Polyall Co., Ltd.	5,055,776	1,237,613

23-3 As of the end of the reporting period, the Company has executed derivative contracts with Hana Bank, etc., for the purpose of hedging the risk of exchange rate fluctuations arising from the foreign currency transactions. In this connection, the derivative financial instruments which are not designated as hedging instruments by the Company are as follows.

<End of the current period>

(Unit: KRW one thousand)

Contracting party	Buy/Sell	Contract amount	Fair value
Hana Bank, etc.	Buy	11,722,485	(31,372)
	Sell	15,486,100	165,287
Total		27,208,585	133,915

<End of the previous period>

(Unit: KRW one thousand)

Contracting party	Buy/Sell	Contract amount	Fair value
Hana Bank, etc.	Buy	-	-
	Sell	33,812,275	823,372
Total		33,812,275	823,372

23-4 As of the end of the reporting period, the details of non-current derivative financial instruments which are not designated by the Company as hedging instruments are as follows.

<End of the current period>

(Unit: KRW one thousand)

Classification	Type	Fair value
Non-current assets in derivative financial instruments	Put option for SK chemicals Daejung Co., Ltd.'s common stocks (Note 1)	719,000
	Put option for HDC Polyall Co., Ltd.'s stocks (Note 2)	4,336,776
Total		5,055,776

(Note 1) This is a put option which allows for SK chemicals Daejung Co., Ltd.'s subsidiaries' investment stocks to be sold to Daejung Chemicals & Metals Co., Ltd.

(Note 2) This is a put option which allows for HDC Polyall Co., Ltd.'s affiliates' investment stocks to be sold to HDC Hyundai EP Co., Ltd.

<End of the previous period>

(Unit: KRW one thousand)

Classification	Type	Fair value
Non-current assets in derivative financial instruments	Put option for SK chemicals Daejung Co., Ltd.'s common stocks (Note 1)	289,589
	Put option for HDC Polyall Co., Ltd.'s stocks (Note 2)	948,024
Total		1,237,613

(Note 1) This is a put option which allows for SK chemicals Daejung Co., Ltd.'s subsidiaries' investment stocks to be sold to Daejung Chemicals & Metals Co., Ltd.

(Note 2) This is a put option which allows for HDC Polyall Co., Ltd.'s affiliates' investment stocks to be sold to HDC Hyundai EP Co., Ltd.

23-5 The Company is exposed to certain risks in connection with their ongoing business operations. The main risks managed using derivatives are the foreign exchange risk and the interest rate risk. The Company's risk management strategies and risk management methods are described under Note 34 below.

24. Contingencies and agreements

24-1 The details of important litigations related to the Company as of the end of the current period are as follows.

(Unit: KRW one thousand)

Details of litigations	Plaintiff	Defendant	Litigation value	Note
Indemnity claims (Notes 1, 2)	Korea Environmental Industry and Technology Institute	Company and 12 others	2,240,000	1st trial in progress
Indemnity claims (Notes 1, 2)	Korea Environmental Industry and Technology Institute	Company and 12 others	294,414	1st trial in progress
Indemnity claims (Notes 1, 2)	National Health Insurance Service	Company and 12 others	6,970,000	1st trial in progress
Indemnity claims (Notes 1, 2)	Republic of Korea	Company and 19 others	1,345,525	1st trial in progress
Claims for damages (Note 2)	Kang Chan Ho and 297 others	Company and 19 others	11,200,000	1st trial in progress
Claim for damages	Republic of Korea	Company and 26 others	19,700,000	1st trial in progress
Claims for the prohibition of patent infringements and for damages (Note 3)	Novartis AG	Company	27,500,000	2nd trial in progress
Claims for the revocation of corrective order, etc.	Company and 1 other	Fair Trade Commission	163,000	2nd trial in progress
Claims for the revocation of corrective order, etc.	Company and 1 other	Fair Trade Commission	161,667	2nd trial in progress

(Note 1) As of the end of the current period, part of the land owned by the Company has been provisionally seized in connection with the litigation above.

(Note 2) This is a civil lawsuit against the Company, etc. related to the damages caused by a humidifier disinfectant, and many other civil lawsuits are in progress in addition to the lawsuit above.

(Note 3) In January 2024, a partial loss was incurred, and the amount of the judgment was recognized as a provisioning liability, with an appeal filed to the Supreme Court.

In addition to the aforementioned litigation, the Company has been indicted for violating the Special Act on Remedy for Damage Caused by Humidifier Disinfectants. This is based on allegations that the Company submitted false information to the Ministry of Environment, as required for data submission, and a related criminal trial is currently underway.

While the outcome of ongoing litigation as of the end of the current period cannot be predicted at this time, a provisioning liability has been recognized based on the best estimate considering the likelihood of winning or losing the case (refer to Note 22).

24-2 The Company has entered into an agreement to contribute an additional KRW 119.1 billion in capital or through subordinated loans by June 30, 2025, as part of the project financing agreement for its subsidiary, SK Multi-Utility Co., Ltd. (a total of KRW 530 billion in loans from the project financing lenders including KB Kookmin Bank, etc.). The Company has committed to completing all business facilities by the expected completion date at its expense and responsibility. The Company will also be responsible for operating the business facilities within the predetermined annual operating budget, and has committed to providing the borrower with any additional funds needed in case of a financial shortfall.

24-3 The Company has established collateral rights on all shares and shareholder loans in lieu of capital that it currently holds or will hold in the future in SK Multi-Utility Co., Ltd., for the project financing agreement with a limit of 120% of the loan agreement amount (530 billion).

24-4 Other agreements
Other agreements executed by the Company with financial institutions as of the end of the current period are as follows.

Counterparty to the agreement	Details of the agreement
Hana Bank, etc.	KRW 255 billion limit and other agreements
	An agreement on the opening of a letter of credit of USD 121 million and EUR 46.8 million, etc.
	An agreement on the limit with the exemption of security deposit for derivatives of USD 140.5 million, KRW 10 billion, etc.
Seoul Guarantee Insurance, etc.	A contractual performance payment guarantee with a limit of KRW 14.070 billion, etc.

24-5 In accordance with Article 530-9 Paragraph 1 of the Commercial Act, the Company is jointly and severally liable for repaying the existing liabilities of the Company and SK discovery Co., Ltd., the surviving company after split-off that occurred on or before December 1, 2017, the date of the split-off.

24-6 In accordance with Article 530-9 Paragraph 1 of the Commercial Act, the Company is jointly and severally liable for repaying the existing liabilities of the Company and SK bioscience Co., Ltd., the newly established company through the split-off that occurred on or before July 1, 2018, the date of the split-off.

24-7 Fair Trade Commission's corrective actions

The Fair Trade Commission determined that the act of labeling the humidifier disinfectants before the Company's split-off violated the Act on Fair Labeling and Advertising, and took corrective actions, imposed fines, and filed a complaint with the prosecutors' office. The Company must carry out such corrective actions and the order to pay fines jointly with SK discovery Co., Ltd., the surviving company after the split-off, issued by the Fair Trade Commission.

24-8 The Company holds the right to purchase the agreement related land if HDC Polyall Co., Ltd. or Toray Advanced Materials Korea Inc. relocates or closes the business sites acquired from them.

24-9 The Company holds the right to exercise a put option on its shares in SK chemicals Daejung Co., Ltd., or to purchase the land of SK chemicals Daejung Co., Ltd. if it discontinues its business.

24-10 The Company has agreed to transfer its obligation to pay the registered capital of its subsidiary Shuye SK chemicals (Shantou) Co., Ltd., to Shuye Environmental Technology Co., Ltd. The transferred obligation to pay the registered capital will be fulfilled by transferring half of the shares in related patents and utility model rights held by Shuye Environmental Technology Co., Ltd. After payment, Shuye Environmental Technology Co., Ltd. will secure up to 44.9% of the shares in Shuye SK chemicals (Shantou) Co., Ltd., subject to change based on the agreement terms.

24-11 As of the end of the current period, the Company has lost a bill of Shinhan Bank and is proceeding with the nullification judgment procedures. On January 8, 2024, they received a declaratory judgment declaring that the lost note was void.

25. Related parties

25-1 As of the end of the reporting period, the details of the Company's related parties are as follows.

Classification	Current period	Previous period
Controlling company	SK discovery Co., Ltd. (Note 1)	SK discovery Co., Ltd. (Note 1)
Subsidiaries	SK bioscience Co., Ltd. and its subsidiaries (Note 2), SK Multi-Utility Co., Ltd., SK chemicals Daejung Co., Ltd., SK chemicas (Yantai) Co., Ltd., SK chemicals (Shanghai) Co., Ltd., SK chemicals (Suzhou) Co., Ltd., SK chemicals America, SK chemicals GmbH, SK chemicals Malaysia, Shuye-SK chemicals (Shantou) Co., Ltd. (Note 3)	SK bioscience Co., Ltd. and its subsidiaries (Note 2), SK Multi-Utility Co., Ltd., SK chemicals Daejung Co., Ltd., SK chemicas (Yantai) Co., Ltd., SK chemicals (Shanghai) Co., Ltd., SK chemicals (Suzhou) Co., Ltd., SK chemicals America, SK chemicals GmbH, SK chemicals Malaysia
Joint Ventures and Affiliates	JSI Co., Ltd., Entis Co., Ltd., HDC Polyall Co., Ltd.,	JSI Co., Ltd., Entis Co., Ltd., HDC Polyall Co., Ltd.
Others	Subsidiaries and affiliates of SK discovery Co., Ltd., affiliates of SK corporate group, etc. (Note 4), TiumBio Co., Ltd. (Note 5)	Subsidiaries and affiliates of SK discovery Co., Ltd., affiliates of SK corporate group, etc. (Note 4)

- (Note 1) During the previous period, SK discovery Co., Ltd. acquired additional shares in the Company and has incorporated the Company as its subsidiary.
- (Note 2) During the previous period, SK bioscience USA, Inc. was newly capitalized by SK bioscience Co., Ltd. and incorporated as a subsidiary.
- (Note 3) During the current period, a new capital investment was made in Shuye SK chemicals (Shantou) Co., Ltd., and was incorporated as a subsidiary.
- (Note 4) The affiliates of the large-scale corporate groups designated by the Fair Trade Commission were determined to be related parties, in accordance with the substantive relationship outlined in Paragraph 10 of Korean International Financial Reporting Standards No. 1024.
- (Note 5) During the current period, shares of TiumBio Co., Ltd. were acquired, and since the Company holds the right to appoint directors, it has significant influence. Therefore, TiumBio Co., Ltd. has been included as a related party.

25-2 The details of major transactions conducted with related parties for the current and previous periods are as follows.

<Current period>

(Unit: KRW one thousand)

Classification	Name of related parties	Sales	Other income, asset sales, etc.	Purchase	Other expenses, capital expenditures, etc. (Note 1)
Controlling company	SK discovery Co., Ltd.	31,818	485,574	-	-
Subsidiaries	SK bioscience Co., Ltd.	16,856,002	110,832	-	-
	SK Multi-Utility Co., Ltd.	1,102,815	702,971	-	70,179,662
	SK chemicals Daejung Co., Ltd.	446,102	1,084,049	-	-
	SK chemicals (Suzhou) Co., Ltd.	-	2,042	-	-
	SK chemicals (Shanghai) Co., Ltd.	18,486,176	63,938	-	3,096,938
	SK Chemicias (Yantai) Co., Ltd.,	7,343,563	596,617	11,536,128	105,537
	Shuye-SK chemicals (Shantou) Co., Ltd.	668,938	-	2,292,147	-
	SK chemicals America	66,401,758	4,207	-	71,877
	SK chemicals GmbH	96,875,889	8,065	-	476,708
	SK chemicals Malaysia	-	-	-	738,401
Affiliates and joint ventures	Entis Co., Ltd.	1,283,481	4,866,952	-	429
	JSI Co., Ltd.	184,240	124,458	88,440	87,014
	HDC Polyall Co., Ltd.	724,596	-	-	-
Others	SK Gas Co., Ltd.	351,960	-	6,709,690	931,682
	SK Plasma Co., Ltd.	2,672,810	421,576	-	12,739
	SK Advanced Co., Ltd.	605,809	10,426	3,162,573	-
	Huvis Co., Ltd.	558,924	-	14,815,138	-
	SK Ecoplant Co., Ltd.	-	-	-	180,763
	SK Ecoengineering Co., Ltd.	150,322	141,477	-	-
	SK Networks Co., Ltd.	12,283,871	-	10,774,941	106,882
	SK NETWORKS HONG KONG	-	-	18,396,661	-
	SK Energy Co., Ltd.	-	-	-	618,520
	SK Geo Centric Co., Ltd.	-	-	1,940,089	-
	SK Co., Ltd.	-	-	-	8,175,797
	Happy Narae Co., Ltd.	-	-	903,572	6,480,314
	Others	3,024,962	163	246,340	6,899,653
Total		230,054,036	8,623,347	70,865,719	98,162,916

(Note 1) The Company has acquired the fixed assets worth KRW 2,235,313,000 from SK Co., Ltd., etc. during the current period.

<Previous period>

(Unit: KRW one thousand)

Classification	Name of related parties	Sales	Other income, asset sales, etc.	Purchase	Other expenses, capital expenditures, etc. (Note 2)
Controlling company	SK discovery Co., Ltd.	63,636	217,167	-	1,080,311
Subsidiaries	SK bioscience Co., Ltd.	4,233,618	104,175	-	-
	SK Multi-Utility Co., Ltd.	1,194,714	977,400	-	72,021,286
	SK chemicals Daejung Co., Ltd.	619,323	863,072	-	-
	SK chemicals (Suzhou) Co., Ltd.	20,220,702	92,578	27,304	6,503
	SK chemicals (Shanghai) Co., Ltd.	205,404	1,730	-	2,954,838
	SK chemicias (Yantai) Co., Ltd.	-	2,042	-	-
	SK chemicals America	122,667,806	-	-	40,116
	SK chemicals GmbH	126,103,558	3,717	-	403,001
	SK chemicals Malaysia	-	-	-	388,253
Affiliates and joint ventures	Entis Co., Ltd.	1,059,698	2,648,924	2,901,813	454
	JSI Co., Ltd.	127,360	101,128	90,930	4,200
	HDC Polyall Co., Ltd.	2,284,637	480,942	-	378,650
	ST Green Energy (Note 1)	-	4,642	-	18,229,596
Others	SK Gas Co., Ltd.	327,323	-	10,203,085	495,513
	SK Plasma Co., Ltd.	1,735,787	1,920,096	-	23,577
	SK Advanced Co., Ltd.	233,906	260,742	3,949,441	-
	Huvis Co., Ltd.	981,958	11,871	4,633,606	3,935
	SK Ecoplant Co., Ltd.	-	-	-	176,285
	SK Networks Co., Ltd.	14,285,425	-	11,690,219	5,482
	SK NETWORKS HONG KONG	-	-	23,755,898	-
	SKC Co., Ltd.	2,371,089	-	222,326	-
	SK Energy Co., Ltd.	-	-	-	22,408
	SK Geo Centric Co., Ltd.	-	-	17,854,466	-
	SK Co., Ltd.	-	-	-	8,544,697
	Happy Narae Co., Ltd.	-	-	1,067,960	7,083,688
	Others	386,379	2,014	135,520	7,868,924
Total		299,102,323	7,692,240	76,532,568	119,731,717

(Note 1) These are transactions prior to the disposal of ST Green Energy's shares.

(Note 2) The Company has acquired the fixed assets worth KRW 5,829,717,000 from SK Co., Ltd., etc. during the previous period.

25-3 The details of major receivables and liabilities concerning the related parties as of the end of the reporting period are as follows.

<End of the current period>

(Unit: KRW one thousand)

Classification	Name of related parties	Receivables		Payables	
		Trade receivables	Other receivables	Trade payables	Other payables
Controlling company	SK discovery Co., Ltd.	35,000	42,480	-	143,882
Subsidiaries	SK bioscience Co., Ltd.	288,996	8,309	-	-
	SK Multi-Utility Co., Ltd.	281,238	1,590	-	7,116,476
	SK chemicals Daejung Co., Ltd.	112,176	8,465	-	9,228
	SK chemicals (Suzhou) Co., Ltd.	-	20,851	-	-
	SK chemicals (Shanghai) Co., Ltd.	2,919,108	-	-	314,192
	SK Chemicas (Yantai) Co., Ltd.	2,386,812	2,757,433	2,381,814	104,807
	Shuye-SK chemicals (Shantou) Co., Ltd.	668,938	-	14,777	-
	SK chemicals America	28,630,183	-	-	-
	SK chemicals GmbH	39,007,032	-	-	14,567
	SK chemicals Malaysia	-	-	-	60,538
Affiliates and joint ventures	Entis Co., Ltd.	224,199	1,000,174	-	-
	JSI Co., Ltd. (Note 1)	-	3,040,000	12,144	6,699
	HDC Polyall Co., Ltd.	192,391	-	-	-
Others	SK Gas Co., Ltd.	32,263	-	423,297	-
	SK Plasma Co., Ltd.	56,317	183,098	-	400,325
	SK Advanced Co., Ltd.	39,684	-	-	-
	Huvis Co., Ltd.	91,520	-	5,325,863	-
	SK Ecoplant Co., Ltd.	-	131,541	-	-
	SK Ecoengineering Co., Ltd.	12,252	21,981	-	133,330
	SK Networks Co., Ltd.	785,678	-	1,148,477	-
	SK NETWORKS HONG KONG	-	208,843	1,570,700	-
	SK Energy Co., Ltd.	-	-	-	680,372
	SK Geo Centric Co., Ltd.	-	-	6,435	-
	SK Co., Ltd.	-	-	-	1,618,648
	Happy Narae Co., Ltd.	-	-	9,084	762,517
	Others	561,724	-	331,069	1,333,587
Total		76,325,511	7,424,765	11,223,660	12,699,168

(Note 1) The Company has placed an allowance for bad debts for the loan of KRW 3.040 billion for JSI Co., Ltd. in full.

<End of the previous period>

(Unit: KRW one thousand)

Classification	Name of related parties	Receivables		Payables	
		Trade receivables	Other receivables	Trade payables	Other payables
Companies with significant influence	SK discovery Co., Ltd.	-	22,146	-	124,315
Subsidiaries	SK bioscience Co., Ltd.	612,496	8,981	-	-
	SK Multi-Utility Co., Ltd.	300,498	41,760	-	7,861,692
	SK chemicals Daejung Co., Ltd.	132,984	4,698	-	-
	SK chemicias (Yantai) Co., Ltd.	-	2,189,069	-	-
	SK chemicals (Suzhou) Co., Ltd.	4,866,454	82,303	-	-
	SK chemicals (Shanghai) Co., Ltd.	187,904	253,063	-	139,986
	SK chemicals America	53,258,369	-	-	-
	SK chemicals GmbH	49,361,668	2,162	-	-
Affiliates and joint ventures	Entis Co., Ltd.	80,592	969,014	156,417	-
	JSI Co., Ltd. (Note 1)	-	3,400,000	-	-
	HDC Polyall Co., Ltd.	266,258	-	-	-
Others	SK Gas Co., Ltd.	32,263	-	1,163,251	-
	SK Plasma Co., Ltd.	129,191	116,611	-	4,766
	SK Advanced Co., Ltd.	45,299	-	506,043	-
	SK Ecoplant Co., Ltd.	-	131,541	-	-
	SK Networks Co., Ltd.	62,594	-	805,580	8,877
	SK NETWORKS HONG KONG	-	625,620	1,245,827	-
	SKC Co., Ltd.	260,392	-	-	-
	SK Energy Co., Ltd.	-	-	-	968
	SK Geo Centric Co., Ltd.	-	-	256,437	-
	SK Co., Ltd.	-	-	-	693,024
	Happy Narae Co., Ltd.	-	-	8,272	743,185
	Others	395,418	-	11,968	1,360,154
Total		109,992,380	7,846,968	4,153,795	10,936,967

(Note 1) The Company has placed an allowance for bad debts for the loan of KRW 3.4 billion for JSI Co., Ltd. in full.

25-4 The details of financial transactions conducted with related parties for the current and previous periods are as follows.

① Investments

<Current period>

(Unit: KRW one thousand)

Classification	Name of related parties	Investments
Subsidiaries	Shuye-SK Environmental Protection Materials (Shantou) Co., Ltd.	66,094,000
Other related parties	TiumBio Co., Ltd.	19,999,995

<Previous period>

(Unit: KRW one thousand)

Classification	Name of related parties	Investments
Subsidiaries	SK Chemiclas (Yantai) Co., Ltd.	13,437,620

② Loan of funds

<Current period>

(Unit: KRW one thousand)

Classification	Target companies	Beginning of period	Recovered	End of period
SK chemicals Co., Ltd.	JSI Co., Ltd. (Note 1)	3,400,000	(360,000)	3,040,000

(Note 1) The Company has placed an allowance for bad debts for the loan of KRW 3.040 billion for JSI Co., Ltd. in full.

<Previous period>

(Unit: KRW one thousand)

Classification	Target companies	Beginning of period	Recovered	End of period
SK chemicals Co., Ltd.	JSI Co., Ltd. (Note 1)	3,750,000	(350,000)	3,400,000

(Note 1) The Company has placed an allowance for bad debts for the loan of KRW 3.4 billion for JSI Co., Ltd. in full.

25-5 The details of dividends received from related parties during the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Name of Company	Current period	Previous period
Subsidiaries	SK chemicals Daejung Co., Ltd.	1,000,000	800,000
Affiliates	Entis Co., Ltd.	-	1,000,000

25-6 The details of dividends paid to related parties during the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Name of Company	Current period	Previous period
Controlling company	SK discovery Co., Ltd.	10,585,349	23,625,809

25-7 The details of the payment guarantees provided for the related parties as of the end of the reporting period are as follows.

<End of the current period>

(Unit: CNY)

Recipient companies	Amount of payment guaranteed		Details of the payment guarantee	Payment guarantor
	Currency	Amount		
SK Chemiclas (Yantai) Co., Ltd.	CNY	150,000,000	Facility funds	Hana Bank Yantai Branch
Shuye-SK chemicals (Shantou) Co., Ltd.	CNY	60,000,000	Facility funds	Hana Bank Guangzhou Branch

<End of the previous period>

(Unit: CNY)

Recipient companies	Amount of payment guaranteed		Details of the payment guarantee	Payment guarantor
	Currency	Amount		
SK Chemiclas (Yantai) Co., Ltd.	CNY	96,000,000	Facility funds	Hana Bank Yantai Branch

In addition to the above guarantees, the Company has entered into an agreement to guarantee the unpaid fuel costs and related liabilities arising from the LNG supply contract between its subsidiaries, SK Multi-Utility Co., Ltd. and SK Gas International, PTE., Ltd.

25-8 The Company has entered into agreements for shareholder loans in lieu of capital and collateral provisions for the project financing of its subsidiary, SK Multi-Utility Co., Ltd. (refer to Note 24).

25-9 The details of the compensation made for the key senior management for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Short-term benefits	3,397,040	3,440,144
Retirement benefits	600,965	418,249
Share-based compensation	-	9,816
Total	3,998,005	3,868,209

The key senior management of the Company consist of the directors who are registered executives and the members of the Audit Committee.

26. Equity

26-1 Capital

The details of the capital as of the end of the reporting period are as follows.

Classification	Unit	End of the current period		End of the previous period	
		Common stocks	Preferred stocks	Common stocks	Preferred stocks
Total number of stocks to be issued	Shares	40,000,000	10,000,000	40,000,000	10,000,000
Par value of 1 share	KRW	5,000	5,000	5,000	5,000
Number of issued stocks (Note 1)	Shares	17,253,783	2,115,429	17,253,783	2,115,429
Capital (Note 1)	KRW one thousand	88,216,360	10,577,145	88,216,360	10,577,145

(Note 1) During the current period, the Company has retired 389,489 of its own shares, resulting in a mismatch between the total par value of the controlling company's capital stock and the total par value of issued shares as of the end of the current period.

26-2 Capital surplus

The details of the capital surplus as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period
Paid-in capital in excess of par value	237,858,538	237,858,538
Gains from merger	32,942,217	32,942,217
Losses from merger	(112,885,429)	(112,885,429)
Total	157,915,326	157,915,326

26-3 Other capital

(1) The details of other capital as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period
Treasury stocks (Notes 1, 2)	(8,921,442)	(8,921,442)
Stock options	1,532,449	1,532,449
Other capital adjustments	(5,255,111)	(5,255,111)
Total	(12,644,104)	(12,644,104)

(Note 1) The Company acquired the shares of the Company at the market price following the acquisition of fractional shares and the exercise of appraisal rights by the shareholders. As of the end of the current period, the Company owns 30,857 common stocks and 148,133 preferred stocks in its treasury.

(Note 2) During the previous period, 389,489 treasury stocks were acquired and subsequently the profit was retired.

(2) As of the end of the current period, the details of stock options are as follows.

(Unit: stocks, KRW)

Date of grant	Number of stocks to be issued (Note 1)	Period of exercise (Note 2)	Exercise price (Note 1)	Fair value on the date of grant (Note 1)
2018.3.6	29,988	2020.3.7 - 2025.3.6	71,785	15,864
2018.3.26 (1st)	22,491	2020.3.27 - 2025.3.26	72,009	16,226
2018.3.26 (2nd)	22,492	2021.3.27 - 2025.3.26	77,724	13,717
2019.3.25 (1st)	22,491	2021.3.26 - 2026.3.25	47,749	9,184
2019.3.25 (2nd)	22,492	2022.3.26 - 2026.3.25	51,517	7,856

(Note 1) Following the capital increase without consideration prior to the previous period, the number of shares to be issued and the exercise price have been adjusted, and the fair value on the date of grant has been adjusted and recorded.

(Note 2) As of December 31, 2023, the weighted average residual maturity of the unexercised stock options is 1.6 years.

(3) The fair value of stock options was calculated in line with the binary option pricing model, and the variables applied thereto are as follows.

(Unit: KRW)

Classification	Portion granted on 2018.3.6	Portion granted on 2018.3.26 (1st)	Portion granted on 2018.3.26 (2nd)	Portion granted on 2019.3.25 (1st)	Portion granted on 2019.3.25 (2nd)
Stock price on the date of grant (Note 1)	69,667	70,000	70,000	45,267	45,267
Exercise price (Note 1)	71,785	72,009	77,724	47,749	51,517
Expected volatility	15.07%	15.75%	15.75%	18.37%	18.37%
Risk-free interest rate	2.66%	2.57%	2.57%	1.92%	1.92%

(Note 1) Following the capital increase without consideration prior to the previous period, the number of shares to be issued and the exercise price have been adjusted, and the share price on the date of grant has been adjusted and recorded.

(4) The changes in stock options for the current period are as follows.

(Unit: stocks, KRW one thousand)

Date of grant	Number of stocks to be issued			Valuation amount		
	Beginning of period	Change	End of period	Beginning of period	Change	End of period
2018.3.6 (Note 1)	29,988	-	29,988	475,721	-	475,721
2018.3.26 (1st) (Note 1)	22,491	-	22,491	364,940	-	364,940
2018.3.26 (2nd) (Note 1)	22,492	-	22,492	308,530	-	308,530
2019.3.25 (1st) (Note 1)	22,491	-	22,491	206,567	-	206,567
2019.3.25 (2nd) (Note 1)	22,492	-	22,492	176,691	-	176,691
Total	119,954	-	119,954	1,532,449	-	1,532,449

(Note 1) Following the capital increase without consideration prior to the previous period, the number of shares to be issued has been adjusted.

26-4 Accumulated other comprehensive income

There are no changes in the accumulated other comprehensive income for the current period.

26-5 Retained earnings

The details of retained earnings as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period
Earned surplus reserve (Note 1)	12,508,504	9,621,033
Unappropriated retained earnings	867,313,532	865,912,286
Total	879,822,036	875,533,319

(Note 1) In accordance with the provisions of the Commercial Act, the Company is required to accumulate over 10% of the dividends in money as earnings surplus reserve for each settlement period until they reach 50% of the capital, and this reserve can only be used to compensate for losses and for capitalization.

26-6 Statement of appropriation of retained earnings

The statements of appropriation of retained earnings for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
I. Unappropriated retained earnings	867,313,532	865,912,286
Unappropriated retained earnings carried over from the previous period	841,817,207	844,883,024
Interim dividend	(7,676,090)	(7,667,092)
Retirement of treasury stock	-	(49,982,603)
Net income	41,753,736	69,270,430
Remeasurement factors of defined benefit liabilities	(8,581,321)	9,408,527
II. Amount of retained earnings disposed of	(6,153,121)	(24,095,079)
Payment of dividends	(4,895,920)	(21,207,609)
Accumulation of legal reserves	(1,257,201)	(2,887,470)
III. Unappropriated retained earnings carried forward	861,160,411	841,817,207

The expected date of disposal of the retained earnings above for the current period is March 26, 2027, and the confirmed date of disposal of the retained earnings for the previous period was March 28, 2023.

26-7 Dividends

The details of cash dividends proposed for approval by the Company at the general meeting of shareholders for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period		Previous period	
	Common stocks	Preferred stocks	Common stocks	Preferred stocks
Number of shares to be distributed	17,222,926 shares	1,967,296 shares	17,222,926 shares	1,967,296 shares
Dividend per share	KRW 250	KRW 300	KRW 1,100	KRW 1,150
Dividend rate	5%	6%	22%	23%
Amount of cash dividend	4,305,731	590,189	18,945,219	2,262,390

The Company decided to pay dividends of KRW 21,207,609,000 for the fiscal period ending on December 31, 2022, and paid them in April 2023 with an interim dividend of KRW 7,676,090,000.

27. Sales division

The Company has 2 reporting divisions, which are strategic operating units. The strategic business units provide different products and services, and operate separately since the technologies and marketing strategies required for each business unit are different. The chief operating decision maker reviews the internal reporting data for each strategic business unit at least on a monthly basis.

27-1 The reporting divisions of the Company are as follows.

Classification	Goods (or services)
Green Chemicals Biz.	PET resin, DMT, highly functional PETG resin, polyester adhesive, etc.
Life Science Biz.	Pharmaceuticals, medical devices, etc.

27-2 The information on the reporting divisions for the current and previous periods is as follows.

<Current period> (Unit: KRW one thousand)

Classification	Green Chemicals Biz.	Life Science Biz.	Others	Total
Sales amount	844,118,970	376,048,766	12,757,905	1,232,925,641
Operating income	53,369,570	31,519,090	546,617	85,435,277
Depreciation (Note 1)	42,394,175	6,576,897	6,841,855	55,812,927

(Note 1) It is the sum of the depreciation for tangible assets, depreciation for investment real estate properties, depreciation for right-to-use assets, and the amortization cost for intangible assets.

<Previous period> (Unit: KRW one thousand)

Classification	Green Chemicals Biz.	Life Science Biz.	Others	Total
Sales amount	929,572,074	313,933,315	12,524,790	1,256,030,179
Operating income	75,399,620	33,597,396	(1,470,079)	107,526,937
Depreciation (Note 1)	42,428,511	7,163,666	6,212,821	55,804,998

(Note 1) It is the sum of the depreciation for tangible assets, depreciation for investment real estate properties, depreciation for right-to-use assets, and the amortization cost for intangible assets.

27-3 As of the end of the reporting period, the assets by reportable segment are as follows, and most of the liabilities are not managed by reportable segment, and thus, the liabilities by reportable segment are not disclosed.

<End of the current period> (Unit: KRW one thousand)

Classification	Green Chemicals Biz.	Life Science Biz.	Others	Total
Total assets	929,308,555	240,359,529	786,050,076	1,955,718,160
Fixed assets (Note 1)	536,988,285	87,641,238	118,033,901	742,663,424

(Note 1) Included are the tangible assets, intangible assets, right-to-use assets, and the investment real estate properties.

<End of the previous period> (Unit: KRW one thousand)

Classification	Green Chemicals Biz.	Life Science Biz.	Others	Total
Total assets	945,503,745	193,262,167	671,711,281	1,810,477,193
Fixed assets (Note 1)	511,922,425	84,285,235	116,685,518	712,893,178

(Note 1) Included are the tangible assets, intangible assets, right-to-use assets, and the investment real estate properties.

28. Profits from the contracts with customers

The revenue from contracts with the customers for the current and previous periods is classified as follows.

<Current period> (Unit: KRW one thousand)

Classification	Green Chemicals Biz	Life Science Biz.	Others	Total
Types of goods or services:				
Sales of products	814,748,459	205,963,111	-	1,020,711,570
Sales of goods	5,694,303	163,798,062	-	169,492,365
Sales of services	25,516,793	1,835,429	7,584,841	34,937,063
Other sales	(1,840,585)	4,452,164	5,173,064	7,784,643
Total	844,118,970	376,048,766	12,757,905	1,232,925,641
Geographic markets:				
Korea	191,661,416	343,682,447	12,088,967	547,432,830
China	219,887,505	-	668,938	220,556,443
Japan	92,056,782	-	-	92,056,782
Asia (excluding China and Japan)	90,889,470	345,519	-	91,234,989
Americas	75,279,736	2,451,648	-	77,731,384
Europe	136,616,748	19,667,743	-	156,284,491
Others	37,727,313	9,901,409	-	47,628,722
Total	844,118,970	376,048,766	12,757,905	1,232,925,641
Point of revenue recognition:				
Recognized at a point in time	818,602,177	372,232,537	5,173,064	1,196,007,778
Recognized over time	25,516,793	3,816,229	7,584,841	36,917,863
Total	844,118,970	376,048,766	12,757,905	1,232,925,641

<Previous period>

(Unit: KRW one thousand)

Classification	Green Chemicals Biz	Life Science Biz.	Others	Total
Types of goods or services:				
Sales of products	850,187,169	202,440,177	-	1,052,627,346
Sales of goods	4,726,056	104,200,507	-	108,926,563
Sales of services	73,238,970	1,588,729	8,206,772	83,034,471
Other sales	1,419,879	5,703,902	4,318,018	11,441,799
Total	929,572,074	313,933,315	12,524,790	1,256,030,179
Geographic markets:				
Korea	184,380,239	278,083,413	12,524,790	474,988,442
China	209,573,735	1,449,147	-	211,022,882
Japan	111,912,788	-	-	111,912,788
Asia (excluding China and Japan)	115,135,365	259,033	-	115,394,398
Americas	133,609,104	3,038,723	-	136,647,827
Europe	144,916,092	28,854,635	-	173,770,727
Others	30,044,751	2,248,364	-	32,293,115
Total	929,572,074	313,933,315	12,524,790	1,256,030,179
Point of revenue recognition:				
Recognized at a point in time	856,056,066	310,808,968	4,318,018	1,171,183,052
Recognized over time	73,516,008	3,124,347	8,206,772	84,847,127
Total	929,572,074	313,933,315	12,524,790	1,256,030,179

Meanwhile, there are no customers accounting for more than 10% of sales during the current period. Meanwhile, only one customer accounted for over 10% of sales during the current period, and the sales amounted to KRW 126,103,558,000.

29. Operating expenses

29-1 The details of the cost of goods sold and the selling, general and administrative expenses for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Changes in inventories	26,490,204	(107,757,223)
Use of raw materials	442,051,428	577,144,290
Cost of merchandise sold	153,573,405	98,304,700
Depreciation (Note 1)	55,812,928	55,804,998
Labor cost	153,112,315	162,779,505
Logistics cost	49,268,650	92,551,692
Fees and expenses	46,523,485	40,905,367
Marketing cost	19,257,195	17,537,271
Other expenses	201,400,755	211,232,641
Total	1,147,490,365	1,148,503,241

(Note 1) It is the sum of the depreciation for tangible assets, depreciation for investment real estate properties, depreciation for right-to-use assets, and the amortization cost for intangible assets.

29-2 The details of the selling, general, and administrative expenses for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Salary	58,348,871	60,629,194
Retirement benefits	4,817,319	4,824,961
Welfare benefits	11,613,669	13,070,732
Travel expenses	6,507,531	5,443,457
Communication expenses	545,982	494,622
Utilities expenses	764,003	586,033
Taxes and public dues	614,757	643,784
Rents	678,373	367,762
Share based compensation expenses	-	9,816
Depreciation	3,356,702	3,051,175
Repairs and maintenance	631,040	548,392
Insurance premiums	1,226,049	1,162,507
Entertainment expenses	1,232,824	1,093,949
Consumables expenses for office	652,477	414,657
Vehicle maintenance cost	568,995	538,684
Education and training expenses	3,443,285	2,798,774
Books	115,616	97,801
Commissions and fees	27,796,541	21,075,633
R&D expenses	44,169,825	42,266,979
Advertising expenses	18,055,840	16,363,032
Sales commissions	5,729,503	7,165,032
Promotions	325,208	542,440
Samples expenses	833,614	601,532
Packaging cost	4,225,365	4,384,016
Bad debt expenses (reversal)	(95,629)	27,362
Meetings and conferences	508,677	525,575
Amortization of intangible assets	3,717,085	3,281,029
Miscellaneous expenses and others	2,916	2,308
Total	200,386,438	192,011,238

30. Non-operating income

30-1 The details of the other income and other expenses for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Other income:		
Gain on disposal of tangible assets	15,115	142,230
Gain on disposal of right-to-use assets	2,619	1,972
Gain on disposal of intangible assets	-	302,598
Gain on disposal of stocks invested in subsidiaries	19,063,083	-
Gain on disposal of stocks invested in associates	-	90,078
Reversal of allowance for other bad debts	408,790	-
Miscellaneous gains	4,178,265	6,414,110
Total	23,667,872	6,950,988
Other expenses:		
Losses on disposal of tangible assets	210,556	6,862,582
Losses on disposal of intangible assets	58,861	366,130
Impairment losses on tangible assets	6,936,627	-
Loss on disposal of trade receivables	134,602	-
Impairment loss on investment in affiliates	4,674,672	-
Contributions	1,792,366	1,698,450
Other bad debt expenses	-	74,035
Miscellaneous loss	27,873,073	8,563,916
Total	41,680,757	17,565,113

30-2 The details of the financial income and financial cost for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Financial income:		
Interest income	5,520,538	1,663,932
Gain on valuation of financial assets measured at fair value through profit or loss	1,587,267	2,030,468
Gain on transaction of financial assets measured at fair value through profit or loss	2,052,645	1,941,449
Dividend income	2,190,000	2,990,000
Gains on foreign currency transactions	17,547,643	32,065,563
Gains on foreign currency translation	2,189,281	5,367,092
Gains on valuation of derivatives	4,034,012	1,771,396
Gains on transaction of derivatives	4,083,498	9,887,069
Total	39,204,884	57,716,969
Financial cost:		
Interest expenses	27,275,283	13,204,740
Losses on foreign currency transactions	14,986,074	34,690,234
Losses on foreign currency translation	2,472,250	7,038,491
Losses on valuation of financial assets measured at fair value through profit or loss	385,439	1,473,471
Losses on valuation of derivatives	81,934	78,412
Losses on transaction of derivatives	5,405,842	9,743,728
Total	50,606,822	66,229,076

31. Income tax expense

31-1 The details of the income tax expense for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Current tax	8,947,517	22,196,023
Adjustments recognized for the current period for the current income tax for the previous periods	6,321,806	(313,006)
Changes in the deferred income tax due to temporary differences	(3,583,426)	219,812
Income tax expense directly reflected in equity	2,580,822	(2,972,554)
Income tax expense	14,266,719	19,130,275

31-2 The details of the income tax expense directly reflected in equity for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Income tax expense directly reflected in equity:		
Remeasurement factors for defined benefit plan	2,580,822	(2,972,554)
Total	2,580,822	(2,972,554)

31-3 The relationship between the net income before income tax expense and income tax expense for the current and previous periods is as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Net income before income tax expense	56,020,455	88,400,704
Corporate tax according to applicable tax rate (Note 1)	12,478,725	20,930,970
Adjustments:		
Non-taxable income	(406,353)	(315,046)
Non-deductible expenses	323,119	428,061
Deferred tax effect due to tax credits	(2,230,545)	(1,918,739)
Non-recognition effect of deferred tax among temporary differences	(4,352)	68,241
Adjustments recognized for the current period for the current income tax for the previous periods	3,835,006	(313,006)
Others	271,119	249,794
Income tax expense	14,266,719	19,130,275
Effective tax rate (income tax expense/net income before income tax expense)	25.47%	21.64%

(Note 1) Considered for the applicable tax rate are the corporate tax rate (9% for KRW 200 million or less; 19% for KRW 200 million to KRW 20 billion; 21% for KRW 20 billion to KRW 300 billion) and the local income tax rate for corporate tax.

31-4 The changes in deferred income tax assets (liabilities) for the current and previous periods are as follows.

<Current period>

(Unit: KRW one thousand)

Classification	Beginning of the current period	Reflected in the profit or loss	Directly reflected in equity	End of the current period
Government subsidies	2,322,026	(35,989)	-	2,286,037
Accrued interest	(118,056)	(113,638)	-	(231,694)
Accrued expenses	6,929,606	(1,412,251)	-	5,517,355
Inventories	1,304,734	207,336	-	1,512,070
Tangible assets	(11,727,331)	2,466,285	-	(9,261,046)
Intangible assets	510,795	(2,202)	-	508,593
Securities	521,192	1,377,145	-	1,898,337
Right-to-use assets	(408,241)	(5,320)	-	(413,561)
Financial lease liabilities	413,460	8,603	-	422,063
Advanced depreciation provision	(5,862,260)	25,995	-	(5,836,265)
Derivatives	(287,126)	(880,758)	-	(1,167,884)
Retirement benefits	-	(2,580,822)	2,580,822	-
Allowance for bad debts	2,009,861	(55,501)	-	1,954,360
Provisioning liabilities	4,483,794	(563,659)	-	3,920,135
Contract liabilities	248,868	213,231	-	462,099

Stock options	355,529	(1,532)	-	353,997
Carried-forward contributions	-	131,973	-	131,973
Tax credits carried forward	12,870	514	-	13,384
Others	272,669	2,223,194	-	2,495,863
Total	982,390	1,002,604	2,580,822	4,565,816

<Previous period>

(Unit: KRW one thousand)

Classification	Beginning of the current period	Reflected in the profit or loss	Directly reflected in equity	End of the current period
Government subsidies	2,546,263	(224,237)	-	2,322,026
Accrued interest	(151,939)	33,883	-	(118,056)
Accrued expenses	6,158,562	771,044	-	6,929,606
Inventories	1,050,313	254,421	-	1,304,734
Tangible assets	(12,017,695)	290,364	-	(11,727,331)
Intangible assets	532,812	(22,017)	-	510,795
Securities	579,584	(58,392)	-	521,192
Right-to-use assets	(261,094)	(147,147)	-	(408,241)
Financial lease liabilities	264,801	148,659	-	413,460
Advanced depreciation provision	(6,141,519)	279,259	-	(5,862,260)
Derivatives	(89,056)	(198,070)	-	(287,126)
Retirement benefits	-	2,972,554	(2,972,554)	-
Allowance for bad debts	1,728,753	281,108	-	2,009,861
Provisioning liabilities	5,429,991	(946,197)	-	4,483,794
Contract liabilities	721,929	(473,061)	-	248,868
Stock options	443,142	(87,613)	-	355,529
Tax credits carried forward	28,945	(16,075)	-	12,870
Others	378,410	(105,741)	-	272,669
Total	1,202,202	2,752,742	(2,972,554)	982,390

The possibility of future realization for the deferred income tax assets depends on various factors such as the Company's ability to generate taxable income during the period in which the temporary differences are realized, and the overall economic environment and outlook for the industry. The Company regularly reviews such matters and has recognized the temporary differences to be deducted that are determined to be realizable as the deferred income tax assets as of the end of the reporting period.

31-5 The tax effect, due to deductible temporary differences, unused tax losses, unused tax credits, etc., that are not recognized as deferred income tax assets in the consolidated financial statements, is KRW 52,343,864,000 (previous period: KRW 52,498,409,000).

32. Earnings per share (EPS)

32-1 The calculation details of the basic earnings per share for the current and previous periods are as follows.

(Unit: KRW one thousand, stocks, KRW/stock)

Classification	Current period	Previous period
Net income	41,753,736	69,270,430
Deducted: preferred stock dividend	(1,377,107)	(3,049,309)
Deducted: portion reverted for preferred stocks among additional profits available for dividend	(2,991,581)	(4,103,518)
Net income reverted for common stock ownership	37,385,048	62,117,603
Net income reverted for preferred stock ownership	4,368,688	7,152,827
Number of weighted average common stocks outstanding	17,222,926	17,322,897
Number of weighted average preferred stocks outstanding	1,967,296	1,967,296
Basic earnings per common share	2,171	3,586
Basic earnings per preferred share (Note 1)	2,221	3,636
Diluted earnings per common share	2,169	3,575

(Note 1) The preferred stocks issued in accordance with the old Commercial Act before its revision in 1997 have the same order of payment as the general common stocks when dividends are paid out or the residual assets are distributed.

32-2 The calculation details of the Company's weighted average number of common shares outstanding for the current and previous periods are as follows.

<Current period>

(Unit: stocks)

Classification	Initial date	Date of settlement	Number of days	Number of shares	Number of weighted average common shares outstanding
Outstanding shares at beginning of period	2023.1.1	2023.12.31	365	17,222,926	17,222,926
Number of weighted average common shares outstanding				17,222,926	17,222,926

<Previous period>

(Unit: stocks)

Classification	Initial date	Date of settlement	Number of days	Number of shares	Number of weighted average common shares outstanding
Outstanding shares at beginning of period	2022.1.1	2022.12.31	365	17,589,923	17,589,923
Acquisition of treasury stock	2022.3.24	2022.12.31	283	(10,000)	(7,753)
Acquisition of treasury stock	2022.3.25	2022.12.31	282	(8,000)	(6,181)
Acquisition of treasury stock	2022.3.28	2022.12.31	279	(10,000)	(7,644)
Acquisition of treasury stock	2022.3.29	2022.12.31	278	(10,000)	(7,616)
Acquisition of treasury stock	2022.3.30	2022.12.31	277	(1,914)	(1,453)
Acquisition of treasury stock	2022.3.31	2022.12.31	276	(10,000)	(7,562)
Acquisition of treasury stock	2022.4.1	2022.12.31	275	(10,000)	(7,534)
Acquisition of treasury stock	2022.4.4	2022.12.31	272	(8,000)	(5,962)
Acquisition of treasury stock	2022.4.5	2022.12.31	271	(10,000)	(7,425)
Acquisition of treasury stock	2022.4.6	2022.12.31	270	(8,009)	(5,924)
Acquisition of treasury stock	2022.4.7	2022.12.31	269	(7,825)	(5,767)
Acquisition of treasury stock	2022.4.8	2022.12.31	268	(10,000)	(7,342)
Acquisition of treasury stock	2022.4.11	2022.12.31	265	(10,000)	(7,260)
Acquisition of treasury stock	2022.4.12	2022.12.31	264	(10,000)	(7,233)
Acquisition of treasury stock	2022.4.13	2022.12.31	263	(10,000)	(7,205)
Acquisition of treasury stock	2022.4.14	2022.12.31	262	(10,000)	(7,178)
Acquisition of treasury stock	2022.4.15	2022.12.31	261	(10,000)	(7,151)
Acquisition of treasury stock	2022.4.18	2022.12.31	258	(10,000)	(7,068)
Acquisition of treasury stock	2022.4.19	2022.12.31	257	(2,796)	(1,969)
Acquisition of treasury stock	2022.4.20	2022.12.31	256	(10,000)	(7,014)
Acquisition of treasury stock	2022.4.21	2022.12.31	255	(10,000)	(6,986)
Acquisition of treasury stock	2022.4.22	2022.12.31	254	(6,000)	(4,175)
Acquisition of treasury stock	2022.4.25	2022.12.31	251	(10,000)	(6,877)
Acquisition of treasury stock	2022.4.26	2022.12.31	250	(10,000)	(6,849)
Acquisition of treasury stock	2022.4.27	2022.12.31	249	(10,000)	(6,822)
Acquisition of treasury stock	2022.4.28	2022.12.31	248	(9,187)	(6,242)

Acquisition of treasury stock	2022.4.29	2022.12.31	247	(7,479)	(5,061)
Acquisition of treasury stock	2022.5.2	2022.12.31	244	(5,894)	(3,940)
Acquisition of treasury stock	2022.5.3	2022.12.31	243	(10,000)	(6,658)
Acquisition of treasury stock	2022.5.4	2022.12.31	242	(10,000)	(6,630)
Acquisition of treasury stock	2022.5.6	2022.12.31	240	(10,000)	(6,575)
Acquisition of treasury stock	2022.5.9	2022.12.31	237	(10,000)	(6,493)
Acquisition of treasury stock	2022.5.10	2022.12.31	236	(10,000)	(6,466)
Acquisition of treasury stock	2022.5.11	2022.12.31	235	(14,641)	(9,426)
Acquisition of treasury stock	2022.5.12	2022.12.31	234	(10,000)	(6,411)
Acquisition of treasury stock	2022.5.13	2022.12.31	233	(7,585)	(4,842)
Acquisition of treasury stock	2022.5.16	2022.12.31	230	(9,159)	(5,771)
Acquisition of treasury stock	2022.5.17	2022.12.31	229	(10,000)	(6,274)
Acquisition of treasury stock	2022.5.18	2022.12.31	228	(10,000)	(6,247)
Acquisition of treasury stock	2022.5.19	2022.12.31	227	(10,000)	(6,219)
Acquisition of treasury stock	2022.5.20	2022.12.31	226	(8,000)	(4,953)
Acquisition of treasury stock	2022.5.23	2022.12.31	223	(10,000)	(6,110)
Acquisition of treasury stock	2022.5.24	2022.12.31	222	(4,000)	(2,433)
Acquisition of treasury stock	2022.5.25	2022.12.31	221	(1,000)	(605)
Exercise of stock option	2022.11.25	2022.12.31	37	22,492	2,280
Number of weighted average common shares outstanding				17,222,926	17,322,897

32-3 The calculation details of the Company's weighted average number of preferred shares outstanding for the current and previous periods are as follows.

<Current period>

(Unit: stocks)

Classification	Initial date	Date of settlement	Number of days	Number of shares	Number of weighted average preferred shares outstanding
Outstanding shares at beginning of period	2023.1.1	2023.12.31	365	1,967,296	1,967,296
Number of weighted average preferred shares outstanding				1,967,296	1,967,296

<Previous period>

(Unit: stocks)

Classification	Initial date	Date of settlement	Number of days	Number of shares	Number of weighted average preferred shares outstanding
Outstanding shares at beginning of period	2022.1.1	2022.12.31	365	1,967,296	1,967,296
Number of weighted average preferred shares outstanding				1,967,296	1,967,296

32-4 Diluted earnings per share

The diluted earnings per share were calculated by applying the number of weighted average common shares outstanding adjusted under the assumption that all dilutive potential common shares would be converted into common shares. The dilutive potential common shares held by the Company include stock options. The number of stocks resulting from stock options is calculated by determining the number of stocks to be acquired at fair value based on the monetary value of exercising the right, adding it to the stock options, and comparing this total with the number of stocks that would be issued if the stock options were assumed to have been exercised.

(Unit: KRW one thousand, stocks, KRW/stock)

Classification	Current period	Previous period
Net income for common shares	37,385,049	62,117,603
Adjustments: Stock options	-	7,441
Net income for common shares for calculation of diluted earnings per share	37,385,049	62,125,044
Number of weighted average common stocks outstanding	17,222,926	17,322,897
Adjustments: Stock options	13,555	54,190
Number of weighted average common shares outstanding for calculation of diluted earnings per share	17,236,481	17,377,087
Diluted earnings per share	2,169	3,575

33. Statement of Cash Flows

33-1 The details of the adjustments made for the cash flows generated from operations for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Depreciation (Note 1)	48,556,051	49,703,451
Amortization of intangible assets	7,256,877	6,101,547
Retirement benefits	8,831,690	9,947,189
Gain on disposal of right-to-use assets	(2,619)	(1,972)
Gain on disposal of tangible assets	(15,115)	(142,230)
Losses on disposal of tangible assets	210,556	6,862,582
Impairment losses on tangible assets	6,936,627	-
Gain on disposal of intangible assets	-	(302,598)
Losses on disposal of intangible assets	58,861	366,130
Interest income	(5,520,538)	(1,663,932)
Dividend income	(2,190,000)	(2,990,000)
Gain on transaction of financial assets measured at fair value through profit or loss	(2,052,645)	(1,941,449)
Gain on valuation of financial assets measured at fair value through profit or loss	(1,587,267)	(2,030,468)
Loss on valuation of financial assets measured at fair value through profit or loss	385,439	1,473,471
Gain on disposal of stocks invested in subsidiaries	(19,063,083)	-
Gain on disposal of stocks invested in associates	-	(90,078)
Impairment loss on investment in affiliates	4,674,672	-
Gains on valuation of derivatives	(4,034,012)	(1,771,396)
Losses on valuation of derivatives	81,934	78,412
Interest expenses	27,275,283	13,204,740
Income tax expense	14,266,719	19,130,275
Share based compensation expenses	-	9,816
Loss on the valuation of inventories	921,905	1,283,720
Bad debt expenses (reversal)	(95,629)	27,362
Other bad debt expenses (reversal)	(408,790)	74,035
Gains on foreign currency translation	(2,189,281)	(5,367,092)
Losses on foreign currency translation	2,472,250	7,038,491
Others	-	406,818
Total	84,769,885	99,406,824

(Note 1) This is the depreciation for tangible assets, investment real estate properties, and the right-to-use assets.

33-2 The changes in assets and liabilities from operating activities for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Trade receivables	20,598,843	(22,565,174)
Other receivables	2,145,397	164,745,160
Inventories	11,274,544	(68,897,924)
Other current assets	2,448,842	604,630
Other non-current assets	(58,804)	(78,400)
Trade payables	27,374,738	(15,253,855)
Other payables	(12,932,624)	(157,276,513)
Other current liabilities	200,236	(464,122)
Contributions for plan asset paid	(15,000,000)	(25,000,000)
Affiliates' transfers	(319,912)	(122,033)
Retirement benefits paid	(85,934)	(76,636)
Settlement of derivatives transactions	823,372	1,356,151
Current portion of provisioning liabilities	11,013,136	(3,111,279)
Provisioning liabilities	5,957,148	-
Contract liabilities	2,170,233	(11,550,052)
Total	55,609,215	(137,690,047)

33-3 The details of major transactions with no cash inflows and outflows for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Other account reclassifications for construction in progress and machineries in transit	15,218,478	48,023,750
Other account reclassifications for tangible assets	-	169,120
Exchange transactions for tangible assets	-	6,350,000
Acquisition of accounts payable for construction in progress	1,645,666	1,485,325
Reclassification of current portion for long-term liabilities	193,079,832	66,000,000
Increase in right-to-use assets and lease liabilities	1,125,699	1,660,991
Write-off of trade and other receivables	4,917	530,143
Reclassification of current portion for deposits received	-	2,110,026
Reclassification of current portion for long-term accounts receivable	-	2,187,028
Accrued retirement benefits	1,426,768	7,697,309
Accounts payable for affiliates' investment shares	-	385,515
Assets held for sale classification	-	11,419,751
Retirement of treasury stock	-	49,982,602
Reclassification of provisioning liability payables	19,326,700	-
Reclassification of long-term payables to current liabilities	6,836,809	-
Acquisition of investment shares at fair value through profit or loss	19,999,995	-
Disposal of stocks invested in subsidiaries	936,934	-

33-4 Changes in liabilities due to financing activities for the current and previous periods are as follows.

<Current period>

(Unit: KRW one thousand)

Classification	Beginning of period	Cash flows from financing activities	Others (Note 1)	End of the current period
Short-term borrowings	273,359,823	(33,823,281)	(547,493)	238,989,049
Current portion of long-term borrowings	-	-	2,550,000	2,550,000
Long-term borrowings	-	10,200,000	(2,550,000)	7,650,000
Current portion of bonds payable (net)	65,978,484	(66,000,000)	189,876,644	189,855,128
Debenture (net)	154,787,349	199,140,850	(189,371,108)	164,557,091
Current portion of lease liabilities	838,788	(913,515)	919,303	844,576
Lease liabilities	943,366	-	39,168	982,534
Total	495,907,810	108,604,054	916,514	605,428,378

(Note 1) Included are the account reclassification effect for long-term borrowings, replacement of current portion following the lapse of time for financial lease liabilities and liabilities under installment purchase agreements, and the accrued interest on the interest-bearing borrowings. The Company classifies the payment of interests as cash flows from operating activities.

<Previous period>

(Unit: KRW one thousand)

Classification	Beginning of period	Cash flows from financing activities	Others (Note 1)	End of the previous period
Short-term borrowings	-	278,072,600	(4,712,777)	273,359,823
Current portion of bonds payable	159,886,422	(160,000,000)	66,092,062	65,978,484
Debenture	220,560,772	-	(65,773,423)	154,787,349
Current portion of lease liabilities	615,347	(829,098)	1,052,539	838,788
Lease liabilities	478,871	-	464,495	943,366
Total	381,541,412	117,243,502	(2,877,104)	495,907,810

(Note 1) Included are the account reclassification effect for long-term borrowings, replacement of current portion following the lapse of time for financial lease liabilities and liabilities under installment purchase agreements, and the accrued interest on the interest-bearing borrowings. The Company classifies the payment of interests as cash flows from operating activities.

34. Purpose and policies of the financial risk management

The Company's major financial liabilities, excluding derivatives, consist of trade and other payables, borrowings and bonds. The main purpose of these financial liabilities is to raise funds for the operation of the Company. The Company's major financial assets include trade receivables and the cash and short-term deposits directly derived from operating activities. The Company also has investments in debt and equity instruments and trades derivatives.

The Company is exposed to market, credit, and liquidity risks. The Company's senior management oversees the management of such risks. All derivative activities for the purpose of risk management are carried out by a team of professionals equipped with the appropriate skills, experiences, and oversight. It is the policy of the Company to avoid conducting any trading of derivatives for speculative purposes.

34-1 Market risk

Market risk is the risk related to the fair value or future cash flows of financial instruments fluctuating due to changes in the market prices. Market risk consists of the following three types of risk: interest rate risk, foreign currency risk, and other price risk. The financial instruments affected by the market risk include borrowings and bonds, deposits, debt, and equity investments and derivatives.

The following sensitivity analysis is related to the statement of financial position as of the end of the current and previous periods.

The sensitivity analysis has been prepared based on the designation of a hedging interest rate while the net amount of liabilities, fixed interest rate of liabilities and derivatives, variable interest rate and the ratio of foreign currency financial instruments were all constant as of the end of the current period.

This analysis excludes the effect of movements of the market variables on the book values of retirement pensions and other post-retirement liabilities and provisions.

The following assumptions are required when calculating the sensitivity analysis.

- The sensitivity of the relevant income statement is the effect of an assumed change in each market risk. This is based on the financial assets and financial liabilities held at the end of the current and previous periods, including the effect of hedge accounting.

(1) Interest rate risk

Interest rate risk is the risk related to the fluctuation of the fair value of financial instruments or future cash flows due to the fluctuations in the market interest rates. The Company internally measures the interest rate risk based on a 1% point change in the interest rate, and the rate of change above is reflective of the senior management's assessment of the reasonably possible interest rate change risk.

The book amount of the variable interest bearing financial instruments held by the Company as of the end of the reporting period is as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period
Short-term borrowings	120,000,000	85,000,000
Long-term borrowings	10,200,000	-
Total	130,200,000	85,000,000

As of the current and previous periods, when all other variables are constant and the interest rate changes by 1% point, the effect on the profit and loss before tax is as follows.

(Unit: KRW one thousand)

Classification	Current period		Previous period	
	1% point increase	1% point decrease	1% point increase	1% point decrease
Short-term borrowings	(1,200,000)	1,200,000	(850,000)	850,000
Long-term borrowings	(102,000)	102,000	-	-
Total	(1,302,000)	1,302,000	(850,000)	850,000

(2) Foreign exchange risk

Foreign exchange risk is one in which the fair value or future cash flows will fluctuate due to foreign exchange fluctuations. The Company's exposure to foreign exchange risk is primarily related to its operating activities (where sales or expenses are denominated in foreign currencies) and financing in foreign currencies. The Company regularly measures the foreign exchange risk of the changes in the KRW exchange rate internally, and in particular, executes and manages currency swap contracts to hedge the risk of exchange rate fluctuations such as foreign currency bonds.

The book amounts of the monetary assets and liabilities denominated in foreign currencies other than the functional currency as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	End of the current period		End of the previous period	
	Assets	Liabilities	Assets	Liabilities
USD	64,820,923	30,119,925	90,350,072	47,467,842
CNY	9,490,916	3,165,449	11,059,855	682,816
EUR	45,917,344	37,454,728	52,734,248	18,021,233
GBP	-	-	433,923	-
JPY	2,954,389	41,754	6,820,072	233,047
MYR	-	60,538	-	-
Total	123,183,572	70,842,394	161,398,170	66,404,938

As of the end of the reporting period, if the exchange rate of the functional currency for each foreign currency fluctuates by 5%, the effect on the profit and loss before tax for the current period and the previous period is as follows.

(Unit: KRW one thousand)

Classification	End of the current period		End of the previous period	
	5% increase	5% decrease	5% increase	5% decrease
USD	1,735,050	(1,735,050)	2,144,112	(2,144,112)
CNY	316,273	(316,273)	518,852	(518,852)
EUR	423,131	(423,131)	1,735,651	(1,735,651)
GBP	-	-	21,696	(21,696)
JPY	145,632	(145,632)	329,351	(329,351)
MYR	(3,027)	3,027	-	-
Total	2,617,059	(2,617,059)	4,749,662	(4,749,662)

The Company internally measures the foreign exchange risk for the exchange rate fluctuations on a regular basis, and effectively manages the foreign exchange risk via the currency futures trading, and thus, the effect on the profit and loss is restrictive.

(3) Other price risks

Among other price risks is the risk where the fair value of financial instruments or future cash flows will fluctuate due to the fluctuations in the market prices other than the interest rate risk or foreign exchange risk. Since the Company has no traded equity instruments, there is no effect on profit or loss due to other price fluctuation risks as of the end of current period. Furthermore, the Company is not significantly exposed to the risk of price fluctuations of specific instruments.

34-2 Credit risk

Credit risk is the risk of financial loss against the Company due to the transaction counterparty's failure to perform its obligations.

(1) Trade and other receivables

The Company in principle conducts creditworthiness verification procedures for all transaction counterparties seeking to trade on credit, and only executes transactions with counterparties having sound creditworthiness. Furthermore, the Company continuously manages the balance of trade receivables, other receivables, and contract assets by taking necessary measures such as continuously reassessing credit ratings to ensure that the Company's exposure to bad debt risk is maintained at an insignificant level. As of the end of the reporting period, the Company individually recognizes whether major customers' receivables and contract assets are impaired. In addition, for multiple receivables of small amounts, they review their impairment by including them in the group of financial assets having similar credit risk related characteristics. As of the end of the reporting period, the extent of maximum exposure to credit risk is the book amount of the financial assets described under Note 5.

(2) Other assets

The credit risk arising from the Company's other assets consisting of cash equivalents, short-term deposits, debt securities, and long-term and short-term loans results from, for example, the default of a transaction counterparty. In such an event, the extent of the Company's credit risk exposure will be equal to the maximum book amount of the relevant financial instruments, excluding the derivative financial instruments. Meanwhile, the Company deposits the cash equivalents and short-term financial instruments with financial institutions including Woori Bank, and trades only with financial institutions having excellent credit ratings. Thus, the credit risk from the financial institutions is restricted.

34-3 Liquidity risk

Liquidity risk is the risk of being unable to raise funds to meet all financial contractual commitments to maturity.

The Company manages the risks arising from a lack of funds through liquidity strategies and plans, and matches the maturities of financial assets and liabilities by considering the maturities of financial instruments and estimates of the operating cash flows.

The following are the undiscounted contractual amounts as a repayment plan for each financial liability.

<Current period>

(Unit: KRW one thousand)

Classification	Less than 1 year	2 years or less	5 years or less	Over 5 years	Total
Trade and other payables	188,998,359	-	-	-	188,998,359
Short-term borrowings	238,989,049	-	-	-	238,989,049
Current portion of long-term liabilities	192,550,000	-	-	-	192,550,000
Current portion of lease liabilities	862,603	-	-	-	862,603
Other current liabilities (Note 1)	2,937,951	-	-	-	2,937,951
Debenture	-	95,000,000	70,000,000	-	165,000,000
Long-term borrowings	-	-	7,650,000	-	7,650,000
Lease liabilities	-	620,625	443,564	-	1,064,189
Total	624,337,962	95,620,625	78,093,564	-	798,052,151

(Note 1) These are deposits taken.

<Previous period>

(Unit: KRW one thousand)

Classification	Less than 1 year	2 years or less	5 years or less	Over 5 years	Total
Trade and other payables	151,015,407	-	-	-	151,015,407
Short-term borrowings	273,359,823	-	-	-	273,359,823
Current portion of long-term liabilities	66,000,000	-	-	-	66,000,000
Current portion of lease liabilities	852,163	-	-	-	852,163
Other current liabilities (Note 1)	2,972,002	-	-	-	2,972,002
Debenture	-	155,000,000	-	-	155,000,000
Lease liabilities	-	556,662	466,017	-	1,022,679
Total	494,199,395	155,556,662	466,017	-	650,222,074

(Note 1) These are deposits taken.

34-4 Capital management

The primary purpose of capital management is to maintain a high credit rating and sound capital ratios with a view to maintaining the Company's operating activities and maximizing the shareholder value.

The Company amends its capital structure in line with the changes in the economic environment, and to this end, requires that amendments be made for their dividend policy, capital reduction be made, and the issuance of new shares be considered. Meanwhile, no changes were made to the purposes, policies, and the procedures of capital management during the current period.

The Company's debt-to-equity ratio as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period
Total liabilities	831,831,397	690,879,147
(Adjustments: cash and cash equivalents)	(245,211,542)	(119,021,281)
Adjusted liabilities	586,619,855	571,857,866
Equity capital	1,123,886,764	1,119,598,046
Debt-to-equity ratio	52.20%	51.08%

35. Fair value

35-1 Fair value hierarchy

The Company classifies the fair value measurements according to the fair value hierarchy which reflects the significance of the input variables used for the fair value measurement. The levels of the fair value hierarchy are as follows.

Level 1: (Unadjusted) quoted price level in the active markets for the same asset or liability

Level 2: Inputs to assets or liabilities that are directly or indirectly observable

Level 3: Inputs to assets or liabilities that are not based on the observable market data (unobservable input variables)

35-2 The fair value measurements for each level of financial instruments as of the end of the reporting period are as follows.

<End of the current period> (Unit: KRW one thousand)

Classification	Level 1	Level 2	Level 3 (Note 2)	Total
Financial assets				
Trade and other receivables (Note 1)	-	215,849	-	215,849
Long-term investment assets	-	-	60,037,006	60,037,006
Other non-current assets	-	-	5,055,776	5,055,776
Total	-	215,849	65,092,782	65,308,631
Financial liabilities				
Trade and other payables (Note 1)	-	81,934	-	81,934
Total	-	81,934	-	81,934

(Note 1) As for the financial instruments whose book amount is a reasonable approximation of fair value, the separate fair value disclosure has been omitted.

(Note 2) Unless otherwise specified, they consist of unlisted stocks, etc., whose cost can be an appropriate estimate of their fair value (refer to Note 35-3).

<End of the previous period>

(Unit: KRW one thousand)

Classification	Level 1	Level 2	Level 3 (Note 2)	Total
Financial assets				
Short-term financial assets	-	60,299,856	-	60,299,856
Trade and other receivables (Note 1)	-	823,372	-	823,372
Long-term investment assets	-	-	37,128,190	37,128,190
Other non-current assets	-	-	1,237,613	1,237,613
Total	-	61,123,228	38,365,803	99,489,031

(Note 1) As for the financial instruments whose book amount is a reasonable approximation of fair value, the separate fair value disclosure has been omitted.

(Note 2) Unless otherwise specified, they consist of unlisted stocks, etc., whose cost can be an appropriate estimate of their fair value (refer to Note 35-3).

35-3 Valuation techniques

The valuation techniques used to measure the fair value of Level 3 are as follows.

<End of the current period>

(Unit: KRW one thousand)

Categories of financial instruments	Type	Fair value	Level	Valuation techniques	Input variables
Derivatives assets	Put option on SK chemicals Polyall Co., Ltd.	719,000	Level 3	Discounted cash flow method	Liquidation cash flow, weighted average cost of capital
Derivatives assets	Put option on HDC Polyall Co., Ltd.	4,336,776	Level 3	Discounted cash flow method	Expected future cash flow, weighted average cost of capital
Long-term investment assets	Eastman Fiber Korea Ltd. Preferred stocks	25,566,223	Level 3	Expected price considering the value of call options and put options	Exchange rate

<End of the previous period>

(Unit: KRW one thousand)

Categories of financial instruments	Type	Fair value	Level	Valuation techniques	Input variables
Derivatives assets	Put option on SK chemicals Polyall Co., Ltd.	289,589	Level 3	Discounted cash flow method	Liquidation cash flow, weighted average cost of capital
Derivatives assets	Put option on HDC Polyall Co., Ltd.	948,024	Level 3	Discounted cash flow method	Expected future cash flow, weighted average cost of capital
Long-term investment assets	Eastman Fiber Korea Ltd. Preferred stocks	25,128,024	Level 3	Expected price considering the value of call options and put options	Exchange rate

36 Events following the reporting period

36-1 Events following the reporting period for which corrections are required

(1) Provisioning liabilities for humidifier disinfectant litigation

On January 11, 2024, the Company recognized the harmfulness of the raw materials used in its humidifier disinfectants in a criminal lawsuit. Considering the impact of the criminal lawsuit on the ongoing litigation, a provisioning liability of KRW 5,957,148,000 was recognized based on the best estimate.

(2) Provisioning liabilities for patent infringement litigation

On January 18, 2024, the Company made a partial loss in the second instance of the patent infringement lawsuit with Novartis AG, and on January 26, 2024, paid the principal amount of KRW 11,013,136,000 as a provisional payment, which was recognized as a provisioning liability.

6. Matters Concerning Dividends

A. Matters Concerning Dividends

In accordance with the Articles of Incorporation, the Company pays dividends out as a major means of returning a certain portion of the Company's profits to its shareholders based on the resolutions of the Board of Directors and the general meeting of shareholders. In addition, dividends are determined by considering factors such as the investment and management performance for the Company's sustainable growth and the enhancement of shareholder value within the scope of the profits available for dividend.

In October 2021, the Company disclosed its dividend policy to enhance predictability for investors regarding the scale of shareholder returns. The details are as follows.

(Dividend policy)

- ☐ Determination of the total amount of dividends at the level of 30% of the dividend payout ratio (based on the separate net income)
- ☐ Interim dividend implemented from 2022

The above dividend policy is subject to change depending on the business management environment and other conditions. The separate net income, which is the basis for determining the total amount of dividends, is the adjusted amount excluding the non-recurring profits and losses.

The details of dividends in the Company's Articles of Incorporation are as follows.

Article 13 (Record Date of Dividend Payout for New Shares)

When the Company issues new shares for capital increase with or without consideration, or share dividend, for the purpose of the distribution of dividends thereon, such new shares shall be deemed to have been issued at the end of the fiscal year immediately preceding the fiscal year in which the new shares are issued.

Article 50 (Payment of Dividends)

- ① Dividends of profits may be paid with money, stocks, or other assets. However, the dividends paid by stock shall not exceed an amount equivalent to half of the total amount of dividends.
- ② The dividends of Paragraph 1 shall be paid out to the shareholders or registered pledgees entered in the list of shareholders as of the end of each settlement period.
- ③ For dividends paid out in stocks, if the Company has issued several types of stocks, a different type of stock may be used by a resolution of the general meeting of shareholders.

Article 51 (Statute of Limitations for the Right to Claim Dividend Payments)

- ① If the right to claim dividends payment is not exercised for 5 years, the statute of limitations shall be deemed as complete.

- ② Dividends resulting from the completion of the statute of limitations as per Paragraph 1 shall be reverted to the Company.
- ③ No interest shall be added to the unpaid dividends.

Article 50-1 (Interim Dividend)

- ① The Company may pay out an interim dividend in accordance with applicable laws and regulations.
- ② The interim dividend referred to in Paragraph 1 shall be determined by the resolution of the Board of Directors, and the resolution should be made within 45 days after the reference date of Paragraph 1.
- ③ The interim dividend shall not exceed the amount obtained by deducting the following amounts from the net asset value on the balance sheet for the immediately preceding fiscal year.
1. The amount of capital stock in the immediately preceding fiscal year
 2. The total amount of capital reserve and profit reserve accumulated up to the immediately preceding fiscal year
 3. Unrealized gains defined by the Enforcement Decree of the Commercial Act
 4. The amount of profit distribution decided at the regular meeting of shareholders in the immediately preceding fiscal year
 5. Discretionary reserve set aside for a specific purpose by the regulations in articles of incorporation or by resolution of the general meeting of shareholders up to the immediately preceding fiscal year
 6. The profit reserve to be set aside in the current fiscal year due to the interim dividend

On March 26, 2024, at the 7th Annual General Meeting of Shareholders, the Company plans to propose a cash dividend as outlined below, and if it is rejected or revised at a regular meeting of shareholders, the relevant details and reasons, etc., will be reflected in the correction report.

- KRW 250 per share (common share) / KRW 300 (preferred share)
- Total amount of dividends: KRW 4,895,920,300

B. Major indicators of dividend

Classification	Type of stock	Current period	Previous period	Period before the previous period
		The 7th Period	The 6th Period	The 5th Period
Par value per share (KRW)		5,000	5,000	5,000
(Consolidated) Net income (KRW one million)		39,864	191,266	168,140
(Separate) Net income (KRW one million)		41,754	69,270	302,503
(Consolidated) Earnings per share (KRW)		2,072	9,910	8,586
Total amount of cash dividends (KRW one million)		12,572	28,874	58,770
Total amount of stock dividends (KRW one million)		-	-	-
(Consolidated) Cash dividend payout ratio (%)		31.5	15.1	35.0
Cash dividend yield (%)	Common stocks	1.0	1.9	2.0
	Preferred stocks	2.3	3.9	3.3
Stock dividend yield (%)	Common stocks	-	-	-
	Preferred stocks	-	-	-
Cash dividend per share (KRW)	Common stocks	650	1,500	3,000
	Preferred stocks	700	1,550	3,050
Stock dividend per share (stocks)	Common stocks	-	-	-
	Preferred stocks	-	-	-

※ The cash dividend amount for the current period in the above table includes the interim dividend. This amount is subject to approval at the General Meeting of Shareholders,

and if any agenda related to the approval of the financial statements is rejected or revised at a regular meeting of shareholders, the relevant details and reasons, etc., will be reflected in the correction report.

※ The '(Consolidated) Net income' above has been prepared based on the ownership interest of the controlling company.

※ The '(Consolidated) Earnings per share' above is the earnings per share for common stocks.

C. History of dividends

(Unit: times, %)

Number of consecutive dividends		Average dividend yield	
Quarterly (interim) dividend	Year-end dividend	For last 3 years	For last 5 years
2	6	1.6	1.2

※ The settlement of dividends for 2023 (7th period) is made before the approval of the regular meeting of shareholders, and in the event of a rejection or revision at the regular meeting of shareholders in the future, the relevant details and reason will be reflected in the correction report.※ The average dividend yield is for the dividend yield for common shares. For the preferred stocks, the average dividend yield for the last 3 years is 3.2%, and the average dividend yield for the last 5 years is 2.5%.

※ The Company was not able to pay dividends out for the 1st period since the actual business period ran for merely 1 month from the date of new establishment, December 1, 2017, until the date of settlement, and thus, there was no retained earnings, the financial resource for dividends.

7. Matters Concerning Financing via the Issuance of Securities

7-1. Performance in Financing via the Issuance of Securities

[Matters related to the issuance of equity securities, etc.]

A. Status of capital increase (decrease)

[SK chemicals]

(Reference date: 2023.12.31)

(Unit: KRW, stocks)

Date of stock issuance (decrease)	Form of issuance (decrease)	Details of the shares issued (decreased)				
		Type	Quantity	Par value per share	Issue (reduction) price per share	Note
2019.05.24	Paid-in capital increase (through third-party allocation)	Common stocks	161,544	5,000	69,600	Issuance of new shares to maintain ongoing PPS business collaboration with Teijin
2021.04.02	Exercise of stock option	Common stocks	10,000	5,000	72,824	-
2021.10.22	Capital increase without consideration	Preferred stocks	656,759	5,000	5,000	-
2021.10.22	Capital increase without consideration	Common stocks	5,869,384	5,000	5,000	-
2022.11.11	Exercise of stock option	Common stocks	22,492	5,000	5,000	-

[SK bioscience]

(Reference date: 2023.12.31)

(Unit: KRW, stocks)

Date of stock issuance (decrease)	Form of issuance (decrease)	Details of the shares issued (decreased)				
		Type	Quantity	Par value per share	Issue (reduction) price per share	Note

2020.10.20	Capital increase without consideration	Common stocks	4,080,000	5,000	5,000	2 shares allocated per share
2020.12.01	Stock split	Common stocks	55,080,000	500	500	Stock split (1/10)
2021.03.13	Capital increase (by public placement)	Common stocks	15,300,000	500	65,000	Newly listed
2022.03.11	Exercise of stock option	Common stocks	100,000	500	9,154	-
2022.04.05	Exercise of stock option	Common stocks	65,556	500	9,154	-
2022.04.11	Exercise of stock option	Common stocks	118,490	500	9,154	-
2023.12.18	Exercise of stock option	Common stocks	43,704	500	9,154	-

[SK Multi-Utility]

- Not applicable

B. Status of the issuance of outstanding convertible bonds

- Not applicable

C. Status of the issuance of outstanding bonds with warrants, etc.

- Not applicable

D. Status of the issuance of outstanding contingent convertible bonds of conversion type

- Not applicable

[Matters related to the issuance of debt securities, etc.]

A. Performance in the issuance of debt securities

(Reference date: 2023.12.31)

(Unit: KRW one million, %)

Issuing company	Type of securities	Method of issuance	Date of issuance	Total par value (electronic registration)	Interest rate	Rating (rating agency)	Date of maturity	Whether redeemed	Managing company
SK chemicals	Commercial papers and securities	Private placement	2023.02.28	50,000	4.69	A2+ (Korea Investors Service, NICE)	2023.05.30	Redeemed	Shinhan Bank
SK chemicals	Commercial papers and securities	Private placement	2023.05.30	50,000	5.15	A2+ (Korea Investors Service, NICE)	2023.08.30	Redeemed	Shinhan Bank
SK chemicals	Commercial papers and securities	Private placement	2023.08.30	50,000	5.09	A2+ (Korea Investors Service, NICE)	2023.11.30	Redeemed	Shinhan Bank
SK chemicals	Commercial papers and securities	Private placement	2023.11.30	50,000	5.24	A2+ (Korea Investors Service, NICE)	2024.02.29	Unredeemed	Shinhan Bank
SK chemicals	Corporate bond	Public offering	2023.02.24	35,000	4.47	A+ (Korea Investors Service, NICE, Korea Ratings)	2024.08.23	Unredeemed	SK Securities, Korea Investment & Securities
SK chemicals	Corporate bond	Public offering	2023.02.24	95,000	4.61	A+ (Korea Investors Service, NICE, Korea Ratings)	2025.02.24	Unredeemed	SK Securities, Korea Investment & Securities
SK chemicals	Corporate bond	Public offering	2023.02.24	70,000	4.60	A+ (Korea Investors Service, NICE, Korea Ratings)	2026.02.24	Unredeemed	SK Securities, Korea Investment & Securities
Total	-	-	-	400,000	-	-	-	-	-

B. Outstanding balance of commercial papers and securities

(Reference date: 2023.12.31)

(Unit: KRW one million)

Residual maturity		10 days or less	Over 10 days 30 days or less	Over 30 days 90 days or less	Over 90 days 180 days or less	Over 180 days 1 year or less	Over 1 year 2 years or less	Over 2 years 3 years or less	Over 3 years	Total
Outstanding balance	Public offering	-	-	-	-	-	-	-	-	-
	Private placement	-	-	50,000	-	-	-	-	-	50,000
	Total	-	-	50,000	-	-	-	-	-	50,000

C. Outstanding balance of short-term bonds

(Reference date: 2023.12.31)

(Unit: KRW one million)

Residual maturity		10 days or less	Over 10 days 30 days or less	Over 30 days 90 days or less	Over 90 days 180 days or less	Over 180 days 1 year or less	Total	Issuance limit	Remaining limit
Outstanding balance	Public offering	-	-	-	-	-	-	-	-
	Private placement	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-

D. Outstanding balance of corporate bonds

(Reference date: 2023.12.31)

(Unit: KRW one million)

Residual maturity		1 year or less	Over 1 year 2 years or less	Over 2 years 3 years or less	Over 3 years 4 years or less	Over 4 years 5 years or less	Over 5 years 10 years or less	Over 10 years	Total
Outstanding balance	Public offering	190,000	95,000	70,000	-	-	-	-	355,000
	Private placement	-	-	-	-	-	-	-	-
	Total	190,000	95,000	70,000	-	-	-	-	355,000

E. Outstanding balance of hybrid securities

(Reference date: 2023.12.31)

(Unit: KRW one million)

Residual maturity		1 year or less	Over 1 year 5 years or less	Over 5 years 10 years or less	Over 10 years 15 years or less	Over 15 years 20 years or less	Over 20 years 30 years or less	Over 30 years	Total
Outstanding balance	Public offering	-	-	-	-	-	-	-	-
	Private placement	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-

F. Outstanding balance of contingent convertible bonds

(Reference date: 2023.12.31)

(Unit: KRW one million)

Residual maturity		1 year or less	Over 1 year 2 years or less	Over 2 years 3 years or less	Over 3 years 4 years or less	Over 4 years 5 years or less	Over 5 years 10 years or less	Over 10 years 20 years or less	Over 20 years 30 years or less	Over 30 years	Total
Outstanding balance	Public offering	-	-	-	-	-	-	-	-	-	-
	Private placement	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-

G. Key details of the bond management contracts and whether they are satisfied
[SK chemicals]

(Reference date: 2023.12.31) (Unit: KRW one million, %)

Name of bond	Date of issuance	Date of maturity	Amount of issuance	Date of execution of bond management contract	Bond management company
The 11-2nd public placement bonds	2019.01.31	2024.01.31	80,000	2019.01.21	Korea Securities Finance
The 12-2nd public placement bonds	2019.10.30	2024.10.30	75,000	2019.10.18	Korea Securities Finance

(Reference date for performance status: 2023.12.31)

Status of financial ratio maintenance	Details of agreements	400% or less of debt-to-equity ratio (on a consolidated basis)
	Status of performance	Performed (55.42% of debt-to-equity ratio as of 2023.12.31)
Status of restrictions on the placement of security right	Details of agreements	400% or less of total equity combining payment guarantees and assets provided for collateral (on a consolidated basis)
	Status of performance	Performed (19.81% of total equity combining payment guarantees and secured assets as of 2023.12.31)
Status of restrictions on asset disposal	Details of agreements	KRW 2 trillion or less of asset disposal (on a consolidated basis), 70% or less of total assets for asset disposal (on a consolidated basis)
	Status of performance	Performed (KRW 569 million of asset disposal, 0.01% of total assets, 2023.01.01 - 2023.12.31)
Status of restrictions on changes in governance	Details of agreements	Corporate groups with restrictions on cross investment maintained
	Status of performance	Complied with
Status on submission of performance status report	Status of performance	Performed (August 2023)

※ The reference date for the status of performance is the date of preparation of the latest financial statements in which the auditor's opinion (confirmation and expression of opinion) was applied when the status of performance is expressed, and the status of restrictions on the changes in governance is the reference date of preparation of disclosure documents.

※ The status of performance is based on the separate financial statements at the end of 2023.

(Reference date: 2023.12.31) (Unit: KRW one million, %)

Name of bond	Date of issuance	Date of maturity	Amount of issuance	Date of execution of bond management contract	Bond management company
The 13-1st public placement bonds	2023.02.24	2024.08.23	35,000	2023.02.14	Korea Securities Finance
The 13-2nd public placement bonds	2023.02.24	2025.02.24	95,000	2023.02.14	Korea Securities Finance
The 13-3rd public placement bonds	2023.02.24	2026.02.24	70,000	2023.02.14	Korea Securities Finance

(Reference date for performance status: 2023.12.31)

Status of financial ratio maintenance	Details of agreements	400% or less of debt-to-equity ratio (on a consolidated basis)
	Status of performance	Performed (55.42% of debt-to-equity ratio as of 2023.12.31)
Status of restrictions on the placement of security right	Details of agreements	400% or less of total equity combining payment guarantees and assets provided for collateral (on a consolidated basis)
	Status of performance	Performed (19.81% of total equity combining payment guarantees and secured assets as of 2023.12.31)
Status of restrictions on asset disposal	Details of agreements	KRW 2 trillion or less of asset disposal (on a consolidated basis), 70% or less of total assets for asset disposal (on a consolidated basis)

	Status of performance	Performed (KRW 569 million of asset disposal, 0.01% of total assets, 2023.01.01 - 2023.12.31)
Status of restrictions on changes in governance	Details of agreements	Corporate groups with restrictions on cross investment maintained
	Status of performance	Complied with
Status on submission of performance status report	Status of performance	Performed (August 2023)

※ The reference date for the status of performance is the date of preparation of the latest financial statements in which the auditor's opinion (confirmation and expression of opinion) was applied when the status of performance is expressed, and the status of restrictions on the changes in governance is the reference date of preparation of disclosure documents.

※ The status of performance is based on the separate financial statements at the end of 2023.

[SK bioscience]

– Not applicable

[SK Multi-Utility]

– Not applicable

7-2. Performance in the Use of Funds Raised via the Issuance of Securities

A. History of the use of public placement bonds

[SK chemicals]

(Reference date: 2023.12.31)

(Unit: KRW one million)

Classification	Session	Date of payment	Plans for use of funds such as securities declarations		History of the actual funds used		Reason for difference, etc.
			Purpose of use	Amount raised	Details	Amount	
Public placement bonds	The 13-1st	2023.02.24	For repayment of debt	35,000	For repayment of debt	35,000	-
Public placement bonds	The 13-2nd	2023.02.24	For repayment of debt	95,000	For repayment of debt	95,000	-
Public placement bonds	The 13-3rd	2023.02.24	Operating capital	19,000	Operating capital	19,000	-
Public placement bonds	The 13-3rd	2023.02.24	For repayment of debt	51,000	For repayment of debt	51,000	-

※ The history of the use of public placement bonds above are the details of the bonds issued after the split-off on December 1, 2017.

※ Included in the debt service related funds are the amounts of repayment for corporate bonds, and in the operating capital are the purchase prices of raw materials, etc.

[SK bioscience]

(Reference date: 2023.12.31)

(Unit: KRW one million)

Classification	Session	Date of payment	Plans for use of funds such as securities declarations		History of the actual funds used		Reason for difference, etc.
			Purpose of use	Amount raised	Details	Amount	
Newly listed on the securities market	-	2021.03.12	Facility funds	393,400	Facility funds	196,369	-
Newly listed on the securities market	-	2021.03.12	Operating capital	223,567	Operating capital	305,423	-
Newly listed on the securities market	-	2021.03.12	Others	368,196	Others	6,969	-
Total	-	-	-	985,163	-	508,761	-

※ The details of 'Others' among the purpose of use of the plan for the use of funds above are KRW 18.2 billion for Glocalization, KRW 150 billion for the basic vaccine portfolio's expansion,

and KRW 200 billion for the bio CMO business acceleration until 2023 as planned.

[SK Multi-Utility]

- Not applicable

B. History of the use of privately placed funds

- Not applicable

8. Other Matters Concerning Finance

A. Cautions for reparation of financial statements, etc.

1) Reparation of financial statements

The Company completed the sale of the bio-energy business division and the PPS business division on May 29, 2020 and December 31, 2021, respectively, and restated the consolidated and separate financial statements for the comparative period.

2) Merger, split-off, asset transfer, and business transfer

The details of mergers, split-offs, asset transfers, and business transfers that have taken place during the last three fiscal years are as below.

(1) Split-off of the utility supply business division

On September 13, 2021, the Company decided to split off the utility supply business division as of December 1, 2021, the date of split-off, via a resolution of the Board of Directors, and the split-off was completed as of this date.

[Related disclosure]

Report on major issues (decision of split-off), 2021.09.13 (Corrected: 2021.12.01)

Report on the completion of merger, etc. (split-off), 2021.12.02

(2) Transfer of PPS business

On October 27, 2021, the Company decided to sell its PPS business to HDC Hyundai EP Co., Ltd. via a resolution of the Board of Directors. The business transfer was completed on December 31, 2021. Consequently, a disclosure statement regarding the decision to dispose of tangible assets was submitted, as detailed below.

[Related disclosure]

Decision to dispose of tangible assets, 2021.10.27

(3) Establishment of subsidiaries and acquisition of tangible assets

On March 6, 2023, the Board of Directors resolved to establish a subsidiary, Shuye SK chemicals (Shantou) Co., Ltd., and on March 6, 2023, the subsidiary, Shuye SK chemicals (Shantou) Co., Ltd., decided to acquire tangible assets from Shuye Environmental Technology Co., Ltd.

[Related disclosure]

Decision on acquisition of shares and equity securities of other corporations, 2023.03.06

Decision on paid-in capital increase (matters concerning major business of subsidiaries), 2023.03.06

Decision on acquisition of tangible assets (matters concerning major business of subsidiaries), 2023.03.06

3) Matters concerning the accounting of asset sales related to asset securitization, contingent liabilities, etc.
For the matters concerning contingent liabilities, refer to 24. Contingent situations and agreements of “III. Matters Concerning Finance - 3. Notes to the Consolidated Financial Statements.”

4) Other matters to be cautionary about when using the financial statements
As for the details on other matters to be aware of when using the consolidated financial statements, refer to “III. Matters Concerning Finance -

3. Notes to the Consolidated Financial Statements.”

As for the details on the matters to be aware of when using the financial statements, refer to “III. Matters Concerning Finance - 5. Notes to the Financial Statements.”

B. Status of the setting of the bad debt provisions (based on the consolidated financial statements)

1) Details of the placement of bad debt provisions for each account item

The details of the trade and other receivables during the period subject to disclosure are as follows.

(Unit: KRW one thousand)

Classification	Account title	Amount of receivables	Allowance for bad debts	Provision ratio for bad debt
The 7th Period	Trade receivables	157,843,734	4,116,420	2.61%
	Accounts receivable	19,936,059	119,964	0.60%
	Short-term loans	3,040,000	3,040,000	100.00%
	Accrued revenue	6,454,723	-	-
	Derivative financial assets	435,251	-	-
	Long-term loans	788,676	-	-
	Total	188,498,443	7,276,384	3.86%
The 6th Period	Trade receivables	188,942,419	4,714,759	2.50%
	Accounts receivable	64,068,419	144,517	0.23%
	Short-term loans	3,400,877	3,400,000	99.97%
	Accrued revenue	1,787,938	-	-
	Derivative financial assets	10,460,927	-	-
	Long-term loans	863,517	-	-
	Total	269,524,097	8,259,276	3.07%
The 5th Period	Trade receivables	184,875,238	4,767,211	2.58%
	Accounts receivable	183,517,371	232,871	0.13%
	Short-term loans	3,750,000	3,750,000	100.00%
	Accrued revenue	1,195,538	-	-
	Derivative financial assets	2,277,046	-	-
	Total	375,615,193	8,750,082	2.33%

2) Status of changes in allowance for bad debts

The details of changes in the bad debt provisions for the trade and other receivables during the period subject to disclosure are as follows.

(Unit: KRW one thousand)

Classification	The 7th Period	The 6th Period	The 5th Period
Beginning of period	8,259,276	8,750,082	9,894,380
Placements (reversal)	153,809	570,555	(214,347)
Removal, exchange rate fluctuations, etc.	(1,136,701)	(679,634)	28,829
Transfer of business	-	-	(958,780)
Held for sale classification	-	(381,727)	-
End of period	7,276,384	8,259,276	8,750,082

3) Policy for the setting of the bad debt provisions related to trade receivables

For contract assets, trade receivables, and other receivables, the consolidated companies apply the simple method and calculate the expected credit loss based on the expected life of credit loss.

The consolidated companies design the loss provisioning ratio table based on the past credit loss experiences adjusted to reflect the borrower's unique future forecast factors and economic environment.

For other debt instruments (i.e., deposits and loans), the expected credit loss is based on the 12-month expected credit loss. The 12-month expected credit loss is part of the expected credit loss for the entire period, which represents the expected credit loss due to events of default on the financial instruments that may occur within 12 months after the end of the reporting period.

(Provisioning rate)

Normal bonds	Classification	Experience rate
Court receivership/composition obligation	Debentures within the scope of collateral	0%
	Amount in excess of the scope of collateral	100%
Other accident receivables	Debentures within the scope of collateral	0%
	Amount in excess of the scope of collateral	100%

4) Status of the balance of trade and other receivables by the elapsed period

(Reference date: 2023.12.31)

(Unit: KRW one thousand)

Classification	The 7th Period	The 6th Period	The 5th Period
Unmatured	166,698,508	194,813,921	329,933,375
Within 90 days	14,822,315	46,160,540	40,867,330
Within 180 days	4,641,830	21,843,756	250,000
Over 180 days	2,335,790	6,705,880	4,564,488
Subtotal	188,498,443	269,524,097	375,615,193
(Deducted: allowance for bad debts)	(7,276,384)	(8,259,276)	(8,750,082)
Deductions	181,222,059	261,264,821	366,865,111

C. Status of inventories, etc. (based on the consolidated financial statements)

1) Status of the inventories held by business division

[SK chemicals]

The details of the inventories by business division as of the date of preparation of disclosure documents are as follows.

(Reference date: 2023.12.31)

(Unit: KRW one thousand)

Business division	By account title	The 7th Period	The 6th Period	The 5th Period
Green Chemicals Biz.	Goods	7,985,309	3,817,060	2,153,482
	Products	114,029,357	150,412,801	97,956,711
	Processed products	36,643,196	28,655,096	25,576,879
	Half finished products	3,728,799	4,802,695	6,266,509
	Goods in process	4,301,519	4,561,160	2,121,484
	Raw materials	24,482,874	25,064,612	23,592,551
	Stored goods	975,092	-	235,074
	Goods to arrive	29,442,806	22,109,018	6,919,008
	Others	684,620	1,106,953	589,064
	Subtotal	222,273,572	240,529,396	165,410,762
Life Science Biz.	Goods	21,031,585	17,838,138	16,495,619
	Products	23,951,511	16,541,491	13,595,479
	Processed products	3,951,227	1,620,557	1,812,572
	Half finished products	16,175,151	60,623,376	64,564,258
	Goods in process	11,868,856	12,884,060	10,398,197
	Raw materials	43,448,810	70,828,412	45,293,181
	Stored goods	34,217,244	-	31,592,874
	Goods to arrive	-	1,177,497	136,284
	Others	-	60,710,154	-
	Subtotal	154,644,384	242,223,685	183,888,464
Total		376,917,956	482,753,081	349,299,226
Inventory composition ratio to total assets (%) [Sum of inventory assets ÷ Total assets at the end of the period × 100]		9.7	12.2	8.8
Inventory turnover (number of times) [Annualized cost of sales ÷ {(Stock at beginning of period + Stock at end of period) ÷ 2}]		3.0	2.9	4.0

The details of the inventories as of the date of preparation of disclosure documents are as follows.

<End of the current period>

(Unit: KRW one thousand)

Classification	Acquisition cost	Assessment allowance	Book amount
Goods	29,573,909	(557,015)	29,016,894
Products	144,430,750	(6,449,883)	137,980,867
Processed products	42,155,957	(1,561,534)	40,594,423
Half finished products	40,416,968	(20,513,018)	19,903,950
Goods in process	24,218,535	(8,048,160)	16,170,375

Raw materials	116,560,009	(48,628,325)	67,931,684
Stored goods	57,245,236	(22,052,900)	35,192,336
Goods to arrive	29,442,806	-	29,442,806
Other inventories	684,620	-	684,620
Total	484,728,790	(107,810,835)	376,917,955

(Note 1) Included are KRW 1,274,485,000 for the amount of contract assets related to the CMOs.

<End of the previous period>

(Unit: KRW one thousand)

Classification	Acquisition cost	Assessment allowance	Book amount
Goods	24,328,964	(2,673,766)	21,655,198
Products	171,502,022	(4,547,730)	166,954,292
Processed products	31,293,747	(1,018,094)	30,275,653
Half finished products	75,945,901	(10,519,829)	65,426,072
Goods in process	17,445,220	-	17,445,220
Raw materials	107,045,895	(11,152,871)	95,893,024
Stored goods	87,444,483	(26,542,443)	60,902,040
Goods to arrive	23,286,515	-	23,286,515
Other inventories	915,067	-	915,067
Total (Note 1)	539,207,814	(56,454,733)	482,753,081

(Note 1) Included are KRW 37,092,497,000 for the amount of contract assets related to the CMOs and CDMOs.

[SK bioscience]

(Reference date: 2023.12.31)

(Unit: KRW one million)

Business division	Account title	The 6th Period	The 5th Period	The 4th period
Vaccines	Goods	468	2,217	441
	Products	8,061	1,915	4,993
	Half finished products	9,703	54,548	60,110
	Goods in process	11,869	12,884	5,549
	Raw materials	18,533	56,863	33,799
	Stored goods	32,015	58,979	30,129
	Goods to arrive	-	-	25
	Total	80,649	187,406	135,046
Inventory composition ratio to total assets (%) [Sum of inventory assets ÷ Total assets at the end of the period × 100]		4.4	8.7	6.4
Inventory turnover (number of times) [Annualized cost of sales ÷ {(Stock at beginning of period + Stock at end of period) ÷ 2}]		1.7	1.3	3.5

[SK Multi-Utility]

(Reference date: 2023.12.31)

(Unit: KRW one million)

Business division	Account title	The 3rd Period	The 2nd Period	The 1st Period
Supply of utilities such as electricity and steam	Raw materials	1,096	1,452	1,794
	Total	1,096	1,452	1,794
Inventory composition ratio to total assets (%) [Sum of inventory assets ÷ Total assets at the end of the period × 100]		19.9	48.3	98.2
Inventory turnover (number of times) [Annualized cost of sales ÷ {(Stock at beginning of period + Stock at end of period) ÷ 2}]		102.4	83.7	73.9

2) Details of the due diligence of inventories (including the consolidated major subsidiaries)

[SK chemicals]

(1) Purpose of the inventories' due diligence

- Confirmation of the existence of the inventories as of the date of the statement of financial position
- Presence of a certified public accountant of an external audit firm (Hanyoung Accounting Corporation) for the due diligence of inventories by the person in charge of each plant as of the end of December

(2) Year-end inventories' due diligence and the due diligence procedures

Place, date, and time	Observer	Performer of due diligence	Note
Ulsan Plant: 2024.01.08	3 persons	1 person	Due diligence of inventories
Cheongju Plant: 2024.01.03	1 person	2 persons	Due diligence of inventories
Cheonan Outsourced Warehouse: 2022.12.30	1 person	2 persons	Due diligence of inventories

(3) Method of due diligence

- Performed the sample surveys by business division and product, and verified the storage certificate for the stocks in storage and in transit
- The external auditor witnessed and confirmed the Company's inventories' due diligence and sampled some of the items to confirm their existence and completeness

(4) Status of long-term accumulated inventories, etc. (based on the consolidated financial statements)

Where the market price of inventories fell below the acquisition cost, the value of the inventories is determined by using the low-cost method, etc., and the evaluative details of the inventories as of the date of preparation of the disclosure documents are as follows.

(Reference date: 2023.12.31)

(Unit: KRW one million)

Account title	Account title	Acquisition cost	Amount held	Assessment allowance	Balance at end of the current period
Green Chemicals Biz	1. Products/Goods	165,549	165,549	(6,891)	158,658
	2. Half finished products/Goods in process	8,033	8,033	(3)	8,030
	3. Raw materials	24,501	24,501	(18)	24,483
	4. Goods to arrive	29,443	29,443	-	29,443

	5. Others	1,660	1,660	-	1,660
	Subtotal	229,185	229,185	(6,912)	222,274
Life Science Biz.	1. Products/Goods	50,612	50,612	(1,678)	48,934
	2. Half finished products/Goods in process	56,602	56,602	(28,558)	28,044
	3. Raw materials	92,059	92,059	(48,610)	43,449
	4. Goods to arrive	-	-	-	-
	5. Others	56,270	56,270	(22,053)	34,217
	Subtotal	255,544	255,544	(100,899)	154,644
Total		484,729	484,729	(107,811)	376,918

[SK bioscience]

(1) Purpose of the inventories' due diligence

- Confirmation of the existence of the inventories as of the date of the statement of financial position
- Presence of a certified public accountant of an external audit firm (Hanyoung Accounting Corporation) for the due diligence of inventories by the person in charge of each plant as of the end of December

(2) Year-end inventories' due diligence and the due diligence procedures

Place, date, and time	Observer	Performer of due diligence	Note
Andong Plant: 2024.01.05 (Fri)	2 persons	2 persons	Due diligence of inventories
Hwasung Logistics Warehouse: 2024.01.05 (Fri)	2 persons	2 persons	Due diligence of inventories

(3) Method of due diligence

- Performed the sample surveys by business division and product
- Verified the storage certificate for the stocks in storage and in transit
- The external auditor witnessed and confirmed the Company's inventories' due diligence and sampled some of the items to confirm their existence and completeness

(4) Status of long-term accumulated inventories, etc.

SK bioscience holds some long-term accumulated stocks (1 year or longer) and has appropriately provisioned allowances for assessment.

The details of the inventories as of the reference date of the preparation of the report are as follows.

(Reference date: 2023.12.31)

(Unit: KRW one million)

Classification	Acquisition cost	Assessment allowance	Book amount
Goods	625	(157)	468
Products	8,868	(807)	8,061
Half finished products	30,213	(20,510)	9,703
Goods in process	19,917	(8,048)	11,869
Raw materials	67,143	(48,610)	18,533
Stored goods	54,064	(22,049)	32,015

Tototal	180,830	(100,181)	80,649
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[SK Multi-Utility]

(1) Purpose of the inventories' due diligence

- Confirmation of the existence of the inventories as of the date of the statement of financial position
- Presence of a certified public accountant of an external audit firm (Hanyoung Accounting Corporation) for the due diligence of inventories by the person in charge of each plant as of the end of December

(2) Year-end inventories' due diligence and the due diligence procedures

Place, date, and time	Observer	Performer of due diligence	Note
Ulsan Plant: 2024.01.03	1 person	1 person	-

(3) Method of due diligence

- Performed the sample surveys by the stock of raw materials
- Verified the storage certificate for the stocks in storage and in transit
- The external auditor witnessed and confirmed the Company's inventories' due diligence and sampled some of the items to confirm their existence and completeness

(4) Status of long-term accumulated inventories, etc.

SK Multi-Utility does not hold long-term accumulated stocks (1 year or longer).

The details of the inventories as of the reference date of the preparation of the report are as follows.

(Reference date: 2023.12.31)

(Unit: KRW one million)

Classification	Acquisition cost	Assessment allowance	Book amount
Goods	-	-	-
Products	-	-	-
Half finished products	-	-	-
Goods in process	-	-	-
Raw materials	1,096	-	1,096
Stored goods	-	-	-
Goods to arrive	-	-	-
Tototal	1,096	-	1,096

D. Details of the fair value assessment (based on the consolidated financial statements)

The consolidated companies classify the fair value measurements according to the fair value hierarchy which reflects the significance of the input variables used for the fair value measurement. The levels of the fair value hierarchy are as follows.

Level 1: (Unadjusted) quoted price level in the active markets for the same asset or liability

Level 2: Inputs to assets or liabilities that are directly or indirectly observable

Level 3: Inputs to assets or liabilities that are not based on the observable market data
(unobservable input variables)

The fair value measurements for each level of financial instruments as of the end of the reporting period are as follows.

<End of the current period>

(Unit: KRW one thousand)

Classification	Level 1	Level 2	Level 3 (Note 2)	Total
Financial assets				
Trade and other receivables (Note 1)	-	435,251	-	435,251
Short-term financial assets	-	871,919,247	-	871,919,247
Long-term investment assets	-	-	102,766,368	102,766,368
Other non-current assets (Note 1)	-	-	5,055,776	5,055,776
Total	-	872,354,498	107,822,144	980,176,642
Financial liabilities				
Trade and other payables (Note 1)	-	110,856	-	110,856
Total	-	110,856	-	110,856

(Note 1) As for the financial instruments whose book amount is a reasonable approximation of fair value, the separate fair value disclosure has been omitted.

(Note 2) Except as otherwise provided, they consist of unlisted stocks, etc., whose cost can be an appropriate estimate of their fair value.

<End of the previous period>

(Unit: KRW one thousand)

Classification	Level 1	Level 2	Level 3 (Note 2)	Total
Financial assets				
Trade and other receivables (Note 1)	-	10,460,927	-	10,460,927
Short-term financial assets	-	1,314,442,323	-	1,314,442,323
Long-term investment assets	-	-	38,628,272	38,628,272
Other non-current assets (Note 1)	-	-	1,237,613	1,237,613
Total	-	1,324,903,250	39,865,885	1,364,769,135
Financial liabilities				
Trade and other payables (Note 1)	-	67,152	-	67,152
Total	-	67,152	-	67,152

(Note 1) As for the financial instruments whose book amount is a reasonable approximation of fair value, the separate fair value disclosure has been omitted.

(Note 2) Except as otherwise provided, they consist of unlisted stocks, etc., whose cost can be an appropriate estimate of their fair value.

For financial instruments recognized at fair value on a recurring basis, The consolidated companies reassess the classification at the end of each reporting date (based on the lowest level of inputs that are significant to the measurement as a whole) to determine whether there are transfers between levels.

During the current period, there were no changes in the consolidated companies' valuation process, valuation techniques or the types of inputs used in fair value measurements.

IV. Management Diagnosis & Analysis and Opinions of the Directors

1. Cautions for the forward-looking information

The activities, events or phenomena expected or predicted by the Company to occur in the future in this Business Report are reflective of the Company's views on the events and financial performance at the time of the preparation of the disclosure documents for the relevant period. This forward-looking information is based on various assumptions related to the future business environment, and these assumptions may prove to be inaccurate as a result.

Furthermore, these assumptions include risks, uncertainties, and other factors which might cause material differences between the estimates and actual results entered in the forward-looking information. The factors which might cause such material differences include without limitations the factors related to the Company's internal management and the factors related to the external environment.

The Company has no obligation to disclose a correction report that revises the matters stated in the forward-looking information to reflect the risks or uncertainties that arise after the time of preparation of the forward-looking information. Consequently, the Company cannot provide the assurance that the results or matters expected by the Company in this business report will be realized or that the Company's initially anticipated impact will be materialized in effect. Be advised that the forward-looking information entered in this Report was prepared as of the time of the preparation of this Report, and the Company does not plan to update such risk factors or the forward-looking information.

2. Overview

SK chemicals Co., Ltd. was established through a split-off from SK discovery Co., Ltd. (formerly SK chemicals Co., Ltd.) on December 1, 2017, the date of split-off. After the split-off, the business structure was focused on both the Green Chemicals Biz. and the Life Science Biz., and based on this, the eco-friendly sector and the health care sector were selected as the next-generation related sectors to intensively nurture toward laying the foundation for stable revenue generation and continuous growth. In support of this, the Company is investing in building an organizational system and securing core competencies such as R&D.

The business environment continued to be challenging due to the global economic downturn, with high inflation, high interest rates and geopolitical risks. Despite the deteriorating business environment, the Company was able to achieve strategic results by strengthening the portfolio of value-added products in copolyester and expanding the main products in the Pharma business.

In 2023, based on the consolidated financial statements, the Company posted sales of KRW 1,748.8 billion, an operating profit of KRW 83.3 billion, and a net income of KRW 47.8 billion. Furthermore, based on separate financial statements, the sales were posted at KRW 1,232.9 billion, the operating profit at KRW 85.4 billion, and the net income at KRW 41.8 billion.

In the Green Chemicals business, we made various efforts to improve profitability, including the expansion of our high-value-added product portfolio, but both sales and profits declined compared to the previous year due to lower sales volumes caused by the downturn in global demand and the delayed start-up of the Yantai plant in China.

For the Life Science Biz, the pharmaceutical business delivered steady sales growth driven by strong sales of its top-selling products and newly launched drugs. However, the operating profit decreased compared to the previous year due to factors including increased marketing expenses and the impact of drug price cuts. SK bioscience, a subsidiary that oversees the vaccine business, experienced a decline in sales due to the impact of COVID-19's shift to endemic on related sales, and the business turned into an operating loss.

In 2024, the Green Chemicals Biz. will further stabilize the production and supply of recycled materials through business model transformation and expand into the business of recycled raw materials,

while improving the product quality of its existing copolyester business and strengthening its high-value-added portfolio. These efforts aim to solidify the current duopoly structure and establish a more stable profit base.

In the pharmaceutical business of the Life Science Business, the Company will nurture our core business by strengthening market dominance in key product areas based on stable open innovation, and by strengthening R&D, including open

innovation. SK bioscience plans to accelerate its growth as a global vaccine/bio company by expanding its vaccine pipeline, securing new vaccine platforms such as mRNA, expanding its infrastructure, including the expansion of Andong L House and the construction of Songdo R&PD center.

3. Financial position and operating performance results (on a consolidated basis)

1) Financial position

(Unit: KRW one million)

Account	The 7th Period	The 6th Period	Amount of increase	Rate of increase
[Current assets]	2,204,427	2,518,694	(314,267)	-12.5%
[Non-current assets]	1,954,348	1,426,989	527,359	37.0%
Total Assets	4,158,775	3,945,683	213,092	5.4%
[Current liabilities]	830,211	1,058,819	(228,608)	-21.6%
[Non-current liabilities]	652,790	177,958	474,832	266.8%
Total liabilities	1,483,001	1,236,777	246,224	19.9%
[Shares owned by the controlling company]	2,118,704	2,146,699	(27,995)	-1.3%
[Non-controlling interest]	557,070	562,207	(5,137)	-0.9%
Total equity	2,675,774	2,708,906	(33,132)	-1.2%
Total liabilities and stockholders' equity	4,158,775	3,945,683	213,092	5.4%

※ The 7th period (current period) is the consolidated financial statement prior to being approved at the general meeting of shareholders. Moving forward, if any agenda related to the approval of the financial statements is rejected or revised at a regular meeting of shareholders, the relevant details and reasons, etc., will be reflected in the correction report.

- On a consolidated basis in 2023, the total assets increased by KRW 213 billion (5.4%) from the previous year to KRW 4,158.8 billion. The current assets decreased by KRW 314.3 billion (-12.5%) while the non-current assets increased by KRW 527.4 billion (37.0%). The main reason for the increase in non-current assets is the increase in tangible assets due to investment in new facilities at SK bioscience, a major subsidiary.
- The total liabilities increased by KRW 246.2 billion (19.9%) from the previous year to KRW 1,483 billion. The current liabilities decreased by KRW 228.6 billion (-21.6%), while the non-current liabilities increased by KRW 474.8 billion (266.8%). The main reason for the increase in non-current liabilities was an increase in long-term borrowings.
- The total equity decreased by KRW 33.1 billion (-1.22%) from the previous year to KRW 2,675.8 billion mainly due to a decrease in accumulated other comprehensive income. The controlling company's ownership is KRW 2,118.7 billion and the non-controlling interests are KRW 557.1 billion.

2) Operating performance results

(Unit: KRW one million)

Account	The 7th Period	The 6th Period	Amount of increase	Rate of increase
Sales amount	1,748,778	1,829,191	(80,413)	-4.4%
Cost of sales	1,275,846	1,214,096	61,750	5.1%
Gross profit	472,932	615,095	(142,163)	-23.1%
Selling and administrative expenses	389,629	384,614	5,015	1.3%
Operating income	83,302	230,481	(147,179)	-63.9%
Other income	12,048	9,572	2,476	25.9%

Other expenses	43,875	24,926	18,949	76.0%
Financial income	129,106	174,295	(45,189)	-25.9%
Financial cost	125,297	151,958	(26,661)	-17.5%
Gain on equity method valuation	(2,865)	(763)	(2,102)	275.5%
Net income from continuing operations before income tax expense	52,419	236,701	(184,282)	-77.9%
Net income	47,838	231,476	(183,638)	-79.3%

※ The 7th period (current period) is the consolidated financial statement prior to being approved at the general meeting of shareholders. Moving forward, if any agenda related to the approval of the financial statements is rejected or revised at a regular meeting of shareholders, the relevant details and reasons, etc., will be reflected in the correction report.

– In 2023, the consolidated sales recorded KRW 1,748.8 billion, down by KRW 80.4 billion (-4.40%) from the previous year. While the pharmaceutical business of the Life Science Biz. achieved a favorable financial performance through the expansion of key products, the copolyester business of the Green Chemicals Biz. experienced a decline in sales volume due to the global economic downturn despite efforts to develop new applications and strengthen its high-value-added portfolio, and the profit scale shrank due to the impact of lower sales at its subsidiary SK biosciences.

<Operating performance by business division>

<Current period>

(Unit: KRW one thousand)

Classification	Green Chemicals Biz.	Life Science Biz.	Internal transactions, etc.	Total
Sales amount	1,285,198,836	745,554,322	(281,975,418)	1,748,777,740
Operating income	52,005,352	19,531,325	11,765,810	83,302,487

<Previous period>

(Unit: KRW one thousand)

Classification	Green Chemicals Biz.	Life Science Biz.	Internal transactions, etc.	Total
Sales amount	1,401,946,579	770,659,186	(343,414,442)	1,829,191,323
Operating income	88,746,511	148,611,013	(6,876,851)	230,480,673

3) Details of the New Businesses

The Company plans to proactively respond to the rapidly changing market by strengthening the competitiveness of existing businesses and expanding the recycling business. To this end, we have established an overseas subsidiary, Shuye-SK Environmental Protection Materials (Shantou) Co., Ltd., to secure CR-PET materials and CR raw materials (r-BHET) and lay the foundation for the recycling business.

- Investment Target: Shuye-SK chemicals (Shantou) Co., Ltd.
- Location of the Business: Shantou, China
- Key Products: 50,000 tons of CR-PET, 70,000 tons of r-BHET
- Amount Invested by the Company: KRW 66,094,000,000
- Expected Effect: Securing expansion opportunities with recycling-related businesses by securing r-BHET early. For more information about the new business, please refer to [II. Details of the Business - 7. Other Matters of Reference - (4) New businesses, etc.].

4) Reorganization

– Not applicable

5) Effect of the exchange rate fluctuations

Exchange risk is the risk where the fair value of financial instruments or future cash flows will fluctuate due to the fluctuations in the exchange rates. The book amounts of the monetary assets and liabilities denominated in foreign currencies other than the functional currency as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	End of the current period		End of the previous period	
	Assets	Liabilities	Assets	Liabilities
USD	81,771,660	(60,674,198)	283,760,059	95,426,426
CNY	24,935,031	(144,742,567)	3,610,762	542,830
EUR	23,896,005	(79,185,096)	3,764,548	18,599,899
GBP	-	-	433,923	130,384
JPY	2,954,389	(41,754)	6,820,072	233,047
Others	396,319	(102,450)	-	-
Total	133,953,404	(284,746,065)	298,389,364	114,932,586

(Note 1) The foreign currency borrowings and foreign currency bonds for which currency swaps are executed are excluded since they are not exposed to the exchange risk.

As of the end of the reporting period, if the exchange rate of the functional currency for each foreign currency fluctuates by 5%, the effect on the profit and loss before tax for the current period and the previous period is as follows.

(Unit: KRW one thousand)

Classification	End of the current period		End of the previous period	
	5% increase	5% decrease	5% increase	5% decrease
USD	7,122,293	(7,122,293)	9,416,682	(9,416,682)
CNY	8,483,880	(8,483,880)	153,397	(153,397)
EUR	5,154,055	(5,154,055)	(741,768)	741,768
GBP	-	-	15,177	(15,177)
JPY	149,807	(149,807)	329,351	(329,351)
Others	24,938	(24,938)	-	-
Tototal	20,934,973	(20,934,973)	9,172,839	(9,172,839)

4. Liquidity and financing and expenditure

1) Status of borrowings, etc.

(1) The details of the bonds and borrowings as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	End of the current period	End of the previous period
Short-term borrowings	263,707,890	436,109,819
Current portion of long-term liabilities:		
Current portion of bonds payable	189,855,128	103,986,944
Current portion of long-term borrowings	2,550,000	-

Sub total	192,405,128	103,986,944
Debenture	164,557,091	154,787,349
Long-term borrowings	472,518,337	7,172,699
Tototal	1,093,188,446	702,056,811

(2) The details of the short-term borrowings as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Lender	Details	Annual interest rate at end of current period (%)	End of the current period	End of the previous period
Hana Bank, etc.	General borrowings from banks	3.60 - 6.19	144,718,841	202,200,000
Hana Bank, etc.	Trade receivable discounts	4.00 - 7.64	68,989,049	78,359,823
Shinhan Bank, etc.	Commercial paper (CP)	5.24	50,000,000	110,000,000
Coalition for Epidemic Preparedness Innovations (CEPI)	Other borrowings (Note 1)	-	-	45,549,996
Tototal			263,707,890	436,109,819

(Note 1) As the product was commercialized with a subsidy intended to support the research and development of the COVID-19 vaccine candidate GBP510, which is under development by the consolidated companies, part of the amount was reimbursed during the current period.

(3) The details of the bonds as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	Date of maturity	Annual interest rate at end of current period (%)	End of the current period	End of the previous period
The 9-2nd public placement bonds	2023.04.30	-	-	66,000,000
The 11-2nd public placement bonds	2024.01.31	2.91	80,000,000	80,000,000
The 12-2nd public placement bonds	2024.10.30	2.77	75,000,000	75,000,000
The 13-1st public placement bonds	2024.08.23	4.47	35,000,000	-
The 13-2nd public placement bonds	2025.02.24	4.61	95,000,000	-
The 13-3rd public placement bonds	2026.02.24	4.60	70,000,000	-
Overseas bonds	2023.06.29	-	-	38,019,000
Tototal			355,000,000	259,019,000
(Deducted: discount on bonds premium)			(587,781)	(244,707)
(Deducted: current portion of bonds payable)			(189,855,128)	(103,986,944)
Deductions			164,557,091	154,787,349

2) Annual repayment plan for borrowings, etc.

The Company manages the risks arising from a lack of funds through liquidity strategies and plans, and matches the maturities of financial assets and liabilities by considering the maturities of financial instruments and estimates of the operating cash flows.

The following are the undiscounted contractual amounts as a repayment plan for each financial liability.

<Current period>

(Unit: KRW one thousand)

Classification	Less than 1 year	2 years or less	5 years or less	Over 5 years	Total
Trade and other payables	246,774,769	-	-	-	246,774,769
Short-term borrowings	263,707,890	-	-	-	263,707,890
Current portion of long-term liabilities	192,550,000	-	-	-	192,550,000
Current portion of lease liabilities	7,901,430	-	-	-	7,901,430
Other current liabilities (Note 1)	5,315,700	-	-	-	5,315,700
Debenture (Note 2)	-	95,000,000	70,000,000	-	165,000,000
Long-term borrowings	-	12,927,084	96,591,253	363,000,000	472,518,337
Lease liabilities	-	3,126,809	4,688,348	3,533,831	11,348,988
Total	716,249,789	111,053,893	171,279,601	366,533,831	1,365,117,114

(Note 1) They are the deposits received and unpaid dividends. (Note 2) Includes the interest expenses.

<Previous period>

(Unit: KRW one thousand)

Classification	Less than 1 year	2 years or less	5 years or less	Over 5 years	Total
Trade and other payables	219,159,228	-	-	-	219,159,228
Short-term borrowings	436,109,819	-	-	-	436,109,819
Current portion of long-term liabilities	104,019,000	-	-	-	104,019,000
Current portion of lease liabilities	12,000,694	-	-	-	12,000,694
Other current liabilities (Note 1)	4,940,675	-	-	-	4,940,675
Debenture (Note 2)	-	-	155,000,000	-	155,000,000
Long-term borrowings	7,172,699	-	-	-	7,172,699
Lease liabilities	-	6,637,793	5,089,589	4,526,978	16,254,360
Total	783,402,115	6,637,793	160,089,589	4,526,978	954,656,475

(Note 1) They are the deposits received and unpaid dividends.
(Note 2) Included are the interest expenses.

3) Matters concerning liquidity

As of the end of 2022, the consolidated companies' cash and cash equivalents posted KRW 396 billion, and the possibility of a liquidity risk is limited as the maturities of borrowings are evenly distributed.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Cash flows from operating activities	146,064,486	(186,535,765)
Cash flows from investment activities	(510,390,210)	230,967,889
Cash flows from financing activities	355,537,871	107,152,680
Net cash flows	(8,787,852)	151,584,803

5. Off-balance sheet transactions

For the matters related to the Company's off-balance sheet transactions, refer to "XI. Other Matters Required for Investor Protection - 2. Matters concerning contingent liabilities."

6. Other matters required for investment decision making

1) Matters concerning important accounting policies and estimates

For the matters related to the Company's important accounting policies and estimates, refer to "III. Matters Concerning Finance - 3. Notes to the Consolidated Financial Statements and 8. Other Matters Concerning Finance" or the attached Notes to the Consolidated Audit Report.

2) Matters concerning environment and employees

- For matters concerning environment related sanctions, administrative measures, etc., refer to "XI. Other Matters Required for Investor Protection - 3. Matters Related to Sanctions, Etc."
- There were no significant employee related changes during the current period, such as the transfer of key personnel.

3) Matters concerning the regulation under laws and regulations

- For an overview of key legal and regulatory issues related to the Company's business, refer to "XI. Other Matters Required for Investor Protection - 3. Matters Related to Sanctions, Etc."

4) Matters related to derivatives and risk management policies

For the matters related to the Company's important accounting policies and estimates, refer to "II. Details of the Business - 7. Status of Transactions such as Derivatives and Put Back Options (including Major Consolidated Subsidiaries) - 1) Derivatives."

V. Audit Opinion of the Auditor, Etc.

1. Matters Concerning External Audit

A. Auditor's name and audit opinion

Business Year	Auditor	Auditor's opinion	Matters of emphasis, etc.	Key matters of audit
The 7th period (current period)	Ernst & Young Han Young	Unqualified opinion	None	Time-specific export sales Valuation of inventories
The 6th period (previous period)	Ernst & Young Han Young	Unqualified opinion	None	Time-specific export sales Reviewing the adequacy of C(D)MO contract revenue recognition
The 5th period (period before previous period)	Ernst & Young Han Young	Unqualified opinion	None	Time-specific export sales Reviewing the adequacy of C(D)MO contract revenue recognition

B. Status of the execution of audit services

(Unit: KRW one million, hour)

Business Year	Auditor	Details	Details of audit contract		Details of actual audit performed	
			Remuneration	Hours	Remuneration	Hours
The 7th period (current period)	Ernst & Young Han Young	Review and audit of the financial statements	510	5,100	510	4,950
The 6th period (previous period)	Ernst & Young Han Young	Review and audit of the financial statements	480	4,800	480	4,884
The 5th period (period before previous period)	Ernst & Young Han Young	Review and audit of the financial statements	440	4,600	440	4,618

(The 7th Audit Period)

Classification	Schedule	
Q4 of the 7th period	Separately reviewed	2024.01.22 - 2024.01.26
	Reviewed on a consolidated basis	2024.02.05 - 2024.02.08
Q3 of the 7th period	Separately reviewed	2023.10.16 - 2023.10.20
	Reviewed on a consolidated basis	2023.10.23 - 2023.10.27
Q2 of the 7th period	Separately reviewed	2023.07.17 - 2023.07.21
	Reviewed on a consolidated basis	2023.07.24 - 2023.07.28
Q1 of the 7th period	Separately reviewed	2023.04.17 - 2023.04.21
	Reviewed on a consolidated basis	2023.04.24 - 2023.04.28

C. Status of the contracts for non-audit services executed with the auditor

Business Year	Contract execution date	Details of services	Period of service performance	Remuneration for services	Note
The 7th period (current period)	-	-	-	-	-
	-	-	-	-	-
The 6th period (previous period)	-	-	-	-	-
	-	-	-	-	-

The 5th period (period before previous period)	-	-	-	-	-
	-	-	-	-	-

D. Details of the discussions by and between the internal audit organization and the auditor

Classification	Date	Attendees	Method	Key details discussed
1	2023.05.24	Audit Committee / Accounting Team and External Audit Team	Face-to-face meeting	2023 audit performance plan
2	2023.08.23	Audit Committee / Accounting Team and External Audit Team	Face-to-face meeting	Review results for Q2 2023 and internal accounting control system audit progress status
3	2023.11.22	Audit Committee / Accounting Team and External Audit Team	Face-to-face meeting	Review results for Q3 2023 and internal accounting control system audit progress status
4	2024.02.21	Audit Committee / Accounting Team and External Audit Team	Face-to-face meeting	Audit results for 2023 and internal accounting control system audit progress status

E. Change of the auditor

– Not applicable

F. Audit opinion of the auditor for the subsidiary

– Not applicable

G. Change of the auditor for the subsidiary

The changes of the auditor for the subsidiary during the period subject to disclosure are as follows.

Subsidiary	Fiscal year of change	Before change	After change	Reason for the Relevant Change Made
SK bioscience	2021	Samil PwC	Ernst & Young Han Young	Newly appointed
	Q3 2020	Ernst & Young Han Young	Samil PwC	Appointed the auditor for listing on the securities market (Note 1)

(Note 1) For SK bioscience, Samil PwC was designated as the auditor by the Financial Supervisory Service in September 2020 in accordance with the Act on External Audit of Stock Companies and the Enforcement Decree of the same Act for listing on the securities market. According to the relevant laws and regulations, the designated auditor for a government listing cannot be appointed as the auditor for the first fiscal year after the listing. Therefore, Ernst & Young Han Young was appointed as the auditor from the 4th period.

2. Matters Concerning Internal Controls

A. Auditor's review opinion of the internal accounting control system

Business Year	Review opinion and audit opinion	Matters pointed out
The 7th period (current period)	[Audit opinion] As of December 31, 2023, the Company's internal accounting control system is effectively designed and operated from the perspective of materiality in line with the "Conceptual System for the Design and Operation of the Internal Accounting Control System."	Not applicable
The 6th period (previous period)	[Audit opinion] As of December 31, 2022, the Company's internal accounting control system is effectively designed and operated from the perspective of materiality in line with the "Conceptual System for the Design and Operation of the Internal Accounting Control System."	Not applicable

The 5th period (period before previous period)	[Audit opinion] As of December 31, 2021, the Company's internal accounting control system is effectively designed and operated from the perspective of materiality in line with the "Conceptual System for the Design and Operation of the Internal Accounting Control System."	Not applicable
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VI. Matters Concerning the Company's Organizations Such as the Board of Directors

1. Matters Concerning the Board of Directors

A. Overview of the Board of Directors' structure

As of the date of preparation of the disclosure documents, the Board of Directors of the Company consists of 2 inside directors, 4 outside directors, and 1 non-executive director. The Board of Directors operates the Audit Committee, the Outside Director Candidate Nomination Committee, the ESG Committee, and the Human Resources Committee, and other committees such as the Finance Committee can be formed later if needed. Furthermore, the entire Audit Committee consists of outside directors.

(Reference date: 2023.12.31)

Number of persons	Inside director	Outside director	Non-executive director
A total of 7 people	Kim Cheol (Note 1), Ahn Jae Hyun (Note 2)	Park Jungsoo, Moon Sunghwan (Note 3), Cho Honghee (Note 4), An Yang Ho	Jeon Kwang Hyun (Note 5)

(Note 1) Inside director Kim Cheol was reappointed at the 6th regular meeting of shareholders held on March 28, 2023.

(Note 2) Inside director Ahn Jae Hyun was newly appointed at the 6th regular meeting of shareholders held on March 28, 2023.

(Note 3) Inside director Moon Sunghwan was reappointed at the 6th regular meeting of shareholders held on March 28, 2023.

(Note 4) Outside director Cho Honghee was reappointed at the 6th regular meeting of shareholders held on March 28, 2023.

(Note 5) Non-executive director Jeon Kwang Hyun was newly appointed at the 6th regular meeting of shareholders held on March 28, 2023.

(Outside directors and the status of their changes)

The status of changes from the date of commencement of the business year in which the reference date of preparation of disclosure documents belongs until the date of submission of disclosure documents is as follows.

(Unit: Number of persons)

Number of directors	Number of outside directors	Status of changes in the outside directors		
		Appointment	Dismissal	Interim resignation
7	4	2	-	-

※ These are the results of the 6th regular meeting of shareholders held on March 28, 2023.

1) Details of the authorities of the Board of Directors

- The Board decides on the matters provided under the laws or the Articles of Incorporation, matters delegated by the general meeting of shareholders, and the important matters related to the Company's basic management policies and business execution.
- The Board oversees the business execution by and of the directors.

Classification	Key details
Authorities of the Board of Directors	<p>1. Matters determined by the authorities of the Board of Directors under the laws (Commercial Act, Financial Investment Services and Capital Markets Act, and Fair Trade Act, etc.) and the Articles of Incorporation</p> <p>2. Matters of major decision-making for the Company (Board regulations)</p> <ul style="list-style-type: none"> – Matters concerning the general meeting of shareholders – Matters concerning management – Matters concerning finance – Matters related to human resource and organizational management – Other important matters of management

B. Matters of important resolutions, etc.

(2023)

Session	Date	Details of proposal	Inside director		Outside director				
			Kim Cheol (Note 1)	Ahn Jae Hyun (Note 2)	An Yang Ho	Park Jungsoo	Moon Sunghwan (Note 3)	Cho Honghee (Note 4)	Jeon Kwang Hyun (Note 5)
			(rate of attendance:100%)	(rate of attendance: 93%)	(rate of attendance:100%)	(rate of attendance:100%)	(rate of attendance:100%)	(rate of attendance:100%)	(rate of attendance:100%)
			Whether approved or disapproved						
1st	2023.02.01	1. Appointment of committee member within the Board of Directors ※ Reported Matters ① Report on the results of the committee activities	Approved -	Approved -	Approved -	Approved -	Approved -	Approved -	Approved -
2nd	2023.02.09	1. Approval of financial statements and business reports 2. Health and safety plan for 2023 ※ Reported Matters ① Report on 2022 Business Performance Results and 2023 Business Plans ② Report on the KPIs of the CEO for 2023 ③ Report on the CEO's individual remuneration (draft) for 2023	Approved Approved - - -	Approved Approved - - -	Approved Approved - - -	Approved Approved - - -	Approved Approved - - -	Approved Approved - - -	Approved Approved - - -
3rd	2023.02.22	※ Reported Matters ① Report on subsidiary payment guarantee for subsidiaries ② Report on management issues	-	-	-	-	-	-	-
4th	2023.02.28	1. Payment guarantee for subsidiaries 2. Transactions between directors, etc. and the Company (Note 6) ※ Reported Matters ① Report on the operation status of the internal accounting control in 2022 ② Report on management issues	Approved Approved - -	Approved Approved - -	Approved Approved - -	Approved Approved - -	Approved Approved - -	Approved Approved - -	Approved Approved - -
5th	2023.03.06	1. Establishment of and investment in joint venture with Shuye 2. Convocation of the regular meeting of shareholders and confirmation of agenda ※ Reported Matters ① Report on the assessment results regarding the operation status of the internal accounting control system in 2022 ② Report on management issues	Approved Approved - -	Approved Approved - -	Approved Approved - -	Approved Approved - -	Approved Approved - -	Approved Approved - -	Approved Approved - -
6th	2023.03.28	1. Appointment of Chairman of the Board of Directors 2. Appointment of CEO 3. Appointment of committee member within the Board of Directors ※ Reported Matters ① Report on evaluation results for Board of Directors' operation in 2022 ② Report on legal compliance activities in 2022 ③ Report on the results of the implementation of the resolutions of the Board of Directors	Approved Approved - - -	Approved Approved - - -	Approved Approved - - -	Approved Approved - - -	Approved Approved - - -	Approved Approved - - -	Approved Approved - - -

7th	2023.04.26	※ Reported Matters ① Report on Q1 business performance results and Q2 business plans ② Report on the progress of SKMU PF ③ Report on annual objectives and performance of the Risk Management Committee in 2023 ④ Report on duties and responsibilities of directors of a listed company ⑤ Report on committee activities ⑥ Report on board workshop	-	-	-	-	-	-	-
8th	2023.06.01	1. Setting the reference date for interim dividend 2. Subsidiary investment agreement and collateral provision	Approved	Approved	Approved	Approved	Approved	Approved	Approved
9th	2023.06.28	※ Reported Matters ① Report on implementing the results of SHE diagnostics ② Report on results of implementation of board resolutions and committee activities	-	-	-	-	-	-	-
10th	2023.07.26	1. Decision on the interim dividend 2. Purchase of liability insurance for executives in 2023 ※ Reported Matters ① Report on first-half results and business plan for the second half of the year ② Results of the committee activities	Approved	Approved	Approved	Approved	Approved	Approved	Approved
11th	2023.08.23	※ Reported Matters ① Review of the CEO KPIs for the first half of 2023	-	-	-	-	-	-	-
12th	2023.10.25	※ Reported Matters ① Report on how to improve the CEO compensation system ② Report on 3Q Business Performance Results	-	-	-	-	-	-	-
13th	2023.11.29	※ Reported Matters ① Report on the results of the Human Resources Committee ② Report on reorganization and appointment of executives ③ Report on the results of the 2023 Culture Survey	-	-	-	-	-	-	-
14th	2023.12.20	1. Approval of limit for corporate bond issuing 2. Signing of the Brand Usage Contract ※ Reported Matters ① Report on committee activities ② Discussion for the Directors' Summit	-	-	-	-	-	-	-

(Note 1) Inside director Kim Cheol was reappointed at the 6th regular meeting of shareholders held on March 28, 2023.

(Note 2) Inside director Ahn Jae Hyun was newly appointed at the 6th regular meeting of shareholders held on March 28, 2023.

(Note 3) Inside director Moon Sunghwan was reappointed at the 6th regular meeting of shareholders held on March 28, 2023.

(Note 4) Outside director Cho Honghee was reappointed at the 6th regular meeting of shareholders held on March 28, 2023.

(Note 5) Non-executive director Jeon Kwang Hyun was newly appointed at the 6th regular meeting of shareholders held on March 28, 2023.

(Note 6) This matter is related to the approval of self-trading, so please refer to the details below.

Target company	Major shareholders	Date of resolution	Matters of approval
SK Gas Co., Ltd.	SK discovery Co., Ltd.	2023.02.28	1. Purpose of the transaction (service) and scope of the service - Provision of advisory services on the impact of the sale of the old shares of SK bioscience held by SK chemicals and on how to increase the value of the remaining shares 2. Service period and estimated transaction amount - Period: February 13, 2023 - July 31, 2023 - Estimated transaction amount: Approximately KRW 496 million

※ These are the details of the agenda of the board held from the date of the start of the business year in which the reference date of the preparation of disclosure documents belongs until the reference date.

※ Matters of reference <Results of evaluation of the board activities in 2022 (self-evaluation)>

In March 2023, an evaluation of the board activities was conducted targeting outside directors, and the improvement needs revealed as a result of the evaluation will be actively reflected.

- Evaluation cycle: Conducted annually at the beginning of the year (covers the BOD's operations up to the end of the previous business year)

- Evaluation method and who conducts the evaluation: Individually evaluated by all outside directors (4) using a 6-item, 25-question questionnaire (5-point scale)

– Overall evaluation results: 4.7 points (out of 5 points)

※ Evaluation items

Classification	Evaluation items (25 in total)	Evaluation results (points)
Structure of the board	- Adequacy of size	4.7
	- Expertise/experience	
	- Independence	
Role of the board	- Establish the company vision and strategy	4.6
	- Adequacy of the scope of authorities	
	- Advice to the management	
	- Enhance corporate value	
	- Risk management	
Responsibility of the board	- Supervision of management performance	4.8
	- Confidentiality	
	- Corporate governance	
	- Corporate social responsibility	
Operation of the board	- Adequacy of the number of meetings held/agendas	4.7
	- Usefulness of management data	
	- Participation of directors	
	- Adequacy of discussions	
	- Provision of education	
	- Information collection	
Structure of the Committee	- Adequacy of the structure	4.6
	- Structure of members	
Roles/operation of the Committees	- Adequacy of roles	4.8
	- Adequacy of the number of meetings held	
	- Information provision and adequacy of discussions	
Overall evaluation results		4.7

C. Committees within the Board of Directors

1) Audit Committee

As for the Audit Committee, refer to “VI. Matters Concerning the Company’s Organizations Such as the Board of Directors - 2. Matters concerning the audit system.”

2) Outside Director Candidate Nomination Committee

As for the Outside Director Candidate Nomination Committee, refer to “VI. Matters Concerning the Company’s Organizations Such as the Board of Directors - 1. Matters concerning the Board of Directors - D. Independence of the directors.”

3) ESG Committee

– Chairman: Outside director Park Jungsoo

– Structure of the Committee: 1 inside director (Ahn Jae Hyun), 2 outside directors (Park Jungsoo and An Yang Ho)

- Purpose of establishment & authorities: Conduct advance review of the key ESG related matters across business management
- Details of activities

(2023)

Name of Committee	Date	Details of proposal	Whether approved	Park Jungsoo (rate of attendance:100%)	An Yang Ho (rate of attendance:100%)	Ahn Jae Hyun (rate of attendance: 80%)
				Whether approved or disapproved		
ESG Committee	2023.02.20	1. Establishment of Company S	Approved	Approved	Approved	Approved
	2023.03.27	※ Reported Matters ① Analysis of ESG assessment results and identification of opportunities for improvement ② Report on 2022 materiality assessment results	Reported	-	-	-
	2023.07.06	※ Reported Matters ① Report on 2023 Human Rights Impact Assessment ② Report on the publication of Sustainability Report 2022 ③ Report on the publication of TCFD Report 2023	Reported	-	-	-
	2023.09.18	1. Introduction of renewable energy for RE100 implementation ※ Reported Matters ① Review of internal carbon price implementation (proposal)	Approved Reported	Approved -	Approved -	Absent -
	2023.12.06	※ Reported Matters ① 2023 ESG Performance and 2024 Plans	Reported	-	-	-

4) Human Resources Committee

- Chairman: Outside director Moon Sunghwan
- Structure of the Committee: 2 outside directors (Moon Sunghwan and Cho Honghee), and 1 non-executive director (Jeon Kwang Hyun)
- Purpose of establishment & authorities: Evaluating the CEO and whether to retain him or her, reviewing the appropriateness of the compensation of the inside directors, and reviewing the results of the evaluation of key executives and the determination of compensation levels
- Details of activities

(2023)

Name of Committee	Date	Details of proposal	Whether approved	Moon Sunghwan (rate of attendance:100%)	Cho Honghee (rate of attendance:100%)	Jeon Kwang Hyun (rate of attendance: 100%)
				Whether approved or disapproved		
Human Resources Committee	2023.02.01	1. Review of CEO KPIs for 2023	Under consideration	Approved	Approved	Approved
		2. Review of the CEO's individual remuneration	Under consideration	Approved	Approved	Approved
		3. Report on individual wages of key executives	Reported	-	-	-
	2023.03.28	1. Appointment of Chairperson of Personnel Committee	Approved	Approved	Approved	Approved
	2023.08.17	1. Report on the CEO KPI review for first half of 2023 2. Report on the evaluation of key executives for the first half of 2023	Under consideration Reported	Approved -	Approved -	Approved -
	2023.10.18	1. Report on the improvement of the CEO compensation system	Reported	-	-	-
	2023.11.22	1. Review of CEO evaluation for 2023	Under consideration	Approved	Approved	Approved
		2. Review of whether the CEO will remain in office	Under consideration	Approved	Approved	Approved
		3. Report on the evaluation of key executives for 2023	Reported	-	-	-

D. Independence of Directors

1) Independence standards for the election of directors, etc.

The director candidates to be appointed at the general meeting of shareholders are selected by the Board of Directors (inside

directors) and the Outside Director Candidate Nomination Committee (outside directors), and the agenda for submission for the general meeting of shareholders are finalized.

The Outside Director Candidate Nomination Committee (3 outside directors) considers the candidates' careers and fields of expertise to make balanced decision-makings and management supervisions possible, and examines whether they are applicable under any of the causes for disqualification provided under the relevant regulations such as the Commercial Act and the Enforcement Decree of the Commercial Act, and finally, make recommendations to the general meeting of shareholders.

2) Background of appointment of directors, referrers, etc.

Name of position	Name	Referrer	Field of activity (task in charge)	Transaction with the Company	Relationship with the largest shareholder or major shareholder	Term of appointment	Whether retained for another term of office (number of reappointments)
Inside director	Kim Cheol (Note 1)	Board of Directors Meeting	CEO	Not applicable	Affiliate's executive	2026.03	Y (2)
	Ahn Jae Hyun (Note 2)	Board of Directors Meeting	CEO		Affiliate's executive	2026.03	N
Outside director	Park Jungsoo	Outside Director Candidate Nomination Committee	Outside director (member of the Audit Committee)		Affiliate's executive	2025.03	Y (1)
	Moon Sunghwan (Note 3)	Outside Director Candidate Nomination Committee	Outside director (member of the Audit Committee)		Affiliate's executive	2026.03	Y (1)
	Cho Honghee (Note 4)	Outside Director Candidate Nomination Committee	Outside director (member of the Audit Committee)		Affiliate's executive	2026.03	Y (1)
	An Yang Ho	Outside Director Candidate Nomination Committee	Outside director (member of the Audit Committee)		Affiliate's executive	2024.03	Y (1)
Non-executive director	Jeon Kwang Hyun (Note 5)	Board of Directors Meeting	Non-executive director		Largest shareholder / executive	2025.03	N

Name	Background of appointment
Kim Cheol	After joining SK Co., Ltd., Kim Cheol served as the head of the petroleum development division of SK Innovation and the resin business division of SK chemicals, and has since served as the CEO of SK chemicals. To date, he has played a significant role in the business growth of each company, and based on his extensive experience and skills, he was nominated in the belief that he would be very helpful in implementing the Company's new businesses.
Ahn Jae Hyun	The candidate, Ahn Jae Hyun, served as CEO of SK D&D, Head of SK Gas Management Support Division and Chairman of the New Growth Energy Committee, as well as CEO of SK Ecoplant and CEO of SK discovery, leading various investments and M&A. In particular, he successfully transformed the green and new energy business structure of SK Ecoplant. He was nominated in the hope that his experience would help build our green materials, bio-centric portfolio and accelerate ESG management.
Park Jungsoo	Park Jungsoo, currently a professor of economics at Sogang University, was appointed in the hope that he would play an important role in SK chemicals' decision making based on his diverse experience and professional insight, including extensive activities as a policy advisor and evaluation member for government agencies.
Moon Sunghwan	Moon Sunghwan was nominated as an outside director based on his knowledge and wealth of experience as a corporate management expert who has served as a CEO of a listed company for more than 10 years, and he was nominated in the hope that he would enhance diversity and provide new perspectives in making important decisions, as well as contribute to the growth and development of the Company with his professional insight and skills.
Cho Honghee	Cho Honghee was nominated as an outside director because he has knowledge and rich experience as an expert in the field of taxation for more than 30 years at the National Tax Service and has served as an outside director and audit member of a listed company for many years, and would be able to enhance the expertise and diversity of the Board and the Audit Committee and contribute to the growth and development of the Company with his professional insight and skills.
An Yang Ho	As a human resources and finance and accounting expert who has served as the Director General for Planning and Budget, Director General of the Human Resources Development Bureau of the Central Personnel Committee, and the 2nd Vice Minister of the Ministry of Public Administration and Security, An Yang Ho has actively expressed his opinions from a balanced perspective based on his wealth of experience and competencies during his tenure as an outside director of SK chemicals. He was appointed because, at a time when ESG management needs to be strengthened, he would be able to contribute to the business promotion and sustainable growth of SK chemicals.
Jeon Kwang Hyun	After joining SK chemicals Co. Ltd., Jeon Kwang Hyun served as the president of Life Science Biz. and as CEO of SK chemicals, where he made significant contributions to the improvement and growth of each business division, and was nominated in the hope that he would contribute to future performance by providing business insights based on his practical experience and outstanding abilities.

(Note 1) Inside director Kim Cheol was reappointed at the 6th regular meeting of shareholders held on March 28, 2023.

(Note 2) Inside director Ahn Jae Hyun was newly appointed at the 6th regular meeting of shareholders held on March 28, 2023.

(Note 3) Inside director Moon Sunghwan was reappointed at the 6th regular meeting of shareholders held on March 28, 2023.

(Note 4) Outside director Cho Honghee was reappointed at the 6th regular meeting of shareholders held on March 28, 2023.

(Note 5) Non-executive director Jeon Kwang Hyun was newly appointed at the 6th regular meeting of shareholders held on March 28, 2023.

3) Status of the establishment and structure of the Outside Director Candidate Nomination Committee

(Reference date: 2023.12.31)

Name	Whether an outside director	Note
An Yang Ho	O	– Outside directors comprise 100% of the total membership of the Committee.
Cho Honghee	O	

Park Jungsoo	O	—The requirement that the Committee should be composed of 50% or more of outside directors is met (Article 542-8 of the Commercial Act).
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4) Details of the key activities of the Outside Director Candidate Nomination Committee

(2023)

Name of Committee	Date	Details of proposal	Whether approved	An Yang Ho (rate of attendance:100%)	Cho Honghee (rate of attendance:100%)	Park Jungsoo (rate of attendance:100%)
Whether approved or disapproved						
Outside Director Candidate Nomination Committee	2023.02.09	1. Nomination of outside director candidates	Approved	Approved	Approved	Approved

E. Expertise of the outside directors

1) Status of the outside directors' support organization

Name of department (team)	Number of employees	Position (number of years of continued service)	Details of key activities
Secretariat of the Board of Directors	2	Head of Team (12), Manager (6)	Providing assistance with the execution of duties for outside directors

The support organizations within the Company provide assistance to the outside directors to ensure that they can perform their professional duties at the board and the committees within the board. The data and materials are provided in advance so that the contents of the agenda can be thoroughly reviewed by the outside directors before the Board of Directors and committee meetings are held, and if needed, a separate briefing session is held, and the information is provided on other major internal issues from time to time.

2) Status of the implementation of education and training for the outside directors

Date of education and training	Subject of the implementation of education and training	Outside directors in attendance	Reason for absence	Key details of education and training
2022.01.25	Planning Group	Moon Sunghwan, An Yang Ho, Cho Honghee Park Jungsoo	-	Mid-to long-term business portfolio
2022.05.12	SK discovery	Moon Sunghwan, An Yang Ho, Cho Honghee Park Jungsoo	-	Financial Story, SHE, DT
2023.04.26	Law Firm Lee & Ko	Moon Sunghwan, An Yang Ho, Cho Honghee Park Jungsoo	-	Duties and responsibilities of directors of a listed company
2023.05.12	SK discovery	Moon Sunghwan, An Yang Ho, Cho Honghee Park Jungsoo	-	Major challenges for each subsidiary of SK discovery
2023.08.22	SK SUPEX Council	Moon Sunghwan	Intended audience: 1 person	Experiencing changes before and after BOD-centered management; BOD-centered management and corporate values; communication between BOD and members
2023.10.31	SK SUPEX Council	Moon Sunghwan Park Jungsoo	Intended audience: 2 people	Understanding the growing business of SK; the future of governance story

2. Matters Concerning the Audit System

A. Whether the Audit Committee (auditor) is established, and how it is structured, etc.

1) Establishment of the Audit Committee

Composed of 3 or more directors who satisfy the qualifications according to the relevant laws and the Articles of Incorporation (however, the number of outside directors must be two-thirds or more of the total Committee members)

(Reference date: 2023.12.31)

Whether established	Method of organization	Note
Established	4 people (All of whom are outside directors)	Performing business audits and accounting audits of the Company

Purpose of establishing the Audit Committee	The Audit Committee was established in compliance with Article 415-2 of the Commercial Act, and composed of at least 3 outside directors in accordance with the provisions of Article 415-2 Paragraph 2 of the Commercial Act.
Authorities / Responsibilities	<ul style="list-style-type: none"> - Audit the directors' execution of their duties - Request directors to report on business - Investigate the Company's business status and properties' status
Operational plan	Accounting and business audits are conducted on a regular basis by applying appropriate procedures such as reviewing, collation, and due diligence of related documents such as books, financial statements, and annexed specifications. And reports are made and corrective actions are taken in a timely manner for the matters pointed out.

2) Personal information of the Audit Committee members and whether they are outside directors

Name	Whether an Outside director	Professional experience	Accounting and financial experts related		
			Whether applicable	Type of expert	Relevant experience
Park Jungsoo	Yes	Seoul National University/Economics, Seoul National University/Economics (Master), Stanford University/Economics (PhD) Current) Professor of Economics, Sogang University Current) Dean of the College of Economics, Sogang University	-	-	-
Moon Sunghwan	Yes	Seoul National University/Business Administration, Helsinki School of Economics, Finland (MBA) Former) CEO and President of Huvis Former) CEO and President of Samyang Corporation	-	-	-
Cho Honghee	Yes	Sungkyunkwan University/International Trade University of Bath, UK/Tax Studies (Master) Former) Commissioner of the Seoul Regional Tax Service Former) Outside director at Daegyo and Celltrion Current) Advisor at Bae, Kim & Lee LLC Current) Outside director of Meritz Financial Group	Yes	Person with experience in financial institutions, government, and securities related institutions, etc. (Type 4)	<ul style="list-style-type: none"> - 1996 - 1997, Deputy Director, Corporate Tax Department, National Tax Service - 2002 - 2004, Head of Investigation Bureau 2, Investigation Bureau 4 (for Corporate Taxation and International Investigation), Seoul Regional Tax Service - 2009 - 2009, Director General, Corporate Tax Bureau, National Tax Service (in charge of corporate tax litigations and authoritative interpretations) - 2010 - 2010 Commissioner of Seoul Regional Tax Office <p>▶ Equivalent to 5 years or longer in total for the combination of the periods of service</p>

An Yang Ho	Yes	<p>Korea University/Public Administration</p> <p>London School of Economics/Government Studies (Master)</p> <p>Korea University Graduate School/PhD in Public Administration</p> <p>Former) Second Vice Minister of the Ministry of Public Administration and Security</p> <p>Current) Outside Director of Lutronic Inc.</p> <p>Current) Senior Advisor, Economic Regulation and Administrative Consulting (ERAC)</p>	Yes	<p>Person with experience in financial institutions, government, and securities related institutions, etc. (Type 4)</p>	<p>– 2001 - 2002 Deputy Mayor of Gwangmyeong-si, Gyeonggi-do Local Government General management and supervision of fund management and accounting, budget and settlement of accounts</p> <p>– 2002 - 2004 Director General of Gyeonggi-do Autonomous Administrative Bureau, responsible for general accounting and special accounting tax revenue and tax expenditure, taxation management and supervision</p> <p>– 2008 - 2010 Governor of Gyeonggi-do Administrative Department 1, responsible for general management and supervision of Gyeonggi-do's tax revenue and tax expenditure accounting, budget and settlement, investment and contribution review</p> <p>– 2010 - 2011 Second Vice Minister of the Public Administration and Safety, responsible for the supervision of ethical service of central ministries and local governments, audit of the Ministry of Public Administration and Security and its affiliated institutions and public institutions and local governments, financial expansion and supervision of local governments, management and operation of local tax and local grant system and overall management of financial soundness monitoring and debt management of self-governing bodies and local public enterprises</p> <p>– 2011 - 2014 Chairman of the Government Employees Pension Service, responsible for management of the Service's asset (real and financial assets), the Service's budget and settlement of accounts and accounting and finance, CEO of government employees pension fund management, preparation and evaluation of public institution related management evaluation report and fund management performance report</p> <p>– 2015 - 2016 Head of Supervision Team for the Ministry of Strategy and Finance's 'Public Institution Management Evaluation Unit', and supervision of the management performance evaluation of the heads of public institutions, e.g. public enterprises and quasi government agencies</p> <p>► Equivalent to 5 years or longer in total for the combination of the periods of service</p>
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B. Independence of the members of the Audit Committee

1) Selection criteria

Key details of the selection criteria	Whether selection criteria are satisfied	Related laws and regulations
Composed of 3 or more directors	Satisfied (4 people)	Article 415-2 Paragraph 2 of the Commercial Act
Two-thirds or more of the committee members are outside directors	Satisfied (All of them are outside directors)	
1 or more members are accounting or finance related experts	Satisfied (Director An Yang Ho, Director Cho Honghee)	Article 542-11 Paragraph 2 of the Commercial Act
Chair of the Audit Committee is an outside director	Satisfied (Director Cho Honghee)	
Other requirements for disqualification (related parties of the largest shareholder, etc.)	Satisfied (Not applicable)	Article 542-11 Paragraph 3 of the Commercial Act

2) Background of appointment

(Reference date: 2023.12.31)

Name	Background of appointment	Referrer	Term of appointment	Whether retained for another term of office (number of reappointments)	Relationship with the largest shareholder or major shareholder
Park Jungsoo	Park Jungsoo is currently a professor of Economics at Sogang University and was appointed as he is expected to actively engage with the audit committee based on his diverse experiences and professional insight, including extensive activities as a policy advisor and evaluation member for government agencies.	Outside Director Candidate Nomination Committee	2022.03.28 - 2025.03.28	1 time	Unrelated
Moon Sunghwan (Note 1)	Moon Sunghwan was nominated as an outside director based on his knowledge and wealth of experience as a corporate management expert who has served as a CEO of a listed company for more than 10 years, and he was nominated in the hope that he would enhance diversity and provide new perspectives in making important decisions, as well as contribute to the growth and development of the Company with his professional insight and skills.	Outside Director Candidate Nomination Committee	2023.03.28 - 2026.03.28	1 time	Unrelated

An Yang Ho	As a human resources and finance and accounting expert who has served as the Director General for Planning and Budget, Director General of the Human Resources Development Bureau of the Central Personnel Committee, and the 2nd Vice Minister of the Ministry of Public Administration and Security, An Yang Ho has actively expressed his opinions from a balanced perspective based on his wealth of experience and competencies during his tenure as an outside director of SK chemicals. He was appointed because, at a time when ESG management needs to be strengthened, he would be able to contribute to the business promotion and sustainable growth of SK chemicals.	Outside Director Candidate Nomination Committee	2021.03.31 - 2024.03.31	1 time	Unrelated
Cho Honghee (Note 2)	Cho Honghee was nominated as an outside director because he has knowledge and rich experience as an expert in the field of taxation for more than 30 years at the National Tax Service and has served as an outside director and audit member of a listed company for many years, and would be able to enhance the expertise and diversity of the Board and the Audit Committee and contribute to the growth and development of the Company with his professional insight and skills. with his professional insight and skills.	Outside Director Candidate Nomination Committee	2023.03.28 - 2026.03.28	1 time	Unrelated

(Note 1) Outside director Moon Sunghwan was reappointed at the 6th regular meeting of shareholders held on March 28, 2023.

(Note 2) Outside director Cho Honghee was reappointed at the 6th regular meeting of shareholders held on March 28, 2023.

C. Whether internal devices are prepared for access to the management information needed for audit work of the Audit Committee - attendance at the board

- Can audit the Company's accounting and business in accordance with relevant laws and regulations and articles of incorporation
- Can request data and review them as needed
- Can request subsidiaries to report on business as needed

D. Details of the key activities of the Audit Committee

(2023)

Date	Details of proposal	Whether approved	Name of outside director			
			An Yang Ho	Park Jungsoo	Moon Sunghwan	Cho Honghee
			(rate of attendance:100%)	(rate of attendance:100%)	(rate of attendance:100%)	(rate of attendance:100%)
			Whether approved or disapproved			
2023.02.09	1. Review of transactions with SK Gas prior to approval	Approved	Approved	Approved	Approved	Approved
2023.02.22	1. Review of transactions between directors, etc. and the Company prior to approval	Approved	Approved	Approved	Approved	Approved
	※ Reported Matters					
	① Report on plans to improve ethical management standards	-	-	-	-	-
	② Report on compliance (2022 performance and 2023 plan)	-	-	-	-	-
	③ Report on the operation status of the internal accounting control in 2022	-	-	-	-	-
	④ Report on end-of-year audit results 2022 (external auditor)	-	-	-	-	-
2023.02.28	1. Confirmation of the audit report	Approved	Approved	Approved	Approved	Approved
	2. Approval of the report on the evaluation of the operation of the internal accounting management system in 2022	Approved	Approved	Approved	Approved	Approved
2023.03.06	1. Confirmation of the agenda of the regular meetings of shareholders and the results of document investigation	Approved	Approved	Approved	Approved	Approved
	2. Shareholders' claims (lawsuit filed by shareholders) (Note 1)	Postponed	-	-	-	-
	※ Reported Matters					
	① Report on the plan for the start of the management diagnosis for SK chemicals	-	-	-	-	-
2023.03.13	1. Lawsuit filed by shareholders	Approved	Approved	Approved	Approved	Approved
2023.03.28	1. Appointment of Chairperson of Audit Committee	Approved	Approved	Approved	Approved	Approved
2023.04.26	※ Reported Matters					
	① Report on compliance with standards for the appointment of an external auditor for 2022	-	-	-	-	-

2023.05.24	1. Subsidiary investment agreement and stock collateral provision ※ Reported Matters ① Report on external auditor's Q1 2023 financial audit results and 2023 audit plan	Approved -	Approved -	Approved -	Approved -	Approved -
2023.08.23	※ Reported Matters ① Report on the ethical management & internal audit activities in the first half ② Report on the internal accounting design and the operation evaluation plan for 2023 ③ Report on progress of establishment of the consolidated internal accounting control system and trends in internal accounting ④ Report on Q2 External Audit Results for 2023	-	-	-	-	-
2023.11.22	※ Reported Matters ① Results of ethical management level measurement for 2023 ② Results of the check on the leader's exemplary behavior for 2023 ③ Report on the ethical management & internal audit activities in the second half ④ Report on Q3 External Audit Results for 2023	-	-	-	-	-

(Note 1) The resolution on the agenda item (March 6, 2023) regarding shareholder claims was postponed and the item will be reintroduced after further review of the legal issues.

E. Status of the implementation of education and training for the Audit Committee

Date of education and training	Subject of the implementation of education and training	Audit Committee members in attendance	Reason for absence	Key details of education and training
2021.07.27	Samil PwC	Cho Honghee, Moon Sunghwan, Park Jungsoo, An Yang Ho	-	Recent trends in internal accounting and the consolidated internal accounting control system
2022.07.27	Samil PwC	Cho Honghee, Moon Sunghwan, Park Jungsoo, An Yang Ho	-	Report on progress of establishment of the consolidated internal accounting control system and trends in internal accounting
2023.08.23	Samil PwC	Cho Honghee, Moon Sunghwan, Park Jungsoo, An Yang Ho	-	Report on progress of establishment of the consolidated internal accounting control system and trends in internal accounting

F. Status of the support organizations of the Audit Committee

Name of department (team)	Number of employees	Position (number of years of continued service)	Details of key activities
Secretariat of the Board of Directors	3	Executive (3), Head of Team (12), Manager (6)	Operation of the Audit Committee
Compliance Team	3	Head of Team (12), Manager (1 - 7)	Periodic audits (tasks), whistleblower investigations

G. Matters concerning the compliance officer

Name	Date of birth (year and month)	Rank / Position	Professional experience
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Yang Hui Jin	1975.07	Head of the Legal Office	<ul style="list-style-type: none"> - 1997 B.S. in Biochemistry, Yonsei University - 2004 Passed the 46th bar exam (training institute 36th class) - 2007 - 2009 Seoul Central District Court Judge - 2009 - 2010 Seoul Western District Court Judge - 2010 - 2022 Partner Attorney, Law Firm Lee & Ko - 2012 - 2013 FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, LLP (Reston, VA) - 2014 American Univ. Washington College of Law, LL.M. - Current) Head of the Legal Office of SK chemicals
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H. Details of key activities of the compliance officer and their handling results

Date of check	Details	Results
Always	※ Conducted compliance control activities for overall company management activities <ul style="list-style-type: none"> - Diagnosed/reduced the possibility of violation - Provided various legal advices for legal risk-related tasks 	Reorganization of in-house systems, establishment of legal compliance processes, provision of legal advice on overall management activities, etc.
Always	※ Carried out a program for dissemination of the ethical management culture <ul style="list-style-type: none"> - Sent a letter about the ethics management policy within business partners - GC: Collected ethics management pledges (March) - Conducted enterprise-wide online training on ethics management (May) - Held the GC ethical management practice workshop (May) 	Nothing significant to report
Always	※ Operated the ethical management consultation/report system <ul style="list-style-type: none"> - Provided information on reporting channels/procedures and whistleblower protection (February, May, August) - Received/managed reports 	Nothing significant to report
Always	※ Internal audit <ul style="list-style-type: none"> - Conducted audit on the implementation of internal control over funds for 2022 (March) - Audit of the implementation of the materials management at the Ulsan Plant (July) 	Nothing significant to report
Always	※ Checked the self-cleaning system (September) <ul style="list-style-type: none"> - Completed audit of 92 items in 6 areas, including expense management 	Overall good, with some improvements completed
Always	※ Established CP compliance system <ul style="list-style-type: none"> - Pharma: CEO declared his commitment to voluntary compliance (Kim Yun Ho, CEO) (January) - Pharma: Appointed Compliance Officer (Koo Min Hoe, Division Head) (February) - Pharma: Collected pledges from all positions to practice ethical management (February) 	Nothing significant to report
Always	※ CP operation process management <ul style="list-style-type: none"> - Real-time monitoring of marketing activities in the pharmaceutical business (about 32,000 cases in the first half) - Revised additional fair competition provisions in the standard marketing contract (exhibitions, advertising, etc.) (February) - Managed pre- and post-reporting to Korea Pharmaceutical and Biotechnology Association / Korea Medical Device Association - Updated CP KPI penalty criteria (ver.2023) - Fair Trade Working Group activities to identify industry trends related to fair competition (once a month) - Continuously improved corporate policy / system (SFE) to prevent human error 	Nothing significant to report
Always	※ Responded to requests for a report of expenditures for economic benefits provided to healthcare professionals	Nothing significant to report

Always	※ Responded to CP requirements related to product introduction and contract maintenance - Responded to periodic reports and obligations for partner companies (Janssen, Lilly, Takeda, COVIS, etc.) - Monitored compliance and implemented improvements based on findings (Takeda, April) - Performed contract renewal due diligence (Lilly, March) - Established personal information collection and consent process for providing samples (Mother's Pharmaceutical, April) - Conducted global compliance audit (Janssen, May) - Revised CP Guidelines for partners v2.5 (April)	Nothing significant to report
2023.01	- Inspected subsidiaries for compliance with Fair Trade Act obligations (April)	Nothing significant to report
2023.01 - 03	- Reviewed and reflected on the overall contracts from the SHE perspective at the Ulsan Plant	Diagnosis of current status and improvement actions underway
2023.02 - 06	- On-site CP training for 48 pharmaceutical marketing teams (completed in June)	Training on anti-corruption laws and CP KPIs
2023.02	- Report of the audit performance of 2022 and the audit plan for 2023 to the Audit Committee	Nothing significant to report
2023.03	- Reported to Audit Committee on plans to improve ethical management measurement system	Nothing significant to report
2023.03	- Reported on compliance support activities (BOD)	Nothing significant to report
2023.05	- Reviewed disclosure matters	Nothing significant to report
2023.05 - 06	- Reviewed transactions between the parent company and subsidiaries under the Fair Trade Act	Nothing significant to report
2023.06	- Submitted an expenditure report on the provision of economic benefits to the Health Insurance Review and Assessment Service (June)	January 2022 - December 2022 Details of activities
2023.06	- Received anti-Corruption management system certification (ISO 37001)	Nothing significant to report
2023.06	- Training on the disclosure system under the Fair Transactions in Subcontracting Act	Meetings and training for personnel on disclosure under the Fair Transactions in Subcontracting Act
2023.07	- Training on the Fair Transactions in Subcontracting Act and the disclosure system	Nothing significant to report
2023.07	- Checked the self-cleaning system (Vigilance Committee)	Nothing significant to report
2023.08	- Inspected environmental labeling on the website in accordance with the Guideline for Review of Environmental Labeling and Advertising	Diagnosis of current status and improvement actions
2023.08	- Report on the ethical management & internal audit activities in the first half to the Audit Committee	Nothing significant to report
2023.09	- Trained employees on the linking system of subcontracting payments	Nothing significant to report
2023.10	- Distributed environmental labeling recommendations for each product	Nothing significant to report
2023.10	- Reviewed the terms and conditions of subsidiaries in accordance with relevant laws and regulations	Diagnosis of current status and improvement actions underway
2023.11	- Training on trade secrets	Nothing significant to report
2023.11	- Report on the ethical management & internal audit activities in the second half to the Audit Committee	Nothing significant to report
2023.11	- Launched a whistleblower protection pledge to prevent secondary victimization	Nothing significant to report
2023.12	- Pharma: Conducted regular CP training in the second half of 2023	Nothing significant to report

I. Status of the support organizations such as compliance officer

Name of department (team)	Number of employees	Position (number of years of continued service)	Details of key activities
Legal Affairs Office (Legal Affairs Team)	6	Head of Team (1), Manager (1 - 9)	Compliance education, compliance check, contract review, legal advice
Compliance Team	3	Manager (10 - 20)	Receipt and processing of reports related to internal affairs, and business audit

3. Matters concerning the general meeting of shareholders, etc.

A. Status of the voting system

(Reference date: 2023.12.31)

Type of voting system	Concentrated voting system	Written voting system	Electronic voting system
Whether introduced	Excluded	Unintroduced	Introduced

Whether executed	-	-	The 4th (2020) regular meeting of shareholders The 1st extraordinary meeting of shareholders in 2021 The 5th (2021) regular meeting of shareholders The 6th (2022) regular meeting of shareholders
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※ As of the date of submission of the disclosure documents, the Company has introduced and implemented a system for recommending voting via proxy, and the methods of delegation include “delivery in person,” “postal mail or facsimile transmission,” and “sending the Letter of Authority form via email.”

B. Minority shareholders' rights

The Company has never seen the minority shareholders' rights exercised during the period subject to disclosure.

C. Competition for the management rights

During the period subject to the disclosure, the Company has never seen any competition for the Company's management rights.

D. Status of the voting rights

(Reference date: 2023.12.31)

(Unit: stocks)

Classification	Type of stock	Number of shares	Note
Total number of issued shares (A)	Common stocks	17,253,783	-
	Preferred stocks	2,115,429	-
Number of shares without voting rights (B)	Common stocks	30,857	Treasury stocks
	Preferred stocks	2,115,429	Treasury stocks included
Number of shares excluded from exercising voting rights by the Articles of Incorporation (C)	Common stocks	-	-
	Preferred stocks	-	-
Number of shares whose voting rights exercises have been restricted by other laws (D)	Common stocks	186,808	Restrictions on the voting rights of public interest corporations
	Preferred stocks	-	-
Number of shares whose voting rights have been reinstated (E)	Common stocks	-	-
	Preferred stocks	-	-
Number of stocks whose voting rights may be exercised (F = A - B - C - D + E)	Common stocks	17,036,118	-
	Preferred stocks	-	-

E. Stock related affairs

Details of preemptive rights under the Articles of Incorporation	<p>Article 10 (Issuance and Allocation of Shares)</p> <p>① When the Company issues new shares by a resolution of the Board of Directors, one of the following methods shall be used.</p> <p>1. A method of giving shareholders an opportunity to subscribe for new shares in order to allocate such shares according to the number of shares they own</p> <p>2. A method of granting an opportunity to subscribe for new shares in order to allocate new shares to persons other than shareholders in a method other than those in Subparagraph 1, if it is necessary to achieve the Company's management purposes, such as the introduction of new technologies and improvement of financial structure, within a limit not exceeding 25% of the total number of issued shares</p> <p>3. A method of granting an opportunity to subscribe for new shares to a number of unspecified persons (including shareholders of the Company) in a method other than those in Subparagraph 1, and allocating new shares to such persons who have subscribed accordingly (within a limit not exceeding 25% of the total number of issued shares).</p> <p>② If allocating new shares in the method specified under Paragraph 1 Subparagraph 3, the new shares shall be allocated in any of the following methods by a resolution of the Board of Directors.</p>
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	<p>1. A method of allocating new shares to a number of unspecified people without classifying the type of persons to be granted an opportunity to subscribe for new shares</p> <p>2. A method of allocating new shares to employees of the treasury stock association in accordance with relevant laws and giving an opportunity to subscribe for new shares, including shares that have not been subscribed, to a number of unspecified people</p> <p>3. A method of granting an opportunity to subscribe for new shares with priority to shareholders, and then granting an opportunity to be allocated new shares to a number of unspecified people if there are unsubscribed shares</p> <p>4. A method of granting an opportunity to subscribe for new shares to a specific type of people in line with reasonable standards provided under relevant laws, such as demand forecast as underwriters or brokers by the investment trading business operator or investment broker.</p> <p>③ In the case of allocating new shares in accordance with Paragraph 1 Subparagraphs 2 and 3, the matters stipulated in Article 416 Subparagraphs 1, 2, 2-2, 3, and 4 of the Commercial Act shall be notified to shareholders or announced by 2 weeks before the date of payment. However, in accordance with Article 165-9 of the Financial Investment Services and Capital Markets Act, such notification and announcement may be substituted by disclosing a report on major issues to the Financial Services Commission and the Exchange.</p> <p>④ In the case of issuing new shares in any of the methods of any Subparagraphs of Paragraph 1, the type and number of shares to be issued and the issuing price, etc. shall be determined by a resolution of the Board of Directors.</p> <p>⑤ When allocating new shares, if the Company does not subscribe for new shares by the due date or if there are shares for which the value has not been paid, the method of handling such shares shall be determined by a resolution of the Board of Directors in accordance with the relevant laws, such as the adequacy of the issuing price.</p> <p>⑥ The Company shall determine the method of handling fractional shares generated while allocating new shares by a resolution of the Board of Directors.</p> <p>⑦ When allocating new stocks in accordance with Paragraph 1 Subparagraph 1, the Company shall issue preemptive right certificates for the shareholders.</p>		
Date of settlement	December 31	Regular meeting of shareholders	Within 3 months from the date of settlement of accounts
Reference date	Last day of each settlement period		
Title of transfer agent	Securities Agency Department, Hana Bank (Gukjegeumyung-ro 72, Yeongdeungpo-gu, Seoul, 02-368-5800)		
Shareholders' privilege	None	Method of posting announcements	Corporate website: https://www.skchemicals.com/ However, if an announcement cannot be made on the Company's website due to a computing failure or another unavoidable reason, it shall be posted via <i>Maeil Business Newspaper</i> daily published in the city of Seoul.

F. Summary of the minutes of the general meeting of shareholders

(Reference date: 2023.12.31)

Date of the general meeting of shareholders	Agenda	Details of resolution
The 6th Regular Meeting of Shareholders (2023.03.28)	Agendum No. 1: The 6th Period (2022.01.01 - 2022.12.31)	Approved as the original plan
	Approval of financial statements and consolidated financial statements	
	Agendum No. 2: Appointment of directors	Approved as the original plan
	— Agendum No. 2-1: Appointment of inside director (Candidate: Kim Cheol)	Approved as the original plan
	Agendum No. 2-2: Appointment of inside director (Candidate: Ahn Jae Hyun)	Approved as the original plan
	— Agendum No. 2-3: Appointment of a non-executive director (Candidate: Jeon Kwang Hyun)	Approved as the original plan
	— Agendum No. 2-4: Appointment of outside director (Candidate: Moon Sunghwan)	Approved as the original plan
	— Agendum No. 2-5: Appointment of outside director (Candidate: Cho Honghee)	Approved as the original plan
	Agendum No. 3: Appointment of Audit Committee member	Approved as the original plan

	<ul style="list-style-type: none"> – Agendum No. 3-1: Appointment of Audit Committee member (Candidate: Moon Sunghwan) – Agendum No. 3-2: Appointment of Audit Committee member (Candidate: Cho Honghee) <p>Agendum No. 4: Approval of the ceiling of remuneration for directors</p>	original plan Approved as the original plan
The 5th regular meeting of shareholders (2022.03.28)	<p>Agendum No. 1: The 5th period (2021.1.1 - 2021.12.31) Approval of financial statements and consolidated financial statements</p> <p>Agendum No. 2: Change of the Articles of Incorporation</p> <p>Agendum No. 3: Appointment of directors</p> <ul style="list-style-type: none"> – Agendum No. 3-1: Appointment of inside director (Candidate: Jeon Kwang Hyun) – Agendum No. 3-2: Appointment of a non-executive director (Candidate: Ahn Jae Hyun) – Agendum No. 3-3: Appointment of outside director (Candidate: Park Jungsoo) <p>Agendum No. 4: Appointment of Audit Committee member (Candidate: Park Jungsoo)</p> <p>Agendum No. 5: Approval of the ceiling of remuneration for directors</p>	<p>Approved as the original plan</p> <p>Approved as the original plan</p> <p>Approved as the original plan</p> <p>Approved as the original plan</p> <p>Approved as the original plan</p> <p>Approved as the original plan</p>
The 1st extraordinary general meeting of shareholders in 2021 (2021.10.25)	Agendum No. 1: Approval of the split-off plan	Approved as the original plan
The 4th Regular Meeting of Shareholders (2021.03.31)	<p>Agendum No. 1: The 4th period (2020.1.1 - 2020.12.31) Approval of financial statements and consolidated financial statements</p> <p>Agendum No. 2: Appointment of an outside director who is an Audit Committee member (Candidate: An Yang Ho)</p> <p>Agendum No. 3: Partial changes in the Articles of Incorporation</p> <p>Agendum No. 4: Approval of the ceiling of remuneration for directors</p>	<p>Approved as the original plan</p> <p>Approved as the original plan</p> <p>Approved as the original plan</p> <p>Approved as the original plan</p>

VII. Matters concerning shareholders

1. Status of the Share Ownership of the Largest Shareholder and Related Parties

(Reference date: 2023.12.31)

(Unit: stocks, %)

Name	Relationship	Type of stock	Number of shares owned and equity interest				Note
			Beginning of period		End of period		
			Number of shares	Equity interest	Number of shares	Equity interest	
SK discovery	Largest shareholder	Common stocks	7,056,899	40.90	7,056,899	40.90	-
Choi Chang Won	Related party	Preferred stocks	9,312	0.44	9,312	0.44	-
Choi Tae Won	Related party	Preferred stocks	67,971	3.21	67,971	3.21	-
Choi Jeong Won	Related party	Common stocks	12,177	0.07	12,177	0.07	-
Choi Jeong Won	Related party	Preferred stocks	4	0.00	4	0.00	-
Choi Ji Won	Related party	Common stocks	37,359	0.22	37,359	0.22	-
Choi Ji Won	Related party	Preferred stocks	649	0.03	649	0.03	-
Choi Ye Jeong	Related party	Common stocks	62,389	0.36	62,389	0.36	-
Lee Yoo Mi	Related party	Common stocks	903	0.01	903	0.01	-
Lee Charles Hwan	Related party	Common stocks	762	0.00	762	0.00	-
Korea Foundation for Advanced Studies	Related party	Common stocks	186,808	1.06	186,808	1.06	-
Ahn Jae Hyun	Executive	Common stocks	0	0.00	0	0.00	Newly appointed as CEO
Kim Cheol	Executive	Common stocks	3,000	0.02	3,000	0.02	-
Jeon Kwang Hyun	Largest shareholder / executive	Common stocks	775	0.00	775	0.00	-
total		Common stocks	7,361,072	42.66	7,361,072	42.66	-
		Preferred stocks	77,936	3.68	77,936	3.68	-

※ The beginning of the period is January 1, 2023, and the end of the period is December 31, 2023.

2. Key Experience and Overview of the Largest Shareholder

A. Basic information of the largest shareholder (corporation or organization)

Name	Number of investors	Chief executive officer (representative member of the association)		Business executive (business executive members of the association)		Largest shareholder (largest investor)	
		Name	Equity interest (%)	Name	Equity interest (%)	Name	Equity interest (%)
SK discovery Co., Ltd.	30,681	Choi Chang Won	40.18	-	-	Choi Chang Won	40.18
		-	-	-	-	-	-

※ The equity interest ratio above is calculated and stated based on common stocks.

※ The number of investors is entered based on the common stocks as of December 31, 2023.

(Changes in the CEO, business executive, and the largest shareholder of a corporation or organization)

Date of change	Chief executive officer (representative member of the association)		Business executive (business executive members of the association)		Largest shareholder (largest investor)	
	Name	Equity interest (%)	Name	Equity interest (%)	Name	Equity interest (%)

2019.12.19	Park Chan Joong	-	-	-	-	-
2022.03.29	Ahn Jae Hyun	0.08	-	-	-	-

※ The details of the changes above are based on common stocks, and as for the details such as the date, number of shares, and cause of change, refer to SK discovery's "Report on the Status of Ownership of Executives and Major Shareholders' Specific Securities" and the "Report on Changes in the Shares Owned by the Largest Shareholder, Etc.," which are disclosed via the electronic disclosure system.

B. Financial status of the largest shareholder (corporation or organization) for the latest settlement period

(Unit: KRW one million)

Classification	
Name of corporation or organization	SK discovery Co., Ltd.
Total Assets	12,249,044
Total liabilities	6,181,157
Total equity	6,067,887
Sales amount	8,939,217
Operating income	256,702
Net income	247,822

※ The financial status of SK discovery Co., Ltd. above has been prepared based on the consolidated financial statements before the completion of the external auditor's audit. For the final consolidated financial statements including the audit opinion of the external auditor, refer to SK discovery's 'Submission of Audit Report', which is scheduled to be posted on electronic disclosure system (<http://dart.fss.or.kr>).

C. Key details which may impact the Company's business management stability such as business status

– Not applicable

D. Representative of the largest shareholder (SK discovery Co., Ltd.)

(Reference date: 2023.12.31)

Name	Position (whether full-time)	Year of birth	Professional background
Choi Chang Won	CEO and Vice Chairman (full-time)	1964.08	Psychology, Seoul National University Former) CEO and Vice Chairman of SK Gas Concurrent) Inside director and Vice Chairman of SK Gas Concurrent) Chairman of SUPLEX Implementation Council
Jeon Kwang Hyun	CEO and President (full-time)	1964.12	Korea University/Business Administration Former) CEO and President of SK chemicals Concurrent) Non-executive director of SK Gas/SK chemicals

E. Overview of the largest shareholder (SK discovery Co., Ltd.)

1) Legal and Commercial Name of the Company

The company shall be called SK discovery Co., Ltd., and which shall be 에스케이디스커버리주식회사 in Korean, and SK discovery Co., Ltd. in English.

2) Date of foundation

Sunkyung Synthetic Fiber Co., Ltd., SK discovery Co., Ltd.'s former corporation, was founded on July 1, 1969, and SK discovery was listed on the securities market on June 29, 1976.

※ Since Sunkyung Synthetic Fiber Co., Ltd. merged with Sunkyung Fiber Co., Ltd. in 1976, the former's date of foundation is the SK discovery's date of foundation.

SK discovery changed its trade name to SK discovery Co., Ltd. on December 1, 2017, the date of split-off, and it was split off into SK discovery Co., Ltd., which is the investment unit, and SK chemicals Co., Ltd. which is the business unit.

3) Address, phone number and website address of the head office

- Address: 332 Pangyo-ro (Sampyeong-dong), Bundang-gu, Seongnam, Gyeonggi-do
- Phone number: 02-2008-7399
- Website: www.skdiscovery.com

4) Contents of the Main Businesses

SK discovery is a holding company whose purpose of business is to control another company by owning stocks of another company. As a pure holding company which does not engage in a separate business, the main revenue is the dividend income received from the subsidiaries, etc. SK discovery's major subsidiaries and affiliates are engaged in the production of eco-friendly materials and pharmaceuticals (SK chemicals Co., Ltd. and SK bioscience Co., Ltd.), gas business selling LPG (SK Gas Co., Ltd.), blood products (SK Plasma Co., Ltd.), and real estate development (SK D&D Co., Ltd.), and other businesses include power generation (Ulsan GPS Co., Ltd.), group power supply (SK Multi-Utility Co., Ltd.), and real estate solutions (Korea Marketplace Systems Co., Ltd.).

5) Status of registered executives

(Reference date: 2023.12.31)

(Unit: stocks)

Name	Gender	Date of birth (year and month)	Position	Whether a registered executive	Whether full-time	Tasks in charge	Professional background	Number of shares owned		Relationship with the Largest Shareholder	Period of service	Date of expiration for the term of office
								Shares with voting rights	Shares without voting rights			
Choi Chang Won	Male	1964.08	Vice Chairman	Inside director	Full-time	CEO Human Resources Committee	Psychology, Seoul National University Former) CEO and Vice Chairman of SK Gas Concurrent) Inside director and Vice Chairman of SK Gas Concurrent) Chairman of SUPEX Implementation Council	7,650,128	5,782	Largest shareholder himself	29 years and 9 months	2024.03.30
Jeon Kwang Hyun	Male	1964.12	President	Inside director	Full-time	CEO ESG Committee	Korea University/Business Administration Former) CEO and President of SK chemicals Concurrent) Non-executive director of SK Gas/SK chemicals	-	-	Registered executive of issuing company	1 year and 1 month	2026.03.28
Nam Gi Jung	Male	January 1973	Director	Inside director	Full-time	Head of the Finance Office	KAIST/Finance MBA Former) Head of the Management Support Office, SK discovery Concurrent) Non-executive director of SK D&D/The Biz	-	-	Registered executive of issuing company	3 years	2026.03.28
Song Jae Yong	Male	1964.03	Director	Outside director	Part-time	Chairman of the Board of Directors Chairman of the Outside Director Candidate Nomination Committee Chairman of the Human Resources Committee Audit Committee	University of Pennsylvania, US / Doctor of Business Administration Former) President of Korea Society of Strategic Management Former) President of International Business Division, US Academy of Management (AOM) Current) Professor of Business Administration, Seoul National University	-	-	Registered executive of issuing company	5 years and 10 months	2024.03.30

Kim Yong Joon	Male	1964.07	Director	Outside director	Part-time	Chairman of the Audit Committee Outside Director Candidate Nomination Committee ESG Committee	Syracuse University, US / Master of Economics Former) Director of International Tax Administration, National Tax Service Former) Director of the Central Regional Tax Office Current) Advisor at Kim & Chang Concurrent) Auditor, Oriental Brewery Co., Ltd.	-	-	Registered executive of issuing company	1 year and 10 months	2025.03.28
Kim Hyeon Jin	Female	1968.08	Director	Outside director	Part-time	Audit Committee Chairman of the ESG Committee Human Resources Committee	University of Tokyo, Japan / PhD in International Relations Current) Professor at Seoul School of Integrated Sciences & Technologies Current) Member of the Fiscal Policy Advisory Committee, Ministry of Strategy and Finance Concurrent) Outside director, Korea Gas Corporation	-	-	Registered executive of issuing company	1 year and 10 months	2025.03.28
Kim Jin Il	Male	February 1967	Director	Outside director	Part-time	Audit Committee Outside Director Candidate Nomination Committee ESG Committee	Doctor of Economics, Yale University Former) Senior Economist, US Federal Reserve System Current) Professor of Economics, Korea University Concurrent) Outside Director of Hyundai Commercial	-	-	Registered executive of issuing company	10 months	2026.03.28

3. Details of Changes in the Largest Shareholder

(Reference date: 2023.12.31)

(Unit: stocks, %)

Date of change	Name of the largest shareholder	Number of shares owned	Equity interest	Reason of change	Note
2019.03.25	SK discovery Co., Ltd. and 11 others	4,263,827	32.28	Jeon Kwang Hyun was newly appointed as CEO (SK chemicals)	-
2020.12.09	SK discovery Co., Ltd. and 11 others	4,188,827	31.71	Two related parties traded after hours (75,000 shares)	-
2020.12.23	SK discovery Co., Ltd. and 11 others	4,185,827	31.69	CEO Kim Cheol sold off on the floor (3,000 shares)	-
2021.09.03	SK discovery Co., Ltd. and 11 others	4,347,371	32.91	SK discovery Co., Ltd. tender offered (161,544 shares)	-
2021.11.10	SK discovery Co., Ltd. and 11 others	6,521,054	33.04	Changes in number of shares due to bonus issue (2,173,683 shares)	-
J2022.07.08	SK discovery Co., Ltd. and 10 others	6,519,890	33.04	CEO Park Chan Joong resigned (SK discovery)	-
2022.09.23	SK discovery Co., Ltd. and 10 others	7,439,008	37.69	SK discovery's tender offer (919,118 shares)	-

※ The "number of shares owned" and the "equity interest" above are based on the total number of issued shares.

※ The Company re-listed the share certificates on the securities market on January 5, 2018.

※ The relationship with the largest shareholder was entered by making reference to the relationship provided under Article 3 Paragraph 1 of the Enforcement Decree of the Act on Corporate Governance of Financial Companies.

4. Distribution of Shares

A. Status of share ownership

(Reference date: 2023.12.31)

(Unit: stocks)

Classification	Name of shareholder	Number of shares owned	Equity interest (%)	Note
Shareholders owning 5% or more	SK discovery Co., Ltd.	7,056,899	40.90	-
	National Pension Service	1,052,651	6.10	-
Treasury share association		-	-	-

※ The number of shares owned and the equity interest above are based on the common stocks.

※ Based on the stock ownership status of shareholders as of December 31, 2023, the date of the recent shareholder registry closure, only changes in stock ownership that can be confirmed (disclosed) until December 31, 2023 were reflected.

※ The National Pension Service holds 1,081,726 common shares (6.27%) as of the date of the disclosure. Please refer to the 'Report on Stocks Held in Bulk' disclosed on January 19, 2024.

B. Status of minority shareholders

(Reference date: 2023.12.31) (Unit: stocks)

Classification	Shareholders			Shares owned			Note
	Number of minority shareholders	Total number of shareholders	Ratio (%)	Number of shares owned by minority shareholders	Total number of issued shares	Ratio (%)	
Minority shareholders	78,525	78,531	99.99	8,724,392	17,222,926	50.66	-

※ The status of minority shareholders above is as of December 31, 2023, the date of the recent shareholder register closure, and the shares held are based on common stocks.

※ The minority shareholders are those who own less than 1% of the total number of issued shares, and the total number of issued shares is based on the total number of issued shares with voting rights.

5. Share Price and Share Trading Performance

The share price and the share trading performance for the last 6 months from the date of preparation of the disclosure documents are as follows.

(Unit: KRW, stocks)

Type			July 2023	August 2023	September 2023	October 2023	November 2023	December 2023
Common stocks	Share price	Highest	70,400	66,200	64,600	63,400	64,900	67,400
		Lowest	60,000	61,000	60,100	56,200	57,200	64,500
		Average	65,367	63,505	62,121	59,547	62,245	66,095
	Trading volume	Highest (daily)	1,322,562	120,848	321,107	89,114	88,493	81,086
		Lowest (daily)	19,460	23,563	16,656	21,986	10,941	13,508
		Monthly	2,974,233	1,180,030	1,258,952	818,766	706,340	515,722
Preferred stocks	Share price	Highest	32,800	31,250	30,800	29,700	29,550	30,750
		Lowest	27,950	28,950	28,700	26,850	27,350	29,400
		Average	30,205	29,848	29,234	28,374	28,759	30,247
	Trading volume	Highest (daily)	564,865	20,021	149,999	9,643	8,670	11,601
		Lowest (daily)	1,279	1,713	1,757	1,566	1,286	2,673
		Monthly	754,443	131,498	355,788	87,880	74,230	102,652

VIII. Matters Concerning Executives and Employees, Etc.

1. Status of Executives and Employees, Etc.

A. Status of executives

(Reference date: 2023.12.31)

(Unit: stocks)

Name	Gender	Date of birth (year and month)	Position	Whether a registered executive	Whether full-time	Tasks in charge	Professional background	Number of shares owned		Relationship with the Largest Shareholder	Period of service	Date of expiration for the term of office
								Shares with voting rights	Shares without voting rights			
Kim Cheol	Male	1961.05	CEO and President	Inside director	Full-time	CEO	Seoul National University/Economics London School of Economics/Economics (Master) Former) Head of the Resource Development Division at SK Innovation	3,000	-	Affiliate's executive	6 years and 1 month	2026.03.28
Ahn Jae Hyun	Male	1966.02	CEO and President	Inside director	Full-time	CEO (ESG Committee member)	Yonsei University/Applied Statistics Former) CEO and President of SK Ecoplant Concurrent) President of SK Plasma Concurrent) Non-executive director of SK bioscience	-	-	Affiliate's executive	1 year and 9 months	2026.03.28
Jeon Kwang Hyun	Male	1964.12	Non-executive director	Non-executive director	Part-time	Non-executive director (Human Resources Committee member)	Korea University/Business Administration Former) CEO and President of SK chemicals Current) CEO of SK discovery Concurrent) Non-executive director of SK Gas	775	-	Largest shareholder / executive	6 years and 1 month	2026.03.28
Park Jungsoo	Male	1966.02	Director	Outside director	Part-time	Outside director (chairman of the ESG Committee, Outside Director Candidate Nomination Committee member, Audit Committee member)	Seoul National University/Economics, Seoul National University/Economics (Master), Stanford University/Economics (PhD) Current) Professor of Economics, Sogang University Current) Dean of the College of Economics, Sogang University	-	-	Affiliate's executive	4 years and 9 months	2025.03.28
Moon Sunghwan	Male	1954.01	Director	Outside director	Part-time	Outside director (chairman of the Board of Directors, member of the Audit Committee, chairman of the Human Resources Committee)	Seoul National University/Business Administration, Helsinki School of Economics, Finland (MBA) Former) CEO and President of Huvis Former) CEO and President of Samyang Corporation	-	-	Affiliate's executive	3 years and 9 months	2026.03.28
Cho Honghee	Male	1959.07	Director	Outside director	Part-time	Outside director (chairman of the Audit Committee, Outside Director Candidate Nomination Committee member, Human Resources Committee member)	Sungkyunkwan University/International Trade University of Bath, UK/Tax Studies (Master) Former) Commissioner of the Seoul Regional Tax Service Former) Outside director at Daegyo and Celltrion Current) Advisor at Bae, Kim & Lee LLC Current) Outside director of Meritz Financial Group	-	-	Affiliate's executive	3 years and 9 months	2026.03.28
An Yang Ho	Male	1957.04	Director	Outside director	Part-time	Outside director (chairman of the Outside Director Candidate Nomination Committee, Audit Committee member, and ESG Committee member)	Korea University/Public Administration London School of Economics/Government Studies (Master) Korea University Graduate School/PhD in Public Administration Former) Second Vice Minister of the Ministry of Public Administration and Security Current) Outside Director of Lutronic Inc. Current) Senior Advisor, Economic Regulation and Administrative Consulting (ERAC)	-	-	Affiliate's executive	2 years and 9 months	2024.03.31
Hwang Chun Hyun	Male	1957.08	Executive	Unregistered	Full-time	Chief of Production	Pusan National University/Bachelor in Business Administration Concurrent) Chief of safety and environment at SK discovery	1,164	-	-	6 years and 1 month	-
Yang Jeong Il	Male	1970.05	Executive	Unregistered	Full-time	Assistant to the President	Seoul National University/Bachelor in Law Former) Head of Legal Affairs Office, SK Gas, Head of Ethical Management Division, SK Ecoplant	-	-	-	6 years and 1 month	-
Lee Kwang Seok	Male	1962.07	Executive	Unregistered	Full-time	Assistant to the President	Pusan National University/Bachelor in Business Administration Former) Head of Public Relations Office, SK Ecoplant Concurrent) Executive at SK Gas Headquarters	-	-	-	6 years and 1 month	-

Kim Hyun Suk	Male	1966.06	Executive	Unregistered	Full-time	Head of the Business Development Division	Yonsei University/Biochemistry Univ. of North Carolina at Chapel Hill (MBA)	1,024	-	-	6 years and 1 month	-
Bae Hyuck	Male	1967.07	Executive	Unregistered	Full-time	Assistant to the President	Yonsei University/Chinese Language and Literature	-	-	-	6 years and 1 month	-
Yoo Ho Seob	Male	1966.01	Executive	Unregistered	Full-time	Head of Ulsan Plant	Seoul National University/Chemical Engineering Concurrent) Head of the Advanced Materials Production Division	-	-	-	6 years and 1 month	-
Kim Yun Ho	Male	1967.09	Executive	Unregistered	Full-time	CEO of the Pharma Biz	Konkuk University/History, Yonsei University MBA Former) CEO of SK Plasma Concurrent) Head of Business Support at SK Plasma	-	-	-	1 year and 1 month	-
Kim Han Seok	Male	1968.02	Executive	Unregistered	Full-time	Head of Chemistry Research Center	Sogang University/Bachelor, Master & PhD in Chemical Engineering	477	-	-	6 years and 1 month	-
Cho Su Dong	Male	1971.08	Executive	Unregistered	Full-time	Head of Pharma Business Marketing Division 1	Suwon University/Genetic Engineering, Hanyang University (MBA)	90	-	-	6 years and 1 month	-
Yu Hyung Jun	Male	1970.01	Executive	Unregistered	Full-time	Head of Pharma Business Marketing Division 3	Konkuk University/Microbial Engineering,	17	-	-	6 years and 1 month	-
Kim Kwang Jin	Male	1970.03	Executive	Unregistered	Full-time	Head of Pharma Business Marketing Division 4	Hannam University/Department of Regional Development	-	-	-	6 years and 1 month	-
Kim Tae Hwan	Male	1976.03	Executive	Unregistered	Full-time	In charge of ER, Management Support Office, Pharma Business	Sungkyunkwan University/Business Administration Concurrent) ER, SK Plasma Management Support Office	-	-	-	2 years and 6 months	-
Kim Eung Soo	Male	1969.08	Executive	Unregistered	Full-time	Head of Green Materials Business	Sungkyunkwan University/Textile Engineering Concurrent) Head of Copolyester Business Department	-	-	-	6 years and 1 month	-
Jun Sung Chul	Male	1966.05	Executive	Unregistered	Full-time	Assistant to the President	Korea University/Bachelor in Mass Communication NGO Graduate School, Sungkonghoe University/MAINS (Master of Arts in Inter-Asia NGO Studies)	-	-	-	2 years and 8 months	-
Kim Kee Dong	Male	1971.02	Executive	Unregistered	Full-time	Head of the Management Support Division	Korea University/Economic, Indiana University/MBA Former) Head of the Finance Office, SK discovery Concurrent) Head of the Finance Office	317	-	-	2 years	-
Kim Hak Sung	Male	1970.06	Executive	Unregistered	Full-time	Head of the Functional Materials Business Department	Seoul National University/Bachelor in Industrial Chemistry, Seoul National University/Master in Polymer Composite Materials Concurrent) CEO of ENTIS, CEO of SK chemicals Daejung	327	-	-	6 years and 1 month	-
Park Jeong Ho	Male	1969.06	Executive	Unregistered	Full-time	Assistant to the President	Seoul National University/Bachelor in Chemistry, Seoul National University/Master in Organic Chemistry	-	-	-	6 years and 1 month	-
Jung Jae Joon	Male	1976.10	Executive	Unregistered	Full-time	President of SK Shantou	Hanyang University/Chemical Engineering	-	-	-	6 years and 1 month	-
Kim Dong Ryul	Male	1969.10	Executive	Unregistered	Full-time	Head of the Management Support Office	Inha University/Chemical Engineering Concurrent) Head of the SHE Planning Office	-	-	-	4 years and 1 month	-
Lee Hyeon Won	Male	1960.02	Executive	Unregistered	Full-time	Chief of Infrastructure Support	Seoul National University/Bachelor and Master in Resource Engineering, Seoul National University/PhD in Rock Mechanics Former) Head of the Eco Energy Division, SK Ecoplant Concurrent) Chief of Infrastructure Support, SK Gas, Chief of Infrastructure Support, SK bioscience	-	-	-	2 years	-
Song Gi Suk	Male	1970.05	Executive	Unregistered	Full-time	Head of the Value Innovation Office	Yonsei University/Economics, Columbia Univ./MBA, Sungkyunkwan University/Business Administration (PhD) Former) Executive Director, Merrill Lynch Concurrent) Head of the Value Innovation Office, SK bioscience, Head of the Value Innovation Office, SK discovery, and Head of the Value Innovation Office, SK Gas	-	-	-	1 year and 5 months	-
An Young Il	Male	1972.11	Executive	Unregistered	Full-time	Head of Pharma Business Marketing Division 2	Daejeon University/Environmental Engineering, Chungnam National University (MBA)	-	-	-	6 years and 1 month	-
Yoo Hun Seung	Male	1975.12	Executive	Unregistered	Full-time	Head of the Cheongju Plant, Pharma Biz	Seoul National University/Bachelor in Pharmacy, Seoul National University/Master and PhD in Pharmacognosy Concurrent) Pharma Research Institute Director	-	-	-	6 years and 1 month	-
Park Hyun Sun	Male	1971.02	Executive	Unregistered	Full-time	Pharma Planning Director, Pharma Biz	Sungkyunkwan University/Pharmaceutics, Sungkyunkwan University/Pharmacy (Master), Korea University/MBA Former) Research Center Director/Sales Manager, Yonsung Fine Chemicals Former) Pharma Biz Marketing Planning Director, SK chemicals	-	-	-	1 year and 1 month	-
Koo Min Hoe	Male	1968.12	Executive	Unregistered	Full-time	Head of the Management Support Office, Pharma Business	Sungkyunkwan University/Bachelor in Accounting Concurrent) Head of the Management Support Office, SK Plasma	-	-	-	6 years and 1 month	-

Yang Hui Jin	Female	1975.07	Executive	Unregistered	Full-time	Head of the Legal Office	Yonsei University/Biochemistry American Univ. Washington College of Law(LLM Former) Partner Attorney, Law Firm Lee & Ko	-	-	-	1 year and 1 month	-
Kang Seok Ho	Male	1972.02	Executive	Unregistered	Full-time	Head of the Strategy Center	Seoul National University/Electronic Engineering, Seoul National University/Electronic Engineering (Master) Univ. of Chicago/MBA Former) Head of the Tractor Business Division, LS Mtron Concurrent) Head of the Circular Business Office	-	-	-	1 year	-
Cho Hyun Jun	Male	1971.07	Executive	Unregistered	Full-time	Head of the Eco-friendly Materials Research Office	Hanyang University/Chemical Engineering, Hanyang University/Chemical Engineering (Master) Hanyang University/Chemical Engineering (PhD)	-	-	-	6 years and 1 month	-
Son Dong Yeoul	Male	1968.07	Executive	Unregistered	Full-time	Head of the Engineering Office	University of Ulsan/Electronic Engineering	-	-	-	6 years and 1 month	-
Kim Sung Gi	Male	1969.03	Executive	Unregistered	Full-time	Head of the New Materials Development Division	Sogang University/Bachelor and Master in Chemical Engineering Toledo Univ./Engineering (PhD)	-	-	-	6 years and 1 month	-
Mun Jeong Hyun	Female	1975.11	Executive	Unregistered	Full-time	Development Division Head, Pharma Business	B.S. in Pharmaceutical Science, Seoul National University / M.S. in Pharmacy, Seoul National University	-	-	-	6 years and 1 month	-

※ Inside director Kim Cheol was reappointed at the 6th regular meeting of shareholders held on March 28, 2023.

※ Inside director Ahn Jae Hyun was newly appointed as CEO at the 6th regular meeting of shareholders held on March 28, 2023.

※ Outside director Moon Sunghwan was reappointed at the 6th regular meeting of shareholders held on March 28, 2023.

※ Outside director Cho Honghee was reappointed at the 6th regular meeting of shareholders held on March 28, 2023.

※ Inside director Jeon Kwang Hyun was newly appointed as a non-executive director at the 6th regular meeting of shareholders held on March 28, 2023.

※ The relationship with the largest shareholder was entered by making reference to the relationship provided under Article 3 Paragraph 1 of the Enforcement Decree of the Act on Corporate Governance of Financial Companies.

※ The "number of shares owned" above is the number excluding the number of treasury shares owned.

(Newly appointed and retired executives on or after the date of preparation)

Classification	Name	Gender	Date of birth (year and month)	Position	Whether a registered executive	Whether full-time	Tasks in charge	Professional background	Number of shares owned		Relationship with the Largest Shareholder
									Shares with voting rights	Shares without voting rights	
Newly appointed	Nam Sung Hyun	Male	1976.04	Executive	Unregistered	Full-time	In charge of production, SK Shantou	Hanyang University/Chemical Engineering (BA) Ulsan National University / Industrial Management Engineering (M.S.)	-	-	-
	Kim Hyoun Dong	Male	1971.03	Executive	Unregistered	Full-time	Head of Communications Office	Chungang University / Business Administration (B.S) Concurrent) Communications, SK discovery	-	-	-
Retired	Jun Sung Chul	Male	1966.05	Executive	Unregistered	Full-time	Assistant to the President	Korea University/Bachelor in Mass Communication NGO Graduate School, Sungkonghoe University/MAINS (Master of Arts in Inter-Asia NGO Studies)	-	-	-
	Park Jeong Ho	Male	1969.06	Executive	Unregistered	Full-time	Assistant to the President	Seoul National University/Bachelor in Chemistry, Seoul National University/Master in Organic Chemistry	-	-	-

※ The relationship with the largest shareholder was entered by making reference to the relationship provided under Article 3 Paragraph 1 of the Enforcement Decree of the Act on Corporate Governance of Financial Companies.

※ The "number of shares owned" above is the number excluding the number of treasury shares owned.

B. Status of candidates for the appointment and dismissal of registered executives

(Reference date: 2023.12.31)

Classification	Name	Gender	Date of birth (year and month)	Whether an outside director candidate	Professional background	Scheduled date of appointment or dismissal	Relationship with the Largest Shareholder
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Appointment	Kim Sunmee Choi	Female	February 1969	Outside director	Yonsei University/English Literature M.A./Ph.D., Cornell University, USA Former) Vice President for International Affairs, Yonsei University Former) Dean of the College of Business Administration, VinUniversity, Vietnam Current) Professor of Business Administration, Yonsei University	2024.03.26	-
Dismissal	An Yang Ho	Male	April 1957	-	Korea University/Public Administration London School of Economics/Governmental Studies (Master) Korea University Graduate School/Ph.D. in Public Administration Former) Second Vice Minister of the Ministry of Public Administration and Security Current) Outside director of Lutronic Inc. Current) Senior Advisor, Economic Regulation and Administrative Consulting (ERAC)	2024.03.26	-

※ They are the agenda for the 7th regular meeting of shareholders scheduled to be held after the date of report submission, and if the appointment related agenda are rejected or revised, the details and reasons will be reflected via the correction report.

※ The relationship with the largest shareholder was entered by making reference to the relationship provided under Article 3 Paragraph 1 of the Enforcement Decree of the Act on Corporate Governance of Financial Companies.

B. Status of the registered executives' concurrent positions held

(Reference date: 2023.12.31)

Classification		Status of concurrent positions held			
Name	Position	Name of Company	Position	Time of appointment	Whether full-time or not
Jeon Kwang Hyun	Non-executive director	SK Gas	Non-executive director	2023.03.23	Part-time
		SK discovery	CEO and President	2023.03.29	Full-time
Ahn Jae Hyun	CEO and President	SK bioscience	Non-executive director	2023.03.27	Part-time
An Yang Ho	Outside director	Lutronic	Outside director	2021.03.31	Part-time
Cho Honghee	Outside director	Meritz Financial Group	Outside director	2022.03.24	Part-time

※ Based on the Company's registered executives, this is the status of the registered executives' concurrent positions held in Korean companies.

※ The date of appointment above is the latest date of appointment.

D. Status of employees, etc.

(Reference date: 2023.12.31)

(Unit: KRW one million)

Employees										Non-affiliated employees			Note
Business Division	Gender	Number of employees					Average number of years of continuous service	Total amount of annual salaries	Amount of salary per person	Male	Female	total	
		Employees with no fixed term contract		Employees with fixed term contract		Total							
		Overall	(Short-term workers)	Overall	(Short-term workers)								
Management Support Division	Male	63	-	4	-	67	8.02	7,442	111	453	127	580	-
Management Support Division	Female	36	-	10	1	46	7.50	2,908	63				-
Green Chemicals Biz	Male	480	-	16	-	496	10.74	53,119	107				-

Green Chemicals Biz	Female	97	-	17	-	114	9.58	8,176	72				-
Life Science Biz	Male	493	-	31	-	524	9.78	42,670	81				-
Life Science Biz	Female	156	-	15	-	171	7.89	10,015	59				-
Genders combined	Male	1,036	-	51	-	1,087	10.11	103,232	95				-
Genders combined	Female	289	-	42	1	331	8.42	21,100	64				-
Total		1,325	-	93	1	1,418	9.71	124,333	88				-

※ The "Average number of years of continuous service" above includes years of service prior to the spin-off from SK discovery on December 1, 2017.

※ The details above were prepared including the unregistered executives, and the registered executives are excluded.

※ According to Article 20 of the Income Tax Act, the employees' salaries above are based on the earned income of the statement of earned income payment submitted to the competent tax office.

※ The "average salary per person" above is the sum of the average monthly salaries, and the average monthly salary is the total salary for the relevant month divided by the average number of employees in service of the relevant month.

D. Status of the unregistered executives' remuneration

(Reference date: 2023.12.31)

(Unit: KRW one million)

Classification	Number of persons	Total amount of annual salaries	Amount of salary per person	Note
Unregistered executive	31	9,482	306	-

※ The "Number of persons" above is based on the current executives as of December 31, 2023, and the "Total amount of annual salaries" and "Amount of salary per person" are calculated to include retired executives.

※ According to Article 20 of the Income Tax Act, the salaries above are based on the earned income of the statement of earned income payment submitted to the competent tax office.

2. Remuneration of the Executives, Etc.

<Status of the remuneration for all directors and auditors>

A. Amount approved at and by the general meeting of shareholders

(Unit: KRW one million)

Classification	Number of persons	Amount approved at and by the general meeting of shareholders	Note
Registered executive	7 persons	5,000	Inside and outside directors combined

※ The 'number of persons' above is as of the date of preparation of the disclosure documents.

※ The amount approved at and by the general meeting of shareholders for directors and auditors is the combined amount of compensation for inside and outside directors and was approved at the general meeting of shareholders on March 28, 2023.

B. Amount of remuneration paid

(1) For all directors and auditors

(Unit: KRW one million)

Number of persons	Total amount of remuneration	Average amount of remuneration per person	Note
7	3,397	485	-

※ According to Article 20 of the Income Tax Act, the salaries above are based on the earned income of the statement of earned income payment submitted to the competent tax office.

※The "Average amount of remuneration per person" above is calculated by simply averaging the total compensation by the number of employees (including retired executives).

(2) By type

(Unit: KRW one million)

Classification	Number of persons	Total amount of remuneration	Average amount of remuneration per person	Note
Registered director (excluding outside directors and members of the Audit Committee)	3	2,980	993	-
Outside director (excluding members of the Audit Committee)	-	-	-	-
Member of the Audit Committee	4	417	104	-
Auditor	-	-	-	-

※ The 'number of persons' above is as of the date of preparation of the disclosure documents.

※ According to Article 20 of the Income Tax Act, the salaries above are based on the earned income of the statement of earned income payment submitted to the competent tax office.

※The "Average amount of remuneration per person" above is calculated by simply averaging the total compensation by the number of employees (including retired executives).

(3) Criteria for remuneration payment

Classification	Grounds of payment
Registered director (excluding outside directors and members of the Audit Committee)	The base salary was determined by comprehensively reflecting the duties, expertise, and the extent of contribution to the Company, etc., under the ceiling of the directors' remuneration for 2023. Furthermore, the performance-based compensation can be paid by comprehensively considering the quantitative evaluation results such as the Company's sales and operating income and qualitative evaluation results such as the strategic goal achievement and leadership.
Outside director (excluding members of the Audit Committee)	-
Member of the Audit Committee	The base salary was determined by comprehensively reflecting the duties, expertise, and the business environment of the Company, etc., under the ceiling of the directors' remuneration for 2023.
Auditor	-

<Status of the individual remuneration for directors and auditors whose remuneration paid is KRW 500 million or greater>

1. Individual remuneration

(Unit: KRW one million)

Name	Position	Total amount of remuneration	Remuneration not included in the total amount of remuneration
Kim Cheol	President	1,250	-
Ahn Jae Hyun	President	930	-
Jeon Kwang Hyun	Non-executive director	800	-

2. Criteria and method of calculation

(Unit: KRW one million)

Name	Type of remuneration		Total amount	Criteria and method of calculation
Kim Cheol	Earned income	Salary	950	In accordance with the executive treatment standards, the annual base salary was set at a total of KRW 950 million by comprehensively reflecting the position (CEO), rank (President), leadership, expertise and contribution to the Company, and KRW 79 million, 1/12th of the total, was paid monthly.
		Bonus	300	Remuneration was paid within 0 - 200% of the base salary by comprehensively evaluating the quantitative indicators consisting of sales, operating income, pre-tax income, and net income, etc. and non-quantitative indicators consisting of leadership, expertise, and contribution to the Company. Quantitative indicators such as the sales of KRW 1.82 trillion and the operating income of KRW 204.4 billion (consolidated basis) for 2022 were taken into consideration, and considering the fact that he led the Company to achieve the targeted performance by consolidating the capabilities of executives and employees even while undergoing difficult internal and external circumstances, and the fact that the copolyester business achieved the largest performance ever, KRW 300 million were calculated and paid as a bonus.
		Income from the exercise of stock option	-	-
		Other earned income	-	-
	Retirement income		-	-
	Other income		-	-
Ahn Jae Hyun	Earned income	Salary	930	In accordance with the executive treatment standards, the annual base salary was set at a total of KRW 930 million by comprehensively reflecting the position (CEO), rank (President), leadership, expertise and contribution to the Company, and KRW 77 million, 1/12th of the total, was paid monthly.
		Bonus	-	-
		Income from the exercise of stock option	-	-
		Other earned income	-	-
	Retirement income		-	-
	Other income		-	-
Jeon Kwang Hyun	Earned income	Salary	-	-
		Bonus	800	Remuneration was paid within 0 - 200% of the base salary by comprehensively evaluating the quantitative indicators consisting of sales, operating income, pre-tax income, and net income, etc. and non-quantitative indicators consisting of leadership, expertise, and contribution to the Company. Quantitative indicators such as the sales of KRW 1.82 trillion and the operating income of KRW 204.4 billion (consolidated basis) for 2022 were taken into consideration, and considering the fact that he led the Company to achieve the targeted performance by consolidating the capabilities of executives and employees even while undergoing difficult internal and external circumstances, and the fact that the copolyester business achieved the largest performance ever, KRW 800 million were calculated and paid as a bonus.
		Income from the exercise of stock option	-	-
		Other earned income	-	-
	Retirement income		-	-
	Other income		-	-

<Status of the individual remuneration for the top 5 individuals among those who were paid KRW 500 million or greater for remuneration>

1. Individual remuneration

(Unit: KRW one million)

Name	Position	Total amount of remuneration	Remuneration not included in the total amount of remuneration
Kim Cheol	President	1,250	-
Ahn Jae Hyun	President	930	-
Jeon Kwang Hyun	Non-executive director	800	-
Kim Hyun Suk	Executive	2,112	-
Hwang Chun Hyun	Executive	580	-

2. Criteria and method of calculation

(Unit: KRW one million)

Name	Type of remuneration	Total amount	Criteria and method of calculation
Kim Cheol	Earned income	Salary	950 In accordance with the executive treatment standards, the annual base salary was set at a total of KRW 950 million by comprehensively reflecting the position (CEO), rank (President), leadership, expertise and contribution to the Company, and KRW 79 million, 1/12th of the total, was paid monthly.
		Bonus	300 Remuneration was paid within 0 - 200% of the base salary by comprehensively evaluating the quantitative indicators consisting of sales, operating income, pre-tax income, and net income, etc. and non-quantitative indicators consisting of leadership, expertise, and contribution to the Company. Quantitative indicators such as the sales of KRW 1.82 trillion and the operating income of KRW 204.4 billion (consolidated basis) for 2022 were taken into consideration, and considering the fact that he led the Company to achieve the targeted performance by consolidating the capabilities of executives and employees even while undergoing difficult internal and external circumstances, and the fact that the copolyester business achieved the largest performance ever, KRW 300 million were calculated and paid as a bonus.
		Income from the exercise of stock option	-
		Other earned income	-
	Retirement income		-
	Other income		-
Ahn Jae Hyun	Earned income	Salary	930 In accordance with the executive treatment standards, the annual base salary was set at a total of KRW 930 million by comprehensively reflecting the position (CEO), rank (President), leadership, expertise and contribution to the Company, and KRW 77 million, 1/12th of the total, was paid monthly.
		Bonus	-
		Income from the exercise of stock option	-
		Other earned income	-
	Retirement income		-
	Other income		-
Jeon Kwang Hyun	Earned income	Salary	-
		Bonus	800 Remuneration was paid within 0 - 200% of the base salary by comprehensively evaluating the quantitative indicators consisting of sales, operating income, pre-tax income, and net income, etc. and non-quantitative indicators consisting of leadership, expertise, and contribution to the Company. Quantitative indicators such as the sales of KRW 1.82 trillion and the operating income of KRW 204.4 billion (consolidated basis) for 2022 were taken into consideration, and considering the fact that he led the Company to achieve the targeted performance by consolidating the capabilities of executives and employees even while undergoing difficult internal and external circumstances, and the fact that the copolyester business achieved the largest performance ever, KRW 800 million were calculated and paid as a bonus.

		Income from the exercise of stock option	-	-
		Other earned income	-	-
	Retirement income		-	-
	Other income		-	-
Kim Hyun Suk	Earned income	Salary	460	In accordance with the executives' treatment standards, the base salary was decided at a total of KRW 460 million by comprehensively reflecting the duty, leadership, expertise, and contribution to the Company, and KRW 38 million, 1/12 of the total, was paid monthly.
		Bonus	300	Remuneration was paid within 0 - 200% of the base salary by comprehensively evaluating the quantitative indicators consisting of sales, operating income, pre-tax income, and net income, etc. and non-quantitative indicators consisting of leadership, expertise, and contribution to the Company. A bonus of KRW 3 million was calculated and paid in consideration of the contribution to the achievement of management goals through the expansion of copolyester's value-added portfolio and the establishment of an eco-transition strategy.
		Income from the exercise of stock option	-	-
		Other earned income	5	Approximately KRW 5 million was paid as the remainder of the Benefit Points, which is part of executive welfare benefits.
	Retirement income		1,347	KRW 1,346 million was calculated and paid by multiplying the monthly salary of KRW 38 million at the time of retirement in accordance with the executive severance pay regulation by the 12-year service period and the average payment rate.
	Other income		-	-
Hwang Chun Hyun	Earned income	Salary	430	In accordance with the executives' treatment standards, the base salary was decided at a total of KRW 430 million by comprehensively reflecting the duty, leadership, expertise, and contribution to the Company, and KRW 35 million, 1/12 of the total, was paid monthly.
		Bonus	150	Remuneration was paid within 0 - 200% of the base salary by comprehensively evaluating the quantitative indicators consisting of sales, operating income, pre-tax income, and net income, etc. and non-quantitative indicators consisting of leadership, expertise, and contribution to the Company. A bonus of KRW 150 million was calculated and paid in consideration of his contributions to the reorganization of SHE systems and regulations/procedures.
		Income from the exercise of stock option	-	-
		Other earned income	-	-
	Retirement income		-	-
	Other income		-	-

C. Status of the stock options granted and exercised, etc.

1) Stock options granted to directors and auditors

(Unit: KRW one thousand)

Classification	Number of persons to whom stock options were granted	Total fair value of stock options	Note
Registered director (excluding outside directors and members of the Audit Committee)	2	-	-
Outside director (excluding members of the Audit Committee)	-	-	-
Member of the Audit Committee or auditor	-	-	-
Person who instructs another person to conduct business, etc.	2	-	-
total	4	-	-

※ No expense related to stock options was recognized in the statement of comprehensive income for the current period.

2) Calculation method of fair value, etc.
The details of the stock options' fair value calculation are as follows.

(Reference date: 2023.12.31) (Unit: stocks, KRW)

Date of grant	Number of stocks to be issued (Note 1)	Period of exercise	Exercise price (Note 1)	Fair value on the date of grant (Note 1)
2018.03.06	29,988	2020.03.07 - 2025.03.06	71,785	15,864
2018.03.26 (1st)	22,491	2021.03.27 - 2025.03.26	72,009	16,226
2018.03.26 (2nd)	44,984	2022.03.27 - 2025.03.26	77,724	13,717
2019.03.25 (1st)	22,491	2021.03.26 - 2026.03.25	47,749	9,184
2019.03.25 (2nd)	22,492	2022.03.26 - 2026.03.25	51,517	7,856

(Note 1) Following the capital increase without consideration, the number of shares to be issued and the exercise price have been adjusted, and the fair value on the date of grant has been adjusted and recorded.

The fair value of stock options was calculated in line with the binomial option pricing model, and the variables applied to the model are as follows.

(Unit: KRW)

Classification	Portion granted on 2018.3.6	Portion granted on 2018.3.26 (1st)	Portion granted on 2018.3.26 (2nd)	Portion granted on 2019.3.25 (1st)	Portion granted on 2019.3.25 (2nd)
Stock price on the date of grant (Note 1)	69,667	70,000	70,000	45,267	45,267
Exercise price (Note 1)	71,785	72,009	77,724	47,749	51,517
Expected volatility	15.07%	15.75%	15.75%	18.37%	18.37%
Risk-free interest rate	2.66%	2.57%	2.57%	1.92%	1.92%

(Note 1) Following the capital increase without consideration, the exercise price has been adjusted, and the stock price on the date of grant has been adjusted and entered.

3) Status of the stock options granted and exercised

(Reference date: 2023.12.31) (Unit: KRW, stocks)

Grantee	Relationship	Date of grant	Method of grant	Type of stock	Quantity initially granted	Quantity changed during the current period		Total quantity changed		Quantity unexercised at the end of period	Period of exercise	Exercise price	Whether it is mandatory holding	Mandatory holding period
						Exercised	Revoked	Exercised	Revoked					
Hwang Chun Hyun	Unregistered executive	2018.03.06	Decided by the Board of Directors among delivery of new shares, delivery of treasury stocks, and compensation of difference	Common stocks	14,994	-	-	-	-	14,994	2020.03.07 - 2025.03.06	71,785	X	-
Kim Hyun Suk	Unregistered executive	2018.03.06	Decided by the Board of Directors among delivery of new shares, delivery of treasury stocks, and compensation of difference	Common stocks	14,994	-	-	-	-	14,994	2020.03.07 - 2025.03.06	71,785	X	-

Kim Cheol	Registered executive	2018.03.26	Decided by the Board of Directors among delivery of new shares, delivery of treasury stocks, and compensation of difference	Common stocks	22,491	-	-	-	-	22,491	2020.03.27 - 2025.03.26	72,009	X	-
Kim Cheol	Registered executive	2018.03.26	Decided by the Board of Directors among delivery of new shares, delivery of treasury stocks, and compensation of difference	Common stocks	22,492	-	-	-	-	22,492	2021.03.27 - 2025.03.26	77,724	X	-
Jeon Kwang Hyun	Registered executive	2019.03.25	Decided by the Board of Directors among delivery of new shares, delivery of treasury stocks, and compensation of difference	Common stocks	22,491	-	-	-	-	22,491	2021.03.26 - 2026.03.25	47,749	X	-
Jeon Kwang Hyun	Registered executive	2019.03.25	Decided by the Board of Directors among delivery of new shares, delivery of treasury stocks, and compensation of difference	Common stocks	22,492	-	-	-	-	22,492	2022.03.26 - 2026.03.25	51,517	X	-

※ The "Quantity initially granted" above reflects the increase following the capital increase without consideration executed on October 22, 2021.

IX. Matters Concerning Affiliates, Etc.

A. Name of the corporate group and the number of affiliates

– Status of the affiliates (summarized)

(Reference date: 2023.12.31)

(Unit: company)

Name of corporate group	Number of affiliates		
	Listed	Unlisted	Total
SK	21	838	859

※For the detailed status, refer to “Detailed Table-2. Status of Affiliates (Details).”

※Overseas affiliates are included, and they are classified as unlisted.

B. Name of the affiliated company

- Name of the affiliated company: SK chemicals Co., Ltd. (corporate registration number: 131111-0501021)

C. A system diagram which allows for the identification of the status of control, subordination and investment among the affiliated companies

☞ Refer to “XII. Detailed Table - 2. Status of Affiliates (Details) - (Status of Investments between Affiliates).”

D. Where there is a body or an organization that adjusts the business or interests between affiliates, their status

– Not applicable

E. Where there is a company which directly or indirectly influences the management of the Company among the affiliates, the relevant company's name and details

– Not applicable

F. Status of the concurrent positions held by the executives between the Company and the affiliates

Classification		Status of concurrent positions held			
Name	Position	Name of Company	Position	Time of appointment	Whether full-time or not
Jeon Kwang Hyun	Non-executive director	SK Gas	Non-executive director	2023.03.23	Part-time
		SK discovery	CEO and President	2023.03.29	Full-time
Ahn Jae Hyun	CEO and President	SK bioscience	Non-executive director	2023.03.27	Part-time
An Yang Ho	Outside director	Lutronic	Outside director	2021.03.31	Part-time
Cho Honghee	Outside director	Meritz Financial Group	Outside director	2022.03.24	Part-time

※ The date of appointment above is the latest date of appointment.

2. Status of Investments in Other Corporations

(Reference date: 2023.12.31)

(Unit: KRW one million)

Purpose of investment	Number of companies invested in			Total amount of investment		
	Listed	Unlisted	total	Beginning of period	Increase (decrease)	End of period

				Book amount	Acquired (disposed)	Gain and loss on valuation	Book amount
Management participation	1	15	16	401,890	65,157	-4,675	462,372
General investment	-	-	-	-	-	-	-
Simple investment	1	7	8	37,128	21,707	1,202	60,037
total	2	22	24	439,018	86,864	-3,473	522,409

※For the detailed status, refer to “Detailed Table-3. Status of Investment in Other Corporations (Details).”

X. Details of Transactions with Major Shareholders, Etc.

1. Credit Exposure for major shareholders, etc.

A. Credit exposure for major shareholders, etc.

– Not applicable

B. Credit exposure for those other than major shareholders, etc.

The details of the payment guarantees provided for the related parties as of the end of the reporting period are as follows.

(Reference date: 2023.12.31)

(Unit: 1,000 RMB)

Name of related parties	Relationship of special interest	Period for filing statement	Amount of debt guaranteed		Period of debt guarantee	Details of transaction (balance)		
	Classification		Currency	Amount		Beginning of period	Change	End of period
SK chemicals (Yantai) Co., LTD	Subsidiary	KEB Hana Bank (China)	RMB	96,000	2022.11.29 - 2025.11.28	96,000	-	96,000
			RMB	54,000	2023.04.10 - 2024.04.09	-	54,000	54,000
	Subtotal		RMB	150,000	-	96,000	54,000	150,000
Shuye-SK chemicals (Shantou) Co., Ltd.	Subsidiary	KEB Hana Bank (China)	RMB	60,000	2023.06.07 - 2024.06.06	-	60,000	60,000
	Subtotal		RMB	60,000	-	-	60,000	60,000

※ In addition to the above guarantees, the Company has entered into an agreement to guarantee the unpaid fuel costs and related liabilities arising from the LNG supply contract between its subsidiaries, SK Multi-Utility Co., Ltd. and SK Gas International, PTE., Ltd.

※ The Company has entered into agreements for cash deficiency support and collateral provisions for the project financing of its subsidiary, SK Multi-Utility Co., Ltd.

2. Transfer of Assets with Major Shareholders, Etc.

– Not applicable

3. Business Transactions with Major Shareholders

– Not applicable

4. Transactions with Stakeholders other than Major Shareholders

A. Details of key transactions with related parties

The details of major transactions conducted with related parties for the current and previous periods are as follows.

<Current period>

(Unit: KRW one thousand)

Classification	Name of related parties	Sales	Other income, asset sales, etc.	Purchase	Other expenses, capital expenditures, etc. (Note 1)
Controlling company	SK discovery Co., Ltd.	31,818	509,321	-	1,421,634
Affiliates and joint ventures	Entis Co., Ltd.	1,661,857	4,866,953	-	429
	JSI Co., Ltd.	184,240	124,458	88,440	87,014
	HDC Polyall Co., Ltd.	10,210,258	-	-	-
Others	SK Gas Co., Ltd.	351,960	-	6,709,690	3,495,417
	SK Plasma Co., Ltd.	3,029,323	421,576	-	15,251

	SK Advanced Co., Ltd.	4,212,839	746,425	8,048,471	359,801
	Huvis Co., Ltd.	558,924	-	14,815,138	-
	SK Ecoplant Co., Ltd. (Note 2)	-	-	-	22,157,967
	SK Ecoengineering Co., Ltd.	150,322	141,477	-	221,460,600
	SK Networks Co., Ltd.	12,283,871	-	10,897,571	136,882
	SK NETWORKS HONG KONG	-	-	18,396,661	-
	SK Energy Co., Ltd.	27,098,647	-	-	2,366,345
	SK Geo Centric Co., Ltd.	-	-	4,129,688	-
	SK Co., Ltd.	-	-	-	14,214,426
	SK Hynix Co., Ltd.	898,088	-	-	9,399
	Happy Narae Co., Ltd.	-	-	1,748,479	8,432,890
	Others	3,733,370	163	343,856	12,847,038
	Total	64,405,517	6,810,373	65,177,994	287,005,093

(Note 1) The consolidated companies have acquired the tangible assets worth KRW 248,593,566,000 from SK Ecoengineering Co., Ltd. during the current period.

(Note 2) The consolidated companies have entered into a construction contract with SK Ecoplant Co., Ltd., for the Incheon Songdo Global R&PD Center project, with a total contract amount of KRW 250.514 billion, during the current period.

<Previous period>

(Unit: KRW one thousand)

Classification	Name of related parties	Sales	Other income, asset sales, etc.	Purchase	Other expenses, capital expenditures, etc. (Note 2)
Controlling company	SK discovery Co., Ltd.	63,636	217,167	-	2,243,746
Affiliates and joint ventures	Entis Co., Ltd.	1,379,230	1,648,924	2,901,813	454
	JSI Co., Ltd.	127,360	101,128	90,930	4,200
	HDC Polyall Co., Ltd.	11,158,311	480,942	-	378,650
	ST Green Energy (Note 1)	-	4,642	-	18,229,596
Others	SK Gas Co., Ltd.	327,323	-	10,203,085	2,905,308
	SK Plasma Co., Ltd.	2,073,259	1,920,096	(22,685)	29,974
	SK Advanced Co., Ltd.	5,104,953	260,742	12,416,767	53,872
	Huvis Co., Ltd.	981,958	11,871	4,633,606	3,935
	SK Ecoplant Co., Ltd.	-	-	-	221,356
	SK Ecoengineering Co., Ltd.	-	-	-	121,005,600
	SK Networks Co., Ltd.	14,285,425	-	11,997,810	6,460
	SK NETWORKS HONG KONG	-	-	23,755,898	-
	SKC Co., Ltd.	2,371,089	-	222,326	-
	SK Energy Co., Ltd.	30,161,404	-	-	2,091,634
	SK Geo Centric Co., Ltd.	-	-	20,673,932	-
	SK Co., Ltd.	-	-	-	13,073,498
	SK Hynix Co., Ltd.	63,356	-	-	-
	Happy Narae Co., Ltd.	-	-	1,986,456	9,577,140
	Others	565,734	2,014	1,504,796	12,315,524
	Total	68,663,038	4,647,526	90,364,734	182,140,947

(Note 1) These are transactions prior to the disposal of ST Green Energy's shares.

(Note 2) The consolidated companies have acquired the tangible assets worth KRW 137,239,627,000 from SK Ecoengineering Co., Ltd. during the previous period.

B. Key receivables and liabilities concerning the related parties

The details of major receivables and liabilities concerning the related parties as of the end of the current period are as follows.

<End of the current period>

(Unit: KRW one thousand)

Classification of the relationship of special interest	Name of related parties	Receivables		Payables	
		Trade receivables	Other receivables	Trade payables	Other payables
Controlling company	SK discovery Co., Ltd.	35,000	53,388	-	270,921
Affiliates and joint ventures	Entis Co., Ltd.	264,945	1,000,174	-	-
	JSI Co., Ltd. (Note 1)	-	3,040,000	12,144	6,699
	HDC Polyall Co., Ltd.	1,161,838	-	-	-
Others	SK Gas Co., Ltd.	32,263	765,252	423,297	4,054,341
	SK Plasma Co., Ltd.	87,315	183,098	-	400,325
	SK Advanced Co., Ltd.	475,938	-	-	2,848,072
	Huvis Co., Ltd.	91,520	-	5,325,863	-
	SK Ecoplant Co., Ltd.	-	164,426	-	8,855,000
	SK Ecoengineering Co., Ltd.	12,252	21,981	-	184,150
	SK Networks Co., Ltd.	785,678	-	1,148,477	-
	SK NETWORKS HONG KONG	-	208,843	1,570,700	-
	SK Energy Co., Ltd.	1,841,836	-	-	803,010
	SK Geo Centric Co., Ltd.	-	-	117,658	-
	SK Co., Ltd.	-	-	-	2,402,285
	SK Hynix Co., Ltd.	-	-	-	1,430
	Happy Narae Co., Ltd.	-	-	30,638	955,231
	Others	677,186	-	331,069	1,948,822
Total		5,465,771	5,437,162	8,959,846	22,730,286

(Note 1) The consolidated companies have placed an allowance for bad debts for the loan to JSI Co., Ltd. worth KRW 3.040 billion in full.

<End of the previous period>

(Unit: KRW one thousand)

Classification of the relationship of special interest	Name of related parties	Receivables		Payables	
		Trade receivables	Other receivables	Trade payables	Other payables
Controlling company	SK discovery Co., Ltd.	-	22,146	-	263,235
Affiliates and joint ventures	Entis Co., Ltd.	119,340	969,014	156,417	-
	JSI Co., Ltd. (Note 1)	-	3,400,000	-	-
	HDC Polyall Co., Ltd.	1,486,566	-	-	-

Others	SK Gas Co., Ltd.	32,263	765,252	1,163,251	4,675,533
	SK Plasma Co., Ltd.	156,169	116,611	-	4,766
	SK Advanced Co., Ltd.	308,691	-	1,382,240	2,962,283
	SK Ecoplant Co., Ltd.	-	164,426	-	-
	SK Networks Co., Ltd.	62,594	-	887,085	8,877
	SK NETWORKS HONG KONG	-	625,620	1,245,827	-
	SKC Co., Ltd.	260,392	-	-	-
	SK Energy Co., Ltd.	3,313,507	-	-	229,198
	SK Geo Centric Co., Ltd.	-	-	327,237	-
	SK Co., Ltd.	-	-	-	1,273,023
	Happy Narae Co., Ltd.	-	-	53,143	1,062,403
	Others	464,769	-	11,969	2,885,405
	Total	6,204,291	6,063,069	5,227,169	13,364,723

(Note 1) The consolidated companies have placed an allowance for bad debts for the loan to JSI Co., Ltd. worth KRW 3,400 million in full.

C. Key fund transactions with the related parties

The details of fund transactions with related parties during the current and previous period are as follows.

① Investments

<Current period>

(Unit: KRW one thousand)

Classification	Name of related parties	Investments
Other related parties	TiumBio Co., Ltd.	19,999,995

② Loan of funds

<Current period>

(Unit: KRW one thousand)

Classification	Target companies	Beginning of period	Recovered	End of period
SK chemicals Co., Ltd.	JSI Co., Ltd. (Note 1)	3,400,000	(360,000)	3,040,000

(Note 1) The consolidated companies have placed an allowance for bad debts for the loan to JSI Co., Ltd. worth KRW 3,040 billion in full.

<Previous period>

(Unit: KRW one thousand)

Classification	Target companies	Beginning of period	Recovered	End of period
SK chemicals Co., Ltd.	JSI Co., Ltd. (Note 1)	3,750,000	(350,000)	3,400,000

(Note 1) The consolidated companies have placed an allowance for bad debts for the loan to JSI Co., Ltd. worth KRW 3,400 million in full.

XI. Other Matters Required for Investor Protection

1. Progress of and Changes in the Disclosure Content

Date of declaration	Title	Details of declaration	Status of progress of the matters declared	Note
2021.09.13	Investment in new facilities, etc.	Multi-Utility business investment	- In progress 1) Investment of KRW 620 billion to promote the specialization of industrial electric power and steam supply business (investment period: June 2022 - 1st half of 2025) 2) The relevant investment will be carried out by 'SK Multi-Utility Co., Ltd.', which was divided and newly established on December 1, 2021.	- Schedule change due to delay in signing various contracts due to soaring costs - Change in the investment amount due to increase in fixed costs caused by raw material price hikes and inflation

2. Matters Concerning Contingent Liabilities, Etc.

A. Important litigations [SK chemicals]

(Reference date: 2023.12.31)

Classification	Date the suit was filed	Parties to the suit	Details of litigations	Litigation value (KRW 100 million)	Status of progress	Future schedule of suit and countermeasures
Indemnity claims (Seoul Central District Court Case 2014GAHAP588147)	2014.12.01	Plaintiff: Korea Environmental Industry and Technology Institute Defendant: SK chemicals and 12 others	The government subsidized medical expenses for the victims of health damages caused by the humidifier disinfectants, and claims are made for compensation after receiving claims for damages from the victims.	22.4	1st trial in progress	Date estimated
Claim for damages (Seoul Central District Court Case 2016GAHAP527467)	2016.05.16	Plaintiff: Kang Chan Ho and 297 others Defendant: SK chemicals and 19 others	Claims for damages of the victims of health damages caused by the humidifier disinfectants	112.0	1st trial in progress	Date estimated
Indemnity claims (Seoul Central District Court Case 2016GAHAP574210)	2016.12.01	Plaintiff: National Health Insurance Service Defendant: SK chemicals and 12 others	Claims made for the compensation for insurance benefits paid by the National Health Insurance Service for the victims of health damages caused by the humidifier disinfectants	69.7	1st trial in progress	Date estimated
Patent infringement related suit (Intellectual Property High Court 2021NA1787)	2016.03.02	Plaintiff: Novartis AG Defendant: SK chemicals	The Plaintiff company filed a claim for the prohibition of patent infringements and the damages for the production and sale of dementia patches.	275.0	2nd trial in progress	Sentencing (2024.01.18)
Claim for damages (Seoul District Court Case 2019GAHAP522173)	2019.04.09	Plaintiff: Aekyung Industrial Co., Ltd. Defendant: SK chemicals	Claim for damages for the damages caused by the humidifier disinfectants in connection with the product liability contract executed by and between the Company and Aekyung Industrial Co., Ltd.	36.5	1st trial in progress	Date estimated
Petition for cancellation of corrective order, etc. (Seoul High Court Case 2022NU39620)	2019.11.18	Plaintiff: SK chemicals and 1 other person Defendant: Fair Trade Commission	Petitioned for the cancellation of the correction order, publication order, and penalty payment order (KRW 39 million) imposed by the Fair Trade Commission for the unfair labeling of humidifier disinfectant products	1.6	2nd trial in progress (Reversed and remanded by the 3rd trial court)	Date estimated
Indemnity claims (Seoul Central District Court Case 2020GAHAP607964)	2020.12.23	Plaintiff: Korea Environmental Industry and Technology Institute Defendant: SK chemicals and 12 others	The government subsidized medical expenses for the victims of health damages caused by the humidifier disinfectants, and claims are made for compensation after receiving claims for damages from the victims.	2.9	1st trial in progress	-
Petition for cancellation of corrective order, etc. (Seoul High Court Case 2022NU67069)	2022.11.15	Plaintiff: SK chemicals and 1 other person Defendant: Fair Trade Commission	Petitioned for cancellation of the correction order, publication order, and fine payment order imposed by the Fair Trade Commission for Internet articles advertising humidifier disinfectant products	1.6	2nd trial in progress	-
Indemnity claims (Seoul Central District Court Case 2023GAHAP56291)	2023.04.04	Plaintiff: Republic of Korea Defendant: SK chemicals and 19 others	The government subsidized medical expenses for the victims of health damages caused by the humidifier disinfectants, and claims are made for compensation after receiving claims for damages from the victims.	13.4	1st trial in progress	-

※ The date of filing suit above is the date on which the suit was filed against the Company.

※ The litigation value above is the sum of the claims filed by the Plaintiff against the Co-Defendant as of the date of lawsuit, and the actual amount claimed by the Plaintiff varies from the amount which was claimed by the Plaintiff against the Company, and the litigation value may change during the course of the suit.

※ In connection with Seoul Central District Court Case 2014GAHAP588147 on the indemnity claim case and Seoul Central District Court Case 2016GAHAP574210 on the indemnity claim case, a part of the Company's land has been provisionally seized.

※ In addition to the litigation cases above, the Company is in the process of carrying out multiple lawsuits related to the patent invalidation and patent infringements in Korea and abroad with Novartis AG, and the outcomes of all litigation cases, including these, cannot be predicted as of the end of the current period.

※ All of the lawsuits above may have a financial impact on the Company depending on their results, and accordingly, the Company plans to minimize its losses by efficiently responding to the lawsuits.

※ The details above include the litigation cases of SK chemicals before the split-off of the Company.

Data Analysis, Retrieval and Transfer System (dart.fss.or.kr)

[SK bioscience]

(Reference date: 2023.12.31)

Classification	Plaintiff	Defendant	Details of litigations	Litigation value	Status of progress
Prohibition of patent infringement related lawsuit	Wyeth LLC, Pfizer Korea	SK bioscience	Prohibition of patent infringements related to pneumococcal vaccines	KRW 100 million	2nd trial in progress
Claims for damages	Republic of Korea (KCDC)	SK bioscience	Joint and several debtor for damages for the pre-split acts of SK discovery	KRW 10,000	1st trial in progress

※ Provisioning liabilities were not appropriated for the litigation cases above since the outcomes could not be predicted as of the date of preparation of the report.

※ All of the lawsuits above may have a financial impact on the Company depending on their results, and the Company plans to minimize its losses by efficiently responding to the lawsuits.

[SK Multi-Utility]

– Not applicable

B. Status of the notes and checks for pledge or security

– Not applicable

C. Status of debt guarantee

Refer to “III. Matters Concerning Finance - 3. Notes to the Consolidated Financial Statement - 24. Contingencies and Agreements” and “X. Details of Transactions with Major Shareholders, Etc. - 1. Credit Exposure for major shareholders, etc. - A. Credit exposure for those other than major shareholders, etc.”

D. Other contingent liabilities, etc.

1) Details of the agreement

[SK chemicals] (Based on separate financial statements)

The details of the other agreements executed by the Company with financial institutions as of the date of preparation of disclosure documents are as follows.

Counterparty to the agreement	Details of the agreement
Hana Bank, etc.	KRW 255 billion limit and other agreements
	An agreement on the opening of a letter of credit of USD 121 million and EUR 46.8 million, etc.
	An agreement on the limit with the exemption of security deposit for derivatives of USD 140.5 million, KRW 10 billion, etc.
Seoul Guarantee Insurance, etc.	A contractual performance payment guarantee with a limit of KRW 14.070 billion, etc.

[SK bioscience]

The details of the other agreements executed by SK bioscience with financial institutions as of the date of preparation of disclosure documents are as follows.

Financial institution	Classification	Amount of limit	Amount executed
Hana Bank	Loans secured by accounts receivable	KRW 4 billion	KRW 16 million
	Agreement on exemption of security deposit for derivatives	USD 73 million	-
Shinhan Bank	Loans secured by accounts receivable	KRW 3 billion	KRW 269 million
	General corporate loan for working capital	KRW 5 billion	-
	Derivatives (revolving transaction)	USD 11 million	-

Woori Bank	General corporate loan for working capital	KRW 5 billion	-
Suhyp Bank	Derivatives (revolving transaction)	KRW 15 billion	USD 10,960,377
JP Morgan Chase Bank (Note 1)	Derivatives (revolving transaction)	-	USD 12,530,268 EUR 689,456 AUD 289,141
Export-Import Bank	Export growth fund loan	KRW 10 billion	-

(Note 1) The limit per payment date is USD 100,000,000, and the execution amount is the sum of the transaction amount in December 2023.

[SK Multi-Utility]

The details of the other agreements executed by SK Multi-Utility with financial institutions as of the date of preparation of disclosure documents are as follows.

(Reference date: 2023.12.31)

(Unit: KRW one thousand)

Financial institution	Classification	Amount of limit	Amount executed
KB Kookmin Bank and 8 other financial institutions	Long-term loan agreement I	264,850,000	181,500,000
Kyobo Life Insurance and 7 other financial institutions	Long-term loan agreement II	230,000,000	157,500,000
Lotte Capital and 2 other financial institutions	Short-term loan agreement	35,150,000	24,000,000

2) Status of the provision of security and others

3) [SK bioscience]

The status of the provision of security by SK bioscience as of the date of preparation of disclosure documents are as follows.

(Reference date: 2023.12.31)

(Unit: KRW one thousand)

Security right holder	Details	Amount
Time deposit	Provision of collateral for treasury share association loans	5,300,000

[SK Multi-Utility]

As of the date of preparation of the disclosure document, the status of SK Multi-Utility's provision of collateral for loans from financial institutions and contractual obligations is as follows.

(Reference date: 2023.12.31)

(Unit: KRW one thousand)

Security right holder	Assets provided for collateral	Details	Amount
KB Kookmin Bank and 13 other financial institutions	Right to collateral security for deposits	Collateral for debt	530,000,000
	Right to collateral security for insurance		
	Proof of beneficiary right under the real estate security trust contract		

4) Status of future trade receivables' securitization

– Not applicable

3. Matters Related to Sanctions, Etc.

[SK chemicals]

Date	Institution of sanction	Target of sanction	Details of punishment or action	Amount of monetary sanctions	Reason	Applicable laws and regulations	Status of performance	Countermeasures
2021.03.08	Nambu Fire Station, Ulsan	SK chemicals	Fines imposed	KRW 800,000	Failed to attach the dangerous goods transport container labels and failed to maintain the 2018 regular checklist	Article 5 Paragraph 3 Subparagraph 2 and Article 18 Paragraph 1 of the Act on the Safety Control of Hazardous Substances	Fines paid	Efforts made to prevent a recurrence
2021.11.19	Daejeon Food and Drug Administration	SK chemicals	Suspension of advertising for the product (15 days)	-	Exaggerated advertising for Ginexin-F Tab.	Attached Table 7 related to Article 68 Paragraph 2 of the Pharmaceutical Affairs Act and Article 78 Paragraph 3 of the Regulations on Safety of Pharmaceuticals, etc. (Matters to be observed in case of advertising pharmaceuticals, etc. Subparagraph 2 Item D) Attached Table 8 related to Article 76 of the Pharmaceutical Affairs Act and Article 95 of the Regulations on Safety of Pharmaceuticals, etc. (Criteria for Administrative Disposition I General Standards Subparagraph 12 Item E, II Individual Standards Subparagraph 43 Item F)	Compliance with business suspension period	Efforts made to prevent a recurrence
2022.08.11	Cheongju District Court	Employees of the Company	Penalty imposed	KRW 1 million	Failure to report construction changes when expanding cargo lifts	Article 111 Subparagraph 1 and Article 14 Paragraph 1 of the Building Act, Article 70 Paragraph 1 and Article 69 Paragraph 2 of the Criminal Act	Penalty paid	Efforts made to prevent a recurrence
2022.08.11	Cheongju District Court	SK chemicals	Penalty imposed	KRW 2 million	Failure to report construction changes when expanding cargo lifts	Article 111 Subparagraph 1, Article 14 Paragraph 1, and Article 112 Paragraph 3 of the Building Act	Penalty paid	Efforts made to prevent a recurrence
2022.08.18	Geum River Basin Environmental Office	SK chemicals Cheongju Plant	Fines imposed	KRW 1.44 million	Failure to complete safety education	Article 33 Paragraph 2 of the Chemical Substances Control Act	Fines paid	Efforts made to prevent a recurrence
2022.08.18	Geum River Basin Environmental Office	SK chemicals Cheongju Plant	Improvement order	-	Violation of labeling standards (Insufficient labeling of hazardous chemical handling facilities in old indoor storage facilities)	Article 34-2 Paragraph 1 Subparagraph 5 of the Chemical Substances Control Act	Corrective action	Efforts made to prevent a recurrence
2022.08.18	Geum River Basin Environmental Office	SK chemicals Cheongju Plant	Improvement order	-	Failure to conduct self-inspection and failure to keep records in the inspection ledger	Article 34-2 Paragraph 1 Subparagraph 6 of the Chemical Substances Control Act	Corrective action	Efforts made to prevent a recurrence
2022.08.18	Geum River Basin Environmental Office	SK chemicals Cheongju Plant	Improvement order	-	Failure to obtain change permit (Using the indoor storage and room temperature storage without change permit)	Article 34-2 Paragraph 1 Subparagraph 8 of the Chemical Substances Control Act	Corrective action	Efforts made to prevent a recurrence
2022.10.27	Fair Trade Commission	SK chemicals	Prohibition, public order, and imposition of fine	KRW 35 million	For advertising articles related to disinfectant products, the Fair Trade Commission prohibited and issued a public order, and imposed fines.	Article 3 of the Act On Fair Labeling And Advertising	Fines paid, administrative litigation	Efforts made to prevent a recurrence
2023.04.06	Cheongju District Court	SK chemicals Co., Ltd. and employees of the Company	Penalty imposed	KRW 2 million	Violation of labeling standards, failure to conduct self-inspection and failure to keep records in the inspection ledger, and failure to obtain change permit	Article 34-2 Paragraph 1 Subparagraphs 5, 6, and 8 of the Chemical Substances Control Act	Penalty paid	Efforts made to prevent a recurrence
2023.07.12	Personal Information Protection Commission	SK chemicals	Fines imposed / corrective order issued	KRW 1 million	Violation of the Personal Information Protection Act	Article 26 of the Personal Information Protection Act	Corrective action / early payment of fines	Efforts made to prevent a recurrence
2023.08.29	Central Regional Employment and Labor Office Seongnam Branch	Pangyo Research Center, SK chemicals	Fines imposed, corrective order issued	KRW 500,000	Failure to complete specialized safety education	Article 29, paragraph 3 of the Occupational Safety and Health Act	Early payment of fines	Efforts made to prevent a recurrence

[SK bioscience]

A. Sanctions

Date	Institution of sanction	Target of sanction	Details of punishment or action	Amount of monetary sanctions	Reason	Applicable laws and regulations	Compliance status with the punishment or action	Measures to prevent a recurrence
2023.07.12	Personal Information Protection Commission	SK bioscience Co., Ltd. (Note)	Fines imposed / corrective order issued	KRW 1 million	Violation of the Personal Information Protection Act	Article 26 of the Personal Information Protection Act (Limitation to Personal Information Processing Subsequent to Outsourcing of Work)	Voluntary early payment of fines	Provided privacy training and established oversight procedures

B. Sanctions imposed by Korea Marketplace, etc.

Date	Institution of sanction	Target of sanction	Details of punishment or action	Amount of monetary sanctions	Reason	Applicable laws and regulations	Compliance status with the punishment or action	Measures to prevent a recurrence
2023.07.11	Korea Marketplace	SK bioscience Co., Ltd. (Note)	Disclosure violation penalties	KRW 8 million	Delayed disclosure of a single sales and supply agreement	Articles 35 and 38.2 of the KSE Disclosure Regulation	Disclosure violation penalties paid	Provided internal training to prevent recurrence

[SK Multi-Utility]

Date	Institution of sanction	Target of sanction	Details of punishment or action	Amount of monetary sanctions	Reason	Status of performance	Applicable laws and regulations	Countermeasure
2022.12.20	Ulsan Branch, Busan Regional Employment and Labor Administration	SK Multi-Utility	and transporting work at the coal loading dock) order to stop work	-	Occurrence of a serious accident	After work suspension, work suspension was lifted as safety and health measures were completed.	Article 55 Paragraph 1 of the Occupational Safety and Health Act and Article 3 of the Enforcement Regulations of the Occupational Safety and Health Act	Efforts made to prevent a recurrence

4. Other Matters Such as Major Issues Which Arose After the Reference Date of Preparation

A. Major issues which arose after the reference date of preparation

[SK chemicals]

1) Provisioning liabilities for pending litigation

On January 11, 2024, the Company recognized the harmfulness of the raw materials used in its humidifier disinfectants in a criminal lawsuit. Considering the impact of the criminal lawsuit on the ongoing litigation, a provisioning liability of KRW 5,957,148,000 was recognized based on the best estimate.

2) Provisioning liabilities for patent infringement litigation

On January 18, 2024, the Company made a partial loss in the second instance of the patent infringement lawsuit with Novartis AG, and on January 26, 2024, paid the principal amount of KRW 11,013,136,000 as a provisional payment, which was recognized as a provisioning liability.

[SK bioscience]

– Not applicable

[SK Multi-Utility]

– Not applicable

B. Post-merger information

1) Merger with Initz

To enhance the corporate value via the efficient operation of the PPS business, the Board of Directors reached a solution to merge Initz, a 10% subsidiary, on September 3, 2019, and the merger was completed on December 1, 2019. Accordingly, a report on major issues and a report on the completion of merger, etc. were submitted as follows.

[Related disclosure: Report on major issues (merger decision of the Company), September 03, 2019]

1. Method of merger		SK chemicals Co., Ltd. merged with Initiz Co., Ltd. – Surviving company: SK chemicals Co., Ltd. – Extinct company: Initiz Co., Ltd.
- Form of merger		Small-scale merger
2. Purpose of merger		Enhance the corporate value through rapid decision-making, financial stability, and operational efficiency improvement for the PPS business operation
3. Important impact and effect of the merger		<p>(1) Impact and effect on the Company's management</p> <p>– Upon the completion of this merger, SK chemicals Co., Ltd. will remain as the surviving company, and the merged corporation Initiz Co., Ltd., will be dissolved after the merger.</p> <p>– There has been no change in the largest shareholder of the surviving company following this merger, and no substantial change in the management rights has occurred.</p> <p>– The merger corporation SK chemicals Co., Ltd. does not issue new shares in executing this merger.</p> <p>(2) Impact and effect on the Company's finance</p> <p>– It is expected that the merger will help reduce the overall cost and improve the financial structure of the merger company by eliminating the duplication of management and unnecessary expenses that occurred as each was operated as separate corporations and focusing the capabilities through efficient resource allocation.</p> <p>– The surviving company succeeds all assets, liabilities, rights, and obligations of the extinct company on the date of merger.</p> <p>(3) Impact and effect on the Company's business</p> <p>- It is expected that the operating corporations that were separated between the corporations will be united to increase the corporate value by maximizing cost reduction and synergies, and the merger between the two companies is expected to ultimately enhance the shareholder value and have a positive impact on the Company's finance and operations.</p>
4. Merger ratio		SK chemicals Co., Ltd.: Initiz Co., Ltd. = 1.0000000: 0.0000000
5. Calculation basis for merger ratio		The merger corporation of SK chemicals Co., Ltd. owns 100% of the shares of the merged corporation of Initiz Co., Ltd., and at the time of a merger, the merger ratio was calculated at 1.0000000:0.0000000 since the merger corporation does not issue new shares for the shares.
6. Matters concerning the external evaluation	Whether applicable for external evaluation	Not applicable
	Basis and reasons	The proviso of Article 176-5 Paragraph 7 Subparagraph 2 Item b of the Enforcement Decree of the Financial Investment Services and Capital Markets Act provides that, where a company which owns the total number of issued stocks of another company does not issue new shares while merging with another company, the evaluation of the adequacy of the merger price by an external evaluation institution is not required, and since this merger is applicable thereunder, an external evaluation institution's evaluation will not be required.

	Name of external evaluation institution		-			
	Period of external evaluation		-			
	Opinion of external evaluation		-			
7. Class and number of new shares to be distributed following merger (shares)		Common stocks	-			
		Different classes of stocks	-			
8. Merger targeted company	Name of Company		Initz Co., Ltd.			
	Main Business		Manufacture of synthetic resins and other plastic materials			
	Relationship with the Company		Subsidiaries			
	Financial details for the latest business year (KRW)		Total Assets	279,342,513,970	Capital	7,006,166,500
			Total liabilities	187,618,315,805	Sales amount	18,605,083,850
			Total equity	91,724,198,165	Net income	- 64,412,184,021
Whether external audit is conducted		Name of institution	Nexia Samduk	Auditor's opinion	Unqualified opinion	
9. Newly established company via merger	Name of Company		-			
	Financial details upon establishment (KRW)		Total Assets	-	Total liabilities	-
			Total equity	-	Capital	-
			-		As of the present	
	New business division's sales for the latest business year (KRW)		-			
	Main Business		-			
Whether re-listing has been petitioned for		Not applicable				
10. Schedule of merger	Date of merger contract		2019.09.04			
	Reference date of shareholders' confirmation		2019.09.18			
	Period of the closure of register of shareholders	From	2019.09.19			
		To	2019.09.25			
	Period for the receipt of notification of the intent to oppose the merger	From	2019.09.18			
		To	2019.10.02			
	Scheduled date of shareholders' meeting		-			
	Exercise of the appraisal right of trading suspension	From	-			
		To	-			
	Period for submission of old share certificates	From	-			
		To	-			
	Scheduled period for trading suspension	From	-			
		To	-			
	Period of submission for the creditors' objection	From	2019.10.24			
		To	2019.11.24			
	Record date of merger		2019.12.01			
	Date of general meeting for closing report		2019.12.02			
Scheduled date of merger registration		2019.12.02				
Scheduled delivery date of new share certificates		-				

	Scheduled listing date of new shares	-
11. Whether it is a back-door listing		Not applicable
12. Whether requirements for back-door listing for another corporation are satisfied		Not applicable
13. Matters concerning the appraisal right	Conditions for the exercise	As it is carried out in line with the small-scale merger procedures under the Commercial Act, the appraisal right is not granted for the shareholders of SK chemicals Co., Ltd. (applicable provisions: Article 527-3 Paragraph 5 of the Commercial Act)
	Scheduled purchase price	-
	Proceedings, method, period, and location	-
	Payment scheduled date and method	-
	Details related to the restrictions on the appraisal right	-
	Effects on contract	-
14. Date of board resolution (decision date)		2019.09.03
- Whether outside directors attended	Attended (people)	3
	Absent (people)	0
- Whether auditors attended (members of the Audit Committee who are not outside directors)		-
15. Whether contracts such as put option are executed		No
- Details of agreements		-
16. Whether subject to filing of securities registration statement		No
- Reasons for exemption from filing securities registration statement, if exempted		Since this merger proceeds as a capital increase without consideration with no new shares issued for the merger, there is no recruitment or sales of the securities which require the submission of a securities declaration in the process of this merger.

17. Other matters to consider for investment judgments

- (1) Since this merger is a small-scale merger as per Article 527-3 of the Commercial Act, the appraisal right is not acknowledged, and the approval of the merger is substituted by an approval of the Board of Directors.
- (2) This merger is carried out as a small-scale merger. However, if, in accordance with Article 527-3 Paragraph 4 of the Commercial Act, a shareholder who owns 20% or more of the total issued shares of the surviving company gives written notice of its intent to oppose the merger within 2 weeks following the date of announcement of the merger, this merger cannot proceed as a small-scale merger.
- (3) The financial details of the merger targeted company for the latest business year are based on the financial statements as of the end of 2018.
- (4) The general meeting of shareholders concerning the closing report on the merger schedule above will be substituted by the announcement procedure in accordance with the provisions of Article 526-3 of the Commercial Act as resolved by the Board of Directors.

(5) Key merger schedules

Classification	Date	Note
Date of board resolution on the merger	2019.09.03	-
Submission of the report on major issues	2019.09.03	-
Announcement of the designation of the date of shareholders' confirmation and the closing of the list of shareholders	2019.09.03	-
Date of merger contract	2019.09.04	-
Reference date of shareholders' confirmation	2019.09.18	-
Announcement of small-scale merger	2019.09.18	-
Period of the closure of register of shareholders	2019.09.19 - 2019.09.25	-
Period for the receipt of notification of the intent to oppose the merger	2019.09.18 - 2019.10.02	-
Date of board resolution on the merger	2019.10.23	Substituted by the general meeting of shareholders
Announcement of the creditors' submission of objection	2019.10.24	-
Period for filing the statement of objections by creditors	2019.10.24 - 2019.11.24	-
Record date of merger	2019.12.01	-

General meeting of closing report for the merger	2019.12.02	Reported to the board
Announcement of closing report for the merger	2019.12.02	-
Merger registration (scheduled)	2019.12.02	-

(6) The merger schedule above is estimated as of the time of disclosure, and is subject to change via consultations and the approval process with related organizations, etc.

※ Related disclosure

– Not applicable

【Details of important matters related to the merger】

1. Overview of the merger

1) Basic matters concerning the merger

(1) Counterparty to the merger

Surviving company after the merger (merger company)	Trade name	SK chemicals Co., Ltd.
	Location	310 Pangyo-ro, Bundang-gu, Seongnam-si, Gyeonggi-do
	CEO	Kim Cheol, Jeon Kwang Hyun
	Corporate classification	Stock-listed Corporation
Extinct company after the merger (merged company)	Trade name	Initz Co., Ltd.
	Location	616-119 Cheoyong-ro , Hwangseong-dong, Nam-gu, Ulsan
	CEO	Kim Hyo Gyeong
	Corporate classification	Corporations whose share certificates are not listed

(2) Background of the merger

Based on this merger, the Company seeks to achieve efficient organizational operations via sharing the human and material resources among existing businesses as well as management efficiency via the reduction of management costs.

(3) Whether applicable as a back door listing

– Not applicable.

(4) Important impact and effect on the Company's management, finances, and sales

SK chemicals Co., Ltd. owns 100% of the issued shares of Initz Co., Ltd., and since the merger will proceed without a capital increase with no new shares issued for the merger, and while this merger will not have a significant impact on the management, finance, and sales of SK chemicals, the surviving company, it is expected that the management efficiency will be increased through the merger of the wholly owned subsidiary.

(5) Plans for the Company's future restructuring

– There are no final decisions made concerning the Company's restructuring plan, such as other mergers after this merger.

2) Merger ratio and its calculation basis

(1) Calculation of merger ratio

SK chemicals Co., Ltd. holds 100% stake in Initz Co., Ltd., and since it will proceed without a capital increase with no new shares issued, the merger ratio was calculated at 1.0000000:0.0000000.

(2) Whether applicable for external evaluation

The proviso of Article 176-5 Paragraph 7 Subparagraph 2 Item b of the Enforcement Decree of the Financial Investment Services and Capital Markets Act provides that, where a company which owns the total number of issued stocks of another company does not issue new shares while merging with another company, the evaluation of the adequacy of the merger price by an external evaluation institution is not required, and since this merger is applicable thereunder, an external evaluation institution's evaluation was not made.

3) Investment risk factors related to the merger, etc.

(1) Risk factors which make the merger difficult

– Terms and conditions for the contractual termination as per the merger contract

Article 1 (Change or Cancellation of Contract)

(1) This contract may be changed or canceled by agreement between A and B in the event of any of the following reasons.

1. Where the matters related to the terms of this contract between the date of signing of this contract and the date of merger are in violation of related laws and regulations and accounting standards
2. Where a significant change results in the assets or management status of A or B due to natural disasters, transfer of all or an important part of the business division, or other reasons between the date of signing this contract and the date of merger
3. Where A or B violates important matters of this contract
4. Where the number of stocks of shareholders who notify in writing of their intention to object to the merger within 2 weeks from the date of announcement of the merger pursuant to Article 527-3 Paragraph 4 of the Commercial Act is 20% or more of the total number of stocks issued by A
5. Where it is necessary to change or cancel this contract

(2) A and B may execute a separate contract for the matters which require additional agreement for the purposes of the merger. The separate contract is considered a part of this contract.

(2) Risk factors concerning the authorization/permission or approval under relevant laws and regulations related to the merger

- As the merger is a small-scale merger, in accordance with Article 527-3 Paragraph 4 of the Commercial Act, if a shareholder who owns stocks equivalent to 20% or more of the total issued stocks of the surviving company notifies the Company in writing of its intention to object to the merger within 2 weeks from the date of the announcement of the small-scale merger, the small-scale merger cannot be carried out. In such cases, the merger may proceed through a general meeting of shareholders or it may be canceled without proceeding with the small-scale merger. In the case of a merger through a general meeting of shareholders, it may be possible to grant the appraisal right, and we will re-disclose such cases as they occur.
- In accordance with Article 12 of the Monopoly Regulation and Fair Trade Act and Article 18 of the Enforcement Decree of the same Act, the Company has the obligation to report the business combination to the Fair Trade Commission, and the merger schedule may be delayed or changed depending on the review results.

(3) Matters concerning the possibility of promoting the listing or delisting of new share such as a merger

- This is not applicable as this is a merger carried out without a capital increase with no new shares issued. As this merger is not applicable as a back door listing, there is no possibility of delisting due to this merger.

(4) Whether it is applicable as a back door listing, and whether the requirements provided under the securities market related listing regulations have been met

- Not applicable.

(5) Risk factors to consider when investing in relevant securities in case of a merger

- This merger is a small-scale merger with Initiz Co., Ltd., a major subsidiary in which SK chemicals holds a 100% stake. The impact on the consolidated financial statements before and after the merger is the same, and thus the risk factors to be considered when investing in securities is limited.
- This merger is a small-scale merger with Initiz Co., Ltd., a subsidiary of SK chemicals Co., Ltd., in which 100% of the stake is held by SK chemicals Co., Ltd., and there are no securities subject to recruitment or sales in connection with this merger.

(6) Matters concerning the execution of an option contract related to the merger

- Not applicable.

4) Matters concerning the appraisal right

- Since the merger proceeds according to the small-scale merger method pursuant to Article 527-3 of the Commercial Act, the appraisal right is not granted to the shareholders of SK chemicals Co., Ltd., the surviving company. Furthermore, the extinct company of Initiz Co., Ltd. does not grant the appraisal right with the consent of SK chemicals Co., Ltd., the sole shareholder.

5) Interests between the Company and the relevant companies, etc.

(1) Relationship between the Company and relevant companies, etc.

① Where there is a relationship with an affiliate or a subsidiary

The surviving company SK chemicals Co., Ltd. and the extinct company Initz Co., Ltd. are the affiliates of the "SK" corporate group as provided under the Monopoly Regulation and Fair Trade Act, and Initz Co., Ltd. is a wholly owned subsidiary of SK chemicals Co., Ltd.

② Where mutually concurrent positions are held by and between the executives

Name	SK chemicals	Initz
Kim Hyo Gyeong	Head of EP Business Division	CEO

③ Where the major shareholder of the company of a party is a related party of the company of the other party

SK chemicals Co., Ltd. and Initz Co., Ltd. are the affiliates associated with the "SK" corporate group as provided under the Monopoly Regulation and Fair Trade Act, and any and all major shareholders and related parties of SK chemicals Co., Ltd. are the related parties of Initz Co., Ltd. Furthermore, since Initz Co., Ltd. is a wholly owned subsidiary of SK chemicals Co., Ltd., and thus the major shareholders and related parties of SK chemicals Co., Ltd. are the related parties of Initz Co., Ltd.

④ Other matters mutually related such as whether there is a competitive or complementary relationship in terms of business

– Not applicable.

(2) Details of the transactions by and between the Company and relevant companies

① Investments

Name of Company	Account title	Number of shares (stocks)		Equity interest	Acquisition price (KRW one million)	
		Common stocks	Preferred stocks		Common stocks	Preferred stocks
Initz Co., Ltd.	Subsidiary	11,337,300	3,179,200	100%	75,235	116,281

– SK chemicals Co., Ltd. owns 100% of the shares of Initz Co., Ltd.

– The number of shares and the acquisition price are as of June 30, 2019.

② Debt guarantee

– Not applicable

③ Provision of security (collateral)

– Not applicable

④ Purchase and sales transactions

(Unit: KRW one thousand)

Companies of sales	Companies of purchase	2018	2017	2016	Target of transaction
SK chemicals	Initz	6,087,576	508,751	-	Power and steam, etc.

– SK chemicals is a new corporation which was established on December 1, 2017 after a split-off with SK discovery and has prepared transactions in or since December 2017.

⑤ Receivables, payables, and accounts payable and accounts receivable in terms of business

(Unit: KRW one thousand)

Classification	Companies of receivables	Companies of payables	2018	2017	2016
Receivables and payables in terms of business	SK chemicals	Initz	336,729	1,504,449	-
Accounts payable and accounts receivable	SK chemicals	Initz	1,137	524,546	-
	Initz	SK chemicals	-	18,767	-

(3) Transactions with the largest shareholder of the Company

– Not applicable

6) Form of merger, etc.

– This merger takes on the form of the surviving company of SK chemicals Co., Ltd. merging with the extinct company of Initz Co., Ltd., and thus there is no new corporation due to the merger.

– This merger is a small-scale merger executed without a capital increase with no new shares issued in accordance with Article 527-3 of the Commercial Act, and thus the merger approval is substituted by the board approval

- The surviving company of SK chemicals Co., Ltd. is a corporation which is listed on the securities market as of the date of submission of the disclosure, and there are no related changes after the merger.
- As this merger is a small-scale merger, in accordance with Article 527-3 Paragraph 4 of the Commercial Act, if a shareholder who owns stocks equivalent to 20% or more of the total issued stocks of the surviving company notifies the Company in writing of its intention to object to the merger within 2 weeks from the date of the announcement of the small-scale merger, the small-scale merger cannot be carried out.

7) Progress and schedule of the merger

Classification	SK chemicals Co., Ltd.	Initz Co., Ltd.
Date of board resolution on the merger	2019.09.03	2019.09.03
Reference date of shareholders' confirmation	2019.09.18	-
Period of the closure of register of shareholders	2019.09.19 - 2019.09.25	-
Period for the receipt of notification of the intent to oppose the merger	2019.09.18 - 2019.10.02	-
Date of board resolution on the merger	2019.10.23	2019.10.23
Period for filing statement of objections by creditors	2019.10.24 - 2019.11.24	2019.10.24 - 2019.11.24
Period of submission for the old share certificates	-	2019.10.24 - 2019.11.24
Record date of merger	2019.12.01	2019.12.01
General meeting of closing report for the merger	2019.12.02	2019.12.02
Merger registration (scheduled)	2019.12.02	2019.12.02

- As for the main schedule of this merger, refer to the main text of the announcement in the above, and the detailed schedule is subject to change.

8) Whether a securities declaration report has been submitted

Whether subject to filing of securities registration statement	Not applicable
Reasons for exemption from filing securities registration statement, if exempted	Merger without a capital increase

9) Requirements for the execution of merger, etc.

- This merger is a small-scale merger, and in accordance with Article 527-3 Paragraph 4 of the Commercial Act, if a shareholder who owns stocks equivalent to 20% or more of the total issued stocks of the surviving company notifies the Company in writing of its intention to object to the merger within 2 weeks from the date of the announcement of the small-scale merger, the small-scale merger cannot be carried out.
- In accordance with Article 12 of the Monopoly Regulation and Fair Trade Act and Article 18 of the Enforcement Decree of the same Act, the Company has the obligation to report the business combination to the Fair Trade Commission, and the merger schedule may be delayed or changed depending on the review results.

2. Matters concerning the counterparty to the merger

1) Overview of the Company

Name of Company	Initz Co., Ltd.
Name in English	Initz Co., Ltd.
Date of establishment	2013.08.28
Contents of the Main Businesses	Manufacture of synthetic resins and other plastic materials
Number of executives and employees	66
Status of major shareholders	SK chemicals (100% of stake owned)

※The number of executives and employees above is as of September 2019.

2) Matters concerning finance

① Financial information for the last 3 years

- Statement of Financial Position

(Unit: KRW)

Account	End of 2018	End of 2017	End of 2016
Investment			
I. Current assets	50,007,751,460	43,565,793,241	29,163,580,144
Cash and cash equivalents	4,435,382,476	1,698,801,471	1,438,548,665
Trade receivables	2,788,880,772	1,421,584,131	-

Other short-term receivables	39,290,739	112,398,908	144,196,300
Inventories	41,542,380,686	39,178,926,336	25,784,519,288
Current income tax assets	7,179,330	18,863,140	2,608,710
Other current assets	1,194,637,457	1,135,219,255	1,793,707,181
II. Non-current assets	229,334,762,510	268,876,091,845	271,804,373,019
Long-term financial assets	2,000,000	2,000,000	2,500,000
Tangible assets	229,332,551,899	248,472,146,127	264,457,032,383
Intangible assets	210,611	4,435,508	8,660,404
Deferred income tax assets	-	20,397,510,210	7,336,180,232
Total assets	279,342,513,970	312,441,885,086	300,967,953,163
Liabilities			
I. Current liabilities	98,945,358,289	59,597,751,105	80,051,206,503
Trade payables	331,574,361	2,890,206,572	2,708,693,400
Other short-term payables	4,176,805,235	8,155,493,925	4,756,337,669
Short-term borrowings	26,000,000,000	21,000,000,000	15,000,000,000
Short-term financial liabilities	68,400,000,000	27,506,859,148	57,500,000,000
Other current liabilities	36,978,693	45,191,460	86,175,434
II. Non-current liabilities	88,672,957,516	147,456,766,485	124,734,635,549
Long-term borrowings	85,066,000,000	145,000,000,000	122,500,000,000
Retirement benefit liabilities	3,606,957,516	2,456,766,485	2,234,635,549
Total liabilities	187,618,315,805	207,054,517,590	204,785,842,052
Investment This rating			
I. Capital	7,006,166,500	6,502,000,000	5,668,650,000
II. Capital surplus	213,069,256,218	162,316,182,664	113,152,966,744
III. Retained earnings	-128,351,224,553	-63,430,815,168	-22,639,505,633
Total shareholders' equity	91,724,198,165	105,387,367,496	96,182,111,111
Total liabilities and shareholders' equity	279,342,513,970	312,441,885,086	300,967,953,163

– Comprehensive Income Statement

(Unit: KRW)

Account	End of 2018	End of 2017	End of 2016
I. Sales amount	18,605,083,850	6,688,243,042	-
II. Cost of sales	46,968,216,099	38,065,724,641	-
III. Gross profit	-28,363,132,249	-31,377,481,599	-
Bad debt expenses	1,430,000	-	
Selling and administrative expenses	8,881,286,789	15,197,523,150	6,844,366,460
IV. Operating profit (loss)	-37,245,849,038	-46,575,004,749	-6,844,366,460
Other income	170,270,729	74,618,413	262,881
Other expenses	300,226,428	243,391,164	101,085,675
Other bad debt expenses	2,145,000	-	
Financial income	131,281,370	455,087,098	283,125,637
Financial cost	6,605,748,799	7,900,076,996	297,930,650
V. Net income (loss) before income tax expenses	-43,852,417,166	-54,188,767,398	-6,959,994,267
VI. Income tax expense (income)	20,559,766,855	-13,142,672,926	-1,730,152,676
VII. Net income (loss)	-64,412,184,021	-41,046,094,472	-5,229,841,591
VIII. Other comprehensive income	-508,225,364	254,784,937	336,125,161
Remeasurement factors of defined benefit plan	-508,225,364	254,784,937	336,125,161
IX. Total comprehensive income (loss)	-64,920,409,385	-40,791,309,535	-4,893,716,430
X. Earnings per share			

Earnings (loss) per common stock	-4,709	-3,505	-479
Earnings (loss) per preferred share	-4,709	-3,505	-

② Audit status and opinions of the last 3 business years

Business Year	Auditor	Auditor's opinion	Special remarks on the audit report
2018	Nexia Samduk	Unqualified opinion	No special remark
2017	Nexia Samduk	Unqualified opinion	No special remark
2016	Nexia Samduk	Unqualified opinion	No special remark

3) Matters related to the Company's organizations such as the Board of Directors

As of the date of report submission, the Board of Directors of Initz Co., Ltd. consists of a total of 3 directors (2 inside directors and 1 other non-executive director) and 1 auditor. The committees within the Board of Directors are not applicable.

4) Matters concerning shareholders

SK chemicals Co., Ltd. owns a 100% interest in Initz Co., Ltd. as of the date of report submission.

5) Matters Concerning Executives and Employees, Etc.

As of September 2019, Initz Co., Ltd. has 66 executives and employees including 2 inside directors.

6) Matters Concerning Affiliates, Etc.

As of the date of report preparation, the affiliates of Initz Co., Ltd. are the same as those of SK chemicals Co., Ltd. For more details, please refer to the business report of SK chemicals Co., Ltd.

7) Other matters required for investor protection

– Not applicable.

[Related disclosure: Report on the closing of merger, etc. (merger), December 2, 2019]

I . Schedule

Classification		SK chemicals Co., Ltd. (surviving company)	Initz Co., Ltd. (extinct company)
Date of board resolution on the merger		2019.09.03	2019.09.03
Announcement of the designation of the date of shareholders' confirmation and the closing of the list of shareholders		2019.09.03	-
Date of merger contract		2019.09.04	2019.09.04
Reference date of shareholders' confirmation		2019.09.18	-
Announcement of small-scale merger		2019.09.18	-
Period of the closure of register of shareholders	From	2019.09.19	-
	To	2019.09.25	-
Period for the receipt of notice of the intention to object to the merger	From	2019.09.18	-
	To	2019.10.02	-
Board approval substituting for the general meeting of shareholders for the merger approval		2019.10.23	2019.10.23
Announcement of the creditors' submission of objection		2019.10.24	2019.10.24
Period for filing statement of objections by creditors	From	2019.10.24	2019.10.24
	To	2019.11.24	2019.11.24
Submission of old share certificates	From	-	2019.10.24
	To	-	2019.11.24
Record date of merger		2019.12.01	2019.12.01
General meeting of closing report for the merger		2019.12.02	-

Announcement of closing report for the merger	2019.12.02	-
Merger registration (scheduled)	2019.12.02	2019.12.02

Note 1) For SK chemicals Co., Ltd., the surviving company, the appraisal right is not acknowledged since the merger is a small-scale merger pursuant to the provisions of Article 527-3 of the Commercial Act, and thus, the requirement of approval of the merger via the general meeting of shareholders is substituted by a board resolution.

Note 2) The requirement of a closing report for the merger via the general meeting of shareholders is substituted by an announcement via a resolution of the Board of Directors.

Note 3) The scheduled date of merger registration (dissolution registration) above may be changed in consultation with the related organizations, etc.

II. Changes in the equity interest such as the largest shareholder

SK chemicals Co., Ltd. owns 100% of shares of SK Petrochemical Co., Ltd., and these companies of the merger decided to merge per the merger ratio of 1.0000000:0.0000000 via capital increase without consideration, and thus, due to the merger, there are no new shares issued by SK chemicals Co., Ltd., nor are there any changes in the equity interest of the largest shareholder, etc.

III. Exercise of the appraisal right

Since SK chemicals Co., Ltd., the surviving company, is a small-scale merger pursuant to the provisions of Article 527-3 of the Commercial Act, the appraisal right is not granted.

Since Initiz Co., Ltd., the extinct company, is also a 100% subsidiary of SK chemicals Co., Ltd., there is no appraisal right.

IV. Matters concerning the creditor protection

The surviving company SK chemicals Co., Ltd. and the extinct company Initiz Co., Ltd. each announced and issued a notice of the creditors' submission of objection on October 24, 2019, and no creditor submitted an objection until the deadline for the relevant submission, November 24, 2019. Furthermore, no decision has been made to repay the debt or provide substantial security in this case.

V. Status of related lawsuits

No lawsuit was filed that will have any effect on the validity of this merger.

VI. Matters concerning the allocation of new shares, etc.

Since this merger is executed without new shares issued for the 100% subsidiary (at the merger ratio of 1.0000000:0.0000000), no new shares will be issued, and there will be no separate money delivered due to amalgamation following the merger.

VII. Summary of the financial information before and after the [merger, etc.]

(Unit: KRW one million)

Classification	Before the merger		After the merger
	Chemicals	Initiz	SK chemicals Co., Ltd.
Current assets	459,459	54,754	514,213
Non-current assets	1,275,273	211,480	1,292,827
Total assets	1,734,732	266,233	1,807,040
Current liabilities	512,931	167,598	680,528
Non-current liabilities	418,431	17,918	436,348
Total liabilities	931,361	185,515	1,116,877
Capital	66,000	7,258	66,000
Capital surplus	301,233	238,447	188,025
Capital adjustment	(1,155)	-	(1,155)

Retained earnings	437,292	(164,987)	437,292
Total equity	803,370	80,718	690,163
Total liabilities and shareholders' equity	1,734,732	266,233	1,807,040

Note 1) The statement of financial position above is based on the separate statements of financial position as of September 30, 2019 of SK chemicals Co., Ltd. and Initz Co., Ltd., which may vary from the statement of financial position to be prepared based on the actual date of the merger (December 1, 2019).

Note 2) The statement of financial position of SK chemicals Co., Ltd. after the merger above has not been audited by an external auditor.

2) Decision on the transfer of bio-energy business

On February 5, 2020, the Company decided to transfer the bio-energy business to "Han & Co No. 16 Co., Ltd." via a resolution of the Board of Directors, and the business transfer was completed on May 29, 2020. Accordingly, we have submitted a report on major issues, a report on the completion of the merger, etc. as follows.

[Related disclosure: [Corrected] Report on major issues (decision on the transfer of business), 2020.07.14]

1. Business transferred		Bio-energy business		
2. Key details of the business transferred		The bio-energy business is one which procures, manufactures, produces, distributes, purchases, and sells bio-diesel/bio heavy oil and its raw materials based on bio raw materials, and conducts research/development of bio-diesel/bio heavy oil/bio marine oil/bio jet fuel.		
3. Transfer price (KRW)		385,193,238,137		
- Financial details (KRW)		Business division to be transferred (A)	Entirety of the Company (B)	Weight (%) (A/B)
	Amount of assets	148,648,667,135	1,950,805,010,838	7.62
	Sales amount	276,993,917,479	1,367,719,213,257	20.25
4. Purpose of transfer		Enhance management efficiency, focus on the eco-friendly materials business, and secure investment resources for future growth engines		
5. Impact of transfer		Based on this transfer of business, the Company seeks to enhance the value of its existing business and secure investment resources for new businesses, including M&As.		
6. Scheduled transfer date	Contract execution date	2020.02.05		
	Base date of transfer	2020.05.29		
7. Counterparty to the transaction	Company name (name)	SK Eco Prime Co., Ltd.		
	Capital stock (KRW)	7,750,500,000		
	Main Business	Bio-energy business		
	Location of head office (address)	Building No. 46, 718, Cheoyong-ro, Nam-gu, Ulsan, (Hwangseong-dong)		
	Relationship with the Company	-		
8. Payment of transfer price		(1) Form of payment The Company received KRW 382.5 billion in cash from the transferee under the contract.		

		<p>(2) Period of payment</p> <p>The entire transfer proceeds are paid to the Company on the date of closing of the transaction. The amount adjusted according to the business transfer contract after the closing of the transaction is settled within 15 business days from the date on which the closing statement of financial position is finalized.</p> <p>(3) Adjustment of the transfer price</p> <p>After this transaction is closed, the transferor and transferee will mutually settle the amount of adjustment by adding up the adjustment amount according to the adjustment related to the net assets of the transfer business and the appraisal right, and the adjustment of the price under the service contract. Accordingly, the transferee agreed to pay an additional KRW 2,693,238,137 to the transferor on July 13, 2020.</p> <p>(4) The expected schedule and transfer price in the above may change in the future.</p>
9. Matters concerning the external evaluation	Whether applicable for external evaluation	Yes
	Basis and reasons	Evaluation of adequacy in accordance with Article 165-4 Paragraph 1 Subparagraph 2 and Paragraph 2 of the Financial Investment Services and Capital Markets Act, and Article 176-6 Paragraph 3 of the Enforcement Decree of the same Act
	Name of external evaluation institution	Samil PwC
	Period of external evaluation	2020.01.03 - 2020.02.04
	Opinion of external evaluation	Unqualified opinion
10. Whether a special resolution at shareholders' meeting is required		Yes
- Scheduled date of shareholders' meeting		2020.03.17
- Matters concerning the appraisal right	Conditions for the exercise	<p>In accordance with Article 374-2 of the Commercial Act and Article 165-5 of the Financial Investment Services and Capital Markets Act, the shareholders registered in the Company's list of shareholders as of the final date of the finalization of the list of shareholders may, provided they have notified the Company in writing of their intention to object to the relevant resolution by the date before the date of resolution of the general meeting of shareholders, claim to purchase in writing the class and number of the shares within 20 days from the relevant date of resolution to the Company concerning the shares they own (shares which have been proven to have been acquired prior to the announcement of the resolution of the Board of Directors, and those which have been proven to correspond to any of the execution of the sales contract for the shares, termination of the loan contracts, and any of the legal acts concerning the acquisition of the relevant shares), and may also claim to purchase a portion of the shares owned.</p> <p>However, appraisal right is granted only for the shareholders who have continuously owned the shares from the reference date of confirmation of the list of shareholders until the date of exercise of the appraisal right, while for the shares reacquired after sale within the same period, the right to purchase shares will be lost, and once the relevant right is exercised, it cannot be revoked.</p> <p>Furthermore, if any shareholder who has previously given written notice of his or her objection to the resolution of the Board of Directors of the business</p>

		<p>transfer approves of the business transfer at the general shareholders' meeting, he or she cannot exercise the appraisal right.</p> <p>As the company of transferring business, the Company is a listed corporation on the securities market, and thus it must purchase the relevant shares within 1 month from the end of the period of claim for share purchase regarding the claim.</p>
	Scheduled purchase price	63,068
	Proceedings, method, period, and location	<p>(1) Method of expressing the intention to object In accordance with Article 374-2 of the Commercial Act and Article 165-5 of the Financial Investment Services and Capital Markets Act, a shareholder registered in the Company's list of shareholders as of the final date of the list of shareholders (however, this is limited to those who continue to hold shares until the date of notice) and seeking to exercise the appraisal right must notify the Company of the intention to oppose the resolution of the Board of Directors on the business transfer in writing before the general shareholders' meeting. However, if a beneficial shareholder has consigned his or her share certificates to a securities company (a financial investment business operator), he or she must notify the securities company by 3 business days before the date of the general meeting of shareholders, and the securities company must gather the expressed intention of opposition of the beneficial shareholder and so notify the Korea Securities Depository, the depository institution, by 2 business days before the date of the general shareholders' meeting. The Korea Securities Depository must notify the Company of the intention to oppose on behalf of the beneficial shareholders before the date of the general meeting of shareholders.</p> <p>(2) Method of claim to purchase In accordance with Article 374-2 of the Commercial Act and Article 165-5 of the Financial Investment Services and Capital Markets Act, if a shareholder who opposes a resolution of the Board of Directors on the business transfer gives a written notice to the company of his or her intention to oppose the resolution prior to the general meeting of shareholders, he or she can claim to purchase some or all of the shares he or she owns (limited to the shares continuously held from the date on which the list of shareholders is finalized until the date of exercise of the appraisal right) by giving the Company a written statement of the types and the number of the shares within 20 days of the date of the resolution of the general meeting. However, beneficial shareholders who have consigned their share certificates to a securities company (financial investment business operator) may claim purchase of the shares they own to the Company by completing the application for the exercise of the appraisal right regarding the number of shares consigned to and held by the relevant securities company and submitting it to the relevant securities company by 2 business days before the end of the period for the claim of share purchase, and Korea Securities Depository, the depository institution, will apply it on their behalf accordingly.</p> <p>(3) Period of exercise ① Receipt of the expression of the intention to oppose the business transfer: March 2, 2020 - March 16, 2020 ② Period of the exercise of the appraisal right: March 17, 2020 - April 6, 2020 </p>

		<p>(4) Place of receipt</p> <p>① Registered shareholder: IR Office, SK chemicals (ECO Lab), 310, Pangyo-ro, Bundang-gu, Seongnam-si, Gyeonggi-do (02-2008-2726)</p> <p>② Beneficial shareholder who has consigned securities to the securities company: the relevant securities company</p>
	Payment scheduled date and method	<p>(1) Period of the scheduled payment of share purchase price The payment will be made within 1 month from the end of the period of claim for share purchase.</p> <p>(2) Method of payment for the share purchase price</p> <p>① Registered shareholder: Transfer to the shareholder's reported account</p> <p>② Beneficial shareholder: Transfer to the relevant securities company's own account</p>
	Details related to the restrictions on the appraisal right	<p>In accordance with the provisions of Article 374-2 of the Commercial Act, a shareholder who opposes a resolution of the Board of Directors on the business transfer can claim to the relevant corporation to purchase the shares he or she owns in writing with specifics on the type and number of the shares within 20 days from the date of the resolution of the general meeting of shareholders if he or she gives notice the Company of the intention to oppose the board resolution before the general meeting of shareholders.</p> <p>However, shares subject to the appraisal right are limited to the shares held continuously from the date on which the list of shareholders is finalized until the date of exercise of the appraisal right.</p>
	Effect on the contract	<p>This contract may be canceled if the amount of the appraisal right exercised by the Company's shareholders in opposition to this business transfer exceeds KRW 70 billion. However, this contract will not be canceled if the transferee agrees to take over from the transferor all of the shares for which the appraisal right is exercised in excess of KRW 70 billion.</p>
11. Date of board resolution (decision date)		2020.02.05
- Whether outside directors attended	Attended (people)	3
	Absent (people)	-
- Whether auditors attended (members of the Audit Committee who are not outside directors)		-
12. Whether reporting to Fair Trade Commission is required		Not applicable
13. Whether contracts such as put option are executed		No
- Details of agreements		Not applicable

14. Other matters to be factored into investment decisions

(1) Transfer price

① The value of the business subject to transfer, assessed by Samil Accounting Corporation, an external evaluation institution, using the discounted cash flow method, was calculated at a minimum of KRW 331,059 million and a maximum of KRW 437,332 million, and no grounds were discovered to determine that KRW 382,500 million, the actual transfer price of the Company, was inappropriate from the perspective of materiality.

② Prerequisites: For the transferee, approval of the Fair Trade Commission is required for this transaction since the transferee is subject to the business combination report. For the Company, it is a prerequisite to secure an approval via a special resolution of the general meeting of shareholders in relation to this transaction.

(2) Financial details

① Among the financial details of the transfer price of Paragraph 3 in the above, the asset amount of the business division subject to transfer (A) is as of September 30, 2019, and the sales amount is based on the separate financial statements for the period running from January 1, 2018 to December 31, 2018, and the asset amount of the Company in its entirety (B) is as of December 31, 2018, and the sales amount is based on the consolidated financial statements for the period from January 1, 2018 to December 31, 2018.

(3) Schedule

① The date of execution of the contract of Paragraph 6 above is the same as the date of resolution of the Board of Directors.
② The reference date of transfer of Paragraph 6 above is the scheduled date of transaction closing as of the time of disclosure, and the actual date of transaction closing is the 15th business day after the prerequisites are satisfied or the date agreed upon by both companies, and is subject to change according to related laws and regulations, consultations and approvals with related institutions.

(4) Expected share purchase price following the exercise of the appraisal right

① Price offered by the Company for consultation

– The purchase price of shares claimed pursuant to Article 374-2 of the Commercial Act and Article 165-5 of the Financial Investment Services and Capital Markets Act is, pursuant to the provisions of Article 176-7 Paragraph 3 of the Enforcement Decree of the Financial Investment Services and Capital Markets Act, the weighted arithmetic average price with the final market price as the weighted value, which is the price calculated by taking the arithmetic average again for the periods of the past 2 months from the date before the date of resolution of the Board of Directors related to the business transfer (in the event of an adjustment of the reference trading price due to ex-dividend or ex-rights during the same period, and if the period from the date of ex-dividend or ex-right to the date before the resolution of the Board of Directors is 7 days or longer), 1 month (in the case of an adjustment of the reference trading price due to ex-dividend or ex-rights during the same period, and if the period from the date of ex-dividend or ex-right to the date before the resolution of the Board of Directors is 7 days or longer), and 1 week.
– The scheduled share purchase price of Paragraph 10 above is based on the common stocks.

1) Common stocks

(Unit: KRW, stocks)

Date	Closing price	Trading volume	Closing price x Trading volume
2020-02-04	59,800	173,956	10,402,568,800
2020-02-03	58,000	201,037	11,660,146,000
2020-01-31	57,900	211,945	12,271,615,500
2020-01-30	60,600	220,656	13,371,753,600
2020-01-29	62,700	178,531	11,193,893,700
2020-01-28	64,100	209,174	13,408,053,400
2020-01-23	66,200	136,342	9,025,840,400
2020-01-22	66,300	116,713	7,738,071,900
2020-01-21	66,200	204,569	13,542,467,800
2020-01-20	67,500	306,994	20,722,095,000
2020-01-17	66,200	120,827	7,998,747,400
2020-01-16	66,100	111,298	7,356,797,800
2020-01-15	66,200	123,516	8,176,759,200
2020-01-14	67,000	203,912	13,662,104,000
2020-01-13	66,500	364,387	24,231,735,500
2020-01-10	69,000	1,292,254	89,165,526,000
2020-01-09	65,100	191,189	12,446,403,900
2020-01-08	63,100	312,351	19,709,348,100
2020-01-07	65,800	209,726	13,799,970,800
2020-01-06	66,400	261,860	17,387,504,000

2020-01-03	67,000	213,770	14,322,590,000
2020-01-02	66,700	450,033	30,017,201,100
2019-12-30	64,000	186,188	11,916,032,000
2019-12-27	63,000	164,722	10,377,486,000
2019-12-26	62,200	162,680	10,118,696,000
2019-12-24	63,100	343,835	21,695,988,500
2019-12-23	61,100	224,835	13,737,418,500
2019-12-20	60,500	134,781	8,154,250,500
2019-12-19	60,600	135,278	8,197,846,800
2019-12-18	60,500	135,718	8,210,939,000
2019-12-17	60,900	222,787	13,567,728,300
2019-12-16	62,000	165,194	10,242,028,000
2019-12-13	62,300	251,002	15,637,424,600
2019-12-12	62,200	467,190	29,059,218,000
2019-12-11	61,600	245,179	15,103,026,400
2019-12-10	61,400	426,739	26,201,774,600
2019-12-09	61,200	463,148	28,344,657,600
2019-12-06	62,700	318,627	19,977,912,900
2019-12-05	62,500	599,335	37,458,437,500
① A 2-month weighted arithmetic mean closing price			64,002
② A 1-month weighted arithmetic mean closing price			65,474
③ A 1-week weighted arithmetic mean share price			59,729
Arithmetic mean = (①+②+③)/3			63,068

2) Preferred stocks

(Unit: KRW, stocks)

Date	Closing price	Trading volume	Closing price x Trading volume
2020-02-04	27,800	114,609	3,186,130,200
2020-02-03	26,550	31,995	849,467,250
2020-01-31	26,200	33,666	882,049,200
2020-01-30	27,200	32,952	896,294,400
2020-01-29	28,250	26,641	752,608,250
2020-01-28	28,350	60,402	1,712,396,700
2020-01-23	29,500	94,340	2,783,030,000
2020-01-22	29,500	29,316	864,822,000
2020-01-21	29,550	57,162	1,689,137,100
2020-01-20	30,450	92,368	2,812,605,600
2020-01-17	30,150	41,821	1,260,903,150
2020-01-16	30,700	55,817	1,713,581,900
2020-01-15	30,650	126,370	3,873,240,500
2020-01-14	31,200	146,303	4,564,653,600
2020-01-13	31,400	395,787	12,427,711,800
2020-01-10	35,200	2,036,103	71,670,825,600

2020-01-09	28,000	46,202	1,293,656,000
2020-01-08	27,200	103,109	2,804,564,800
2020-01-07	29,350	81,793	2,400,624,550
2020-01-06	29,850	141,548	4,225,207,800
2020-01-03	30,300	137,130	4,155,039,000
2020-01-02	31,000	425,014	13,175,434,000
2019-12-30	28,800	29,191	840,700,800
2019-12-27	28,650	46,820	1,341,393,000
2019-12-26	28,550	46,764	1,335,112,200
2019-12-24	28,900	126,158	3,645,966,200
2019-12-23	28,200	80,655	2,274,471,000
2019-12-20	28,000	56,819	1,590,932,000
2019-12-19	28,650	55,107	1,578,815,550
2019-12-18	28,900	70,090	2,025,601,000
2019-12-17	29,200	85,888	2,507,929,600
2019-12-16	29,950	120,789	3,617,630,550
2019-12-13	30,400	130,165	3,957,016,000
2019-12-12	30,100	580,463	17,471,936,300
2019-12-11	28,900	265,597	7,675,753,300
2019-12-10	28,750	695,696	20,001,260,000
2019-12-09	27,800	151,961	4,224,515,800
2019-12-06	29,800	168,655	5,025,919,000
2019-12-05	31,000	383,292	11,882,052,000
① A 2-month weighted arithmetic mean closing price			31,196
② A 1-month weighted arithmetic mean closing price			32,724
③ A 1-week weighted arithmetic mean share price			27,377
Arithmetic mean = (①+②+③)/3			30,432

② Method of handling if an agreement cannot be reached

Where there is no agreement reached pursuant to the provisions of Article 165-5 of the Financial Investment Services and Capital Markets Act, the purchase price shall be based on the transaction price of the relevant shares traded in the securities market prior to the date of resolution of the Board of Directors, which shall be the amount calculated in line with the method stipulated in Article 176-7 of the Enforcement Decree of the same Act, and if the shareholder who claimed for the purchase opposes the purchase price, he or she may appeal to the court to determine the purchase price.

③ Be advised that the share purchase price and matters concerning the exercise of the appraisal right may be changed during the consultation with shareholders if and as needed.

(4) Other important matters

- The details and schedule above are subject to change depending on the progress achieved such as consultation and approval with related institutions.
- In accordance with Article 14 Paragraph 3 of this business transfer contract, Han & Co No.16 Co., Ltd. has transferred its status as a party to the contract and all of its rights and obligations thereunder as of February 19, 2020, to K-Green System Co., Ltd., a 100% subsidiary of the company. K-Green System Co., Ltd. changed its trade name to K Eco Energy Co., Ltd. on March 17, 2020, and thereafter changed its trade name to SK Eco Prime on April 27, 2020. The corporation before and after the change of trade name is the same corporation.
- The details of “7. Counterparty to the transaction” were prepared as of the date of registration of June 5, 2020.

※ Relevant disclosure: Report on the closing of merger, etc. dated 2020.05.29 (business transfer)

[Related disclosure: Report on the closing of merger, etc. (business transfer), 2020.05.29] I. Schedule

This report concerns the matters regarding the report on major issues dated February 5, 2020 [Decision on business transfer (corrected on February 25, 2020)]. For further details, refer to the disclosure made on the relevant date.

Procedure	Schedule
Board resolution and the execution of business transfer contract	February 5, 2020
Record date for confirmation of shareholders	February 20, 2020
Commencement of the closing of the list of shareholders	February 21, 2020
Completion of the closing of the list of shareholders	February 28, 2020
Notice of convocation of the general meeting of shareholders	February 28, 2020
Commencement of the receipt of the expression of intention to oppose the business transfer	March 2, 2020
Completion of the receipt of the expression of intention to oppose the business transfer	March 16, 2020
Extraordinary meeting of shareholders	March 17, 2020
Commencement of the appraisal right	March 17, 2020
Completion of the appraisal right	April 6, 2020
Date of transaction closing	May 29, 2020

※ This business transfer was executed by and between SK chemicals (transferee) and Han & Co No. 16 Co., Ltd. (transferee) on February 5, 2020, and the transferee transferred its status as a party under the contract and all of its rights and obligations thereunder to K-Green System Co., Ltd., a 100% subsidiary of the company, on February 19, 2020. K-Green System Co., Ltd. changed its trade name to K Eco Energy Co., Ltd. on March 17, 2020, and thereafter changed its trade name to SK Eco Prime on April 27, 2020. The corporation before and after the change of trade name is the same corporation.

II. Changes in the equity interest such as the largest shareholder

– Not applicable

III. Exercise of the appraisal right

1. Share purchase price and the price determination method

1) Price offered by the Company for consultation

- KRW 63,068 per common stock
- KRW 30,432 per preferred stock

2) Method of calculation

– The purchase price of shares claimed pursuant to Article 374-2 of the Commercial Act and Article 165-5 of the Financial Investment Services and Capital Markets Act is, pursuant to the provisions of Article 176-7 Paragraph 3 of the Enforcement Decree of the Financial Investment Services and Capital Markets Act, the weighted arithmetic average price with the final market price as the weighted value, which is the price calculated by taking the arithmetic average again for the periods of the past 2 months from the date before the date of resolution of the Board of Directors related to the business transfer (in the event of an adjustment of the reference trading price due to ex-dividend or ex-rights during the same period, and if the period from the date of ex-dividend or ex-right to the date before the resolution of the Board of Directors is 7 days or longer), 1 month (in the event of an adjustment of the reference trading price due to ex-dividend or ex-rights during the same period, and if the period from the date of ex-dividend or ex-right to the date before the resolution of the Board of Directors is 7 days or longer), and 1 week.

(1) Common stocks

(Unit: KRW, stocks)

Date	Closing price	Trading volume	Closing price x Trading volume
2020-02-04	59,800	173,956	10,402,568,800
2020-02-03	58,000	201,037	11,660,146,000
2020-01-31	57,900	211,945	12,271,615,500
2020-01-30	60,600	220,656	13,371,753,600
2020-01-29	62,700	178,531	11,193,893,700
2020-01-28	64,100	209,174	13,408,053,400
2020-01-23	66,200	136,342	9,025,840,400
2020-01-22	66,300	116,713	7,738,071,900
2020-01-21	66,200	204,569	13,542,467,800
2020-01-20	67,500	306,994	20,722,095,000
2020-01-17	66,200	120,827	7,998,747,400
2020-01-16	66,100	111,298	7,356,797,800
2020-01-15	66,200	123,516	8,176,759,200
2020-01-14	67,000	203,912	13,662,104,000
2020-01-13	66,500	364,387	24,231,735,500
2020-01-10	69,000	1,292,254	89,165,526,000
2020-01-09	65,100	191,189	12,446,403,900
2020-01-08	63,100	312,351	19,709,348,100
2020-01-07	65,800	209,726	13,799,970,800
2020-01-06	66,400	261,860	17,387,504,000
2020-01-03	67,000	213,770	14,322,590,000
2020-01-02	66,700	450,033	30,017,201,100
2019-12-30	64,000	186,188	11,916,032,000
2019-12-27	63,000	164,722	10,377,486,000
2019-12-26	62,200	162,680	10,118,696,000
2019-12-24	63,100	343,835	21,695,988,500
2019-12-23	61,100	224,835	13,737,418,500
2019-12-20	60,500	134,781	8,154,250,500
2019-12-19	60,600	135,278	8,197,846,800
2019-12-18	60,500	135,718	8,210,939,000
2019-12-17	60,900	222,787	13,567,728,300
2019-12-16	62,000	165,194	10,242,028,000
2019-12-13	62,300	251,002	15,637,424,600
2019-12-12	62,200	467,190	29,059,218,000
2019-12-11	61,600	245,179	15,103,026,400
2019-12-10	61,400	426,739	26,201,774,600
2019-12-09	61,200	463,148	28,344,657,600
2019-12-06	62,700	318,627	19,977,912,900
2019-12-05	62,500	599,335	37,458,437,500
① A 2-month weighted arithmetic mean closing price			64,002
② A 1-month weighted arithmetic mean closing price			65,474
③ A 1-week weighted arithmetic mean share price			59,729

Arithmetic mean = $(\textcircled{1} + \textcircled{2} + \textcircled{3}) / 3$

63,068

(2) Preferred stocks

(Unit: KRW, stocks)

Date	Closing price	Trading volume	Closing price x Trading volume
2020-02-04	27,800	114,609	3,186,130,200
2020-02-03	26,550	31,995	849,467,250
2020-01-31	26,200	33,666	882,049,200
2020-01-30	27,200	32,952	896,294,400
2020-01-29	28,250	26,641	752,608,250
2020-01-28	28,350	60,402	1,712,396,700
2020-01-23	29,500	94,340	2,783,030,000
2020-01-22	29,500	29,316	864,822,000
2020-01-21	29,550	57,162	1,689,137,100
2020-01-20	30,450	92,368	2,812,605,600
2020-01-17	30,150	41,821	1,260,903,150
2020-01-16	30,700	55,817	1,713,581,900
2020-01-15	30,650	126,370	3,873,240,500
2020-01-14	31,200	146,303	4,564,653,600
2020-01-13	31,400	395,787	12,427,711,800
2020-01-10	35,200	2,036,103	71,670,825,600
2020-01-09	28,000	46,202	1,293,656,000
2020-01-08	27,200	103,109	2,804,564,800
2020-01-07	29,350	81,793	2,400,624,550
2020-01-06	29,850	141,548	4,225,207,800
2020-01-03	30,300	137,130	4,155,039,000
2020-01-02	31,000	425,014	13,175,434,000
2019-12-30	28,800	29,191	840,700,800
2019-12-27	28,650	46,820	1,341,393,000
2019-12-26	28,550	46,764	1,335,112,200
2019-12-24	28,900	126,158	3,645,966,200
2019-12-23	28,200	80,655	2,274,471,000
2019-12-20	28,000	56,819	1,590,932,000
2019-12-19	28,650	55,107	1,578,815,550
2019-12-18	28,900	70,090	2,025,601,000
2019-12-17	29,200	85,888	2,507,929,600
2019-12-16	29,950	120,789	3,617,630,550
2019-12-13	30,400	130,165	3,957,016,000
2019-12-12	30,100	580,463	17,471,936,300
2019-12-11	28,900	265,597	7,675,753,300
2019-12-10	28,750	695,696	20,001,260,000
2019-12-09	27,800	151,961	4,224,515,800
2019-12-06	29,800	168,655	5,025,919,000

2019-12-05	31,000	383,292	11,882,052,000
① A 2-month weighted arithmetic mean closing price			31,196
② A 1-month weighted arithmetic mean closing price			32,724
③ A 1-week weighted arithmetic mean share price			27,377
Arithmetic mean = (①+②+③)/3			30,432

2. Details of claim

1) Details of the claim to purchase

The results of the exercise of the appraisal right by the shareholders who oppose this business transfer are as follows.

- Total number of shares claimed for purchase: 144,715 shares
- Total payment for the share purchase: KRW 4,434,905,808
- Details

Classification	Common stocks	Preferred stocks
Quantity of shares claimed for purchase (shares)	948	143,767
Share purchase price (KRW)	63,068	30,432
Payment of share purchase (KRW)	59,788,464	4,375,117,344

2) Others

- The number of shares for which the appraisal right above was exercised is equivalent to 1.10% of the Company's total issued shares, and by type, is equivalent to 0.01% of common stocks and 9.86% of preferred shares.
- There are no shares for which price adjustment was applied for in the above case.

3. Date of purchase and the source of required funds

- 1) Date of purchase: May 4, 2020
- 2) Source of required funds: Self-owned funds

4. Handling policy for the purchased shares

In accordance with Article 165-5 of the Financial Investment Services and Capital Markets Act and Article 176-7 of the Enforcement Decree of the same Act, the relevant shares will be disposed of within 5 years from the date of purchase.

IV. Matters concerning the creditor protection

- Not applicable

V. Status of related lawsuits

- As of the reference date of the business transfer, there are no lawsuits in progress which may affect the effectiveness of the business transfer.

VI. Matters concerning the allocation of new shares, etc.

- There are no new shares to be issued and no subsidies to be made by the Company as a result of this transfer.

VII. Summary of the financial information before and after the [merger, etc.]

(Unit: KRW one million)

Item	Before transfer		After transfer	Increase (decrease)
	SK chemicals	Bio-energy business division subject to transfer		

Assets				
Current assets	812,803	129,111	1,066,192	253,389
Non-current assets	1,273,673	66,787	1,206,886	-66,787
Total assets	2,086,476	195,898	2,273,078	186,602
Liabilities				
Current liabilities	700,095	97,963	602,132	-97,963
Non-current liabilities	659,951	36,686	623,265	-36,686
Total liabilities	1,360,046	134,649	1,225,397	-134,649
Equity				
Shares owned by the controlling company	723,343		1,044,594	321,251
Capital	66,000		66,000	
Capital surplus	264,315		264,315	
Retained earnings	404,839		726,090	321,251
Other capital items	-11,811		-11,811	
Non-controlling interest	3,086		3,086	
Total equity	726,429		1,047,680	321,251
Total liabilities and stockholders' equity	2,086,475	134,649	2,273,077	186,602

※ The summary financial information above is the amount shown in our consolidated quarterly report as of March 31, 2020.

It does not include the purchase of treasury stocks following the exercise of appraisal rights after the transfer of this business.

※ The summary financial information above may differ from the statement of financial position prepared as of the actual business transfer date.

※ The proceeds from the sale of the bioenergy business division are reflected in current assets and retained earnings, respectively.

3) Split-off of the utility supply business division

Based on the resolution of the Board of Directors on September 13, 2021, the Company decided to split off the utility supply business division as of February 1, 2021, the date of split-off, and the split-off was completed as of this date.

[Related disclosure: Report on major issues (Decision of split-off), 2021.09.13 (Corrected: 2021.12.01)]

1. Method of split-off	<p>(1) The split-off shall be carried out such that, as provided under Articles 530-2 through 530-12 of the Commercial Act, the business division subject to split-off shall be split off to establish a new company via split-off, and it was carried out in the manner of split-off by which 100% of the issued shares of the newly established company shall be allocated while the split-off company survives. After the split-off, the company to be split off shall remain as a listed corporation, and the newly established company shall be an unlisted corporation.</p> <ul style="list-style-type: none"> - Company to be split off: SK chemicals Co., Ltd. - Business divisions of the Company to be split off: All business divisions except for those subject to split-off - Company newly established: SK Multi-Utility Co., Ltd. - Newly established company's business division: Utility supply business division such as electricity and steam <p>(2) The date of split-off shall be December 1, 2021 (00:00). However, the date of split-off may be changed by a resolution of the Board of Directors of the company to be split off.</p> <p>(3) The company to be split off in accordance with the provisions of Article 530-3</p>
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	<p>Paragraphs 1 and 2 of the Commercial Act, and newly established in accordance with Article 530-9 Paragraph 2 of the same Act shall, unless otherwise specified in the split-off plan, liabilities; hereinafter the same shall apply in the split-off plan) from among the debts of the company to be split off, and among the debts of the company to be split off, the debts which are not transferred to the newly established company shall not have any joint lia bear only the debts transferred to the newly established company due to the split-off (including bilities for repayment. The company to be split off shall not be liable to jointly repay the debts transferred to the new company, and shall only be liable for repaying the debts that are not transferred to the new company. In connection with this, the company to be split off shall proceed with creditor protection procedures in accordance with the provisions of Articles 530-9 and 527-5 of the Commercial Act.</p> <p>(4) Unless otherwise specified in the split-off plan, any and all active and passive assets belonging to the company to be split off, other rights and duties including the rights and duties under the public law, and the factual relationships with asset value (including licenses and authorizations, labor relations, contract relations, litigations, etc.) shall in principle be reverted the newly established company if they relate to the business division subject to split-off, and if they relate to divisions other than those subject to split-off, shall be reverted to the company to be split off, respectively. However, among the rights and obligations belonging to the business division subject to split-off, those whose transfer is prohibited by law or by their nature due to the split-off shall be deemed to remain with the company to be split off, and if a transfer to the newly established company is necessary, it shall be handled through consultations between the company to be split off and the new company. The same shall apply where (i) approval/authorization/acceptance of reports from government agencies, etc. is required before the transfer due to split-off yet it is not possible to receive such, or (ii) where the contract to which the company to be split off is a party related to both the business subject to split-off and the other business divisions, and where it is impossible to separate the portion related to the business division subject to split-off from the portion related to the other business divisions of the contract.</p> <p>(5) Unless otherwise agreed upon between the company to be split off and the newly established company, if due to any act or fact prior to the date of split-off in relation to the business of the company to be split off, debts arising or confirmed after the date of split-off or debts incurred or confirmed before the date of split-off due to circumstances such as a lack of recognition are not reflected in the split-off plan (including contingent debts under the public and private laws and any and all other debts), they shall be reverted to the newly established company if the act or fact imputable to such is related to the business division subject to split-off, and shall be reverted to the company to be split off if such is related to any division other than the business division subject to split-off. If it is difficult to determine to which business division such debt is related to, it shall belong to the new company and the company to be split off, each respectively, at the ratio of the net asset value to be divided by the division, but the company to be split off and the newly established company may make different agreements regarding its handling.</p> <p>(6) If the newly established company is exempted from liabilities as the company to be split off repays the debts that the newly established company succeeded to, or due to the investment of the company to be split off, the company to be split off may exercise the right to indemnify the newly established company. The same shall apply where the newly established company repays the debts reverted to the company to be divided, or the company to be divided is exempted by the investment of the newly established company.</p> <p>(7) Unless otherwise agreed upon between the company to be divided and the newly established company, bonds or other rights acquired after the date of split-off due to any act or fact prior to the date of split-off in relation to the business of the company to be divided, or other rights acquired before the date of split-off due to bonds and other rights (including contingent liabilities and any other claims under the public and private law) which are not reflected in the split-off plan due to any circumstances such as a lack of recognition shall be handled in the same manner as provided in Paragraph 5.</p>	
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		(8) The method of determining the assets, liabilities and equity of a newly established company shall, in principle, allocate assets and liabilities belonging to or directly or indirectly related to the business division subject to split-off to the newly established company, and the decision shall be made by considering the operations and investment plan of the new company in the future and the requirements of the related laws and regulations.
2. Purpose of split-off		<p>(1) Enhance business expertise, strengthen management efficiency, and actively respond to the rapidly growing global market based on the split-off of the utility supply business division including electricity and steam (hereinafter "business division subject to split-off") among the businesses operated by the company to be divided.</p> <p>(2) Establish a governance system which enables the prompt and professional decision-making practices in line with the business characteristics of each business division to ensure that we can promptly respond to market environment and institutional changes, strengthen competitiveness, and concentrate corporate capabilities across specialized business areas, thereby pursuing the distribution of management risks.</p> <p>(3) Facilitate restructuring and intensive investment in core businesses and realize business advancement through the specialization of each business division.</p> <p>(4) Ultimately, enhance the corporate value and shareholder value via the changes of the governance structure described in the above.</p>
3. Material impact and effect of the split-off		The split-off in this case is carried out through a simple/physical split-off method as provided under Articles 530-2 through 530-12 of the Commercial Act. Accordingly, there is no change made in the shares owned by the largest shareholder of the company to be divided before and after the split-off in this matter and the ratio of equity interest. Furthermore, since the split-off in this case proceeds in the manner of a simple/physical split-off, the split-off itself has no effect on the consolidated financial statements.
4. Split-off ratio		The split-off ratio is not calculated since the company to be split off is being split off through a simple/physical split-off method by which 100% of the issued shares of the new company are allocated.
5. Details of the business and assets to be transferred via split-off		<p>(1) The company to be divided shall have any and all active and passive assets belonging to the newly established company as provided under the split-off plan, and other rights and obligations including the rights and obligations under the public law, as well as the factual relationships of asset value (including licenses and authorizations, labor relations, contractual relations, litigations, etc.) transferred to the newly established company.</p> <p>(2) The list and value of the assets to be transferred due to the split-off shall be in accordance with the statement of financial position as of June 30, 2021 and the list of assets as provided in [Attachment 1] Split-Off Statement of Financial Position and [Attachment 2] List of Assets Subject to Succession, and (i) by the date of split-off, if there is any change in the assets or liabilities of the division to be split off due to the business or financial activities of the division to be split off, or if the value of the liabilities changes, the increase or decrease shall be reflected in the separate statement of financial position and the list of assets subject to succession, and (ii) as for the cash and cash equivalents to be transferred on the date of split-off, after the split-off in this case, if the amount must be increased or decreased, provided that the amount of such increase or decrease by the decision of the chief executive officer of the company split off does not exceed KRW [3,000,000,000] in consideration of the demand for the funds required for the business of the newly established company after the split-off, the amount may be increased or decreased.</p>

			<p>(3) Where necessary, the final value of the assets subject to transfer pursuant to the preceding paragraph may be finalized after being evaluated by a publicly trusted appraisal firm or reviewed by a certified public accountant.</p> <p>(4) Among the rights and obligations belonging to the business division subject to split-off, those whose transfer is prohibited by law or by their nature due to the split-off shall be deemed to remain with the company to be split off, and if a transfer to the newly established company is necessary, it shall be handled through consultations between the company to be split off and the new company. The same shall apply where (i) approval/authorization/acceptance of reports from government agencies, etc. is required before the transfer due to split-off yet it is not possible to receive such, or (ii) where the contract to which the company to be split off is a party related to both the business subject to split-off and the other business divisions, and where it is impossible to separate the portion related to the business division subject to split-off from the portion related to the other business divisions of the contract.</p> <p>(5) The rights to collateral such as mortgages placed to secure movable property, real estate, and contractual relationships arising from the business division subject to split-off and the rights and obligations resulting from the division before the date of split-off, as well as the rights related to the guarantee of the bond and contractual relationships arising from the transaction and the guarantee-related contractual relationships shall belong to the newly established company, and yet shall be in accordance with the split-off plan.</p> <p>(6) Of the lawsuits filed against the company to be divided before the date of split-off, any matters related to the business division subject to split-off shall be succeeded by the newly established company.</p> <p>(7) establishment of the new company, the company to be split off shall provide any cooperation required including the execution of a related contract to ensure that the newly established company can conduct business in the manner it conducts business for the business division subject to split-off before the split-off.</p>			
6. Surviving company after split-off	Name of Company		SK chemicals Co., Ltd.			
	Financial details after split-off (KRW)	Total Assets	2,034,064,466,737	Total liabilities	800,048,065,082	
		Total equity	1,234,016,401,655	Capital	66,050,330,000	
		June 30, 2021		As of the present		
	Surviving business division's sales for the latest business year (KRW)	883,823,850,615				
	Main Business	Manufacturing, processing, sale, import and export of synthetic resins and related products, etc.				
	Whether maintained as listed after split-off	Yes				
7. Company established after split-off	Name of Company		SK Multi-Utility Co., Ltd.			
	Financial details upon establishment (KRW)	Total assets	171,457,003,471	Total liabilities	14,254,006,139	
		Total equity	157,202,997,332	Capital	5,000,000,000	
		June 30, 2021		As of the present		
	New business division's sales for the latest business year (KRW)	37,309,763,841				
	Main Business	Production, transportation, distribution of collective energy and related businesses, etc.				
	Whether re-listing has been petitioned for	No				
8. Matters concerning capital reduction	Capital reduction ratio (%)		-			
	Period for submission of old share certificates	From	-			
		To	-			

	Scheduled period of trading suspension	From	-
		To	-
	New share allocation requirements		-
	- Whether proportional to the number of shares of shareholders and reason		-
	Record date for new share allotment		-
	Scheduled delivery date of new share certificates		-
	Scheduled listing date of new shares		-
9. Scheduled date of shareholders' meeting			October 25, 2021
10. Period for filing statement of objections by creditors	From		October 26, 2021
	To		November 26, 2021
11. Date of split-off			December 1, 2021
12. Scheduled date of split-off registration			December 2, 2021
13. Date of board resolution (decision date)			September 13, 2021
- Whether outside directors attended	Attended (people)		4
	Absent (people)		0
- Whether auditors attended (members of the Audit Committee who are not outside directors)			-
14. Whether contracts such as put option are executed			No
- Details of agreements			-
15. Whether subject to filing of securities registration statement			No
- Reasons for exemption from filing securities registration statement, if exempted			Simple/physical split-off

16. Other matters to consider for investment judgments

(1) Revision and change of the split-off plan

The split-off plan may be changed in the process of consultations with related institutions or in the process of securing approval under related laws and regulations and the general shareholders' meeting.

Furthermore, if the split-off plan is approved by the general meeting of shareholders, the list below may be changed without any additional approval from the general meeting of shareholders by the date before the date of split-off registration, (i) where the relevant revision or change is reasonably necessary, and the revision or change does not cause any disadvantage to the shareholders of the company to be divided or the newly established company, and (ii) where it is a revision or change within the scope that does not impair its homogeneity by a resolution of the Board of Directors of the company to be divided or the authority of the chief executive officer, and such revision or change shall enter into force and become effective when such is announced or disclosed in accordance with the relevant laws and regulations.

- ① Trade names of the company to be divided and the newly established company
- ② Split-off schedule
- ③ Assets to be transferred due to split-off and their value
- ④ Financial structure before and after split-off
- ⑤ Total number of shares issued by the newly established company at the time of split-off
- ⑥ Matters concerning directors and auditors of the newly established company
- ⑦ Articles of incorporation of the newly established company and the company to be split off
- ⑧ Among the real estate to be transferred, specify after the subdivision procedure is confirmed

(2) Shareholders' appraisal right: Not applicable since it is a simple split-off.

(3) Matters requiring takeover and handover between companies

The matters required for the takeover and handover between the company to be split off and the company established through a split-off in relation to the implementation of the split-off plan (including the documents, data, etc. of the target business division and various data and facts) are subject to a separate agreement by and between the company to be split off and the company established through a split-off.

(4) Employee succession and retirement benefits, etc.

The newly established company shall succeed to the employees and related legal relationships (their retirement benefits, etc.) serving for the business subject to split-off as of December 1, 2021 (the date of split-off). However, for any employee who refuses succession or an employee who is also related to another business division other than the business division subject to split off, the newly established company may not succeed to such employee after carrying out consultations with the company to be split off, and any other matters related to employee succession shall be handled via consultations by and between the company to be split off and the newly established company.

(5) Transfer of personal information

As of the date of split-off, any and all personal information related to the business division subject to split-off shall be transferred to the newly established company under the personal information related laws and regulations, including the Personal Information Protection Act, and the company to be divided shall undergo the procedures required within the deadline provided in the related laws and regulations such as the notice on the transfer of personal information following split-off.

[Attachment 1] Split-off statement of financial position (as of June 30, 2021)

(Unit: KRW)

Account	Before split-off	After split-off	
		Surviving company	Newly established company
Assets			
I . Current assets	884,067,488,269	823,600,613,420	60,466,874,849
Cash and cash equivalents	107,130,229,692	50,130,229,692	57,000,000,000
Short-term financial assets	285,214,195,564	285,214,195,564	-
Trade and other receivables	276,420,174,225	273,775,383,730	2,644,790,495
Inventories	164,679,060,308	163,989,441,063	689,619,245
Other current assets	50,623,828,480	50,491,363,371	132,465,109
II . Non-current assets	1,164,250,984,607	1,210,463,853,317	110,990,128,622
Investment assets	254,428,702,112	411,631,699,444	-
Tangible assets	883,040,848,759	772,050,720,137	110,990,128,622
Intangible assets	26,237,735,574	26,237,735,574	-
Other non-current assets	543,698,162	543,698,162	-
Deferred income tax assets	-	-	-
Total assets	2,048,318,472,876	2,034,064,466,737	171,457,003,471
Liabilities			
I . Current liabilities	486,500,821,990	477,344,725,145	9,156,096,845
Trade and other payables	253,848,484,235	245,506,262,891	8,342,221,344
Short-term borrowings	2,941,037,206	2,941,037,206	-
Current portion of long-term liabilities	79,915,462,256	79,915,462,256	-
Current portion of lease liabilities	1,534,978,312	721,102,811	813,875,501
Current income tax liabilities	122,899,311,880	122,899,311,880	-
Current portion of contract liabilities	10,658,040,120	10,658,040,120	-
Other current liabilities	14,703,507,981	14,703,507,981	-
II . Non-current liabilities	327,801,249,231	322,703,339,937	5,097,909,294
Debenture	310,301,251,026	310,301,251,026	-
Lease liabilities	5,691,357,505	593,448,211	5,097,909,294
Defined benefit liabilities	4,516,752,428	4,516,752,428	-
Deferred income tax liabilities	5,546,152,272	5,546,152,272	-
Other non-current liabilities	1,745,736,000	1,745,736,000	-
Total liabilities	814,302,071,221	800,048,065,082	14,254,006,139
Equity			
I . Capital	66,050,330,000	66,050,330,000	5,000,000,000
II . Capital surplus	189,208,756,911	189,208,756,911	152,202,997,332

III. Other capital items	(9,207,095,874)	(9,207,095,874)	-
IV. Accumulated other comprehensive income	-	-	-
V. Retained earnings	987,964,410,618	987,964,410,618	-
Total equity	1,234,016,401,655	1,234,016,401,655	157,202,997,332
Total liabilities and stockholders' equity	2,048,318,472,876	2,034,064,466,737	171,457,003,471

Note 1) The statement of financial position above is prepared based on the book amount on the Company's statement of financial position as of June 30, 2021, and may differ from the split-off statement of financial position to be prepared on the actual date of split-off.

[Attachment 2] List of Assets Subject to Succession (as of June 30, 2021)

(Unit: KRW)

Name of account	Details	Amount
Assets		
I. Current assets		60,466,874,849
Cash and cash equivalents	Business division subject to split-off's cash	57,000,000,000
Trade and other receivables	Business division subject to split-off's trade receivables and accounts receivable, etc.	2,644,790,495
Inventories	Business division subject to split-off's inventories	689,619,245
Other current assets	Business division subject to split-off's prepaid expenses	132,465,109
II. Non-current assets		110,990,128,622
Tangible assets	Business division subject to split-off's tangible assets	110,990,128,622
Total assets		171,457,003,471
Liabilities		
I. Current liabilities		9,156,096,845
Trade and other payables	Business division subject to split-off's trade payables, accounts payable, and accrued expenses	8,342,221,344
Current portion of long-term liabilities	Business division subject to split-off's financial lease liabilities	813,875,501
II. Non-current liabilities		5,097,909,294
Non-current portion of long-term liabilities	Business division subject to split-off's financial lease liabilities	5,097,909,294
Total liabilities		14,254,006,139

Note 1) The list of assets and liabilities subject to succession above is prepared based on the book amount on the statement of financial position of the company to be divided as of June 30, 2021, and on the actual date of split-off, they may differ from the amounts of assets and liabilities which will be succeeded by the newly established company.

※ Related disclosure

- Not applicable.

[Related disclosure: Report on the closing of merger, etc. (split-off), 2021.12.02]

I. Schedule

Classification	Date
Date of board resolution	September 13, 2021
Date of shareholders' confirmation for the general meeting of shareholders for split-off	September 28, 2021
Date of shareholders' meeting for approval of split-off plan	October 25, 2021

Date of split-off	December 1, 2021
Date of general meeting for reporting split-off or the date of general meeting for incorporation (Note 1)	December 1, 2021
Date of split-off registration	December 2, 2021

(Note 1) Among the details above, the general meeting of shareholders for reporting split-off was substituted by an announcement of the resolution of the Board of Directors.

II. Changes in the equity interest such as the largest shareholder

It is not applicable since this is a case of a simple split-off under Articles 530-2 through 530-12 of the Commercial Act.

III. Exercise of the appraisal right

It is not applicable since this is a case of a simple/physical split-off under Articles 530-2 through 530-12 of the Commercial Act.

IV. Matters concerning the creditor protection

On October 26, 2021, the Company posted the "Advisory on the Creditors' Statement of Objection" on the Company's website (<http://www.skchemicals.com>) and advised each creditor accordingly. The Company set the period for the creditors' submission of objection from October 26, 2021 to November 26, 2021, and there was no objection from the creditors during this period.

V. Status of related lawsuits

As of the date of submission of this report, no lawsuit has been filed in connection with this split-off, which may affect the effectiveness of the split-off.

VI. Matters concerning the allocation of new shares, etc.

This split-off is a simple/physical split-off, and 100% of the total number of stocks issued by the company established through the division are allocated for the company to be split off.

VII. Summary of the financial information before and after the [merger, etc.]

(Unit: KRW)

Account	Before split-off	After split-off	
		Surviving company	Newly established company
Assets			
I. Current assets	884,067,488,269	823,600,613,420	60,466,874,849
Cash and cash equivalents	107,130,229,692	50,130,229,692	57,000,000,000
Short-term financial assets	285,214,195,564	285,214,195,564	-
Trade and other receivables	276,420,174,225	273,775,383,730	2,644,790,495
Inventories	164,679,060,308	163,989,441,063	689,619,245
Other current assets	50,623,828,480	50,491,363,371	132,465,109
II. Non-current assets	1,164,250,984,607	1,210,463,853,317	110,990,128,622
Investment assets	254,428,702,112	411,631,699,444	-
Tangible assets	883,040,848,759	772,050,720,137	110,990,128,622

Intangible assets	26,237,735,574	26,237,735,574	-
Other non-current assets	543,698,162	543,698,162	-
Deferred income tax assets	-	-	-
Total assets	2,048,318,472,876	2,034,064,466,737	171,457,003,471
Liabilities			
I . Current liabilities	486,500,821,990	477,344,725,145	9,156,096,845
Trade and other payables	253,848,484,235	245,506,262,891	8,342,221,344
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Current portion of long-term liabilities	79,915,462,256	79,915,462,256	-
Current portion of lease liabilities	1,534,978,312	721,102,811	813,875,501
Current income tax liabilities	122,899,311,880	122,899,311,880	-
Current portion of contract liabilities	10,658,040,120	10,658,040,120	-
Other current liabilities	14,703,507,981	14,703,507,981	-
II . Non-current liabilities	327,801,249,231	322,703,339,937	5,097,909,294
Debenture	310,301,251,026	310,301,251,026	-
Lease liabilities	5,691,357,505	593,448,211	5,097,909,294
Defined benefit liabilities	4,516,752,428	4,516,752,428	-
Deferred income tax liabilities	5,546,152,272	5,546,152,272	-
Other non-current liabilities	1,745,736,000	1,745,736,000	-
Total liabilities	814,302,071,221	800,048,065,082	14,254,006,139
Equity			
I . Capital	66,050,330,000	66,050,330,000	5,000,000,000
II . Capital surplus	189,208,756,911	189,208,756,911	152,202,997,332
III . Other capital items	(9,207,095,874)	(9,207,095,874)	-
IV . Other accumulated comprehensive income	-	-	-
V . Retained earnings	987,964,410,618	987,964,410,618	-
Total equity	1,234,016,401,655	1,234,016,401,655	157,202,997,332
Total liabilities and stockholders' equity	2,048,318,472,876	2,034,064,466,737	171,457,003,471

※ The statement of financial position above is prepared based on the book amount on the Company's statement of financial position as of June 30, 2021, and may differ from the split-off statement of financial position to be prepared on the actual date of split-off.

C. Green management

Before the split-off, SK chemicals was designated as a management company pursuant to Article 42 Paragraph 6 of the Framework Act on Low Carbon, Green Growth, and was designated as the business entity eligible for allocation of the emission permit pursuant to Article 8 of the Act on the Allocation and Trading of Greenhouse-Gas Emission Permits from

2015 onwards. The Company reports the matters on the greenhouse gas emissions and energy consumption that have been verified by the third party to the external verification agency in accordance with Article 24 of the same Act and the government's instruction. The Company's greenhouse gas emissions and energy consumption for the past 3 years are as follows.

(2023)
[SK chemicals]

Name of workplace	Annual greenhouse gas emissions (tCO2e)			Annual energy consumption (TJ)			
	Direct emissions (Scope1)	Indirect emissions (Scope2)	Total emissions	Fuel consumption	Electricity consumption	Steam consumption	Total emissions
SK Petrochemical	19,213	64,029	83,242	349	180	823	1,352
Ulsan	24,100	107,917	132,017	694	898	964	2,557
Cheongju	1,668	5,795	7,464	33	121	-	154
Eco Lab 1	305	4,807	5,112	5	81	25	111
LS regional office	-	19	19	-	-	-	-
Dongtan Forming Processing Lab	-	207	207	-	4	-	4
Total	45,286	182,774	228,060	1,082	1,285	1,812	4,178

※ Initiz (currently HDC Polyall) was separated from SK chemicals on December 31, 2021, and according to the specification, it was separated from SK chemicals organizational boundaries after the emission amount was confirmed in 2021.

[SK Multi-Utility]

Name of workplace	Annual greenhouse gas emissions (tCO2e)			Annual energy consumption (TJ)			
	Direct emissions (Scope1)	Indirect emissions (Scope2)	Total emissions	Fuel consumption	Electricity consumption	Steam consumption	Total emissions
Ulsan	304,712	41,531	346,243	3,355	868	470	4,693

※ This is an internal calculation for estimating the emissions after the split-off.

(2022)
[SK chemicals]

Name of workplace	Annual greenhouse gas emissions (tCO2e)			Annual energy consumption (TJ)			
	Direct emissions (Scope1)	Indirect emissions (Scope2)	Total emissions	Fuel consumption	Electricity consumption	Steam consumption	Total emissions
SK Petrochemical	24,588	70,229	94,817	438	239	873	1,549
Ulsan	34,363	121,570	155,932	878	991	1,101	2,969
Cheongju	1,779	5,859	7,637	35	122	-	157
Eco Lab 1	358	4,617	4,975	6	78	23	107
LS regional office	-	25	24	-	1	-	-
Dongtan Forming Processing Lab	-	219	219	-	5	-	4
Total	61,088	202,518	263,604	1,356	1,436	1,997	4,786

※ Initiz (currently HDC Polyall) was separated from SK chemicals on December 31, 2021, and according to the specification, it was separated from SK chemicals organizational boundaries after the emission amount was confirmed in 2021.

[SK Multi-Utility]

Name of workplace	Annual greenhouse gas emissions (tCO2e)			Annual energy consumption (TJ)			
	Direct emissions (Scope1)	Indirect emissions (Scope2)	Total emissions	Fuel consumption	Electricity consumption	Steam consumption	Total emissions
Ulsan	304,712	41,531	346,243	3,355	868	470	4,693

※ This is an internal calculation for estimating the emissions after the split-off.

(2021)

[SK chemicals]

Name of workplace	Annual greenhouse gas emissions (tCO2e)			Annual energy consumption (TJ)			
	Direct emissions (Scope1)	Indirect emissions (Scope2)	Total emissions	Fuel consumption	Electricity consumption	Steam consumption	Total emissions
SK Petrochemical	26,554	76,216	102,770	468	360	916	1,744
Ulsan	33,778	114,401	148,179	1,151	938	1,079	3,168
Cheongju	1,648	5,251	6,899	32	110	0	142
Eco Lab 1	440	4,386	4,826	8	76	21	105
LS regional office	-	38	38	-	1	-	1
Initz	10,866	22,347	33,213	203	165	224	592
Dongtan Forming Processing Lab	-	239	239	-	5	-	5
Total	73,286	222,878	296,164	1,862	1,655	2,240	5,757

※ Initz (currently HDC Polyall) was separated from SK chemicals on December 31, 2021, and according to the specification, it was separated from SK chemicals organizational boundaries after the emission amount was confirmed in 2021.

[SK Multi-Utility]

Name of workplace	Annual greenhouse gas emissions (tCO2e)			Annual energy consumption (TJ)			
	Direct emissions (Scope1)	Indirect emissions (Scope2)	Total emissions	Fuel consumption	Electricity consumption	Steam consumption	Total emissions
Ulsan	327,703	30,354	358,057	3,589	634	47	4,270

※ This is an internal calculation for estimating the emissions after the split-off.

D. Status of lock-up

- Not applicable

XII. Detailed Tables

1. Status of Consolidated Subsidiaries (Details)

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(Unit: KRW one million)

Trade name	Date of incorporation	Address	Main Business	Total assets at the end of the latest business year	Grounds for controlling relationship	Whether a major subsidiary
SK bioscience Co., Ltd. (Note 1)	2018.07.01	310 Pangyo-ro (Sampyeong-dong), Bundang-gu, Seongnam-si, Gyeonggi-do	Pharmaceutical manufacturing	1,852,439	Equity interest 68%	O
SK Multi-Utility	2021.12.01	718 Cheoyong-ro, Nam-gu, Ulsan (Hwangseong-dong)	Manufacturing	551,334	Equity interest 100%	O
Shuye-SK chemicals (Shantou) Co., Ltd. (Note 2)	2023.03.06	10ht Floor of Finance Building, YIMingRoad of Cheng hai District, Shantou, Guangdong province, P. R. China	Plastic manufacturing business	159,832	Equity interest 100%	O
SK Chemicias (Yantai) Co., Ltd.	2020.06.15	C-35, Chemical Industry Park, Economic and Technological Development Zone, Yantai City, Shandong Province	Resin manufacturing	68,325	Equity interest 100%	X
SK chemicals GmbH	2008.06.20	TOPAS 2. MERGENTHALERALLEE 79-81, 65760 ESCHBORN, GERMANY	Wholesale	51,567	Equity interest 100%	X
SK chemicals America	2002.07.19	3 Park Plaza Suite 430, Irvine CA 92614	Wholesale	40,544	Equity interest 100%	X
SK chemicals Daejung Co., Ltd. (Note 3)	2020.04.01	310 Pangyo-ro (Sampyeong-dong), Bundang-gu, Seongnam-si, Gyeonggi-do	Organic solvent manufacturing	19,273	Equity interest 50%	X
SK chemicals (Suzhou) Co., Ltd. (Note 4)	2006.11.16	#188, Jiangxingdonglu, Wujiang Economic Development Zone,	Resin manufacturing	16,070	Equity interest 100%	X
SK bioscience USA, Inc. (Note 5)	2022.12.19	3 Park Plaza Suite 430, Irvine CA 92614	Biotechnology development	4,586	Equity interest 100%	X
SK chemicals (Shanghai) Co., Ltd.	2018.11.02	Shanghai Mart 2407-2408, Yanan West Rd. 2299, Shanghai, China	Management consulting	3,226	Equity interest 100%	X
SK chemicals Malaysia	2020.08.25	C23A, TTDI PLAZA, JALAN WAN KADIR 3 TAMAN TUN DR ISMAIL 60000 KUALA LUMPUR W.P. KUALA LUMPUR MALAYSIA	Management consulting	456	Equity interest 100%	X

(Note 1) During the current period, a portion of the stock options of SK bioscience Co., Ltd. was exercised, resulting in a change in equity interest.

(Note 2) During the current period, Shuye-SK chemicals (Shantou) Co., Ltd. was newly invested in by the controlling company and incorporated as a subsidiary.

(Note 3) Prior to the previous period, the controlling company sold 50% of the shares of SK chemicals Daejung Co., Ltd., a subsidiary, to Daejung Chemicals & Metals Co., Ltd. The controlling company is judged to have control over SK chemicals Daejung Co., Ltd. based on the fact that the chief executive officer of the controlling company serves as the chief executive officer even after the equity interest was sold, and the chief executive officer has the decision-making authority given a deadlock situation.

(Note 4) Prior to the previous period, we executed a stock purchase and sales agreement to sell 100% of the shares of SK chemicals (Suzhou) Co., Ltd., to Sumong Foods Co., Ltd. The sale has been delayed beyond the end of 2023, the closing date for the transaction, due to changes in the Chinese licensing process.

(Note 5) During the previous period, it was newly invested by SK bioscience Co., Ltd. and was incorporated as a subsidiary.

※ The "Total assets at the end of latest business year" above was prepared as of the end of 2023, and is based on the financial statements adjusted for consistency with the accounting policies of consolidated subsidiaries to those of the controlling company.

※ The ratio of interest owned of the "Grounds for the controlling relationship" above was prepared based on the effective equity interest ratio of the controlling company.

※ The criterion for determining whether a subsidiary is a major subsidiary is that the total assets of the subsidiary at the end of the latest business year are 10% or more of the controlling company's total assets or KRW 75 billion or more.

2. Status of Affiliates (Detailed)

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(Reference date: 2023.12.31)

(Unit: company)

Whether listed	Number of companies	Name of company	Corporate registration number
Listed	21	SKC Co., Ltd.	130111-0001585
		SK Gas Co., Ltd.	110111-0413247
		SK Networks Co., Ltd.	130111-0005199
		SK discovery Co., Ltd.	130111-0005727
		SK D&D Co., Ltd.	110111-3001685

		SK Rent a Car Co., Ltd.	110111-0577233
		SK bioscience Co., Ltd.	131111-0523736
		SK Biopharmaceuticals Co., Ltd.	110111-4570720
		SK Square Co., Ltd.	110111-8077821
		SK IE Technology Co., Ltd.	110111-7064217
		SK Oceanplant Co., Ltd. (formerly Samkang M&T)	191311-0003485
		SK Consigned Management Real Estate Investment Company Co., Ltd.	110111-7815446
		SK Innovation Co., Ltd.	110111-3710385
		SK Co., Ltd.	110111-0769583
		SK chemicals Co., Ltd.	131111-0501021
		SK Telecom Co., Ltd.	110111-0371346
		SK Hynix Co., Ltd.	134411-0001387
		Incross Co., Ltd.	110111-3734955
		ISC Co., Ltd.	131111-0057876
		Dreamus Company	110111-1637383
		SM Core Co., Ltd.	110111-0128680
Unlisted	838	Logi Soft Co., Ltd.	110114-0244050
		11st Co., Ltd.	110111-6861490
		F&U Credit Information Co., Ltd.	135311-0003300
		SK E&S Co., Ltd.	110111-1632979
		SKC FT Holdings Co., Ltd.	211211-0025048
		SKF&NHIS TIMOR HOLDINGS Ltd.	134414-0002628
		SK Networks Service Co., Ltd.	135811-0141788
		SK Nexilis Co., Ltd.	110111-6480232
		SK Resonac Co., Ltd.	175611-0018553
		SK Rent a Car Service Co., Ltd.	160111-0306525
		SK REITs Management Co., Ltd.	110111-7832127
		SK Magic Service Co., Ltd.	134811-0039752
		SK Magic Co., Ltd.	110111-5125962
		SK Materials Group 14 Co., Ltd.	171411-0032197
		SK Materials Air Plus Co., Ltd.	230111-0134111
		SK Materials JNC Co., Ltd.	134811-0595837
		SK Materials Performance Co., Ltd.	164711-0095338
		SK Multi-Utility Co., Ltd.	230111-0363760
		SK Mobile Energy Co., Ltd.	161511-0076070
		SK Bio Tech Co., Ltd.	160111-0395453
		SK Broadband Co., Ltd.	110111-1466659
		SK Store Co., Ltd.	110111-6585884
		SK Specialty Co., Ltd.	175611-0025475
		SK Siltron CSS Korea	110111-8298922
		SK Siltron Co., Ltd.	175311-0001348
		SK Advanced Co., Ltd.	230111-0227982
		SK Earthon Co., Ltd.	110111-8042361
		SK Energy Co., Ltd.	110111-4505967

	SK Ecoengineering Co., Ltd.	110111-8061337
	SK Ecoplant Co., Ltd.	110111-0038805
	SK Enmove Co., Ltd.	110111-4191815
	SK enpulse Co., Ltd. (formerly SKC Solmix, Co., Ltd.)	134711-0014631
	SK M&Service Co., Ltd.	110111-1873432
	SK O&S Co., Ltd.	110111-4370708
	SK On Co., Ltd.	110111-8042379
	SK Incheon Petrochemical Co., Ltd.	120111-0666464
	SK Electlink Co., Ltd. (formerly SS Charger Co., Ltd.)	131111-0687582
	SK Forest Co., Ltd.	134811-0174045
	SK Geo Centric Co., Ltd.	110111-4505975
	SK Communications Co., Ltd.	110111-1322885
	SK chemicals Daejung Co., Ltd.	131111-0587675
	SK Telecom CST1 Co., Ltd.	110111-7170189
	SK Telink Co., Ltd.	110111-1533599
	SK Trading International Co., Ltd.	110111-5171064
	SK Trichem Co., Ltd.	164711-0060753
	SK TBM Geostone Co., Ltd.	154311-0056421
	SK Plasma Co., Ltd.	131111-0401875
	SK Planet Co., Ltd.	110111-4699794
	SK Plug Hyverse Co., Ltd.	110111-8171657
	SK PIC Global Co., Ltd.	230111-0324803
	SK PU Core Co., Ltd.	230111-0233880
	SK Pinx Co., Ltd.	224111-0003760
	SK Hynix System IC Co., Ltd.	150111-0235586
	SK Hystec Co., Ltd.	134411-0037746
	SK Hyeng Co., Ltd.	134411-0017540
	Gangdong Green Complex Co., Ltd.	171211-0127207
	Kangwon City Gas Co., Ltd.	140111-0002010
	Gyeonggi Environmental Energy Co., Ltd.	134211-0058473
	Gyeongbuk Environmental Energy Co., Ltd.	176011-0055291
	Gyeongsan Clear Water Co., Ltd.	120111-0701848
	Gyeongin Environmental Energy Co., Ltd.	134811-0279340
	Gokseong Environment Co., Ltd.	200111-0187330
	Good Service Co., Ltd.	110111-4199877
	Green Soonchang Co., Ltd.	160111-0134942
	Green Hwasoon Co., Ltd.	160111-0199459
	Global AI Platform Corporation Korea Co., Ltd.	131111-0710903
	Narae Energy Service Co., Ltd.	110111-4926006
	Nae Truck Co., Ltd.	110111-3222570
	Dalseong Clear Water Co., Ltd.	160111-0317770
	Dangjin Eco Power Co., Ltd.	165011-0069097
	Dangjin Happiness Solar Co., Ltd.	110111-8022925
	Southeast Coast Offshore Wind Power Co., Ltd.	110111-8180335

	D&D Investment Co., Ltd.	110111-6618263
	D&D Property Solutions Co., Ltd.	110111-8150924
	Lotte SK Eneroot Co., Ltd.	110111-8436374
	Renewland Cheongju, Co., Ltd.	150111-0355285
	Renewlogis, Co., Ltd (formerly E-Medione Logis Co., Ltd.)	121111-0414789
	Renewenergy Green Co., Ltd.	161511-0347158
	Renewenergy Daewon Co., Ltd.	161511-0347140
	Renewenergy Metro Co., Ltd.	284311-0028506
	Renewenergy Saehan Co., Ltd.	161511-0347166
	Renewenergy Jeonnam Co., Ltd.	201211-0018780
	Renewenergychungnam Co., Ltd.	161311-0069053
	Renewenergy Chungbuk Co., Ltd. (formerly Clenko Co., Ltd.)	150111-0034251
	RenewOne Co., Ltd. (formerly Daewon Green Energy Co., Ltd.)	161511-0134795
	Renewcon Daewon (formerly Daewon High Tech)	161511-0197397
	Mind Knock Co., Ltd.	110111-6638873
	Media S Co., Ltd.	110111-7739191
	Mintit Co., Ltd.	124411-0057457
	Boryeong LNG Terminal Co., Ltd.	164511-0021527
	Boryeong BlueHy Co., Ltd.	164511-0042010
	Lake Busa Happy Nanum Solar Co., Ltd.	200111-0654256
	Busan Jeongkwan Energy Co., Ltd.	180111-0484898
	Samkang S&C Co., Ltd.	191211-0000681
	Seonam Environmental Energy Co., Ltd.	184611-0017968
	Service Ace Co., Ltd.	110111-4368688
	Service Top Co., Ltd.	160111-0281090
	Seoul Air Bus Co., Ltd.	110111-5304756
	Seongju Tech Co., Ltd.	284411-0087386
	Studio Wavve Co., Ltd.	110111-7891785
	Ariul Happy Solar Co., Ltd.	110111-7725041
	ID Quantique Co., Ltd.	131114-0009566
	IGE Co., Ltd.	120111-1134494
	Ultimus Co., Ltd.	135811-0470393
	STAC Co., Ltd.	230111-0379436
	AP Development Co., Ltd.	201111-0068498
	Ecovance Co., Ltd.	135811-0433028
	FSKLNS Co., Ltd.	131111-0462520
	Entis Co., Ltd.	130111-0021658
	Yeoju Energy Service Co., Ltd.	110111-6897817
	Yeongnam Energy Service Co., Ltd.	175311-0001570
	Ulsan GPS Co., Ltd.	165011-0035072
	Ulsan Aromatics Co., Ltd.	110111-4499954
	One Store Co., Ltd.	131111-0439131
	U-Base Manufacturing Asia Co., Ltd.	230111-0168673
	Uiseong Hwanghaksan Wind Power Corporation	175911-0019365

	Infra Communications Co., Ltd.	110111-6478873
	Jeonnam 2 Offshore Wind Power Co., Ltd.	110111-7985661
	Jeonnam 3 Offshore Wind Power Co., Ltd.	110111-7985934
	Jeonnam City Gas Co., Ltd.	201311-0000503
	Jeonnam Offshore Wind Power Co., Ltd.	110111-7400817
	Jeonbuk Energy Service Co., Ltd.	214911-0004699
	JS1 Co., Ltd.	206211-0086790
	Jeju United FC Co., Ltd.	224111-0015012
	DDIOS108 Consigned Management Real Estate Investment Company Co., Ltd.	110111-8092150
	DDIYS832 Consigned Management Real Estate Investment Company Co., Ltd.	110111-7280425
	goodsFLOW Co., Ltd.	134511-0318285
	Korea Oil Pipeline Corporation	110111-0671522
	The Biz Co., Ltd.	110111-4070358
	DY Indus Co., Ltd.	134811-0695851
	DY Polymer Co., Ltd.	175011-0027316
	Lock Media Co., Ltd.	110111-2741216
	Busan City Gas Co., Ltd.	180111-0039495
	Sapeon Korea Co., Ltd.	131111-0657618
	Samwon ENT Co., Ltd.	170111-0804791
	Solution Co., Ltd.	135711-0157117
	Studio Dolphin Co., Ltd.	110111-7604170
	Shinan Jeungdo Solar Co., Ltd.	201111-0052938
	Solis Co., Ltd.	205711-0024452
	ISCM Co., Ltd.	134611-0105797
	ITMTC Co.,Ltd.	131111-0623817
	Ackerton Technology Service Co., Ltd	131111-0718676
	Ackerton Partners Co., Ltd.	110111-8644943
	En-core, Co., Ltd.	110111-1484263
	All New One Co., Ltd.	230111-0364213
	YS Tech Co., Ltd.	170111-0397522
	YLP Co., Ltd.	110111-5969229
	Ulsan Eneroot 1 Co., Ltd.	230111-0381514
	Ulsan Eneroot 2 Co., Ltd.	230111-0381522
	Ulsan Eneroot 3 Co., Ltd.	230111-0395169
	Wonpol Co., Ltd.	165011-0032888
	UNA Digital Co., Ltd. (formerly ANTS)	110111-3066861
	UNA Engineering Co., Ltd. (formerly UbiNS Co., Ltd.)	135111-0077367
	JSI Co., Ltd.	124611-0261880
	Chaeum F&B Co., Ltd.	180111-1287720
	Key Foundry Co., Ltd.	150111-0285375
	Taehwa Eneroot 1, Co., Ltd.	230111-0395151
	Taehwa Eneroot 2, Co., Ltd.	230111-0395101
	Prowell, Co., Ltd.	120111-0383266
	Korea Marketplace Systems Co., Ltd.	110111-2493601

	Hweechan Co., Ltd.	110111-1225831
	G-Energy Co., Ltd.	110111-7788750
	Jindo Sanwol Solar Power Co., Ltd.	206111-0009926
	Changwon SG Energy Co., Ltd.	194211-0370578
	Chungcheong Energy Service Co., Ltd.	150111-0006200
	Chungcheong Environmental Energy Co., Ltd.	165011-0013078
	Katini Co., Ltd.	110111-7983392
	CAST.ERA LLC.	110115-0014998
	Cowon Energy Service Co., Ltd.	110111-0235617
	Content Wavve Corp.	110111-4869173
	Clean Energy Consigned Management Real Estate Investment Company Co., Ltd.	110111-7815602
	Clean Industrial REITs Co., Ltd.	110111-8665840
	Total Value No. 1 Consigned Management Real Estate Investment Company Co.,Ltd.	110111-8384672
	Tmap Mobility Co., Ltd.	110111-7733812
	Paju Energy Service Co., Ltd.	110111-4629501
	Parking Cloud Co., Ltd.	110111-4221258
	PSN Marketing Co., Ltd.	110111-4072338
	Korea Nexlen LLC.	230114-0003328
	Haesola Energy Co., Ltd.	201111-0050106
	Haetssal Solar Power Co., Ltd.	161411-0049376
	Happy Narae Co., Ltd.	110111-2016940
	Happy Donghaeng Co., Ltd.	175611-0021671
	Happy Didim Co., Ltd.	110111-6984325
	Happy-More Inc.	150111-0226204
	Happy Moum Co., Ltd.	230111-0318187
	Happy Miteum Co., Ltd.	110111-8079215
	Happy Chaewoom Co., Ltd.	176011-0130902
	Happy Kiwoom Co., Ltd.	110111-6984672
	Happy Hanwool Co., Ltd.	110111-7197167
	Honam Environmental Energy Co., Ltd.	160111-0523369
	Home & Service Co., Ltd.	110111-6420460
	Environmental Facility Management Co., Ltd.	134111-0486452
	ESSENCORE Limited	-
	Essencore Microelectronics (ShenZhen) Limited	-
	ESSENCORE Pte. Ltd.	-
	S&G Technology	-
	ShangHai YunFeng Encar Used Car Sales Service Ltd.	-
	SK S.E. Asia Pte. Ltd.	-
	SK C&C Beijing Co., Ltd.	-
	SK C&C Chengdu Co., Ltd.	-
	SK C&C India Pvt., Ltd.	-
	SK C&C USA, INC.	-
	Abrasax Investment Inc.	-
	AMPAC Fine Chemicals Texas, LLC	-

	AMPAC Fine Chemicals Virginia, LLC	-
	AMPAC Fine Chemicals, LLC	-
	Fine Chemicals Holdings Corp.	-
	SK Biotek Ireland Limited	-
	SK Pharmteco Inc.	-
	Crest Acquisition LLC	-
	YPOSKESI, SAS	-
	Dogus SK Finansal ve Ticari Yatirim ve Danismanlik A.S.	-
	EM Holdings (Cayman) L.P.	-
	EM Holdings (US) LLC	-
	Gemini Partners Pte. Ltd.	-
	Hermed Alpha Industrial Co., Ltd.	-
	Hermed Capital	-
	Hermed Capital Health Care (RMB) GP Limited	-
	Hermed Capital Health Care Fund L.P.	-
	Hermed Capital Health Care GP Ltd	-
	Hermed Equity Investment Management (Shanghai) Co., Ltd.	-
	Hermeda Industrial Co. Ltd	-
	Prostar APEIF GP Ltd.	-
	Prostar APEIF Management Ltd.	-
	Prostar Asia Pacific Energy Infrastructure SK Fund L.P.	-
	Prostar Capital (Asia-Pacific) Ltd.	-
	Prostar Capital Ltd.	-
	Prostar Capital Management Ltd.	-
	Shanghai Hermed Equity Investment Fund Enterprise	-
	Solaris GEIF Investment	-
	Solaris Partners Pte. Ltd.	-
	SK Investment Management Co., Limited.	-
	SK Semiconductor Investments Co., Ltd	-
	SL (Beijing) Consulting and Management Co., Ltd	-
	SL Capital Management (Hong Kong) Ltd	-
	SL Capital Management Limited	-
	SL Capital Partners Limited	-
	SLSF I GP Limited	-
	Wuxi Junhai Xinxin Investment Consulting Ltd	-
	Wuxi United Chips Investment Management Limited	-
	Beijing Junhai Tengxin Consulting and Management Co.,Ltd	-
	SK SOUTH EAST ASIA INVESTMENT PTE., LTD.	-
	SK INVESTMENT VINA I Pte., Ltd.	-
	SK INVESTMENT VINA II Pte., Ltd.	-
	SK INVESTMENT VINA III Pte., Ltd.	-
	Imexpharm Corporation	-
	SK INVESTMENT VINA IV Pte., Ltd.	-
	MSN INVESTMENT Pte. Ltd.	-

	SK MALAYSIA INVESTMENT I PTE. LTD.	-
	VIETNAM DIGITALIZATION FUND	-
	SK INVESTMENT VINA V PTE. LTD.	-
	SK INVESTMENT VINA VI PTE. LTD.	-
	Cong Thang Alpha Joint Stock Company	-
	EASTERN VISION INVESTMENT JOINT STOCK COMPANY	-
	Truong Luu Chi Invest Joint Stock Company	-
	An Nam Phu Investment Joint Stock Company	-
	Zion Son Kim Joint Stock Company	-
	SUNRISE KIM INVESTMENT JOINT STOCK COMPANY	-
	Lihn Nam Ventures Joint Stock Company	-
	Lien Khuong International Joint Stock Company	-
	Dong Kinh Capital Joint Stock Company	-
	Lac Son Investment Joint Stock Company	-
	KBA Investment Joint Stock Company	-
	SPX GI Holdings Pte. Ltd.	-
	SPX VINA I Pte. Ltd.	-
	SK GI Management	-
	SOCAR MOBILITY MALAYSIA SDN. BHD.	-
	PT Future Mobility Solutions	-
	Future Mobility Solutions SDN. BHD.	-
	EINSTEIN CAYMAN LIMITED	-
	ZETA CAYMAN LIMITED	-
	Golden Pearl EV Solutions Limited	-
	Shanghai SKY Real Estate Development Co.,Ltd.	-
	SK Auto Service Hong Kong Ltd.	-
	SK China Company, Ltd.	-
	SK China Investment Management Company Limited	-
	SK (China) Enterprise Management Co.,Ltd	-
	Tianjin SK Car Rental Co., Ltd	-
	SK Industrial Development China Co., Ltd.	-
	SK International Agro-Products Logistics Development Co., Ltd.	-
	SK International Agro-Sideline Products Park Co.,Ltd.	-
	SK Property Investment Management Company Limited	-
	SKY Enterprise Management Co., Ltd.	-
	SKY Property Mgmt. Ltd.	-
	Skyline Auto Financial Leasing Co, Ltd.	-
	Beijing LIZHIWEIXIN Technology Company Limited	-
	SKY (ZHUHAI HENGQIN) TECHNOLOGY CO., LTD	-
	SK Networks (Liaoning) Logistics Co., Ltd	-
	Hudson Energy NY II, LLC	-
	Hudson Energy NY III, LLC	-
	Hudson Energy NY, LLC	-
	Plutus Capital NY, Inc.	-

	Grove Energy Capital, LLC	-
	Grove Energy Capital II, LLC	-
	Grove Energy Capital III, LLC	-
	Grove Energy Capital IV, LLC	-
	Atlas NY, LLC	-
	Digital Center Capital Inc.	-
	Martis Capital, LLC	-
	I CUBE CAPITAL INC	-
	Tellus Investment Partners, Inc. (formerly I CUBE CAPITAL II, INC)	-
	TERRA INVESTMENT PARTNERS II LLC	-
	Terra Investment Partners LLC	-
	Primero Protein LLC	-
	SK Mobility Investments Company Limited	-
	I Cube Capital Hong Kong 1. LP	-
	Castanea Bioscience Inc.	-
	AUXO CAPITAL INC.	-
	AUXO CAPITAL MANAGERS LLC	-
	SK GLOBAL DEVELOPMENT ADVISORS LLC	-
	TELLUS (HONG KONG) INVESTMENT CO.,LIMITED	-
	Saturn Agriculture Investment Co., Limited	-
	Leiya Dahe (Tianjin) Equity Investment Limited Partnership	-
	SK Japan Investment Inc.	-
	Energy Solution Group, Inc.	-
	ATOM POWER, INC	-
	Skyline Mobility, Inc.	-
	Tillandsia, Inc.	-
	Chamaedorea, Inc.	-
	Areca, Inc.	-
	8Rivers Capital LLC	-
	OGLE TECHNOLOGY INC.	-
	SK JNC Japan Co., Ltd.	-
	SK Materials Group14 (Shanghai) Co., Ltd.	-
	Dongguan Iriver Electronics Co., Ltd.	-
	Irriver China Co., Ltd.	-
	Irriver Enterprise Ltd.	-
	LIFE DESIGN COMPANY INC.	-
	SK E&S Hong Kong Co., Ltd.	-
	SMC US, INC	-
	SMCORE INDIA PRIVATE LIMITED	-
	SK pucore Europe Sp. zo. o.	-
	SK pucore India Private Ltd.	-
	SK pucore Mexico, S. de R.L. de C.V	-
	SK pucore RUS LLC.	-
	SK pucore USA Inc.	-

	MINTIT VINA	-
	SK Gas International Pte. Ltd.	-
	SK Gas Petrochemical Pte. Ltd.	-
	SK Gas Trading LLC	-
	SK Gas USA Inc.	-
	Hico Capital (formerly TenX Capital)	-
	Networks Tejarat Pars	-
	P.T. SK Networks Indonesia	-
	POSK (Pinghu) Steel Processing Center Co.,Ltd.	-
	Shenyang SK Bus Terminal Co.,Ltd.	-
	SK BRASIL LTDA	-
	SK Networks (Xiamen) Steel Processing Center	-
	SK NETWORKS AMERICA, Inc.	-
	SK Networks Deutschland GmbH	-
	SK Networks Hong Kong Ltd.	-
	SK Networks Japan Co., Ltd.	-
	SK Networks Resources Australia (Wyong) Pty Ltd.	-
	SK Networks Resources Pty Ltd.	-
	SK Networks (Dandong) Energy Co.,Ltd.	-
	SK Networks (Shanghai) Co.,Ltd.	-
	SKN (China) Holdings Co.,Ltd.	-
	HICO GP I, LLC	-
	HICO MANAGEMENT LLC	-
	HICO VENTURES I, L.P.	-
	Nexilis Management Malaysia SDN. BHD	-
	SK Nexilis Malaysia SDN. BHD	-
	SK Nexilis Poland sp. z o.o	-
	NEXILIS MANAGEMENT EUROPE B.V.	-
	Iberian Lube Base Oils Company, S.A.	-
	PT. Patra SK	-
	SK Enmove (Tianjin) Co., Ltd.	-
	SK Enmove India Pvt. Ltd.	-
	SK Enmove Americas, Inc.	-
	SK Enmove Europe B.V.	-
	SK Enmove Japan Co., Ltd.	-
	SK Enmove Russia Limited Liability Company	-
	SK Magic Retails Malaysia Sdn. Bhd	-
	SK MAGIC VIETNAM CO.,LTD	-
	SK specialty Japan Co., Ltd.	-
	SK specialty (Jiangsu) Co., Ltd.	-
	SK Materials (Shanghai) Co., Ltd.	-
	SK specialty Taiwan Co., Ltd.	-
	SK specialty (Xi'An) Co., Ltd.	-
	Mobile Energy Battery America, LLC	-

	Yancheng Yandu District M Energy Consulting Limited Company	-
	Ignis Therapeutics	-
	SK Life Science, Inc	-
	SK Bio Pharmaceutical Technology (Shanghai) LLC.	-
	NextGen Broadcast Orchestration	-
	NextGen Broadcast service	-
	SK Square Americas, Inc.	-
	ID Quantique Ltd.	-
	ID Quantique Inc.	-
	ID Quantique S.A.	-
	Techmaker GmbH	-
	wavve Americas, Inc.	-
	SK Siltron America, Inc.	-
	SK Siltron CSS, LLC	-
	SK Siltron Japan, Inc.	-
	SK Siltron Shanghai Co., Ltd.	-
	SK Siltron USA, Inc.	-
	Absolics Inc.	-
	NEX INVESTMENT LIMITED	-
	NEX UK HOLDINGS LIMITED	-
	SKC (Nantong) PU Specialty Co., Ltd.	-
	SKC International Shanghai Trading Co., Ltd.	-
	SKC PU Specialty Co., Ltd.	-
	SE (Jiangsu) Electronic Materials Co., LTD	-
	SKC (Nantong) Semiconductor Materials Technology Co., Ltd.	-
	SKC Semiconductor Materials (Wuxi) Co., Ltd	-
	SKC Solmics Hong Kong Co., LTD	-
	SKC-ENF Electronic Materials Ltd.	-
	ENPULSE SHANGHAI INTERNATIONAL TRADING CO., LTD.	-
	ENPULSE TAIWAN CO., LTD.	-
	ENPULSE America	-
	TechDream Co. Limited	-
	SK hi-tech battery materials (Jiangsu) Co., Ltd.	-
	SK hi-tech battery materials Poland sp. z o.o.	-
	Asia Bitumen Trading Pte, Ltd.	-
	GREEN & CO. ASIA LIMITED	-
	Shandong SK Hightech Oil Co., Ltd.	-
	SK Energy Hong Kong Co., Ltd.	-
	SK Energy Road Investment Co., Ltd.	-
	SK Energy Road Investment (HK) Co., Ltd.	-
	SK Shanghai Asphalt Co., Ltd.	-
	Green Technology Management Pty Ltd	-
	BAKAD Investment and Operation LLP	-
	Mesa Verde RE Ventures, LLC	-

	TES-ENVIROCORP PTE. LTD.	-
	Shanghai Taixiang Network Technology Co., Ltd	-
	BT RE Investments, LLC	-
	SK International Investment Singapore Pte. Ltd.	-
	Avrasya Tuneli Isletme Insaat Ve Yatirim A.S.	-
	Jurong Aromatics Corporation Pte. Ltd.	-
	Thai Woo Ree Engineering Co., Ltd	-
	SK E&C Consultores Ecuador S.A.	-
	Goldberg Enterprises Ltd	-
	TES-AMM CORPORATION (CHINA) LTD	-
	TES B PTE. LTD.	-
	TES ESS PTE. LTD.	-
	TES Sustainable Battery Solutions B.V.	-
	TES Sustainable Battery Solutions GmbH	-
	TES CHINA HOLDINGS PTE. LTD.	-
	TES-AMM EUROPE HOLDINGS LTD	-
	TES-AMM NEW ZEALAND LIMITED	-
	WEEE Return GmbH	-
	SHANGHAI TES-AMM WASTE PRODUCTS RECYCLE CO., LTD	-
	TES-AMM (BEIJING) CO., LTD	-
	TES-AMM (Guangzhou) Co., Ltd	-
	TES-AMM (SUZHOU) E-WASTE SOLUTIONS CO. LTD	-
	CASH FOR TECH LTD	-
	CUSTOM CONTROLLERS UK LIMITED	-
	Envirofone Limited	-
	Integrations Et Services	-
	REDEEM HOLDINGS LIMITED	-
	Redeem UK Limited	-
	Stock Must Go Limited	-
	Technology Supplies International Ltd.	-
	TES CONSUMER SOLUTIONS LTD	-
	TES Total Environmental Solution AB	-
	TES-AMM (Europe) Ltd	-
	TES-AMM Central Europe GmbH	-
	TES-AMM ESPANA ASSET RECOVERY AND RECYCLING, S.L.	-
	TES-AMM ITALIA SRL	-
	TES-AMM SAS	-
	TES-AMM UK Ltd	-
	VSL Support Limited	-
	Sustainable Product Stewards Pty Ltd	-
	TES Recupyl	-
	Advanced Datacom (Australia) Pty Ltd	-
	GENPLUS PTE. LTD	-
	PT. TES-AMM INDONESIA	-

	TES ENERGY SOLUTIONS PTE. LTD.	-
	TES SUSTAINABILITY PRODUCTS PTE. LTD.	-
	TES USA, Inc.	-
	TES-AMM (CAMBODIA) CO., LTD	-
	TES-AMM (H.K.) LIMITED	-
	TES-AMM (MALAYSIA) SDN. BHD.	-
	TES-AMM (SINGAPORE) PTE. LTD.	-
	TES-AMM (TAIWAN) CO., LTD	-
	TES-AMM AUSTRALIA PTY LTD	-
	TES-AMM JAPAN K.K.	-
	Total Environmental Solutions Co., Ltd.	-
	Hi Vico Construction Company Limited	-
	BAKAD International B.V	-
	Eco Frontier (Singapore) Pte. Ltd.	-
	KS Investment B.V.	-
	SBC GENERAL TRADING & CONTRACTING CO. W.L.L.	-
	Silvertown Investco Ltd.	-
	SK Ecoplant Americas Corporation	-
	SK E&C India Private Ltd.	-
	SK E&C Jurong Investment Pte. Ltd.	-
	SK E&C Saudi Company Limited	-
	SK Engineering&Construction (Nanjing)Co.,Ltd.	-
	SK Holdco Pte. Ltd	-
	SKEC Anadolu LLC	-
	SKEC (Thai) Limited	-
	Sunlake Co., Ltd.	-
	TES C PTE. LTD.	-
	TES Sustainable Battery Solutions (Australia) Pty Ltd	-
	TES Sustainable Battery Solutions Limited Liability Company	-
	ECOPLANT HOLDING MALAYSIA SDN. BHD.	-
	Econovation, LLC	-
	BT FC LLC	-
	Changzhou SKY New Energy Co., Ltd.	-
	Changzhou Sky New Energy	-
	Shanghai TES-AMM Xin New Materials Co., Ltd	-
	TES Netherlands B.V.	-
	ecoengineering Canada Co., Ltd.	-
	SK on Certification Center (Jiangsu) Co., Ltd.	-
	SK Battery America, Inc.	-
	SK Battery Manufacturing Kft.	-
	SK On (Shanghai) Co., Ltd.	-
	SK On Hungary Kft.	-
	SK On Jiangsu Co., Ltd.	-
	SK On Yancheng Co., Ltd.	-

	BlueOval SK LLC	-
	SK Innovation Insurance (Bermuda), Ltd.	-
	SK USA, Inc.	-
	SK Innovation America Inc.	-
	SK innovation outpost Corporation	-
	NEW&COMPANY ONE PTE. LTD.	-
	BU12 Australia Pty. Ltd.	-
	BU13 Australia Pty. Ltd.	-
	CAES, LLC	-
	China Gas-SK E&S LNG Trading Ltd.	-
	DewBlaine Energy, LLC	-
	Electrodes Holdings, LLC	-
	Energy Solution Holdings, Inc.	-
	EverCharge Services, LLC	-
	EverCharge, Inc.	-
	Fajar Energy International Pte. Ltd.	-
	Grid Solution II LLC	-
	Grid Solution LLC	-
	KCE Brushy Creek Holdings, LLC	-
	KCE CT 1, LLC	-
	KCE CT 10, LLC	-
	KCE CT 2, LLC	-
	KCE CT 4, LLC	-
	KCE CT 5, LLC	-
	KCE CT 7, LLC	-
	KCE CT 8, LLC	-
	KCE CT 9, LLC	-
	KCE Global Holdings, LLC	-
	KCE IL 1, LLC	-
	KCE IL 2, LLC	-
	KCE IN 1, LLC	-
	KCE IN 2, LLC	-
	KCE IN 3, LLC	-
	KCE Land Holdings, LLC	-
	KCE Market Operations, LLC	-
	KCE ME 1, LLC	-
	KCE ME 2, LLC	-
	KCE MI 1, LLC	-
	KCE MI 2, LLC	-
	KCE MI 3, LLC	-
	KCE NY 1, LLC	-
	KCE NY 10, LLC	-
	KCE NY 11, LLC	-
	KCE NY 14, LLC	-

	KCE NY 18, LLC	-
	KCE NY 19, LLC	-
	KCE NY 2, LLC	-
	KCE NY 21, LLC	-
	KCE NY 22, LLC	-
	KCE NY 26, LLC	-
	KCE NY 27, LLC	-
	KCE NY 28, LLC	-
	KCE NY 29, LLC	-
	KCE NY 3, LLC	-
	KCE NY 32, LLC	-
	KCE NY 5, LLC	-
	KCE NY 6, LLC	-
	KCE NY 8, LLC	-
	KCE OK 1, LLC	-
	KCE OK 2, LLC	-
	KCE OK 3, LLC	-
	KCE OK 4, LLC	-
	KCE PF Holdings 2021, LLC	-
	KCE PF Holdings 2022, LLC	-
	KCE Texas Holdings 2020, LLC	-
	KCE TX 10, LLC	-
	KCE TX 11, LLC	-
	KCE TX 12, LLC	-
	KCE TX 13, LLC	-
	KCE TX 14, LLC	-
	KCE TX 15, LLC	-
	KCE TX 16, LLC	-
	KCE TX 19, LLC	-
	KCE TX 2, LLC	-
	KCE TX 21, LLC	-
	KCE TX 22, LLC	-
	KCE TX 24, LLC	-
	KCE TX 25, LLC	-
	KCE TX 26, LLC	-
	KCE TX 27, LLC	-
	KCE TX 28, LLC	-
	KCE TX 7, LLC	-
	KCE TX 8, LLC	-
	KCE TX 9, LLC	-
	Key Capture Energy, LLC	-
	LNG Americas, Inc.	-
	LAI CCS, LLC	-
	Lunar Energy, Inc.	-

		Mobility Solution I Inc.	-
		Mobility Solution II Inc.	-
		PassKey, Inc.	-
		PNES Investments, LLC	-
		PRISM DARWIN PIPELINE PTY LTD	-
		PRISM DLNG PTE. LTD.	-
		Prism Energy International China Limited	-
		Prism Energy International Hong Kong Limited	-
		Prism Energy International Pte., Ltd.	-
		Prism Energy International Zhoushan Limited	-
		PT PRISM Nusantara International	-
		PT Regas Energitama Infrastruktur	-
		RNES Holdings, LLC	-
		Roughneck Storage LLC	-
		Shandong Order-PRISM China Investment Co., Ltd.	-
		SK E&S Americas, Inc.	-
		SK E&S Australia Pty Ltd.	-
		SK E&S Dominicana S.R.L.	-
		Moixa Energy Holdings Limited	-
		Moixa Technology Limited	-
		Moixa Energy Limited	-
		NEW RENEWABLE ENERGY NO.1 JSC	-
		KCE MI 4, LLC	-
		KCE IN 4, LLC	-
		KCE IN 5, LLC	-
		KCE IA 1, LLC	-
		KCE IL 3, LLC	-
		KCE WI 1, LLC	-
		KCE MA 4, LLC	-
		KCE ID 1, LLC	-
		KCE ID 2, LLC	-
		KCE ID 3, LLC	-
		KCE NY 30, LLC	-
		KCE NY 31, LLC	-
		KCE NY 34, LLC	-
		KCE NE 1, LLC	-
		KCE NE 2, LLC	-
		KCE CA 1, LLC	-
		KCE CA 2, LLC	-
		KCE CA 3, LLC	-
		KCE NV 1, LLC	-
		KCE NV 2, LLC	-
		KCE NY 35, LLC	-
		KCE TX 30, LLC	-

	KCE NY 36, LLC	-
	KCE TX 31, LLC	-
	KCE CT 11, LLC	-
	KCE CA 4, LLC	-
	KCE CA 5, LLC	-
	KCE CA 6, LLC	-
	KCE CA 7, LLC	-
	KCE NV 3, LLC	-
	KCE IL 4, LLC	-
	Green & Connect Capital, Inc.	-
	Ningbo SK Performance Rubber Co., Ltd.	-
	SABIC SK Nexlene Company Pte., Ltd.	-
	Sino-Korea Green New Material (JiangSu) Ltd.	-
	SK Functional Polymer, S.A.S	-
	SK GC Americas, Inc.	-
	SK Geo Centric (Beijing) Holding Co., Ltd.	-
	SK Geo Centric Brazil LTDA	-
	SK Geo Centric China Ltd.	-
	SK Geo Centric International Trading (Shanghai) Co., Ltd.	-
	SK Geo Centric Investment Hong Kong Ltd.	-
	SK Geo Centric Japan Co., Ltd.	-
	SK Geo Centric Singapore Pte. Ltd.	-
	SK Geo Centric International Trading (Guangzhou) Co., Ltd.	-
	SK Primacor Americas LLC	-
	SK Primacor Europe, S.L.U.	-
	SK Saran Americas LLC	-
	SK chemicals (Shanghai) Co., Ltd	-
	SK chemicals (Suzhou) Co., Ltd	-
	SK chemicals (Yantai) Co., Ltd.	-
	SK chemicals America	-
	SK chemicals GmbH	-
	SK chemicals Malaysia	-
	Shuye-SK chemicals (Shantou) Co., Ltd.	-
	AI ALLIANCE, LLC	-
	Atlas Investment Ltd.	-
	Axess II Holdings	-
	CYWORLD China Holdings	-
	Deutsche Telekom Capital Partners Venture Fund II Parallel GmbH & Co.KG	-
	SK TELECOM (CHINA)HOLDING CO., Ltd.	-
	SKTA Innopartners, LLC	-
	ULand Company Limited	-
	YTK Investment Ltd.	-
	SK Telecom Americas, Inc.	-

	SK Telecom China Fund 1 L.P.	-
	SK Telecom Innovation Fund, L.P.	-
	SK telecom Japan Inc.	-
	SK Telecom Venture Capital, LLC	-
	SK Global Healthcare Business Group Ltd.	-
	SK Latin America Investment S.A.	-
	SK MENA Investment B.V.	-
	SK planet Japan Inc.	-
	SK Technology Innovation Company	-
	Global Opportunities Breakaway Fund	-
	Global opportunities Fund, L.P	-
	SAPEON Inc.	-
	FREEDOM CIRCLE CAPITAL, INC.	-
	Montague ESG CAPITAL, LLC.	-
	T1 esports US, Inc.	-
	SK Energy Americas Inc.	-
	SK Energy Europe, Ltd.	-
	SK Energy International Pte, Ltd.	-
	SK Terminal B.V.	-
	SCODYS PTE. LTD.	-
	SK Planet Global Holdings Pte. Ltd.	-
	SK Planet, Inc.	-
	Gauss Labs Inc.	-
	HITECH Semiconductor (Wuxi) Co.,Ltd. (HITECH)	-
	SK APTECH Ltd.	-
	SK Hynix (Wuxi) Education Service Development Co., Ltd.	-
	SK hynix (Wuxi) Education Technology Co., Ltd.	-
	SK hynix (Wuxi) Industry Development Ltd.	-
	SK hynix (Wuxi) Investment Ltd.	-
	SK hynix (Wuxi) Semiconductor Sales Ltd.	-
	SK hynix America Inc.	-
	SK hynix Asia Pte., Ltd.	-
	SK hynix cleaning (Wuxi) Ltd.	-
	SK hynix Deutschland GmbH	-
	SK hynix Happiness (Wuxi) Hospital Management Ltd.	-
	SK hynix Italy S.r.l	-
	SK hynix Japan Inc.	-
	SK hynix memory solutions America, Inc.	-
	SK hynix memory solutions Eastern Europe, LLC.	-
	SK hynix memory solutions Taiwan, Inc.	-
	SK hynix NAND Product Solutions (Beijing) Co., Ltd.	-
	SK Hynix NAND Product Solutions (Shanghai) Co., Ltd.	-
	SK hynix NAND Product Solutions Asia Pacific LLC	-
	SK hynix NAND Product Solutions Canada Ltd.	-

	SK hynix NAND Product Solutions Corp.	-
	SK hynix NAND Product Solutions International LLC	-
	SK hynix NAND Product Solutions Israel Ltd.	-
	SK hynix NAND Product Solutions Japan G.K.	-
	SK hynix NAND Product Solutions Malaysia Sdn. Bhd.	-
	SK hynix NAND Product Solutions Mexico, S. DE R.L. DE C.V.	-
	SK hynix NAND Product Solutions Poland sp. Z o.o.	-
	SK hynix NAND Product Solutions Singapore Pte. Ltd.	-
	SK hynix NAND Product Solutions Taiwan Co., Ltd.	-
	SK hynix NAND Product Solutions UK Limited	-
	SK hynix Semiconductor (China) Ltd.	-
	SK hynix Semiconductor (Chongqing) Ltd.	-
	SK hynix Semiconductor (Dalian) Co., Ltd.	-
	SK hynix Semiconductor (Shanghai) Co., Ltd.	-
	SK hynix Semiconductor Hong Kong Ltd.	-
	SK hynix Semiconductor India Private Ltd.	-
	SK hynix Semiconductor Taiwan Inc.	-
	SK hynix U.K. Ltd.	-
	SK hynix Ventures Hong Kong Limited	-
	Hystars Semiconductor (Wuxi) Co., Ltd	-
	SK hynix system ic (Wuxi) Co., Ltd	-
	SkyHigh Memory Limited Japan	-
	SkyHigh Memory China Limited	-
	SkyHigh Memory Limited	-
	FSK L&S (Jiangsu) Co., Ltd.	-
	FSK L&S (Shanghai) Co., Ltd.	-
	FSK L&S Hungary Kft.	-
	FSK L&S VIETNAM COMPANY LIMITED	-
	FSK L&S USA, Inc.	-
	ONESTORE GLOBAL PTE. LTD.	-
	PHILKO UBINS LTD. CORP	-
	CHONGQING HAPPYNARAE Co., Ltd.	-
	HAPPYNARAE AMERICA LLC.	-
	HAPPYNARAE HUNGARY KFT.	-
	SUZHOU HAPPYNARAE Co., Ltd.	-
	SK bioscience USA, Inc.	-
	KEY FOUNDRY, INC.	-
	KEY FOUNDRY SHANGHAI CO., LTD	-
	KEY FOUNDRY LIMITED	-
	GigaX Europe kft.	-
	TGC Square PTE. LTD.	-
	KCE TX 29, LLC	-
	KCE NY 37, LLC	-
	KCE MN 1, LLC	-

	KCE NY 38, LLC	-
	KCE MI 5, LLC	-
	UNAJapan Inc.	-
	8Rivers Services, LLC	-
	Broadwing Company C, LLC	-
	Coyote Clean Power, LLC	-
	Crossbill Clean Energy Ltd.	-
	Meadowlark Company C, LLC	-
	Meadowlark Energy, LLC	-
	Meadowlark Energy HoldCo, LLC	-
	Meadowlark Holdings, LLC	-
	NPEH, LLC	-
	ParkIntuit, LLC	-
	Whitetail Clean Energy Ltd.	-
	Zero Degrees International, Inc.	-
	Zero Degrees Rosella Pty. Ltd.	-
	Zero Degrees Whitetail 1, Ltd.	-
	Zero Degrees Whitetail Dev. Ltd.	-
	Zero Degrees, LLC	-
	SOLWIND ENERGY JOINT STOCK COMPANY	-
	8Rivers Europe Ltd.	-
	Broadwing Holdings, LLC	-
	Coyote Company C, LLC	-
	Coyote Power Holdings, LLC	-
	Zero Degrees Crossbill Dev. Ltd.	-
	SOLTNZ N PTE.LTD.	-
	SK earthon Australia Pty Ltd	-
	ECOVANCE VIETNAM COMPANY LIMITED	-
	SK GEO CENTRIC NEW MATERIAL (ZHEJIANG) CO., LTD	-
	SK Materials Japan, Inc.	-
	One Store International Holding B.V.	-
	One Store International B.V.	-
	HSAGP ENERGY LLC	-
	Route on Delaware, Inc.	-
	ISC VINA MANUFACTURING COMPANY LIMITED	-
	ISC Japan R&D Center INC	-
	SMATECH INC	-
	ISC International, INC	-
	Route on Quebec Ltd.	-
	Voltcycle On Kft	-
	SK hynix America Investment Corporation	-
	TES SBS (US) Holdings LLC	-
	Cormorant Clean Energy, LLC	-
	Center for Breakthrough Medicines Holdings, LLC	-

	Hua Lei Holdings Pte. Ltd.	-
	SK Jinzhzhou real estate development Co.,Ltd.	-
	Ark1, LLC	-
	ArkN, LLC	-
	KCE IL 5, LLC	-
	KCE IL 6, LLC	-
	KCE NY 40, LLC	-
	KCE MN 3, LLC	-
	KCE AR 1, LLC	-
	KCE MI 7, LLC	-
	KCE OK 5, LLC	-
	KCE OK 6, LLC	-
	SK Life Science Labs, Inc.	-
	Gridflex, Inc.	-
	GridFlex Storage LLC	-
	SA Grid Solutions	-
	11STREET CHINA CO.,LTD	-
	TES Sustainable Battery Solutions Nordics AB	-
	Global AI Platform Corporation	-

Note 1) SK Rent-a-car was delisted on January 31, 24.

Note 2) Key Foundry changed its name to SK Key Foundry as of January 2, 24.

Note 3) Korea Marketplace Systems changed its name to Proptier as of January 5, 24.

Note 4) SKF&NHIS TIMOR HOLDINGS Ltd. changed its name to Timor Holdings Co., Ltd. as of February 14, 2024.

Note 5) The Biz Co. was excluded from affiliates.

Note 6) Overseas subsidiaries are classified as unlisted companies.

(*) Trade name change: SK Co., Ltd. (formerly SK C&C Co., Ltd.), Entis Co., Ltd. (formerly SK Cytec Co., Ltd.), Paju Energy Services Co., Ltd. (formerly PMP Co., Ltd.), SK M&Service Co., Ltd. (formerly M&Service Co., Ltd.), SK Magic Service Co., Ltd. (formerly Magic Service Co., Ltd.), SK discovery Co., Ltd. (formerly SK chemicals Co., Ltd.), SK Rent-A-Car Service Co., Ltd. (formerly CarLife Service Co., Ltd.), Dreamus Company (formerly I River Co., Ltd.), SK O&S Co., Ltd. (formerly Network O&S Co., Ltd.), Ulsan GPS Co., Ltd. (formerly Dangjin Eco-Power Co., Ltd.), SK Rent-A-Car (formerly AJ Rent-a-Car Co., Ltd.), Dangjin Eco-Power Co., Ltd. (formerly Dangjin Eco Solar Power Development Co., Ltd.), Narae Energy Services Co., Ltd. (formerly Wirye Energy Service Co., Ltd.), SK Nexilis Co., Ltd. (formerly KCF Technologies Co., Ltd.), D&D Property Management Co., Ltd. (formerly B&M Development Co., Ltd.), SK Materials Performance Co., Ltd. (formerly SK Performance Materials Co., Ltd.), SK Materials Air Plus (formerly SK Air Gas Co., Ltd.), SK Ecoplant Co., Ltd. (formerly SK E&C Co., Ltd.), SK Geo Centric Co., Ltd. (formerly SK Global Chemicals Co., Ltd.), SK Shieldus Co., Ltd. (formerly ADT Caps Co., Ltd.), SK Ecoengineering Co., Ltd. (formerly BLH Engineering Co., Ltd.), SK Materials Holdings Co., Ltd. (formerly SK Materials Co., Ltd.), SK Plug Hyverse Co., Ltd. (formerly Halo Hydrogen Co., Ltd.), SK PU Core Co., Ltd. (formerly Mitsui Chemicals & SKC Polyurethanes Inc.), SK Specialty Co., Ltd. (formerly SK Materials Co., Ltd.), D&D Property Solutions Co., Ltd. (formerly D&D Living Solution Co., Ltd.), SK Enmove Co., Ltd. (formerly SK Lubricants Co., Ltd.), SK Resonac Co., Ltd. (formerly SK Showa Denko Co., Ltd.), SK enpulse Co., Ltd. (formerly SKC Solmix, Co., Ltd.), SK Ocean Plant Co., Ltd. (formerly Samkang M&T Co., Ltd.), SK Electlink Co., Ltd. (formerly SS Charger Co., Ltd.), UNA Digital Co., Ltd. (formerly ANTS Co., Ltd.), UNA Engineering Co., Ltd. (formerly UbiNS Co., Ltd.), RenewOne Co., Ltd. (formerly Daewon Green Energy Co., Ltd.), Renewcon Daewon (formerly Daewon High Tech), Renewlogis (formerly E-Medione Logis Co., Ltd.), Renewenergy Chungbuk (formerly Clenko Co., Ltd.)

[Status of investments between the affiliates]

As of December 31, 2023

(based on common stocks)

Investee \ Investor	SK Innovation	Korea Oil Pipeline Corporation	Happy Kiwoom	SK Energy	Nae Truck	Jeju United FC	Happy Didim	goodsFLOW	SK Geo Centric	Ulsan Aromatics
SK Co., Ltd.	34.5%									
SK Innovation		41.0%	100.0%	100.0%					100.0%	
SK Energy					100.0%	100.0%	100.0%	100.0%		
SK Geo Centric										50.0%
SK Enmove										
SK On										
SK Telecom										
SK Broadband										
PS & Marketing										
SK Square										
Dreamus Company										
One Store										
Incross										
Content Wavve										
Tmap Mobility										
SK Hynix										
SK E&S										
SKC										
ISC										
SKCFT Holdings										
SK Networks										
SK Rent-A-Car										
SK Magic										
SK Ecoplant										
Environmental Facility Management										
RenewOne										
SK Oceanplant										
SK discovery										
SK Gas										
Lotte SK Eneroot										
SK D&D										
Korea Marketplace Systems										
SK chemicals										
SK Forest										
Hweechan										
SK Materials Performance										
SK Consigned Management Real Estate Investment Company										
SK Specialty										
SK Siltron										
Ackerton Partners										
UNA Digital										
Subsidiaries Total	34.5%	41.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	50.0%

Investee \\ Investor	Happy Moum	Wonpol	STAC	SK Enmove	YUBASE Manufacturing Asia	SK On	SK Mobile Energy	Happy Miteum	SK Earthon	SK Incheon Petrochemical
SK Co., Ltd.										
SK Innovation				60.0%		100.0%			100.0%	100.0%
SK Energy										
SK Geo Centric	100.0%	100.0%	50.0%							
SK Enmove					70.0%					
SK On							100.0%	100.0%		
SK Telecom										
SK Broadband										
PS & Marketing										
SK Square										
Dreamus Company										
One Store										
Incross										
Content Wavve										
Tmap Mobility										
SK Hynix										
SK E&S										
SKC										
ISC										
SKCFT Holdings										
SK Networks										
SK Rent-A-Car										
SK Magic										
SK Ecoplant										
Environmental Facility Management										
RenewOne										
SK Oceanplant										
SK discovery										
SK Gas										
Lotte SK Eneroot										
SK D&D										
Korea Marketplace Systems										
SK chemicals										
SK Forest										
Hweechan										
SK Materials Performance										
SK Consigned Management Real Estate Investment Company										
SK Specialty										
SK Siltron										
Ackerton Partners										
UNA Digital										
Subsidiaries Total	100.0%	100.0%	50.0%	60.0%	70.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Investee \\ Investor	SK Trading International	SK IE Technology	SK Telecom	SK Communications	F&U Credit Information	PS & Marketing	SK M&Service	SK O&S	Service Ace	Service Top
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SK Co., Ltd.			30.0%							
SK Innovation	100.0%	61.2%								
SK Energy										
SK Geo Centric										
SK Enmove										
SK On										
SK Telecom				100.0%	50.0%	100.0%		100.0%	100.0%	100.0%
SK Broadband										
PS & Marketing							100.0%			
SK Square										
Dreamus Company										
One Store										
Incross										
Content Wavve										
Tmap Mobility										
SK Hynix										
SK E&S										
SKC										
ISC										
SKCFT Holdings										
SK Networks										
SK Rent-A-Car										
SK Magic										
SK Ecoplant										
Environmental Facility Management										
RenewOne										
SK Oceanplant										
SK discovery										
SK Gas										
Lotte SK Eneroot										
SK D&D										
Korea Marketplace Systems										
SK chemicals										
SK Forest										
Hweechan										
SK Materials Performance										
SK Consigned Management Real Estate Investment Company										
SK Specialty										
SK Siltron										
Ackerton Partners										
UNA Digital										
Subsidiaries Total	100.0%	61.2%	30.0%	100.0%	50.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Investee Investor	SK Telink	Happy Hanwool	SK Store	SK Broadband	Home & Service	Media S	SK Square	Dreamus Company	Studio Dolphin	FSK L&S
SK Co., Ltd.							30.0%			
SK Innovation										

SK Energy										
SK Geo Centric										
SK Enmove										
SK On										
SK Telecom	100.0%	100.0%	100.0%	74.4%						
SK Broadband					100.0%	100.0%				
PS & Marketing										
SK Square								38.7%		60.0%
Dreamus Company									100.0%	
One Store										
Incross										
Content Wavve										
Tmap Mobility										
SK Hynix										
SK E&S										
SKC										
ISC										
SKCFT Holdings										
SK Networks										
SK Rent-A-Car										
SK Magic										
SK Ecoplant										
Environmental Facility Management										
RenewOne										
SK Oceanplant										
SK discovery										
SK Gas										
Lotte SK Eneroot										
SK D&D										
Korea Marketplace Systems										
SK chemicals										
SK Forest										
Hweechan										
SK Materials Performance										
SK Consigned Management Real Estate Investment Company										
SK Specialty										
SK Siltron										
Ackerton Partners										
UNA Digital										
Subsidiaries Total	100.0%	100.0%	100.0%	74.4%	100.0%	100.0%	30.0%	38.7%	100.0%	60.0%

Investee \ Investor	11st	SK Planet	One Store	Infra Communications	Incross	Mind Knock	Solu-tion	SK Telecom CST1	Content Wavve	Studio Wavve
SK Co., Ltd.										
SK Innovation										
SK Energy										
SK Geo Centric										

SK Enmove										
SK On										
SK Telecom										
SK Broadband										
PS & Marketing										
SK Square	98.1%	86.3%	47.5%		36.1%			55.4%	36.7%	
Dreamus Company										
One Store				100.0%						
Incross						100.0%	100.0%			
Content Wavve										100.0%
Tmap Mobility										
SK Hynix										
SK E&S										
SKC										
ISC										
SKCFT Holdings										
SK Networks										
SK Rent-A-Car										
SK Magic										
SK Ecoplant										
Environmental Facility Management										
RenewOne										
SK Oceanplant										
SK discovery										
SK Gas										
Lotte SK Eneroot										
SK D&D										
Korea Marketplace Systems										
SK chemicals										
SK Forest										
Hweechan										
SK Materials Performance										
SK Consigned Management Real Estate Investment Company										
SK Specialty										
SK Siltron										
Ackerton Partners										
UNA Digital										
Subsidiaries Total	98.1%	86.3%	47.5%	100.0%	36.1%	100.0%	100.0%	55.4%	36.7%	100.0%

Investee Investor	Lock Media	Tmap Mobility	YLP	Good Service	Seoul Air Bus	Logi Soft	SK Hynix	SK Hystec	SK Hyeng	Happy-More
SK Co., Ltd.										
SK Innovation										
SK Energy										
SK Geo Centric										
SK Enmove										
SK On										

SK Telecom										
SK Broadband										
PS & Marketing										
SK Square		62.5%					20.1%			
Dreamus Company										
One Store	100.0%									
Incross										
Content Wavve										
Tmap Mobility			100.0%	100.0%	100.0%	100.0%				
SK Hynix								100.0%	100.0%	100.0%
SK E&S										
SKC										
ISC										
SKCFT Holdings										
SK Networks										
SK Rent-A-Car										
SK Magic										
SK Ecoplant										
Environmental Facility Management										
RenewOne										
SK Oceanplant										
SK discovery										
SK Gas										
Lotte SK Eneroot										
SK D&D										
Korea Marketplace Systems										
SK chemicals										
SK Forest										
Hweechan										
SK Materials Performance										
SK Consigned Management Real Estate Investment Company										
SK Specialty										
SK Siltron										
Ackerton Partners										
UNA Digital										
Subsidiaries Total	100.0%	62.5%	100.0%	100.0%	100.0%	100.0%	20.1%	100.0%	100.0%	100.0%

Investee Investor	SK Hynix System IC	Happy Narae	SK Key Foundry	SK E&S	Cowon Energy Service	Busan City Gas	Chungcheong Energy Service	Yeongnam Energy Service	Jeonnam City Gas	Kangwon City Gas
SK Co., Ltd.				90.0%						
SK Innovation										
SK Energy										
SK Geo Centric										
SK Enmove										
SK On										
SK Telecom										
SK Broadband										

PS & Marketing										
SK Square										
Dreamus Company										
One Store										
Incross										
Content Wavve										
Tmap Mobility										
SK Hynix	100.0%	100.0%	100.0%							
SK E&S					100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
SKC										
ISC										
SKCFT Holdings										
SK Networks										
SK Rent-A-Car										
SK Magic										
SK Ecoplant										
Environmental Facility Management										
RenewOne										
SK Oceanplant										
SK discovery										
SK Gas										
Lotte SK Eneroot										
SK D&D										
Korea Marketplace Systems										
SK chemicals										
SK Forest										
Hweechan										
SK Materials Performance										
SK Consigned Management Real Estate Investment Company										
SK Specialty										
SK Siltron										
Ackerton Partners										
UNA Digital										
Subsidiaries Total	100.0%	100.0%	100.0%	90.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Investee Investor	Jeonbuk Energy Service	Paju Energy Service	Narae Energy Service	Yeoju Energy Service	Boryeong LNG Terminal	Jeonnam Offshore Wind Power	Sinan Jeungdo Solar	Haetssal Solar Power	Solis	Ariul Happy Solar
SK Co., Ltd.										
SK Innovation										
SK Energy										
SK Geo Centric										
SK Enmove										
SK On										
SK Telecom										
SK Broadband										
PS & Marketing										
SK Square										

Dreamus Company										
One Store										
Incross										
Content Wavve										
Tmap Mobility										
SK Hynix										
SK E&S	100.0%	51.0%	100.0%	100.0%	50.0%	51.0%	100.0%	100.0%	71.2%	100.0%
SKC										
ISC										
SKCFT Holdings										
SK Networks										
SK Rent-A-Car										
SK Magic										
SK Ecoplant										
Environmental Facility Management										
RenewOne										
SK Oceanplant										
SK discovery										
SK Gas										
Lotte SK Eneroot										
SK D&D										
Korea Marketplace Systems										
SK chemicals										
SK Forest										
Hweechan										
SK Materials Performance										
SK Consigned Management Real Estate Investment Company										
SK Specialty										
SK Siltron										
Ackerton Partners										
UNA Digital										
Subsidiaries Total	100.0%	51.0%	100.0%	100.0%	50.0%	51.0%	100.0%	100.0%	71.2%	100.0%

Investee \ Investor	Busan Jeongkwan Energy	IGE	Jeonnam 2 Offshore Wind Power	Jeonnam 3 Offshore Wind Power	Dangjin Happiness Solar	Haesola Energy	Parking Cloud	SK Plug Hyverse	Lake Busa Happy Nanum Solar	Boryeong BlueHy
SK Co., Ltd.										
SK Innovation										
SK Energy										
SK Geo Centric										
SK Enmove										
SK On										
SK Telecom										
SK Broadband										
PS & Marketing										
SK Square										
Dreamus Company										
One Store										

Incross										
Content Wavve										
Tmap Mobility										
SK Hynix										
SK E&S	100.0%	100.0%	55.0%	55.0%	100.0%	50.0%	44.6%	51.0%	70.0%	100.0%
SKC										
ISC										
SKCFT Holdings										
SK Networks										
SK Rent-A-Car										
SK Magic										
SK Ecoplant										
Environmental Facility Management										
RenewOne										
SK Oceanplant										
SK discovery										
SK Gas										
Lotte SK Eneroot										
SK D&D										
Korea Marketplace Systems										
SK chemicals										
SK Forest										
Hweechan										
SK Materials Performance										
SK Consigned Management Real Estate Investment Company										
SK Specialty										
SK Siltron										
Ackerton Partners										
UNA Digital										
Subsidiaries Total	100.0%	100.0%	55.0%	55.0%	100.0%	50.0%	44.6%	51.0%	70.0%	100.0%

Investee \ Investor	SKC	SK Enpulse	SKCFT Holdings	SK Nexilis	SK PIC Global	SK TVM Geo Stone	Ecovance	All New One	SK PU Core	ISC
SK Co., Ltd.	40.6%									
SK Innovation										
SK Energy										
SK Geo Centric										
SK Enmove										
SK On										
SK Telecom										
SK Broadband										
PS & Marketing										
SK Square										
Dreamus Company										
One Store										
Incross										
Content Wavve										

Tmap Mobility										
SK Hynix										
SK E&S										
SKC		96.5%	100.0%		51.0%	51.0%	68.1%	100.0%	100.0%	45.0%
ISC										
SKCFT Holdings				100.0%						
SK Networks										
SK Rent-A-Car										
SK Magic										
SK Ecoplant										
Environmental Facility Management										
RenewOne										
SK Oceanplant										
SK discovery										
SK Gas										
Lotte SK Eneroot										
SK D&D										
Korea Marketplace Systems										
SK chemicals										
SK Forest										
Hweechan										
SK Materials Performance										
SK Consigned Management Real Estate Investment Company										
SK Specialty										
SK Siltron										
Ackerton Partners										
UNA Digital										
Subsidiaries Total	40.6%	96.5%	100.0%	100.0%	51.0%	51.0%	68.1%	100.0%	100.0%	45.0%

Investee Investor	ISCM	ITMTC	Prowell	SK Networks	SK Networks Service	SK Rent-A-Car	SK Rent-A-Car Service	Mintit	Katini	SK Magic
SK Co., Ltd.				41.2%						
SK Innovation										
SK Energy										
SK Geo Centric										
SK Enmove										
SK On										
SK Telecom										
SK Broadband										
PS & Marketing										
SK Square										
Dreamus Company										
One Store										
Incross										
Content Wavve										
Tmap Mobility										
SK Hynix										

ISC										
SKCFT Holdings										
SK Networks		52.8%	88.5%							
SK Rent-A-Car										
SK Magic	100.0%									
SK Ecoplant					100.0%	100.0%	86.6%	100.0%	100.0%	100.0%
Environmental Facility Management										
RenewOne										
SK Oceanplant										
SK discovery										
SK Gas										
Lotte SK Eneroot										
SK D&D										
Korea Marketplace Systems										
SK chemicals										
SK Forest										
Hweechan										
SK Materials Performance										
SK Consigned Management Real Estate Investment Company										
SK Specialty										
SK Siltron										
Ackerton Partners										
UNA Digital										
Subsidiaries Total	100.0%	52.8%	88.5%	44.5%	100.0%	100.0%	86.6%	100.0%	100.0%	100.0%

Investee Investor	DY Indus	SK Oceanplant	Samkang S&C	Changwon SG Energy	Renewenergy Chungbuk	Environmental Facility Management	YS Tech	Samwon ENT	Chungcheong Environmental Energy	Gyeonggi Environmental Energy
SK Co., Ltd.										
SK Innovation										
SK Energy										
SK Geo Centric										
SK Enmove										
SK On										
SK Telecom										
SK Broadband										
PS & Marketing										
SK Square										
Dreamus Company										
One Store										
Incross										
Content Wavve										
Tmap Mobility										
SK Hynix										
SK E&S										
SKC										
ISC										
SKCFT Holdings										
SK Networks										

SK Rent-A-Car										
SK Magic										
SK Ecoplant	100.0%	37.6%		65.1%	96.3%	100.0%				
Environmental Facility Management							100.0%	100.0%	100.0%	100.0%
RenewOne										
SK Oceanplant			96.6%							
SK discovery										
SK Gas										
Lotte SK Eneroot										
SK D&D										
Korea Marketplace Systems										
SK chemicals										
SK Forest										
Hweechan										
SK Materials Performance										
SK Consigned Management Real Estate Investment Company										
SK Specialty										
SK Siltron										
Ackerton Partners										
UNA Digital										
Subsidiaries Total	100.0%	37.6%	96.6%	65.1%	96.3%	100.0%	100.0%	100.0%	100.0%	100.0%

Investee \ Investor	Gyeongin Environmental Energy	Gyeongbuk Environmental Energy	Seonam Environmental Energy	Honam Environmental Energy	Green Soonchang	Green Hwasoon	Gokseong Environment	Dalseong Clear Water	Gyeongsan Clear Water	RenewOne
SK Co., Ltd.										
SK Innovation										
SK Energy										
SK Geo Centric										
SK Enmove										
SK On										
SK Telecom										
SK Broadband										
PS & Marketing										
SK Square										
Dreamus Company										
One Store										
Incross										
Content Wavve										
Tmap Mobility										
SK Hynix										
SK E&S										
SKC										
ISC										
SKCFT Holdings										
SK Networks										
SK Rent-A-Car										
SK Magic										

SK Ecoplant										100.0%
Environmental Facility Management	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
RenewOne										
SK Oceanplant										
SK discovery										
SK Gas										
Lotte SK Eneroot										
SK D&D										
Korea Marketplace Systems										
SK chemicals										
SK Forest										
Hweechan										
SK Materials Performance										
SK Consigned Management Real Estate Investment Company										
SK Specialty										
SK Siltron										
Ackerton Partners										
UNA Digital										
Subsidiaries Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Investee Investor	Renewlogis	Renewcon Daewon	Renewland Cheongju	Renewenergy Green	Renewenergy Daewon	Renewenergy Metro	Renewenergy Saehan	Renewenergy Jeonnam	Renewenergy Chungnam	SK Plasma
SK Co., Ltd.										
SK Innovation										
SK Energy										
SK Geo Centric										
SK Enmove										
SK On										
SK Telecom										
SK Broadband										
PS & Marketing										
SK Square										
Dreamus Company										
One Store										
Incross										
Content Wavve										
Tmap Mobility										
SK Hynix										
SK E&S										
SKC										
ISC										
SKCFT Holdings										
SK Networks										
SK Rent-A-Car										
SK Magic										
SK Ecoplant										
Environmental Facility Management										

RenewOne	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
SK Oceanplant										
SK discovery										85.0%
SK Gas										
Lotte SK Eneroot										
SK D&D										
Korea Marketplace Systems										
SK chemicals										
SK Forest										
Hweechan										
SK Materials Performance										
SK Consigned Management Real Estate Investment Company										
SK Specialty										
SK Siltron										
Ackerton Partners										
UNA Digital										
Subsidiaries Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	85.0%

Investee Investor	SK Gas	SK Advanced	Ulsan GPS	Dangjin Eco Power	G-Energy	Lotte SK Eneroot	Ulsan Eneroot 1	Ulsan Eneroot 2	Ulsan Eneroot 3	Taehwa Eneroot 1
SK Co., Ltd.										
SK Innovation										
SK Energy										
SK Geo Centric										
SK Enmove										
SK On										
SK Telecom										
SK Broadband										
PS & Marketing										
SK Square										
Dreamus Company										
One Store										
Incross										
Content Wavve										
Tmap Mobility										
SK Hynix										
SK E&S										
SKC										
ISC										
SKCFT Holdings										
SK Networks										
SK Rent-A-Car										
SK Magic										
SK Ecoplant										
Environmental Facility Management										

RenewOne										
SK Oceanplant										
SK discovery	72.2%									
SK Gas		45.0%	99.5%	54.9%	50.0%	50.0%				
Lotte SK Eneroot							100.0%	100.0%	100.0%	100.0%
SK D&D										
Korea Marketplace Systems										
SK chemicals										
SK Forest										
Hweechan										
SK Materials Performance										
SK Consigned Management Real Estate Investment Company										
SK Specialty										
SK Siltron										
Ackerton Partners										
UNA Digital										
Subsidiaries Total	72.2%	45.0%	99.5%	54.9%	50.0%	50.0%	100.0%	100.0%	100.0%	100.0%

Investee \ Investor	Taehwa Eneroot 2	Korea Marketplace Systems	The Biz	SK D&D	D&D Investment	DDIYS832	DDIOS108	D&D Property Solutions	Jindo Sanwol Solar Power Co., Ltd.	Uiseong Hwanghaksan Wind Power Corporation
SK Co., Ltd.										
SK Innovation										
SK Energy										
SK Geo Centric										
SK Enmove										
SK On										
SK Telecom										
SK Broadband										
PS & Marketing										
SK Square										
Dreamus Company										
One Store										
Incross										
Content Wavve										
Tmap Mobility										
SK Hynix										
SK E&S										
SKC										
ISC										
SKCFT Holdings										
SK Networks										
SK Rent-A-Car										
SK Magic										
SK Ecoplant										

Environmental Facility Management										
RenewOne										
SK Oceanplant										
SK discovery		66.0%		34.1%						
SK Gas										
Lotte SK Eneroot	100.0%									
SK D&D					100.0%	100.0%	100.0%	100.0%	100.0%	49.0%
Korea Marketplace Systems			100.0%							
SK chemicals										
SK Forest										
Hweechan										
SK Materials Performance										
SK Consigned Management Real Estate Investment Company										
SK Specialty										
SK Siltron										
Ackerton Partners										
UNA Digital										
Subsidiaries Total	100.0%	66.0%	100.0%	34.1%	100.0%	100.0%	100.0%	100.0%	100.0%	49.0%

Investee Investor	SK chemicals	SK bioscience	Entis	JSI	SK chemicals Daejung	SK Multi-Utility	SK Biopharmaceuticals	SK Forest	SKF&NHIS TIMOR HOLDINGS	Hweechan	SK Pinx
SK Co., Ltd.							64.0%	100.0%		100.0%	
SK Innovation											
SK Energy											
SK Geo Centric											
SK Enmove											
SK On											
SK Telecom											
SK Broadband											
PS & Marketing											
SK Square											
Dreamus Company											
One Store											
Incross											
Content Wavve											
Tmap Mobility											
SK Hynix											
SK E&S											
SKC											
ISC											
SKCFT Holdings											
SK Networks											
SK Rent-A-Car											
SK Magic											
SK Ecoplant											
Environmental Facility Management											

RenewOne											
SK Oceanplant											
SK discovery	40.9%										
SK Gas											
Lotte SK Eneroot											
SK D&D											
Korea Marketplace Systems											
SK chemicals		67.8%	50.0%	40.0%	50.0%	100.0%					
SK Forest								100.0%			
Hweechan											100.0%
SK Materials Performance											
SK Consigned Management Real Estate Investment Company											
SK Specialty											
SK Siltron											
Ackerton Partners											
UNA Digital											
Subsidiaries Total	40.9%	67.8%	50.0%	40.0%	50.0%	100.0%	64.0%	100.0%	100.0%	100.0%	100.0%

Investee Investor	SK REITs Management	SK Materials Air Plus	SK Trichem	SK Resonac	SK Materials Performance	JS1	SK Materials JNC	SK Materials Group 14	SK Consigned Management Real Estate Investment Company	Clean Energy Consigned Management Real Estate Investment Company
SK Co., Ltd.	100.0%	100.0%	65.0%	51.0%	100.0%		51.0%	75.0%	32.4%	
SK Innovation										
SK Energy										
SK Geo Centric										
SK Enmove										
SK On										
SK Telecom										
SK Broadband										
PS & Marketing										
SK Square										
Dreamus Company										
One Store										
Incross										
Content Wavve										
Tmap Mobility										
SK Hynix										
SK E&S										
SKC										
ISC										
SKCFT Holdings										
SK Networks										
SK Rent-A-Car										
SK Magic										
SK Ecoplant										
Environmental Facility Management										
RenewOne										
SK Oceanplant										

SK discovery										
SK Gas										
Lotte SK Eneroot										
SK D&D										
Korea Marketplace Systems										
SK chemicals										
SK Forest										
Hweechan										
SK Materials Performance						50.0%				
SK Consigned Management Real Estate Investment Company										100.0%
SK Specialty										
SK Siltron										
Ackerton Partners										
UNA Digital										
Subsidiaries Total	100.0%	100.0%	65.0%	51.0%	100.0%	50.0%	51.0%	75.0%	32.4%	100.0%

Investee Investor	Total Value No. 1 Consigned Management Real Estate Investment Company Investor	Clean Industrial REITs Co., Ltd.	SK Specialty	Happy Donghaeng	SK Siltron	Happy Chaewoom	SM Core	Ackerton Partners	Ackerton Technology Service	UNA Engineering
SK Co., Ltd.			100.0%		51.0%		26.6%	100.0%		
SK Innovation										
SK Energy										
SK Geo Centric										
SK Enmove										
SK On										
SK Telecom										
SK Broadband										
PS & Marketing										
SK Square										
Dreamus Company										
One Store										
Incross										
Content Wavve										
Tmap Mobility										
SK Hynix										
SK E&S										
SKC										
ISC										
SKCFT Holdings										
SK Networks										
SK Rent-A-Car										
SK Magic										
SK Ecoplant										
Environmental Facility Management										
RenewOne										
SK Oceanplant										
SK discovery										
SK Gas										

Lotte SK Eneroot										
SK D&D										
Korea Marketplace Systems										
SK chemicals										
SK Forest										
Hweechan										
SK Materials Performance										
SK Consigned Management Real Estate Investment Company	100.0%	80.1%								
SK Specialty				100.0%						
SK Siltron						100.0%				
Ackerton Partners									50.0%	
UNA Digital										98.1%
Subsidiaries Total	100.0%	80.1%	100.0%	100.0%	51.0%	100.0%	26.6%	100.0%	50.0%	98.1%

3. Status of Investments in Other Corporations (Details)

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(Reference date: 2023.12.31)

(Unit: KRW one million, stocks, %)

Name of corporation	Whether listed	Date of initial acquisition	Purpose of investment	Amount of initial acquisition	Balance at beginning of period			Increase (decrease)			Balance at end of period			Financial status of the latest business year	
					Quantity	Equity interest	Book amount	Acquired (disposed)		Gain and loss on valuation	Quantity	Equity interest	Book amount	Total assets	Net income
								Quantity	Amount						
SK bioscience Co., Ltd.	Listed	2018.07.01	Management participation	193,664	52,350,000	68.18	168,972	-290,276	-937	-	52,059,724	67.76	168,035	1,852,439	22,318
SK chemicals Daejung Co., Ltd.	Unlisted	2020.04.17	Management participation	3	877,303	50.00	6,141	-	-	-	877,303	50.00	6,141	19,273	1,744
SK bioscience USA, Inc.	Unlisted	2022.12.19	Management participation	6,551	-	100.00	6,551	-	-	-	-	100.00	6,551	4,586	-2,089
SK Multi-Utility	Unlisted	2021.12.01	Management participation	160,012	1,000,000	100.00	160,012	-	-	-	1,000,000	100.00	160,012	551,334	3,510
SK chemicals (Qingdao) Co., Ltd.	Unlisted	2001.12.31	Management participation	2,537	-	-	-	-	-	-	-	-	-	-	-
SK chemicals (Suzhou) Co., Ltd.	Unlisted	2005.12.13	Management participation	1,241	-	100.00	11,420	-	-	-	-	100.00	11,420	16,070	-3,155
SK Chemidas (Yantai) Co., Ltd.	Unlisted	2020.07.13	Management participation	505	-	100.00	33,848	-	-	-	-	100.00	33,848	68,325	118
SK chemicals (Shanghai) Co., Ltd.	Unlisted	2019.02.28	Management participation	102	-	100.00	102	-	-	-	-	100.00	102	3,226	542
Shuye-SK chemicals (Shantou) Co., Ltd.	Unlisted	2023.03.06	Management participation	66,094	-	-	-	-	66,094	-	-	100.00	66,094	159,832	-13,831
SK chemicals America	Unlisted	2002.07.26	Management participation	1,058	-	100.00	1,448	-	-	-	-	100.00	1,448	40,544	2,201
SK chemicals GmbH	Unlisted	2008.06.20	Management participation	40	-	100.00	433	-	-	-	-	100.00	433	51,567	2,116
SK chemicals Malaysia	Unlisted	2020.12.28	Management participation	373	1,347,316	100.00	373	-	-	-	1,347,316	100.00	373	456	15
Entis (formerly SK Cyltech)	Unlisted	1987.08.10	Management participation	1,250	250,000	50.00	4,892	-	-	-	250,000	50.00	4,892	21,172	2,074
JSI Co., Ltd.	Unlisted	2015.04.29	Management participation	6,078	160,000	40.00	-	-	-	-	160,000	40.00	-	9,315	298
HDC Polyall	Unlisted	2022.03.31	Management participation	7,700	-	20.00	7,700	-	-	-4,675	-	20.00	3,025	48,990	-20,108
Eastman Fiber Korea Ltd. (EFKL) (preferred stocks)	Unlisted	2019.08.28	Simple investment	24,053	14,000,000	20.00	25,128	-	-	438	14,000,000	20.00	25,128	199,027	13,004
Korea Investment Bio Global Fund	Unlisted	2020.11.18	Simple investment	2,500	-	1.43	2,712	-	-373	-385	-	1.43	1,954	326,214	-22,055
Standigm Inc. (preferred stocks)	Unlisted	2021.05.27	Simple investment	3,000	194,301	1.40	3,000	-	-	-	194,301	1.40	3,000	17,087	-13,789
J2HBIOTECH Inc.	Unlisted	2021.08.06	Simple investment	1,500	24,136	0.88	1,500	-	-	-	24,136	0.88	1,500	32,008	-9,484
Oncobix Co., Ltd.	Unlisted	2021.11.18	Simple investment	1,000	27,066	2.34	1,000	-	-	-	27,066	2.34	1,000	1,844	-5,011
Sante Health Ventures IV, LP	Unlisted	2021.11.04	Simple investment	971	-	5.30	3,369	-	2,080	1,149	-	5.30	6,598	143,963	42,268
Yongyeon Industrial District 4 Industrial Water Management Association	Unlisted	2006.12.29	Simple investment	128	-	71.70	419	-	-	-	-	71.70	419	1,545	-218
TiumBio Co., Ltd. (Preferred stocks)	Listed	2023.12.28	Simple investment	20,000	-	-	-	2,320,185	20,000	-	2,320,185	8.30	20,000	103,623	-18,231
Total					-	-	439,018	-	86,864	-3,473	-	-	522,409	-	-

※ During the current period, a portion of the stock options of SK bioscience Co., Ltd. was exercised, resulting in a change in equity interest.

※ Prior to the previous period, we executed a stock purchase and sales agreement to sell 100% of the shares of SK chemicals (Suzhou) Co., Ltd., to Sumong Foods Co., Ltd. The sale has been delayed beyond the end of 2023, the closing date for the transaction, due to changes in the Chinese licensing process.

※ During the current period, a new capital investment was made in Shuye SK chemicals (Shantou) Co., Ltd., and was incorporated as a subsidiary.

※ During the previous period, SK bioscience USA, Inc. was newly capitalized by SK bioscience Co., Ltd. and incorporated as a subsidiary.

※ The controlling company sold 50% of the shares of its subsidiary of SK chemicals Daejung Co., Ltd., to Daejung Chemicals & Metals Co., Ltd. The controlling company is judged to have control over SK chemicals Daejung Co., Ltd. based on the fact that the chief executive officer of the controlling company serves as the chief executive officer even after the equity interest was sold, and the chief executive officer has the decision-making authority given a deadlock situation.

※ The shares of Eastman Fiber Korea Ltd. (EFKL) are the preferred shares with voting rights, and the equity interest ratio is based on the total number of shares issued, and the shares of Standigm Inc. are convertible redeemable preferred shares with voting rights, and the equity interest ratio is based on the total number of shares issued.

※ During the previous period, SK chemicals (Qingdao) Co., Ltd.'s holding interest was sold, and the financial status before the loss of control has been entered.

※ This is the financial status based on the consolidated financial statements adjusted to achieve consistency with the accounting policies of the consolidated subsidiaries to those of the controlling company.

※ The corporations without a separation marking are based on the common stocks.

4. Major Contracts in Terms of Management (Details)

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A. License-out contracts

[SK bioscience]

1) Item: Recombinant Factor VIII (hemophilia treatment)

① Counterparty to contract	CSL (Australia)
② Contractual details	Granting of an exclusive license for recombinant Factor VIII (hemophilia treatment) in target territories
③ Target territories	All over the world except the Republic of Korea
④ Contract period	From May 2009 until the expiration of royalty term
⑤ Total contract value	(Note)
⑥ Amount received	(Note) (with no obligation to return)
⑦ Contractual terms and conditions	(Note)
⑧ Accounting method	Recognized as sales
⑨ Target technology	Recombinant Factor VIII
⑩ Progress of the development	On sale after securing permission for each territory after securing the permission and releasing in USA in 2016
⑪ Other matters	(Note)

(Note) The details have not been entered as they are trade secrets.

2) Item: Cell culture influenza vaccine bulk

① Counterparty to contract	GPO (Government Pharmaceutical Organization, Thailand), BGT (Biogenetech Co., Ltd., Thailand)
② Contractual details	Supply of raw cell culture influenza vaccine to the Government Pharmaceutical Organization (GPO) of Thailand by Biogenetech Co., Ltd., as part of the transfer of the Company's cell culture influenza vaccine manufacturing technology to the GPO of Thailand
③ Target territories	Thailand
④ Contract period	August 2023 - August 2033
⑤ Total contract value	US\$50,680,000
⑥ Amount received	(Note)
⑦ Contractual terms and conditions	(Note)
⑧ Accounting method	(Note)
⑨ Target technology	Cell culture influenza vaccine
⑩ Progress of the development	Local technology transfer/approval in progress
⑪ Other matters	The contract value above is based on minimum contractual purchase quantities and unit prices and may be subject to change in the future by agreement with the contracting party.

(Note) The details have not been entered as they are trade secrets.

B. License-in contracts

[SK chemicals]

1) Item: SKP204

① Counterparty to contract	ITALFARMACO, ITF RESEARCH
② Contractual details	Secure domestic sales rights for SKP204, and use original developer's permitted data and patent rights
③ Target territories	Korea
④ Contract period	Contract's effective date: January 28, 2021
⑤ Total contract value	(Note 1)
⑥ Amount of payment	(Note 1)
⑦ Contractual terms and conditions	(Note 1)
⑧ Accounting method	The down payment was converted into an intangible asset and amortized, following which the R&D expenses were recognized as expenses.
⑨ Target technology	Formulation change product of the existing Lou Gehrig's disease treatment
⑩ Progress of the development	Released
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

2) Item: SKP205

① Counterparty to contract	Miravo Healthcare
② Contractual details	Secure domestic sales rights for SKP205, and use original developer's permitted data and trademark rights
③ Target territories	Korea
④ Contract period	Contract's effective date: July 28, 2021
⑤ Total contract value	(Note 1)
⑥ Amount of payment	(Note 1)
⑦ Contractual terms and conditions	(Note 1)
⑧ Accounting method	The down payment was converted into an intangible asset and amortized, following which the R&D expenses were recognized as expenses.
⑨ Target technology	Migraine combination
⑩ Progress of the development	Approved
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

3) Item: SKP221

① Counterparty to contract	Korea United Pharm Inc.
② Contractual details	Joint development and consignment
③ Target territories	Korea
④ Contract period	Contract's effective date: June 28, 2022
⑤ Total contract value	(Note 1)
⑥ Amount of payment	(Note 1)
⑦ Contractual terms and conditions	(Note 1)

⑧ Accounting method	The down payment was converted into an intangible asset and amortized.
⑨ Target technology	Hyperlipidemia combination
⑩ Progress of the development	Phase 1 clinical trial
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

4) Item: SKP222

① Counterparty to contract	Synthon B.V
② Contractual details	Secure domestic exclusive sales rights for SKP222, and use original developer's permitted data
③ Target territories	Korea
④ Contract period	Contract's effective date: May 31, 2022
⑤ Total contract value	(Note 1)
⑥ Amount of payment	(Note 1)
⑦ Contractual terms and conditions	(Note 1)
⑧ Accounting method	The down payment was converted into an intangible asset and amortized, following which the R&D expenses were recognized as expenses.
⑨ Target technology	Formulation change product of existing serum phosphorus regulator
⑩ Progress of the development	Applied for approval
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

5) Item: SKP231

① Counterparty to contract	Samcheong Pharmaceutical
② Contractual details	Jointly developed
③ Target territories	Korea
④ Contract period	Contract's effective date: January 17, 2023
⑤ Total contract value	(Note 1)
⑥ Amount of payment	(Note 1)
⑦ Contractual terms and conditions	(Note 1)
⑧ Accounting method	The down payment was converted into an intangible asset and amortized, following which the R&D expenses were recognized as expenses.
⑨ Target technology	Digestive drug
⑩ Progress of the development	Joint research in progress
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

[SK bioscience]

1) Introduction of Novavax COVID-19 vaccine technology

① Counterparty to contract	Novavax (USA)
② Contractual details	Authorized to exclusively or non-exclusively develop, produce, and market COVID-19 vaccines developed by Novavax in the target territory
③ Target territories	Republic of Korea, Thailand, Vietnam
④ Date of contract execution	February 12, 2021
⑤ Total contract value	(Note)
⑥ Amount of payment	(Note)
⑦ Contractual terms and conditions	Pay a certain amount of the product sales as the royalties
⑧ Accounting method	Recognized as expenses
⑨ Target technology	Synthetic antigen based COVID-19 vaccine "NVX-CoV2373" production technology
⑩ Progress of the development	Commercial production
⑪ Other matters	Granted exclusive rights to develop, produce, and sell the COVID-19 vaccine (including variant antigens) developed by Novavax within the Republic of Korea until February 12, 2029, and non-exclusive rights for Thailand and Vietnam until June 30, 2028. For sales to the above countries (Republic of Korea, Thailand and Vietnam), a portion of the net sales will be paid to Novavax as a royalty.

(Note) The details have not been entered as they are trade secrets.

C. Joint development contract [SK bioscience]

1) Item: Next-generation pneumococcal vaccine

① Counterparty to contract	Sanofi (USA)
② Contractual details	Joint development and sales of a next-generation pneumococcal vaccine
③ Target territories	(Note)
④ Date of contract execution	March 19, 2014
⑤ Total contract value	USD 45M
⑥ Amount received	USD 45M (with no obligation to return)
⑦ Contractual terms and conditions	(Note)
⑧ Accounting method	Recognized as sales
⑨ Target technology	Development technology for a pneumococcal protein conjugate vaccine
⑩ Progress of the development	Completed Phase 2 clinical trial in the U.S. / Preparing for global Phase 3 clinical trial
⑪ Other matters	-

(Note) The details have not been entered as they are trade secrets.

2) Item: Typhoid conjugate vaccine

① Counterparty to contract	International Vaccine Institute
② Contractual details	Joint development of a typhoid conjugate vaccine
③ Target territories	Worldwide

④ Date of contract execution	April 2013
⑤ Total contract value	Receipt of the R&D expenses
⑥ Amount received	(Note 1)
⑦ Contractual terms and conditions	Process development and commercial production supply for the typhoid conjugate vaccine developed by IVI (International Vaccine Institute)
⑧ Accounting method	(Note 1)
⑨ Target technology	Application of conjugation technology of antigen and carrier protein
⑩ Progress of the development	Export product approval obtained; WHO PQ approved (Note 2)
⑪ Other matters	Introduced the typhoid protein conjugate vaccine technology from the International Vaccine Institute (IVI) and engaged in CMC research and manufacturing with funding from the Bill & Melinda Gates Foundation (BMGF)

(Note 1) Detailed information is not provided as it is a trade secret.

(Note 2) Received WHO PQ certification in February 2024.

3) Item: Next-generation pediatric enteritis vaccine

① Counterparty to contract	Program for Appropriate Technology in Health (PATH)
② Contractual details	Joint development of a next-generation pediatric enteritis vaccine
③ Target territories	Worldwide
④ Date of contract execution	April 2017
⑤ Total contract value	Receipt of the R&D expenses
⑥ Amount received	(Note)
⑦ Contractual terms and conditions	Process development and commercial production supply for the next generation pediatric enteritis vaccine developed by PATH
⑧ Accounting method	(Note)
⑨ Target technology	Development of rotavirus vaccine using the recombinant protein manufacturing technology
⑩ Progress of the development	Concluded Phase 3 clinical trial
⑪ Other matters	Joint development contract with the international non-profit organization, PATH

(Note) The details have not been entered as they are trade secrets.

4) COVID-19 vaccine (GBP510) project research/development contract

① Counterparty to contract	Coalition for Epidemic Preparedness Innovations (CEPI)
② Contractual details	COVID-19 vaccine (GBP510) project research/development
③ Target territories	-
④ Date of contract execution	December 2020
⑤ Total contract value	USD 10.0M
⑥ Amount received	(Note)
⑦ Contractual terms and conditions	Support for clinical drug production and Phase 1/2 clinical trial costs, compliance with open access policies, and supply of vaccines through COVAX facilities upon commercialization
⑧ Accounting method	Deduction of R&D expenses

⑨ Target technology	Prophylactic vaccine against the SARS-CoV-2 viral antigen
⑩ Progress of the development	Obtained domestic product approval; received MHRA approval; WHO EUL approved; additional clinical studies in progress
⑪ Other matters	-

(Note) The details have not been entered as they are trade secrets.

5) Contract for additional support for COVID-19 vaccine (GBP510) project research/development

① Counterparty to contract	Coalition for Epidemic Preparedness Innovations (CEPI)
② Contractual details	Contract for additional support for COVID-19 vaccine (GBP510) project research/development
③ Target territories	-
④ Date of contract execution	May 2021
⑤ Total contract value	USD 200.1M
⑥ Amount received	(Note)
⑦ Contractual terms and conditions	Scale-up production, variant vaccine development, support for Phase 3 clinical trials and additional clinical trials, compliance with open access policy, vaccine supply through COVAX facility upon commercialization
⑧ Accounting method	Deduction of R&D expenses
⑨ Target technology	Prophylactic vaccine against the SARS-CoV-2 viral antigen
⑩ Progress of the development	Obtained domestic product approval; received MHRA approval; WHO EUL approved; additional clinical studies in progress
⑪ Other matters	-

(Note) The details have not been entered as they are trade secrets.

6) Vaccine (GBP511) project research/development contract to respond to a wide range of variants

① Counterparty to contract	Coalition for Epidemic Preparedness Innovations (CEPI)
② Contractual details	Vaccine (GBP511) project research/development contract to respond to a wide range of variants
③ Target territories	-
④ Date of contract execution	December 2021
⑤ Total contract value	USD 50.0M
⑥ Amount received	(Note)
⑦ Contractual terms and conditions	Discovery of antigen candidates, preclinical and Phase 1/2 clinical trials, compliance with open access policy, supply of vaccines through COVAX facility upon commercialization
⑧ Accounting method	Deduction of R&D expenses
⑨ Target technology	Universal prophylactic vaccine against sarbecovirus antigen (including SARS-CoV and SARS-CoV2 variants)
⑩ Progress of the development	Process development and animal testing in progress
⑪ Other matters	-

(Note) The details have not been entered as they are trade secrets.

7) COVID-19 mRNA vaccine (GBP550) development

① Counterparty to contract	Bill & Melinda Gates Foundation (BMGF)
② Contractual details	COVID-19 mRNA vaccine project R&D contract
③ Target territories	-
④ Date of contract execution	November 2021
⑤ Total contract value	USD 2.0M
⑥ Amount received	(Note)
⑦ Contractual terms and conditions	Process development and non-clinical evaluation of candidates
⑧ Accounting method	Deduction of R&D expenses
⑨ Target technology	Prophylactic mRNA vaccine against the SARS-CoV-2 viral antigen
⑩ Progress of the development	Completed pre-clinical
⑪ Other matters	-

(Note) The details have not been entered as they are trade secrets.

8) Nasal Spray

① Counterparty to contract	International AIDS Vaccine Initiative (IAVI)
② Contractual details	Establishment of the nasal spray drug platform for prevention and treatment of respiratory viruses such as COVID-19 and influenza
③ Target territories	-
④ Date of contract execution	November 2021
⑤ Total contract value	USD 2.2M (Additional funding available at a later date)
⑥ Amount received	USD 2.2M
⑦ Contractual terms and conditions	(Note)
⑧ Accounting method	Deduction of R&D expenses
⑨ Target technology	The binding of the administered protein to the respiratory virus receptor in the nasal cavity to prevent the human body receptor binding of the virus and infection
⑩ Progress of the development	Basic research in progress
⑪ Other matters	-

(Note) The details have not been entered as they are trade secrets.

9) Japanese encephalitis virus/Lassa fever mRNA vaccine (GBP560, GBP570) development

① Counterparty to contract	Coalition for Epidemic Preparedness Innovations (CEPI)
② Contractual details	Research and development of Japanese encephalitis virus and Lassa fever virus mRNA vaccine platforms
③ Target territories	-
④ Date of contract execution	October 2022
⑤ Total contract value	USD 140.0M (maximum)
⑥ Amount received	(Note)
⑦ Contractual terms and conditions	(Note)

⑧ Accounting method	Deduction of R&D expenses
⑨ Target technology	Prophylactic mRNA vaccine against Japanese encephalitis virus and Lassa fever virus antigens
⑩ Progress of the development	Japanese encephalitis virus mRNA vaccine: Non-clinical trial Lassa fever virus mRNA vaccine: Candidate screening
⑪ Other matters	-

D. CDMO/CMO contract

1) Novavax COVID-19 vaccine CDMO contract

① Counterparty to contract	Novavax (USA)
② Contractual details	Consigned development and production of COVID-19 vaccine candidate NVX-CoV2373
③ Date of contract execution	August 11, 2020
④ Contract period	July 3, 2020 - August 8, 2023 (contract terminated)
⑤ Contract value	(Note)

(Note) The details have not been entered as they are trade secrets.

E. Other contracts [SK chemicals]

1) Contract: Joint research

① Counterparty to contract	Standigm Inc.
② Contractual details	Joint research for discovery of candidates and development of new drugs using Standigm's AI technology
③ Target territories	Worldwide
④ Contract period	Date of contract execution: July 19, 2019
⑤ Total contract value	(Note 1)
⑥ Amount of payment	(Note 1)
⑦ Contractual terms and conditions	(Note 1)
⑧ Accounting method	Recognized as R&D expenses
⑨ Target technology	Standigm's AI technology related to new drug development
⑩ Progress of the development	Joint research in progress
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

2) Contract: Joint research

① Counterparty to contract	Deargen Inc.
② Contractual details	Joint research for discovery of candidates and development of new drugs using Deargen's AI technology
③ Target territories	Worldwide

④ Contract period	Date of contract execution: October 20, 2020
⑤ Total contract value	(Note 1)
⑥ Amount of payment	(Note 1)
⑦ Contractual terms and conditions	(Note 1)
⑧ Accounting method	Recognized as R&D expenses
⑨ Target technology	Deargen's AI technology related to new drug development
⑩ Progress of the development	Joint research in progress
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

3) Contract: Fund investment

① Counterparty to contract	Korea Investment Partners Co., Ltd.
② Contractual details	Investment as a partner for Korea Investment Partners' "Korea Investment Bio Global Fund"
③ Target territories	N/A
④ Contract period	Date of contract execution: November 18, 2020
⑤ Total contract value	(Note 1)
⑥ Amount of payment	(Note 1)
⑦ Contractual terms and conditions	(Note 1)
⑧ Accounting method	Investments are recognized as available-for-sale financial assets
⑨ Target technology	N/A
⑩ Progress of the development	Fund in operation
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

4) Contract: Joint research

① Counterparty to contract	DR. NOAH Biotech Co., Ltd.
② Contractual details	Joint research for discovery of candidates and development of new drugs using DR. NOAH Biotech's AI technology
③ Target territories	Worldwide
④ Contract period	Date of contract execution: November 24, 2020
⑤ Total contract value	(Note 1)
⑥ Amount of payment	(Note 1)
⑦ Contractual terms and conditions	(Note 1)
⑧ Accounting method	Recognized as R&D expenses
⑨ Target technology	DR. NOAH Biotech's AI technology related to new drug development
⑩ Progress of the development	Joint research in progress
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

5) Contract: Equity investment

① Counterparty to contract	Standigm Inc.
② Contractual details	Participation as a strategic investor and equity investment
③ Target territories	N/A
④ Contract period	Date of contract execution: May 14, 2021
⑤ Total contract value	(Note 1)
⑥ Amount of payment	(Note 1)
⑦ Contractual terms and conditions	(Note 1)
⑧ Accounting method	Recognized as available-for-sale financial assets
⑨ Target technology	N/A
⑩ Progress of the development	Pre-IPO phase
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

6) Contract: Equity investment

① Counterparty to contract	J2H Biotech Co., Ltd.
② Contractual details	Participation as a strategic investor and equity investment
③ Target territories	N/A
④ Contract period	Date of contract execution: July 29, 2021
⑤ Total contract value	(Note 1)
⑥ Amount of payment	(Note 1)
⑦ Contractual terms and conditions	(Note 1)
⑧ Accounting method	Recognized as available-for-sale financial assets
⑨ Target technology	N/A
⑩ Progress of the development	Pre-IPO phase
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

7) Contract: Fund investment

① Counterparty to contract	Sante Ventures
② Contractual details	Investment as a partner for the fund of "Sante Health Ventures IV, LP"
③ Target territories	N/A
④ Contract period	Date of contract execution: September 14, 2021
⑤ Total contract value	(Note 1)

⑥ Amount of payment	(Note 1)
⑦ Contractual terms and conditions	(Note 1)
⑧ Accounting method	Investments are recognized as available-for-sale financial assets
⑨ Target technology	N/A
⑩ Progress of the development	Fund investment in progress
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

8) Contract: Joint research

① Counterparty to contract	J2H Biotech Co., Ltd.
② Contractual details	Discovery of candidates and development of new drugs using the OPTIFLEX platform of J2H Biotech Co., Ltd.
③ Target territories	N/A
④ Contract period	Date of contract execution: November 1, 2021
⑤ Total contract value	(Note 1)
⑥ Amount of payment	(Note 1)
⑦ Contractual terms and conditions	(Note 1)
⑧ Accounting method	Recognized as R&D expenses
⑨ Target technology	OPTIFLEX platform including the protein degradation technology of J2H Biotech Co., Ltd.
⑩ Progress of the development	Joint research in progress
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

9) Contract: Equity investment

① Counterparty to contract	Oncobix Co., Ltd.
② Contractual details	Participation as a strategic investor and equity investment
③ Target territories	N/A
④ Contract period	Date of contract execution: November 18, 2021
⑤ Total contract value	(Note 1)
⑥ Amount of payment	(Note 1)
⑦ Contractual terms and conditions	(Note 1)
⑧ Accounting method	Recognized as available-for-sale financial assets
⑨ Target technology	N/A
⑩ Progress of the development	Series B stage
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

10) Contract: Joint research

① Counterparty to contract	Oncobix Co., Ltd.
② Contractual details	Discovery of candidates and development of new drugs using the new drug development platform of Oncobix Co., Ltd.
③ Target territories	N/A
④ Contract period	Date of contract execution: April 5, 2022
⑤ Total contract value	(Note 1)
⑥ Amount of payment	(Note 1)
⑦ Contractual terms and conditions	(Note 1)
⑧ Accounting method	Recognized as R&D expenses
⑨ Target technology	New drug development platform of Oncobix Co., Ltd.
⑩ Progress of the development	Joint research in progress
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

11) Contract: Joint research

① Counterparty to contract	inCerebro Co., Ltd.
② Contractual details	Discovery of candidates and development of new drugs using the new drug development platform of inCerebro
③ Target territories	N/A
④ Contract period	Date of contract execution: April 7, 2022
⑤ Total contract value	(Note 1)
⑥ Amount of payment	(Note 1)
⑦ Contractual terms and conditions	(Note 1)
⑧ Accounting method	Recognized as R&D expenses
⑨ Target technology	New drug development platform of inCerebro
⑩ Progress of the development	Joint research in progress
⑪ Other matters	-

(Note 1) The details have not been entered as they are trade secrets.

[SK bioscience]

(1) COVID-19 vaccine development and facility use contract

① Counterparty to contract	Coalition for Epidemic Preparedness Innovations (CEPI)
② Contractual details	A contract for providing facilities so that the CEPI-designated vaccine developer can use specific facilities and capabilities of the Company for developing and producing COVID-19 vaccines.
③ Date of contract execution	June 2020 October 2021 (extension contract executed) June 2023 Subcontract expired

④ Contract period	June 2020 - June 2023 (contract terminated)
⑤ Contract value	(Note)

(Note) The details have not been entered as they are trade secrets.

5. Performance in Research & Development (Details) - <Life Science>

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[Pharma Business]

1) Item: SID710

① Classification	Generic
② Indicant	Dementia
③ Action mechanism	AchE inhibitor
④ Product characteristics	1st generic in Europe
⑤ Progress	Commercialization underway in Europe, USA, Brazil and South America, Middle East and others
⑥ Future plan	Expand markets
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Approximately KRW 800 billion in the global market
⑩ Other matters	-

2) Item: SID1806

① Classification	Drug requiring data submission
② Indicant	Arthritis
③ Action mechanism	-
④ Product characteristics	Improvement of usage and dosage of original drugs
⑤ Progress	Approved
⑥ Future plan	Release in Korea
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Approximately KRW 130 billion in the Korean market
⑩ Other matters	-

3) Item: SID1903

① Classification	Incrementally modified drug
② Indicant	Diabetes
③ Action mechanism	-
④ Product characteristics	Incrementally modified drug

⑤ Progress	Domestic sales and overseas licensing in progress
⑥ Future plan	Expand markets
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Approximately KRW \$1.5 trillion in the Korean market
⑩ Other matters	-

4) Item: SID2101

① Classification	Generic
② Indicant	Migraine
③ Action mechanism	Selective serotonin receptor agonist
④ Product characteristics	Generic
⑤ Progress	Phase 1 clinical trial
⑥ Future plan	Approved
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Estimated at approximately KRW 22 billion in the Korean market
⑩ Other matters	-

5) Item: SID2102

① Classification	Generic
② Indicant	Thrombocytopenia
③ Action mechanism	TPO-RA (Thrombopoietin Receptor Agonist)
④ Product characteristics	Generic
⑤ Progress	Phase 1 clinical trial
⑥ Future plan	Approved
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Estimated at approximately KRW 2 trillion in 2022 in the global market
⑩ Other matters	-

6) Item: SID2301

① Classification	Generic
② Indicant	Anti-inflammatory, analgesic
③ Action mechanism	COX-2 inhibitor
④ Product characteristics	Generic
⑤ Progress	Formulation research

⑥ Future plan	Phase 1 clinical trial
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Approximately KRW 130 billion in the Korean market
⑩ Other matters	-

7) Item: SID2303

① Classification	Incrementally modified drug
② Indicant	Diabetes, hyperlipidemia
③ Action mechanism	SGLT2 inhibitor + HMG-CoA reductase inhibitor
④ Product characteristics	Incrementally modified drug
⑤ Progress	Formulation research
⑥ Future plan	Phase 1 clinical trial
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Approximately KRW 520 billion in the Korean market
⑩ Other matters	-

8) Item: SID2304

① Classification	Incrementally modified drug
② Indicant	Hypertension, hyperlipidemia
③ Action mechanism	Angiotensin receptor blocker + HMG-CoA reductase inhibitor
④ Product characteristics	Incrementally modified drug
⑤ Progress	Formulation research
⑥ Future plan	Phase 1 clinical trial
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Approximately KRW 90 billion in the Korean market
⑩ Other matters	-

9) Item: SID2305

① Classification	Generic
② Indicant	Hypertension
③ Action mechanism	Angiotensin receptor blocker + Diuretics
④ Product characteristics	Generic
⑤ Progress	Formulation research
⑥ Future plan	Phase 1 clinical trial

⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Approximately KRW 90 billion in the Korean market
⑩ Other matters	-

10) Item: NCE201, NCE202

① Classification	New drug
② Indicant	Non-alcoholic steatohepatitis
③ Action mechanism	-
④ Product characteristics	-
⑤ Progress	Non-clinical
⑥ Future plan	Global L/O
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Expected to be approximately KRW 26 trillion in 2027 in markets of 7 major countries
⑩ Other matters	-

11) Item: NCE205

① Classification	New drug
② Indicant	Idiopathic pulmonary fibrosis
③ Action mechanism	-
④ Product characteristics	-
⑤ Progress	Discovery
⑥ Future plan	Global L/O
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Expected to be approximately KRW 3.8 trillion in 2025 in markets of 7 major countries
⑩ Other matters	-

12) Item: NCE223, NCE224

① Classification	New drug
② Indicant	Cancer
③ Action mechanism	-
④ Product characteristics	-
⑤ Progress	Discovery
⑥ Future plan	Global L/O
⑦ Competing products	-

⑧ Related papers	-
⑨ Market size	Target carcinoma undetermined
⑩ Other matters	-

13) Item: SKR206

① Classification	New drug
② Indicant	Non-alcoholic steatohepatitis
③ Action mechanism	-
④ Product characteristics	-
⑤ Progress	Non-clinical
⑥ Future plan	Non-clinical
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Expected to be approximately KRW 26 trillion in 2027 in markets of 7 major countries
⑩ Other matters	-

14) Item: SKR207

① Classification	New drug
② Indicant	Idiopathic pulmonary fibrosis
③ Action mechanism	-
④ Product characteristics	-
⑤ Progress	Non-clinical
⑥ Future plan	Global L/O
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Expected to be approximately KRW 3.8 trillion in 2025 in markets of 7 major countries
⑩ Other matters	-

15) Item: SKP201

① Classification	Generic
② Indicant	RA
③ Action mechanism	JAK inhibitor
④ Product characteristics	1st generic of the same ingredient
⑤ Progress	Approved
⑥ Future plan	Release in Korea
⑦ Competing products	-
⑧ Related papers	-

⑨ Market size	Estimated at approximately KRW 12 billion in the market for same ingredient in Korea
⑩ Other matters	-

16) Item: SKP205

① Classification	Incrementally modified drug
② Indicant	Migraine
③ Action mechanism	Serotonin receptor + Inhibition for COX enzymes
④ Product characteristics	Incrementally modified combination
⑤ Progress	Approved
⑥ Future plan	Release in Korea
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Estimated at approximately KRW 22 billion in the Korean market
⑩ Other matters	-

17) Item: SKP221

① Classification	Incrementally modified drug
② Indicant	Dyslipidemia
③ Action mechanism	HMG-CoA(3-hydroxy-3-methylglutaryl-coenzyme A) inhibitor /PPARα(Peroxisome Proliferator Activated Receptor type alpha) agonist
④ Product characteristics	Incrementally modified combination
⑤ Progress	Phase 1 clinical trial
⑥ Future plan	Approved
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Approximately KRW 600 billion in the Korean market
⑩ Other matters	-

18) Item: SKP222

① Classification	Generic
② Indicant	Serum phosphorus regulation
③ Action mechanism	Phosphate binder
④ Product characteristics	Improves the convenience of taking the existing treatments
⑤ Progress	Applied for approval
⑥ Future plan	Release in Korea
⑦ Competing products	-
⑧ Related papers	-

⑨ Market size	Approximately KRW 30 billion in the Korean market
⑩ Other matters	-

19) Item: SKP231

① Classification	Generic
② Indicant	Drug for digestive diseases
③ Action mechanism	P-CAB
④ Product characteristics	Generic of the same ingredient
⑤ Progress	Phase 1 clinical trial
⑥ Future plan	Approved
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Estimated at approximately KRW 500 billion in the Korean market
⑩ Other matters	-

[SK bioscience]

1) Item: GBP510

① Classification	Vaccine medicine
② Indicant	Prevention of severe acute respiratory syndrome caused by SARS-CoV-2 virus
③ Action mechanism	Prophylactic vaccine against the SARS-CoV-2 viral antigen
④ Product characteristics	Recombinant nanoparticle protein vaccines
⑤ Progress	Obtained domestic product approval; received MHRA approval; WHO EUL approved
⑥ Future plan	-
⑦ Competing products	11 products based on the WHO's emergency approval (2022, source: covid19.trackvaccines.org) (Oxford/AstraZeneca (AZD1222), Moderna (mRNA-1273), Pfizer/BioNTech (BNT162b2), etc.)
⑧ Related papers	Developing Covid-19 Vaccines at Pandemic Speed, N England Journal of Medicine, DOI: 10.1056/NEJMp2005630 COVID-19 Vaccine: A comprehensive status report, Virus Research (2020), doi: https://doi.org/10.1016/j.virusres.2020.198114 Elicitation of potent neutralizing antibody responses by designed protein nanoparticle vaccines for SARS-CoV-2, bioRxiv preprint doi: https://doi.org/10.1101/2020.08.11.247395
⑨ Market size	USD 13.6 billion in 2021 (2021, source: GlobalData)
⑩ Other matters	Technology introduced from the IPD developer of Washington University. Developed with funding from the Bill & Melinda Gates Foundation and CEPI. IND approval of the Phase 3 clinical trial plan for immunogenicity and safety evaluation after GBP510 booster shot vaccination (April 2022)

2) Item: NBP618

① Classification	Vaccine medicine
② Indicant	Prevention of typhoid
③ Action mechanism	Prophylactic vaccine against typhoid antigen
④ Product characteristics	Application of conjugation technology of antigen and carrier protein
⑤ Progress	Obtained export product approval
⑥ Future plan	WHO PQ in progress
⑦ Competing products	Typhim VI (Sanofi), Peda Typh (Bio-Med)
⑧ Related papers	Safety and immunogenicity of a Vi-DT typhoid conjugate vaccine: Phase I trial in Healthy Filipino adults and children. Vaccine. 2018 June 18;36(26):3794-3801. doi: 10.1016/j.vaccine.2018.05.038.
⑨ Market size	Approximately USD 230 million in the global market (2018, source: Market Watch)
⑩ Other matters	Introduced the typhoid polysaccharide conjugate vaccine production technology from the International Vaccine Institute (IVI) and conducted clinical research with funding from the Bill & Melinda Gates Foundation.

3) Item: GBP410

① Classification	Vaccine medicine
② Indicant	Prevention of invasive diseases and otitis media caused by pneumococci
③ Action mechanism	Prophylactic vaccine against pneumococcal antigen
④ Product characteristics	Conjugation of a polysaccharide antigen to a carrier protein
⑤ Progress	Phase 2 clinical trial in the USA completed (2020 - 2023; targeting children and adults)
⑥ Future plan	Global Phase 2 clinical trial in progress (since 2023; targeting children and adults)
⑦ Competing products	Prevnar® 13 (Pfizer), Prevnar 20® (Pfizer), Synflorix™ (GSK)
⑧ Related papers	Creation, characterization, and assignment of opsonic values for a new pneumococcal OPA calibration serum panel (Ewha QC sera panel A) for 13 serotypes. Medicine (Baltimore). 2018 Apr;97(17):e0567. doi: 10.1097/MD.00000000000010567. Comparative evaluation of a newly developed 13-valent pneumococcal conjugate vaccine in a mouse model. Hum Vaccin Immunother. 2017 May 4;13(5):1169-1176. doi: 10.1080/21645515.2016.1261772. Epub 2016 Dec 14.
⑨ Market size	Approximately USD 6.4 billion in the global market (2019, source: Datamonitor Healthcare)
⑩ Other matters	Joint research with Sanofi

4) Item: NBP615

① Classification	Vaccine medicine
② Indicant	Prevention of cervical cancer and genital warts
③ Action mechanism	Prophylactic vaccine against human papillomavirus antigen

④ Product characteristics	Virus-like particle utilization
⑤ Progress	Phase 1/2 clinical trial completed (2019)
⑥ Future plan	Confirm Phase 1/2 clinical trial results to determine future development strategy
⑦ Competing products	Gardasil (MSD), Cervarix (GSK)
⑧ Related papers	-
⑨ Market size	Approximately USD 3.8 billion in the global market. (2019, source: Datamonitor Healthcare) Approximately KRW 65.4 billion in the Korean market (2019, source: IQVIA)
⑩ Other matters	-

5) Item: NBP613

① Classification	Vaccine medicine
② Indicant	Prevention of pediatric enteritis
③ Action mechanism	Prophylactic vaccine against rotavirus antigen
④ Product characteristics	Live attenuated vaccine for rotavirus
⑤ Progress	Phase 1/2 clinical trial completed (2016)
⑥ Future plan	Decide on future development strategies based on the research results
⑦ Competing products	Rotarix (GSK), Rotatech (MSD)
⑧ Related papers	-
⑨ Market size	Approximately USD 1.6 billion in the global market (2019, source: Datamonitor Healthcare)
⑩ Other matters	-

※ Basic research and non-clinical stage products are not included in the detailed table.

【Confirmation of Experts】

1. Confirmation of Experts

- Not applicable

2. Interest with Experts

- Not applicable