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【Confirmation of the Chief Executive Officer, Etc.】

Statement of Confirmation

We, as the Chief Executive Officer and the Director in Charge of Reporting Business of the Company, have verified and reviewed the details provided in this disclosure document with due care in person, and based on such review, hereby confirm that there are no omissions of important matters required for entry, presentation of the same, nor any fabrication, and have also found no entries or presentations made with regard to any details which might cause material misunderstanding by and for those using the matters provided or presented 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.

March 18, 2022

Jeon Kwang hyun, Chief Executive Officer

Kim Cheoljin, Director in Charge of Reporting Business

SK Chemicals Co., Ltd.

I. Overview of the Company

1. Overview of the Company

A. Overview of the Consolidated Subsidiaries

1) Status of the Consolidated Subsidiaries (Summary)

(Unit: companies)

Classification	Number of Consolidated Companies				Number of Major subsidiaries
	Beginning of period	Increase	Decrease	End of period	
Listed	0	1	-	1	1
Unlisted	9	1	2	8	-
Total	9	2	2	9	1

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

※ During the relevant year, SK Bioscience, a major subsidiary, was listed on the stock market.

2) Changes in the Consolidated Companies

Classification	Subsidiaries	Reason
Newly consolidated	SK Multi-Utility	Newly established via a split-off of the parent company
	-	-
Excluded from consolidation	SK Chemicals (Suzhou)	Sale of interest
	-	-

B. Legal and Commercial Names of the Company

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

C. Date of Establishment & Survival Period

The Company is a newly established entity which had the Green Chemicals and Life Science business divisions among the businesses conducted by SK Discovery spun off in accordance with the provisions of Articles 530-2 through 530-11 of the Commercial Act on December 1, 2017.

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

Classification	Contents
Head Office's Address	Pangyo-ro 310 (Sampyeong-dong), Bundang-gu, Seongnam-si, Gyeonggi-do
Phone No.	02-2008-2008
Website	http://www.skchemicals.com/

E. Whether Applicable as an SME, Etc.

Whether applicable as an SME	Not applicable
Whether applicable as a venture company	Not applicable
Whether applicable as a mid-sized 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 the pharmaceuticals and vaccines. As of the end of 2021 on a consolidated basis, the Company posted sales of KRW 2.0896 trillion, 50% of which is in eco-friendly materials such as high-functional copolyester resin, 14% in natural and synthetic drugs, 44% in vaccine products, and -8% in others.

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

G. Matters Concerning the Credit Rating

[Corporate Bond]

Debenture	Amount Issued (KRW 100 million)	Date of Issuance	Date of Maturity	Classification	Date of Rating	Rating	Rating Agency
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 (SK Bioscience's joint guarantee)	660	2018.04.30	2023.04.30	Periodic rating	2021.06.03	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)
9-2	660	2018.04.30	2023.04.30	Periodic rating	2021.04.29	A	Korea Ratings (AAA-D)
9-1	750	2018.04.30	2021.04.30	Periodic rating	2021.04.29	A	Korea Ratings (AAA-D)
12-2	750	2019.10.30	2024.10.30	Periodic rating	2021.04.29	A	Korea Ratings (AAA-D)
12-1	700	2019.10.30	2022.10.30	Periodic rating	2021.04.29	A	Korea Ratings (AAA-D)
11-2	800	2019.01.31	2024.01.31	Periodic rating	2021.04.29	A	Korea Ratings

Debenture	Amount Issued (KRW 100 million)	Date of Issuance	Date of Maturity	Classification	Date of Rating	Rating	Rating Agency
							(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	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 (SK Bioscience's joint guarantee)	660	2018.04.30	2023.04.30	Non-periodic rating	2021.03.09	A	Korea Investors Service (AAA-D)
9-1 (SK Bioscience's joint guarantee)	750	2018.04.30	2021.04.30	Non-periodic rating	2021.03.09	A	Korea Investors Service (AAA-D)
8-1	1,000	2017.07.26	2020.07.26	Periodic rating	2020.06.11	A	Korea Ratings (AAA-D)
12-2	750	2019.10.30	2024.10.30	Periodic rating	2020.06.01	A	Korea Investors Service (AAA-D)
12-1	700	2019.10.30	2022.10.30	Periodic rating	2020.06.01	A	Korea Investors Service (AAA-D)
11-2	800	2019.01.31	2024.01.31	Periodic rating	2020.06.01	A	Korea Investors Service (AAA-D)
11-1	700	2019.01.31	2022.01.31	Periodic rating	2020.06.01	A	Korea Investors Service (AAA-D)
9-2 (SK Bioscience's joint guarantee)	660	2018.04.30	2023.04.30	Periodic rating	2020.06.01	A	Korea Investors Service (AAA-D)
9-1 (SK Bioscience's joint	750	2018.04.30	2021.04.30	Periodic rating	2020.06.01	A	Korea

Debenture	Amount Issued (KRW 100 million)	Date of Issuance	Date of Maturity	Classification	Date of Rating	Rating	Rating Agency
guarantee)							Investors Service (AAA-D)
8-1 (SK Discovery's and SK Bioscience's joint guarantee)	1,000	2017.07.26	2020.07.26	Periodic rating	2020.06.01	A	Korea Investors Service (AAA-D)
12-2	750	2019.10.30	2024.10.30	Periodic rating	2020.05.14	A	NICE Investors Service (AAA-D)
12-2	750	2019.10.30	2024.10.30	This rating	2019.10.17	A	Korea Investors Service (AAA-D)
12-1	700	2019.10.30	2022.10.30	This rating	2019.10.17	A	Korea Investors Service (AAA-D)
12-2	750	2019.10.30	2024.10.30	This rating	2019.10.17	A	NICE Investors Service (AAA-D)
8-1 (SK Discovery's joint guarantee)	1,000	2017.07.26	2020.07.26	Periodic rating	2019.06.21	A	NICE Investors Service (AAA-D)
11-2	800	2019.01.31	2024.01.31	Periodic rating	2019.06.17	A	Korea Investors Service (AAA-D)
11-1	700	2019.01.31	2022.01.31	Periodic rating	2019.06.17	A	Korea Investors Service (AAA-D)
9-2 (SK Bioscience's joint guarantee)	660	2018.04.30	2023.04.30	Periodic rating	2019.06.17	A	Korea Investors Service (AAA-D)
9-1 (SK Bioscience's joint guarantee)	750	2018.04.30	2021.04.30	Periodic rating	2019.06.17	A	Korea Investors Service (AAA-D)
8-1 (SK Discovery's and SK Bioscience's joint guarantee)	1,000	2017.07.26	2020.07.26	Periodic rating	2019.06.17	A	Korea Investors Service (AAA-D)
6-2 (SK Discovery's and SK Bioscience's joint guarantee)	460	2015.02.25	2020.02.25	Periodic rating	2019.06.17	A	Korea Investors Service (AAA-D)
1-2 (SK Discovery's and SK Bioscience's joint guarantee)	300	2012.10.30	2019.10.30	Periodic rating	2019.06.17	A	Korea Investors

Debenture	Amount Issued (KRW 100 million)	Date of Issuance	Date of Maturity	Classification	Date of Rating	Rating	Rating Agency
							Service (AAA-D)
6-2	460	2015.02.25	2020.02.25	Periodic rating	2019.06.13	A	Korea Ratings (AAA-D)
11-2	800	2019.01.31	2024.01.31	Periodic rating	2019.06.11	A	NICE Investors Service (AAA-D)
11-2	800	2019.01.31	2024.01.31	This rating	2019.01.15	A	Korea Investors Service (AAA-D)
11-1	700	2019.01.31	2022.01.31	This rating	2019.01.15	A	Korea Investors Service (AAA-D)
11-2	600	2019.01.31	2024.01.31	This rating	2019.01.15	A	NICE Investors Service (AAA-D)

[Commercial Paper]

Date of Rating	Type of Rating	Rating	Effective Date	Rating Agency
2021.06.03	Non-periodic rating	A+	2021.06.30	Korea Investors Service (A1-D)
2021.03.09	Non-periodic rating	A2	2021.06.30	Korea Investors Service (A1-D)
2020.12.28	Periodic rating	A2	2021.06.30	NICE Investors Service (A1-D)
2020.12.23	Periodic rating	A2	2021.06.30	Korea Investors Service (A1-D)
2020.06.01	This rating	A2	2021.06.30	Korea Investors Service (A1-D)
2020.05.15	This rating	A2	2021.06.30	NICE Investors Service (A1-D)
2019.10.17	Periodic rating	A2	2020.06.30	Korea Investors Service (A1-D)
2019.10.17	Periodic rating	A2	2020.06.30	NICE Investors Service (A1-D)
2019.10.16	Periodic rating	A2	2020.06.30	Korea Investors Service (A1-D)
2019.06.17	This rating	A2	2020.06.30	Korea Investors Service (A1-D)
2019.06.11	This rating	A2	2020.06.30	NICE Investors Service (A1-D)

[Electronic Short-Term Debenture]

Date of Rating	Type of Rating	Rating	Ceiling on Issuance (KRW 100 million)	Rating Agency
2021.06.03	Non-periodic rating	A+	500	Korea Investors Service (A1-D)
2021.03.09	Non-periodic rating	A2↑	500	Korea Investors Service (A1-D)
2020.12.28	Periodic rating	A2	500	NICE Investors Service (A1-D)
2020.12.23	Periodic rating	A2	500	Korea Investors Service (A1-D)
2020.06.01	This rating	A2	500	Korea Investors Service (A1-D)
2020.05.14	This rating	A2	500	NICE Investors Service (A1-D)

※ About Corporate Bond Ratings

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

※ Rating of Commercial Papers and Electronic Short-Term Debenture

A1	The capacity for timely payment is extremely strong.
A2	The capacity for timely payment is very strong, but somewhat less than those rated 'A1.'
A3	The capacity for timely payment is very good, but somewhat less than those rated 'A2.'
B	The capacity for timely payment is good, but depending on short-term changes in the environment, may be speculative.
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 Certificate is Listed (or Registered or Designated) and Special Listing

Whether Stock Certificate is Listed (or Registered or Designated)	Date Stock Certificate is Listed (or Registered or Designated)	Whether Special Listed, Etc.	Applicable Law Such as Special Listing, Etc.
Securities market	1/5/2018	Not applicable	Not applicable

2. History of the Company

A. History of the Company

- 1969** Founded (Sunkyung Synthetic Fiber)
- 1987** Acquired Samshin Pharmaceutical
- 1989** Established Life Science Research Institute
- 1998** Changed corporate name to SK Chemicals
- 1999** Sunpla®, a 3rd generation platinum complex anticancer drug was developed for the first time in the world (first new drug in Korea)
- 2002** Launched Joins®, an arthritis treatment (Natural Treatment No. 1)
- 2005** Established SK Petrochemical (DMT business)
Merged with SK Pharmaceutical
- 2006** Merged with Dongshin Pharmaceutical (began vaccine and blood products business)
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 was selected among top 10 new technologies in Korea
Completed construction of Andong Vaccine Plant (L House)
- 2013** Established Initz Co., Ltd. (began PPS business in 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) was approved for KGMP (Korea Good Manufacturing Practice) related qualification
- 2015** Launched Sky Cellflu® Trivalent (Korea's first cell-cultured influenza vaccine)
- 2016** Launched Sky Cellflu® Quadrivalent (the world's first quadrivalent cell-cultured influenza vaccine)
Launched Afstyla (NBP601), a hemophilia treatment (CSL Limited.)
- 2017** Launched Skyzoster® (the world's second and Korea's first herpes zoster vaccine)
Launched holding company (surviving entity: SK Discovery / newly established entity: SK Chemicals)
- 2018** Executed a technology transfer contract with Sanofi Pasteur on the production of high-efficiency influenza vaccines
Launched Sky Varicella® (varicella vaccine)
Established SK Bioscience (split off the vaccine business)
- 2019** Merged with Initz Co., Ltd.
- 2020** Sold off the bioenergy business
- 2021** Listed SK Bioscience on the securities market
Established SK Multi-Utility (split off the utility supply business)
Sold off the PPS business

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

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

C. Important Changes in the Senior Management

Date of Change	Type of General Meeting of Stockholders	Appointment		Expiry or Dismissal
		Newly Appointed	Reappointed	
2017.12.01	-	Chief Executive Officer Kim Cheol Chief Executive Officer Park Man hoon Independent Director Choi Jeong hwan Independent Director Ahn Deok geun Independent Director Ahn Yang ho	-	-
2019.03.25	Regular Meeting of Stockholders	Chief Executive Officer Jeon Kwang hyun Independent Director Park Jeong su	-	Independent Director Ahn Deok geun
2020.03.25	Regular Meeting of Stockholders	Independent Director Moon Seong hwan Independent Director Jo Hong hui	Chief Executive Officer Kim Cheol	Independent Director Choi Jeong hwan
2020.12.01	-	-	-	Independent Director An Yang ho
2021.03.31	Regular Meeting of Stockholders	-	Independent Director An Yang ho	-

※ The company was established via a spin-off from SK Discovery Co., Ltd. (formerly, SK Chemicals Co., Ltd.) on December 1, 2017 as the date of spin off.

D. Changes in the Largest Stockholder

When the Company was spun off and newly established on December 1, 2017, the largest shareholder of the Company was Vice Chairman Choi Chang won. As a result of SK Discovery's tender offer of registered common stocks of the Company made on April 19, 2018, however, SK Discovery Co., Ltd. owned 24.15% (3,148,571 shares) of the total issued stocks of the Company at the time, and became the largest stockholder.

E. Change of the Tradename

The Company is a newly established entity which had the Green Chemicals and Life Science business divisions among the businesses conducted by SK Discovery spun off in accordance with the provisions of Articles 530-2 through 530-11 of the Commercial Act on December 1, 2017.

F. In Case the Company has Executed Merger, Their Relevant Details

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

1) Decision to merge with SK Petrochemical Co., Ltd.

- Date of merger: May 1, 2018

For more details, please refer to "XI. Other Matters Required for the Investor Protection - 4. Other Matters Such as Major Issues which Arose After the Reference Date of Preparation - B. Post Merger Information, Etc. - 2) Merger with SK

Petrochemical.”

2) Decision to split off the Vax. business division

- Date of split-off: July 1, 2018

For more details, please refer to "XI. Other Matters Required for the 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 and New Establishment of SK Bioscience.”

3) Merger and Acquisition of Initz Co., Ltd.

- Date of merger: December 1, 2019

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

4) 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 the Investor Protection - 4. Other Matters Such as Major Issues which Arose After the Reference Date of Preparation - B. Post Merger Information, Etc. - 6) Spin 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 Participate in Initz Co., Ltd.'s Paid-in Capital Increase

The Company decided to participate in the paid-in capital increase for its subsidiary of Initz Co., Ltd. via a resolution of the board of directors on February 12, 2018, whose details are as follows.

- Details of the acquisition: 998,250 convertible preferred stocks
- Amount of acquisition: KRW 59,895,000,000
- Number of stocks owned and the shareholding ratio after acquisition: 9,580,890 stocks, 66%

2) Execution of a Vaccine Technology Transfer Agreement

On February 12, 2018, the Company executed an agreement on the transfer production technology for high-efficiency influenza vaccines with Sanofi Pasteur, whose details are as follows.

- Counterparty: Sanofi Pasteur Inc. of the United States
- Details of the technology: High-efficiency influenza vaccine production technology of the cell culture method
- Contractual terms and conditions

▶ Total amount of technology export: US\$ 155,000,000

① Upfront Fee: US\$ 15,000,000

② Milestone for the completion of technology transfer: US\$ 20,000,000

③ Milestone for each phase: US\$ 120,000,000

▶ Royalties: Scheduled to receive sales royalties depending on the sales achieved.

※ For more details, please refer to "II. Details of the Businesses - 6. Major Contracts in terms of Management (Including Major Consolidated Subsidiaries) - 1) License-Out Contracts - (1) Item: Cell Culture Based High-Efficiency Influenza Vaccine Production Technology."

3) Decision to Acquire the Stocks and Equity Securities of Another Entity

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

- Target stock: Initz 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

4) Decision on the Paid-in Capital Increase through Third-party Allotment

On April 24, 2019, the Company's board of directors decided to issue new stocks for Teijin Co., Ltd. based on the 3rd party allocation method for the continued cooperation for the PPS business, whose details are as follows.

- Type and number of new stocks: 161,544 common stocks
- Amount of acquisition: 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 stocks above are deposited with the Korea Securities Depository on the date of issuance of new stocks in accordance with the execution of restrictions on the resale provided under Article 2-2 Paragraph 2 Paragraph 1 of the Regulations on Issuance and Disclosure of Securities, Etc., and the withdrawal and sale of the relevant securities are restricted for 1 year from the date of deposit.

5) Decision to Transfer the Bioenergy Business

On February 5, 2020, the Company decided to transfer the bioenergy 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 any 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 tradename to SK Eco Prime. The Company held an extraordinary meeting of stockholders on March 17, 2020 and secured the stockholders' approval of the relevant matter.

The overview of the relevant contract is as follows.

- Sold to: SK Eco Prime
- Sales business transferred: Bio energy business
- Transfer price: KRW 385.2 billion
- Date of contract execution: February 5, 2020

- Date of extraordinary meeting of stockholders: 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.

6) Publicly Offered Sales of SK Bioscience

Following the listing of SK Bioscience, a 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.

7) Decision on the Capital Increase without Consideration

Based on the resolution of the board of directors on October 7, 2021, the Company decided to execute a capital increase without consideration for allocating new stocks at the ratio of 0.5 share per stock owned per stock owned for the stockholders (excluding treasury stocks) registered on the list of stockholders as of the date of new stock 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) for the handling of fraction stock on November 9, 2021.

[SK Bioscience]

The Company was established on July 1, 2018 by splitting off the 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 (CSL) for the 1st biopharmaceutical in Korea, NBP601 (hemophilia treatment)
2012	Completed the construction of vaccine production plant (Andong L House)
2013	Executed typhoid vaccine's joint development and executed a global supply contract (IVI, BMGF)
2014	Executed a contract on the joint development of next-generation pneumococcal vaccine (Sanofi Pasteur)
2015	Released the first cell-cultured influenza vaccine trivalent in Korea
2016	Released the world's first cell-cultured influenza vaccine quadrivalent
2017	Executed a contract on the joint development and production of pediatric enteritis vaccine for developing countries

Year	History
	(PATH, BMGF) Released the world's second herpes zoster vaccine
2018	Executed a contract on the export of cell cultured flu vaccine production technology (Sanofi Pasteur) Released chickenpox vaccine Established SK Bioscience Co., Ltd. (split off SK Chemicals' VAX business division on July 1, 2018)
2019	WHO PQ certified influenza vaccine trivalent and quadrivalent and varicella vaccine
2020	Entered global phase 2 clinical trial for the next generation pneumococcal vaccine (Sanofi Pasteur) Commenced the COVID-19 vaccine development BMGF granted for the COVID-19 vaccine development 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) Approved for phase 3 clinical trial plan (IND) for the COVID-19 vaccine candidate of 'GBP510'

H. History of the Major Consolidated Subsidiaries

Name of Company	Date	Key Details
SK Petrochemical	2014.09	Change of the largest shareholder (SK Global Chemicals → SK Syntech)
	2017.03	Change of the largest shareholder (SK Syntech → SK Chemicals)
	2018.05	Merged and acquired by SK Chemicals
Initz	2019.05	Converted into a wholly owned subsidiary (66% → 100%)
	2019.12	Merged and acquired by SK Chemicals
SK Bioscience	2018.07	Newly established by splitting off the vaccine business division of SK Chemicals
	2021.03	Listed on the securities market

3. Changes in Capital

A. Changes in the Capital

The Company issued 161,544 common stocks in 2019, thereby increasing its capital by KRW 807,720,000, and in 2021, issued 5,879,384 common stocks and 656,759 preferred stocks, thereby increasing its capital by KRW 32,680,715,000.

(Unit: KRW, stocks)

Type	Classification	5th Period (End of 2021)	4th Period (End of 2020)	3rd Period (End of 2019)	2nd Period (End of 2018)	1st Period (End of 2017)
Common stocks	Total number of issued stocks	17,620,780	11,741,396	11,741,396	11,579,852	11,579,852
	Par value	5,000	5,000	5,000	5,000	5,000
	Capital	88,103,900,000	58,706,980,000	58,706,980,000	57,899,260,000	57,899,260,000
Preferred stocks	Total number of issued stocks	2,115,429	1,458,670	1,458,670	1,458,670	1,458,670
	Par value	5,000	5,000	5,000	5,000	5,000
	Capital	10,577,145,000	7,293,350,000	7,293,350,000	7,293,350,000	7,293,350,000
Total	Capital	98,681,045,000	66,000,330,000	66,000,330,000	65,192,610,000	65,192,610,000

4. Total Number of Stocks, Etc.

A. Status of the Total Number of Stocks

(Reference date: December 31, 2021)

(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	17,620,780	2,115,429	19,736,209	-
III. Total number of stocks decreased to date	-	-	-	-
	1. Capital reduction	-	-	-
	2. Retirement of profits	-	-	-
	3. Redemption of redeemable shares	-	-	-
	4. Others	-	-	-
IV. Total number of issued shares (II-III)	17,620,780	2,115,429	19,736,209	-
V. Number of treasury stocks	30,857	148,133	178,990	-
VI. Number of outstanding stock (IV-V)	17,589,923	1,967,296	19,557,219	-

※ 5,869,384 common stocks and 656,759 preferred stocks were increased following the capital increase without consideration executed on October 22, 2021.

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

※ On May 4, 2020, treasury stocks (948 common stocks, 143,767 preferred stocks) were acquired via the exercise of the right to claim stock purchase by the stockholders concerning the transfer of the bioenergy business.

※ 161,544 common stocks were increased following the execution of the paid-in capital increase through the 3rd party allocation on May 24, 2019.

B. Status of the Treasury Stock Acquisition and Disposal

(Reference date: December 31, 2021)

(Unit: stocks)

Method of acquisition	Type of shares	Beginning balance	Change			Closing balance	Remarks	
			Acquisition (+)	Disposal (-)	Share retirement (-)			
Amount of shares acquired within profits available for dividends	Direct acquisition in exchange	Common stock	-	-	-	-	-	
		Preferred stock	-	-	-	-	-	
	Direct acquisition in OTC	Common stock	-	-	-	-	-	
		Preferred stock	-	-	-	-	-	
	Tender offer	Common stock	-	-	-	-	-	
		Preferred stock	-	-	-	-	-	
	Subtotal (a)	Common stock	-	-	-	-	-	
		Preferred stock	-	-	-	-	-	
	Acquisition by trust contract	Number of shares indirectly held through trust	Common stock	-	-	-	-	-
			Preferred	-	-	-	-	-

Method of acquisition		Type of shares	Beginning balance	Change			Closing balance	Remarks
				Acquisition (+)	Disposal (-)	Share retirement (-)		
	contracts	stock						
	Number of shares directly held	Common stock	-	-	-	-	-	-
		Preferred stock	-	-	-	-	-	-
	Subtotal (b)	Common stock	-	-	-	-	-	-
		Preferred stock	-	-	-	-	-	-
Amount of shares acquired for other reasons (c)		Common stock	12,628	18,229	-	-	30,857	-
		Preferred stock	145,151	2,982	-	-	148,133	-
Total (a+b+c)		Common stock	12,628	18,229	-	-	30,857	-
		Preferred stock	145,151	2,982	-	-	148,133	-

※ The Company acquired treasury stocks (18,229 common stocks, 2,982 preferred stocks) for the handling of fraction stock on November 9, 2021 following the execution of the capital increase without consideration.

※ On May 4, 2020, treasury stocks (948 common stocks, 143,767 preferred stocks) were acquired via the exercise of the right to claim stock purchase by the stockholders concerning the transfer of the bioenergy business.

※ The Company acquired treasury stocks (11,680 common stocks, 1,384 preferred stocks) for the handling of fraction stock on January 17, 2018, caused by a split-off.

C. Status of the Issuance of Different Classes of Stocks (Preferred Stocks)

(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	Matters concerning the profit dividend	<ul style="list-style-type: none"> - As 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. - The dividends for the preferred stocks may not be paid for the preferred stocks if no dividends are paid out for the common stocks. 		
	Matters concerning the distribution of residual assets	-		
	Matters concerning the redemption	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	Terms and conditions of the conversion (including whether the conversion ratio	-		

		has changed)	
		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. - In the event that a prescribed dividend cannot be paid out of the profits of the relevant business year for the preferred stocks, it shall be deemed that, from the general meeting following the general meeting at which a resolution to not pay out the prescribed dividend for the preferred stocks is made until the closing of the general meeting at which a resolution to pay out the preferred dividend is made, the relevant stocks shall have voting rights.
	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 spin off of the Company. - The total amount of issuance and the current balance above are the figures that were obtained by multiplying the number of preferred stocks by dividing the sum of the capital at the point in time of the spin off and establishment and the excess amount of the stock issuance of the Company by the total number of issued shares. - 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

The latest date of amendment of the Articles of Incorporation attached to the business report is March 31, 2021, and the agenda for the 5th regular meeting of stockholders (planned to be held on March 28, 2022) includes a proposed change to the Articles of Incorporation.

Details Before the Change	Details After the Change	Purpose of the Change
<p>Article 8-2 (Electronic Registration of the Rights to be Marked on the Stocks and the Certificates of Preemptive Right)</p> <p>① (Omitted)</p> <p>② Where the Company issues stock certificates, the stock certificates shall have a total of 8 denominations including single (1) stock certificates, five (5) stock certificates, ten (10) stock certificates, fifty (50) stock certificates, one hundred (100) stock certificates, five hundred (500) stock certificates, one thousand (1,000) stock certificates, and ten thousand (10,000) stock certificates.</p> <p>Article 32 (Term of Office for the Directors) The term of office for the directors shall be 3 years. However, if the term of office should expire before the regular meeting of stockholders related to the settlement period after the closing of the final settlement period, the term of office shall be extended until the closing of the relevant</p>	<p>Article 8-1 (Electronic Registration of the Rights to be Marked on the Stocks and the Certificates of Preemptive Right)</p> <p>① <Same as the current provision></p> <p>② <Deleted></p> <p>Article 32 (Term of Office for the Directors) The term of office for the directors is until the conclusion of the regular general meeting of shareholders for the final settlement period within three years after taking office.</p>	<ul style="list-style-type: none"> - Paragraph 2 deleted - Given the introduction of the electronic securities system, classifying the types of stock certificates is unnecessary. - Details changed The term of office for the directors shall be made consistent with the date of the regular meeting of stockholders (and the term of office will be shortened when appointed during the year).

Details Before the Change	Details After the Change	Purpose of the Change
<p>general meeting.</p>		
<p><Newly established></p>	<p><u>Article 50-1 (Interim Dividend)</u> <u>① The Company may pay out interim dividends as provided by the relevant laws and regulations.</u> <u>② The interim dividend provided under Paragraph 1 shall be made by a resolution of the board of directors, yet such resolution shall be made within 45 days after the reference date of Paragraph 1.</u> <u>③ The interim dividends shall be limited to the amount obtained by deducting each of the following amounts from the net asset value on the balance sheet for the immediately preceding settlement period.</u> <u>1. Amount of capital of the immediately preceding settlement period</u> <u>2. Total amount of the capital reserve and the earned surplus reserve accumulated until the immediately preceding settlement period</u> <u>3. Unrealized profits as provided under the Enforcement Decree of the Commercial Act</u> <u>4. Amount determined for the dividend of profits at the regular meeting of stockholders of the immediately preceding settlement period</u> <u>Voluntary reserve accumulated for a specific purpose in accordance with the provisions of the Articles of Incorporation or a resolution of the general meeting of stockholders until the immediately preceding the settlement period</u> <u>5. Voluntary reserve accumulated for a specific purpose in accordance with the provisions of the Articles of Incorporation or a resolution of the general meeting of stockholders until the immediately preceding the settlement period</u> <u>6. Earned surplus reserve to be accumulated during the relevant settlement period following the interim dividends</u></p>	<p>- Provisions newly established The grounds for the interim dividend were prepared</p>
<p><Newly established></p>	<p><u>Addendum</u> <u>These Articles of Incorporation shall enter into force and become effective on March 28, 2022.</u></p>	

A. 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 (2019-2021) is as follows.

Date of Change of the Articles of Incorporation	Name of the Relevant General Meeting of Stockholders	Major Changes	Reason for the Relevant Change Made
2021.03.31	The 4th Regular Meeting of Stockholders	1. Addition of the registered class stocks as the stocks to be issued following the exercise of stock option	1. Expansion of the scope of stocks subject to stock option
2020.03.25	The 3rd Regular Meeting of Stockholders	1. Amendment of the full text of the provisions - reflective of the SKMS amendments such as the points of business management orientation 2. Deletion of the list of stockholders' closing procedures - only the reference date system is operated. 3. New establishment of the Company's safety and health related plans	1. Reflection of the details of the SKMS amendments 2. Lack of need for the closing procedures for the list of stockholders given the introduction of the electronic securities system 3. Reflection of the amended Occupational Safety and Health Act
2019.03.25	The 2nd Regular Meeting of Stockholders	1. Details concerning the issuance of stock certificates, etc. 2. New establishment of the provisions of grounds for the electronic registration of stocks, etc. 3. Addition of agency work for the transfer of title agent (electronic registration of stocks, management of the list of stockholders) 4. Details concerning the appointment of external auditor, etc. 5. Adjustment of the provisions' text, etc.	1-3. Reflection of the Act on Electronic Registration of Stocks, Debenture, Etc. 4. Reflection of the amendments to the Act on External Audit of Stock Companies, Etc. 5. Adjustment of the provisions' text, etc.

II. Details of the Businesses

1. Businesses Overview

With its head office located in Pangyo, the Company is operating 3 production plants in Korea which are in Ulsan, Cheongju, and Andong, 2 production plants in Qingdao and Soju, China, and local entities and regional offices in the United States, Germany, and Japan.

In terms of business divisions, the Green Chemicals Biz., which oversees the chemicals business, manufactures and sells polyester-based specialty polymers (copolyester), adhesives and coatings, etc., while the Life Science Biz., which oversees the pharmaceutical and bio business, conducts the business of manufacturing and selling new drugs developed in-house, such as natural substance based arthritis treatment, blood circulation improving agent and the world's first cell-cultured quadrivalent flu vaccine, made by its subsidiary SK Bioscience. SK Bioscience, a subsidiary, has achieved consistent performance in R&D, including developing the first herpes zoster vaccine in Korea, and is also moving ahead in earnest in the CMO/CDMO business such as by executing a consignment contract on development and production with a global pharmaceutical company as well as developing a COVID-19 vaccine in-house.

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

- Green Chemicals Biz.: Highly functional copolyester resin, DMT, copolyester adhesive, etc.
- Life Science Biz. (pharma business division): Natural substance based / synthetic pharmaceuticals such as Joins, Ginexin, Rivastigmine Patch, etc.
- Life Science Biz. (SK Bioscience): Flu vaccine, chickenpox vaccine, herpes zoster vaccine, etc.

The Company's consolidated sales as of the end of 2021 are KRW 2.0896 trillion, which consist of 50% of Green Chemicals Biz.'s products, 14% of Life Science Biz.'s (pharma business division's) products, 44% of Life Science Biz.'s (SK Bioscience's) products, and -8% of others, respectively. By region, the structure of the sales is 42% exports and 58% domestic consumption.

As for the details of "1. Businesses Overview" above and any details not included, etc., refer to "2. Key Products and Services" of "II. Details of the Businesses" through "7. Other Matters for Reference."

2. Key Products and Services

A. Key Products and Services

The Company's Green Chemicals Biz. provides distinct products according to its customer needs including copolyester resins, adhesives and coatings, and engineering plastics. The Life Science Biz. is engaged in the health care business in the 2 fields of pharmaceutical business (pharma business division) and the vaccine business (SK Bioscience). The net sales and the weight of sales by business division are as follows.

(Reference date: December 31, 2021)

(Unit: KRW one million, %)

Division		Key Products	Sales	Weight
Green Chemicals Biz.		Highly functional copolyester resin, DMT, copolyester adhesive, etc.	1,037,059	50%
Life Science Biz.	Pharma Business Division	Natural substance based / synthetic drugs (arthritis treatment, blood circulation improving agent, etc.), etc.	300,178	14%
	SK Bioscience	Flu vaccine, herpes zoster vaccine, chickenpox vaccine, etc.	929,001	44%
		Others	(176,606)	-8%
		Total	2,089,632	100%

B. Key Products

1) Green Chemicals Biz.

[SKYGREEN] Copolyester resin

Copolyester (PETG, PCTG) SKYGREEN is used for a variety of purposes ranging from household goods to industrial materials, such as cosmetics containers, electronic parts, and building materials, due to its excellent transparency, chemical resistance, processability and moldability. From CHDM, a main raw material, to copolyester, the Company has developed a stable production system based on vertical integration.

[ECOZEN] Bio copolyester resin

Released in 2009, ECOZEN is a product that offers an improved heat resistance relative to the previous copolyester SKYGREEN product by introducing biomass (plant)-derived ingredients (1-15% based on the weight of carbon). In addition, it does not contain the bisphenol derivatives (BPA, etc.) or phthalate-based plasticizers restricted by EU RoHS regulations, and satisfies the requirements for food-contacting substances in Korea, the United States, Europe, China, and Japan. ECOZEN is used across a wide range of fields including electronics products, food containers, and baby products thanks to its excellent characteristics.

[ECOTRIA] Resource circulated copolyester resin

Ecotria is a copolyester product which uses 30-50% of post-consumer recycled materials as the raw materials. It consists of the R series, which is a mixture of the physically recycled raw materials, and the CR series, which uses chemically recycled raw materials, and offers products which are in line with the definition of PET under ASTM D7611-20. Ecotria may be used for a variety of purposes including cosmetics containers, packaging materials, and household products, providing a level of transparency, physical performance, and moldability that is close to a conventional copolyester product.

[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. In addition, the Company's DMT is used as a raw material for CHDM for the copolyester production.

[SKYBON] Polyester resin for coating and adhesion

A high molecular weight polyester resin, SKYBON is attracting attention as a resin for adhesion and coating across various fields including steel sheets for home appliances and food can coatings thanks to its flexibility and excellent adhesion, and its application to solvent-free hotmelt products for which organic solvents are not used is expanding to adhesive resins for thermal transfer films for clothing thanks to its excellent washing resistance. In addition, to respond to the eco-friendly trend, the Company is expanding its portfolio of the water-based polyester resins and developing high-performance special resins which may be applied for the rapidly developing electrical and electronic components and materials.

[SKYPURA] PCT

A PCT material, SKYPURA is a type of the Super Engineering Plastic made based on CHDM. Due to its excellent thermal stability, reflectivity, and light resistance, this material is being used in LED reflectors for TVs and lighting, and its use as a material for electrical and electronic components including SMT connectors is also expanding. Recently, its use in automotive films and high-heat-resistance fibers has increased due to its heat-resistance, durability, and insulation-resistance.

[SKYPEL] TPEE

SKYPEL is a thermoplastic elastomer based on a 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. With the recent emphasis on the aesthetic and tactile characteristics, the demand for TPEE, which offers

an excellent cost-effectiveness, is expanding to shoes and synthetic leather materials, making it an attractive material with an average annual growth rate of 6%. The Company is continuing its efforts to expand the market by developing distinct materials with a low hardness yet excellent physical properties and products which can satisfy the customer needs.

[SKYTRA] Compound Product

A compounding brand of SK Chemicals, SKYTRA is a product based on the high-functional resins produced by SK Chemicals, providing solutions which can meet the needs of various customers. Based on the resin produced by SK Chemicals, we are achieving a continuous growth through business development for various uses including automobiles, electricity and electronics, and the living environment.

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

PO3G is a 100% new biomaterial which replaces the polyols using the conventional petroleum-based raw materials. Polyol is one of the key raw materials for polyurethane materials, which are widely used for synthetic leather, clothing, coating and adhesive materials, and spandex fibers. Made of biological resources, PO3G is a renewable resource, not a limited resource like petroleum, a fact which helps to address global environmental and climate issues due to its low greenhouse gas (carbon dioxide) emissions. In terms of the physical properties, it can also help realize excellent low-temperature characteristics, elastic recovery force, elongation, and excellent surface characteristics, satisfying various client needs based on its distinct product development. Now equipped with PO3G production facilities with an annual production capacity of 5,000 tons, SK Chemicals will be able to achieve continuous growth in this area.

2) Life Science Biz.

(1) Pharmaceutical business (pharma business division)

[Joins] Number 1 natural arthritis treatment in Korea

Joins is the first herbal medicine ingredient for arthritis treatment in Korea, and in clinical trials conducted at 5 general hospitals including Seoul National University Hospital, has shown proven anti-inflammatory and analgesic effects and low side effects equivalent to those of the existing anti-inflammatory analgesics. It has been evaluated as a drug which fundamentally treats arthritis, demonstrating a protective effect on the cartilage tissue that goes beyond anti-inflammatory and analgesic actions. It is among our most notable products, with sales of more than 1.24 billion tablets in the 20 years since its launch in 2002, and posted sales of KRW 497 billion in 2021.

[Ginexin F] Ginkgo leaf blood circulation improving agent

A blood circulation improving agent, Ginexin F is a notable brand of SK Chemicals which is maintaining the largest share in its market, and has achieved accumulated sales of KRW 400 billion. Manufactured by extracting active ingredients such as ginkgo fluoride from ginkgo leaves with a proprietary technology developed in-house, this product lowers blood viscosity and dilates blood vessels. In 2010, the anticoagulant "Renexin," which combines cilostazol, a thrombolytic agent, with Ginexin F, was released, and won positive reactions by improving the efficacy and reducing the side effects. By launching "Renexin Tablet" with an improved dosage compliance and convenience, the Company is solidifying its position in Korea's blood circulation disorder market.

[Rivastigmine Patch] A patch-type dementia treatment

A patch-type dementia treatment, Rivastigmine patch (product name in Korean: Wondrone) developed by SK Chemicals for the first time in Korea was approved for sale as a 1st generic in Europe in 2013, proving SK Chemicals' technological prowess in Europe, and continues to maintain its number 1 position with the largest share in Europe's generic drug market. We secured approvals in Australia and Columbia in 2016, Mexico and Jordan in 2017, Canada in 2018, FDA approval in 2019 in the United States, and Brazil in 2021, and are also continuously expanding the overseas markets.

[Mvix S] Ranked 1st in the International Index of Erectile Function (IIEF), the world's first film-type erectile dysfunction treatment

SK Chemicals is building a diversified portfolio of formulations by launching the world's first film-type erectile dysfunction treatment, Mvix S, in 2011, and high-dose film-type formulations in 2012. Mvix S has enjoyed positive

reviews in the market as a product which maximizes the convenience of carrying and taking by innovatively changing the existing tablets into a film formulation, which is thin and light enough to fit in a wallet. In 2014, the melting speed and size were dramatically reduced by improving the formulation of Mvix S, enhancing its convenience even further.

[Trast] A powerful knee arthritis treatment effect

Since its release in 1996, Trast has grown into a most notable Korean brand as a patch-type knee arthritis treatment which has been consistently loved by many. Since it is applied directly to the knee joint and acts on the sore knee, its advantage is that the side effects of existing medications are minimized while the effect of treating knee arthritis is maximized. An anti-inflammatory and analgesic drug, Piroxicam is delivered at the same concentration via Trans-dermal Drug Delivery System (TDDS) technology, and its greatest strength is that a single application lasts 48 hours.

(2) Vaccine business (SK Bioscience)

[Sky Cellflu]

'Sky Cellflu' is a cell-cultured influenza vaccine which the Company has succeeded in commercializing for the first time in Korea for adults and for the first time in the world for children. Furthermore, following 'Sky Cellflu,' the Company launched 'Sky Cellflu Quadrivalent,' the world's first cell-cultured quadrivalent influenza vaccine which can simultaneously prevent 4 types of viruses. The Company plans to actively advance into the global market with 'Sky Cellflu Quadrivalent,' a next-generation flu vaccine.

The cell culture method is a new vaccine production technology which employs animal cells to culture a virus and then turns it into a vaccine. The previous fertilized egg culture method required more than 6 months to produce the fertilized eggs used for vaccine manufacturing, which meant that if the demand for vaccines suddenly increased due to a pandemic, or a disruption arose in the supply of fertilized eggs due to external factors including aviary influenza, we were not be able to respond effectively as a matter of limitation. Since the cell culture method is based on animal cells, the production period is only 2-3 months, and it has the advantage of providing a stable supply regardless of crisis situations such as aviary influenza.

[Sky Zoster]

'Sky Zoster' is the first successfully commercialized herpes zoster vaccine in Korea and the second in the world. On September 29, 2017, the Ministry of Food and Drug Safety approved of its marketing, which was the final phase of commercialization, and we began supplying it to hospitals and clinics across Korea on December 20, 2017 after initiating full-scale production and securing the national shipment's approval. Previously, a single herpes zoster vaccine product released by a global pharmaceutical company in 2006 (released in 2013 in Korea) monopolized the global market of approximately KRW 820 billion* (approximately KRW 80 billion Korean market). The Company's 'Sky Zoster' is a live vaccine which has attenuated the Varicella Zoster Virus. After proving its safety at overseas specialized non-clinical testing institutes, 8 clinical institutes conducted clinical trials to confirm its efficacy and safety for adults aged 50 or older and demonstrated the non-inferiority of the product.

[Sky Varicella]

'Sky Varicella' is the Company's 4th successful varicella vaccine, following 'Sky Cellflu,' 'Sky Cellflu Quadrivalent' and 'Sky Zoster.' 'Sky Varicella' secured approval in June 2018, was supplied to hospitals across Korea from September 18, 2018, and was officially released after successfully undergoing pre-marketing quality verification procedures, such as the national shipment approval. The high immunogenicity for 'Sky Varicella' was confirmed through phase 3 clinical trials to verify efficacy and safety on a total of 499 children aged 12 months to 12 years at 19 domestic and foreign clinical trial institutions. Commercialization of the chickenpox vaccine, one of the essential preventive vaccines, may be expected to diversify profits and accelerate entries into the markets overseas.

[AFSTYLA]

'AFSTYLA' is the world's first 'single-chain product' researched and developed by the Company for the treatment of type A hemophilia. The relevant technology was exported to CSL in 2009, and CSL has carried out the production, global clinical trials, and the application for approval. As a result, the Company has received marketing approvals from the Food and Drug Administration (FDA) of the United States and the European Medicines Agency (EMA), and made inroads into

the US and EU markets for the first time among the Korean biopharmaceuticals. In addition, the Company has secured marketing approvals in Australia, Canada, Switzerland, and Japan. While previous hemophilia treatment drugs took the form of a combination of two separate proteins, 'AFSTYLA' has completely combined the two proteins into one, dramatically improving stability while enhancing the efficacy and duration of efficacy. While previous products required regular administration 3 to 4 times a week, 'AFSTYLA' can achieve its preventive effect with just two administrations per week. In addition, in the global clinical trials, the most serious side effect of hemophilia A treatments, a neutralizing antibody reaction (reaction where the antibodies are formed to inhibit the effect of the drug) was not reported at all, meaning that its safety was proven.

[CDMO/CMO business]

The Company has various types of vaccine production technologies, and also engages in development services, joint research, and contract manufacturing business with companies and institutions seeking to develop vaccines. Accordingly, the Company has secured an opportunity for the consigned vaccine production business since the outbreak of COVID-19, and has produced the stock solution and finished product of AstraZeneca's COVID-9 vaccine, 'Vaxzevria (AZD1222),' and carried out consigned production for AstraZeneca for its global supply, while executing a contract for the process development and consigned development and production (CDMO) for the Novavax developed COVID-19 vaccine, 'Nuvaxovid (NVX-CoV2373).' Pursuant to the CDMO contract, the Company has developed the commercialization process by transferring the stock solution manufacturing technology from a company with the original vaccine technology, and has produced and supplied vaccines around the globe. While numerous companies around the globe are pursuing the development of COVID-19 vaccines, the number of companies with sufficient production facilities and the capacity to commercialize the vaccine is very limited. Hence, the vaccine related CDMO/CMO market is expected to grow with a focus on the globally based vaccine producers. Recently, an increasingly large number of global pharmaceutical and bio companies are consigning their production process development and mass production; as such, our partnerships with CDMO companies are actively on the rise, with a focus on bio ventures with inadequate in-house development and production capabilities. We have expanded our business areas to cover the CDMO by executing a contract to produce a COVID-19 vaccine with our proprietary synthetic antigen and viral vector technology, and also plan to expand the scope to include vaccines and the biopharmaceutical CDMOs of global companies as well as Asian companies to carry out the business on a full-fledged basis.

3. Raw Materials and Production Facilities

A. Matters Concerning the Key Raw Materials

1) Status of the Purchase of Key Raw Materials

(Reference date: December 31, 2021)

(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	179,568	PTA - Hanwha Chemical, Taekwang Industrial MEG - Lotte Chemical, SK Networks
	Raw materials	PX	Main raw material for the DMT production	28,719	Sk Chemicals
Life Science Biz.	Raw materials	Polaprezinc, Febuxostat, Rivastigmine	Main raw materials for Promac Tab./Fabric Tab./Dementia Patch	9,870	Enzychem Life Sciences, Teijin, Shodhana
	Raw materials	Badge, bags, packaging materials (pfs, vials, etc.)	Main raw material for COVID-19/Flu/Herpes Zoster Vaccine	12,782	Merck, Thermofisher, Satorius, Lonza, 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.

The relevant raw materials are directly affected by oil prices and exchange rates. In particular, the price of purified terephthalic acid (PTA), a main raw material in copolyester resin, frequently rises and falls depending on the global economy and the supply and demand.

Oil prices during the fourth quarter continued to rise and exceeded \$80/bbl. due to OPEC+'s decision in early October to maintain the scale of its production increase in November, yet given the concerns about the renewed spread of COVID-19 since the advent of Omicron at the end of November, the range of fluctuations has further expanded, such as a sharp drop to \$69/bbl. in early December. The Company's main raw materials of PX, PTA, and MEG continued to decline due to the sluggish downstream demand for chemical fibers and upstream effects; in particular, MEG's decline was relatively large as the supply increased due to the operation of new plants, etc.



(2) Life Science Biz.

Our Life Science Biz. produces finished pharmaceuticals in a certain dosage form which may be administered for the human body by deploying raw and auxiliary materials and materials into the manufacturing process. Compared to the raw materials of our Green Chemicals Biz., these raw materials have a less elastic demand due to price fluctuations and are less affected by economic trends, meaning that a relatively stable supply and demand is possible.

During the 4th quarter, the quantity of raw materials for manufacturing decreased sharply due to the logistics crisis at the ports of LA and Long Beach in the United States and the power shortages in China. However, the Company minimized product transportation delays by strengthening our SCM in the US, and was able to secure a stable supply of products imported from China through our business partnerships with the manufacturers.

SK Bioscience's biopharmaceutical raw materials are items that have a relatively low demand elasticity due to price fluctuations and are less affected by economic trends, which means that the price of major raw materials and subsidiary materials is usually determined through negotiation in the form of annual contracts. The Company presents the expected demand volume according to the existing annual usage performance and business plan, and the suppliers determine the discount rate for each item based on the list price to determine the final annual unit price. Conventionally, the unit prices of raw materials and subsidiary materials fluctuate according to the annual inflation rate and labor cost, while in the case of imported items, factors including exchange rate, transportation unit price, and customs agreement are additional considerations.

As of the first half of the year, the supply of some raw and subsidiary materials has continued to be inadequate given the global COVID-19 vaccine development and production expansion, and the prioritization of the national interests of vaccine producing countries. Entering the second half of the year, however, the tight supply and demand situation in the

first half has shown signs of easing to some extent as the COVID-19 treatment was released and a sufficient number of vaccines has been shipped to the market.

SK Bioscience is monitoring in real time the factors of rising prices for the major raw and subsidiary materials and the supply and demand of quantities, 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.

B. Matters Concerning the Production and Facilities

1) Production Capacity and the Calculation Basis for Production Capacity

[SK Chemicals]

(1) Production capacity

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

Business Division	Item	The 5th Period	The 4th Period	The 3rd Period
Green Chemicals Biz.	Copolyester resin, DMT, etc.	445,300 tons (Note 1)	373,320 tons	334,400 tons
	BON	15,330 tons	15,330 tons	10,220 tons
Life Science Biz.	Tab. (Note 2)	761,426,562 T	767,542,438 T	755,310,686 T
	Patch	65,885,400 P	66,414,600 P	65,356,200 P

(Note 1) The new copolyester production facility (#4) began its operation on June 15, 2021, and the details above include such figures. Excluding the new production facilities, the 5th period's 'production capacity' is 372,300 tons.

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

(2) Calculation basis for the production capacity

① Basis of calculation

Business Division	Product	Daily Production Capacity	Number of Days of Operation Available for the Current Period	Note
Green Chemicals Biz.	Copolyester resin, DMT, etc.	1,220 tons (Note 1)	365 days	-
	BON	42 tons	365 days	-
Life Science Biz.	Tablet (Note 2)	3,057,938 T	249 days	-
	Patch	264,600 P	249 days	-

(Note 1) The new copolyester production facility (#4) began its operation on June 15, 2021, and the details above include such figures. Excluding the new production facilities, the 5th period's 'production capacity' is 1,020 tons.

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

② Average hours of operation

Business Division	Product	Average daily hours of operation	Average number of days of operation available per month	Number of Days of Operation Available for the Current Period
Green Chemicals Biz.	Copolyester resin, DMT, etc.(1)	24 hours	27 days	322 days
	BON	24 hours	29 days	344 days
Life Science Biz.	Tab.	8 hours	20 days	237 days
	Patch	8 hours	20 days	237 days

(Note 1) The new copolyester production facility (#4) began its operation on June 15, 2021, and the details above include such figures. Excluding the new production facilities, the 5th period's 'average days of operation per month' is 28 days, and the 'days of operation for the current period' is 338 days.

(3) Production Performance and Utilization

① Production performance

Business Division	Item	The 5th Period	The 4th Period	The 3rd Period
Green Chemicals Biz.	Copolyester resin, DMT, etc.	366,469 tons (Note 1)	252,804 tons	268,736 tons
	BON	13,058 tons	9,208 tons	8,796 tons
Life Science Biz.	Tab. (Note 2)	605,863,519 T	606,231,520 T	631,933,562 T
	Patch	38,730,028 P	40,500,354 P	50,290,715 P

(Note 1) The new copolyester production facility (#4) began its operation on June 15, 2021, and the details above include such figures. Excluding the new production facilities, the 5th period's 'production capacity' is 332,391 tons.

(Note 2) As for the tablets, there are many different types, and the production process and production time vary for each type, and thus, the production volume is inevitably smaller than the production capacity of the equipment itself. As for the utilization rate of tablet items, be advised that the current period's utilization rate is the correct number, not the production volume relative to the production capacity.

② Utilization Rate for the Current Business Year

Business Division	Item	Number of Days of Operation Available for the Current Period	Number of Days of Actual Operation for the Current Period	Average Utilization Rate
Green Chemicals Biz.	Copolyester resin, DMT, etc.	365 days (Note 1)	322 days (Note 1)	88% (Note 1)
	BON	365 days	344 days	94%
Life Science Biz.	Tablet	249 days	237 days	95%
	Patch	249 days	237 days	95%

(Note 1) The new copolyester production facility (#4) began its operation on June 15, 2021, and the details above include such figures. Excluding the new production facilities, the 'days of operation available for the current period' is 365 days, 'actual days of operation for the current period' is 338 days, and the 'average utilization rate' is 93%.

[SK Bioscience]

(1) Standard of Completion

(A) Production capacity and the calculation basis for production capacity

① Production capacity

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

Place of Business	Item	The 4th Period	The 3rd Period	The 2nd Period
Andong Plant	Vaccine	192,640,000 dose	157,920,000 dose	138,880,000 dose

② Calculation basis for the production capacity

- Calculation standard

Place of Business	Product	Daily Production Capacity	Number of Days of Operation Available for the Current Period	Note
Andong Plant	Vaccine	560,000 dose/day	344 days	Filling process based

※ The number of days of operation available is the number of days excluding the preventive maintenance period.

- Average hours of operation

Place of Business	Product	Average Number of Days of Operation Per Month	Number of Days of Operation for the Current Period
Andong Plant	Vaccine	27 days	321 days

※ The number of days of operation does not include filling line's hours of operation for the permission and research.

※ The '(1) Production capacity and the calculation basis for production capacity' above is based on the completed production as of the reference date of preparation, and when the dosage form is changed (multi-dose vial's production), the completed product production capacity is expected to be or greater than approximately 500 million doses per year.

(B) Production Performance and Utilization

① Production performance

Place of Business	Item	The 4th Period	The 3rd Period	The 2nd Period
Andong Plant	Vaccine (Note 1)	81,934,044 dose	11,477,663 dose	5,893,408 dose

(Note 1) Based on the approved quantity of shipment.

② Utilization Rate for the Current Business Year

Place of Business	Item	The 4th Period	The 3rd Period	The 2nd Period
Andong Plant	Vaccine	42.5%	7.3%	4.2%

(2) Standard for stock solution

- As for the stock solution's production capacity, the process period was calculated with a notable item for each suite, and the production capacity of the suite used for the R&D activities has been excluded.

Classification	The 4th Period	The 3rd Period	The 2nd Period
Production capacity	273 batches	261 batches	111 batches
Production performance	179 batches	107 batches	63 batches
Utilization rate	65.6%	41.0%	56.8%

2) Status of production and facilities, etc.

[SK Chemicals]

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

Place of Business	Details of Important Business	Location
Pangyo Head Office	Company-wide management and marketing, R&D	Pangyo-ro 310 (Sampyeong-dong), Bundang-gu, Seongnam-si, Gyeonggi-do
Ulsan Plant	Copolyester resin production, etc.	Cheoyong-ro 718, Nam-gu, Ulsan-si
Cheongju S HOUSE	Pharmaceutical production	Sandan-ro 149, Heungdeok-gu, Cheongju-si, Chungcheongbuk-do

The Company's facilities and equipments include land, buildings, structures, and machineries, etc., and their book value as of the end of the current period is KRW 663.5 billion, whose details are as follows.

(Reference date: December 31, 2021)

(Unit: KRW one million)

Classification	Amount at Beginning of Period	Change for the Current Period	Depreciation for the Current Period	Amount at End of Period
Land	190,755	(34,962)	-	155,793
Building	192,166	(4,630)	(6,295)	181,241
Structure	105,264	(31,438)	(3,253)	70,573
Mechanical equipments	308,855	(63,614)	(52,633)	192,608
Vehicles and transport equipments	261	1	(72)	190
Tools and equipments	8,942	4,316	(3,767)	9,491
Construction in progress	71,262	(19,524)	-	51,738
Machineries and equipments in transit	890	961	-	1,851
Total	878,396	(148,892)	(66,019)	663,485

- ※ Objectively determining the market price for major tangible assets is difficult, and thus, this entry has been omitted.
- ※ For details of tangible assets, refer to “12. Tangible assets” of “5. Notes to the Financial Statements” among the “III. Matters Concerning Finance.”
- ※ For the restrictions on tangible assets, refer to “24. Contingencies and Agreements” of “5. Notes to the Financial Statements” among the “III. Matters Concerning Finance.”

[SK Bioscience]

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

Place of Business	Details of Important Business	Location
Pangyo Head Office	Company-wide management and marketing, R&D	Pangyo-ro 310 (Sampyeong-dong), Bundang-gu, Seongnam-si, Gyeonggi-do
Andong L House	Production, wholesale and retail of pharmaceuticals	Saneopdanji-gil 150, Poongsan-eup, Andong-si, Gyeongsangbuk-do
Pyeongtaek	Storage of the vaccine's stock solution	131, Oseongsandan 1-ro, Oseong-myeon, Pyeongtaek-si, Gyeonggi-do

SK Bioscience's facilities and equipments consist of land, buildings, structures, and machineries, etc.

(Reference date: December 31, 2021)

(Unit: KRW one million)

Place of Business	Land	Building	Structure	Mechanical equipments	Vehicles and transport equipments	Other tangible assets	Total
Head Office	4,203	16,807	-	4,889	-	2,363	28,262
Andong	5,746	102,223	960	46,137	11	1,042	156,119
Total	9,949	119,030	960	51,026	11	3,405	184,381

※ Construction in progress, machineries and equipments in transit, and memberships are excluded.

※ and thus, this entry has been omitted. assets is difficult, and thus, this entry has been omitted.

SK Bioscience carried out new construction of the main building and the renovation of existing facilities due to the increase in the recruitment of new personnel related to COVID-19 C(D)MO and in-house vaccine manufacturing, etc., and has made a number of investments for the continuous improvement of the quality system.

In June 2021, SK Bioscience executed a memorandum of understanding (MOU) with Gyeongsangbuk-do and Andong-si to invest in plant expansion and site expansion with the goal of taking a leap forward as a global vaccine production hub with top-tier production facilities. L House, which operates the latest vaccine production facilities such as cell and bacterial culture, gene recombination, and protein conjugation, will be expanded, while the new platform facilities such as mRNA and next-generation viral vectors will be built. Furthermore, an additional 99,130m² (approximately 30,000 pyeong) of land was purchased within the Gyeongbuk Bio 2nd General Industrial Complex, which is undergoing development near the L House's site, to expand the plant to approximately 161,000 m² (approximately 50,000 pyeong) for various projects.

In addition to L House, SK Bioscience executed a land sales contract with the Incheon Free Economic Zone Authority (IFEZ) in December 2021, and plans to build a global R&PD (Research & Process Development) center on a 30,414 m² (approximately 9,000 pyeong) site at Sr14, District 7, an expanded Incheon Techno Park complex in Songdo-dong, Incheon, and further expand the R&D and production infrastructures of SK Bioscience, which is currently structured with a focus on Pangyo and Andong, Gyeongbuk. The global R&PD center, which will be newly built, will include research institutes and pilot plants for the fundamental research, process development and production in the vaccine and bio fields, through which we plan to actively expand the bio CDMO business and secure a new platform, while pursuing cooperation with international organizations, and Korean and foreign bio companies and research institutes.

Moreover, in line with the clinical progress of the next generation pneumococcal vaccine undergoing joint development with Sanofi Pasteur, we are planning to improve the existing L House facilities and invest in expansions.

[SK Multi-Utility]

SK Multi-Utility is currently investing KRW 428.1 billion in its Ulsan Plant to promote the Multi-Utility business, which is expected to be completed during the second half of 2024.

(Unit: year, KRW 100 million)

Classification	Period of Investment	Name of Investment	Total Investment Value	Amount of Investment Executed	Future Investment Value
Multi-Utility Business	2022-2024	LNG cogeneration facilities	4,281	32	4,249

4. Status of Sales & Contracts Won

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

1) Performance by sales type

(Reference date: December 31, 2021)

(Unit: KRW one million)

Business Division	Type of Sales	Item	The 5th Period		The 4th Period		The 3rd Period	
			Sales	Ratio	Sales	Ratio	Sales	Ratio
Green Chemicals Biz	Product	Copolyester/PET resin, DMT, etc.	933,572	44.7%	783,015	65.3%	739,858	66.5%
	Goods		12,484	0.6%	17,699	1.5%	21,101	1.9%
	Others		91,003	4.4%	58,482	4.9%	65,223	5.9%
	Subtotal		1,037,059	49.6%	859,196	71.7%	826,181	74.2%
Life Science Biz.	Product	Vaccine, tablet, patch, etc.	837,263	40.1%	335,690	28.0%	263,312	23.7%
	Goods		122,904	5.9%	121,659	10.1%	104,767	9.4%
	Others		269,012	12.9%	32,479	2.7%	47,511	4.3%
	Subtotal		1,229,179	58.8%	489,828	40.9%	415,590	37.3%
Others	Product	Others	(149,396)	-7.1%	(140,770)	-11.7%	(117,472)	-10.6%
	Goods		(2,287)	-0.1%	(1,819)	-0.2%	(2,754)	-0.2%
	Others		(24,923)	-1.2%	(7,655)	-0.6%	(8,627)	-0.8%
	Subtotal		(176,606)	-8.5%	(150,244)	-12.5%	(128,852)	-11.6%
Total			2,089,632	100.0%	1,198,781	100.0%	1,112,919	100.0%

※ Following the sale of the PPS business, the sales and profits and losses of the 5th and 4th periods' discontinued businesses were excluded, and following the sale of the bioenergy business, the sales and profits and losses of the 4th and 3rd periods' discontinued businesses were excluded.

※ Others are internal transactions and sales, etc.

2) Performance by sales region

(Reference date: December 31, 2021)

(Unit: KRW one million)

Business Division	Form	Classification	The 5th Period	The 4th Period	The 3rd Period
Green Chemicals Biz.	Copolyester/PET resin, DMT, etc.	Export	795,141	651,745	602,021
		Domestic consumption	241,918	207,452	224,161
		Total	1,037,059	859,196	826,181
Life Science Biz.	Vaccine, tablet, patch, etc.	Export	266,258	72,613	77,062
		Domestic consumption	962,921	417,215	338,528
		Total	1,229,179	489,828	415,590
Others	-	Export	(181,245)	(148,305)	(121,213)
		Domestic consumption	4,639	(1,939)	(7,639)
		Total	(176,606)	(150,244)	(128,852)
Total		Export	880,154	576,053	557,869
		Domestic consumption	1,209,478	622,728	555,049
		Total	2,089,632	1,198,781	1,112,919

※ Following the sale of the PPS business, the sales and profits and losses of the 5th and 4th periods' discontinued businesses were excluded, and following the sale of the bioenergy business, the sales and profits and losses of the 4th and 3rd periods' discontinued businesses were excluded.

※ Others are internal transactions and sales, etc.

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

1) Sales organization

Business Division	Sales organization
Green Chemicals Biz.	Copolyester Business Division, Functional Material Department, Composite Material Department, New Business Development Office, SKCA, SK Chemicals GmbH, SK Chemicals (Shanghai), Japan Branch
Life Science Biz.	Marketing Division 1 (marketing metropolitan hospitals) Marketing Division 2 (Marketing Division 1 and marketing hospitals outside of the region) Marketing Division 3 (marketing hospitals nationwide) Marketing Division 4 (marketing hospitals nationwide) SK Bioscience Marketing Division (marketing vaccines)

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.

4) Sales strategy

Business Division	Sales organization	Sales strategy
Green Chemicals Biz.	Copolyester Business Division	<ul style="list-style-type: none"> - Develop highly functional copolyester for heat resistance with high transparency and moldability and increase sales - Diversify clients for eco-friendly and highly-functional plastic resins - Enhance technical service and after sales service - Expand market sales by securing and supplying stable and competitive raw materials
	Functional Materials Business Division	<ul style="list-style-type: none"> - Continuously discover new items - Expand new purpose of use and clients - Enhance overseas marketing
	New Business Development Office	<ul style="list-style-type: none"> - Expand the purpose of use and enhance the overseas marketing - Develop market and expand market - Develop the purpose of use for the existing products and develop related products
Life Science Biz.	(Pharma Business Division) Marketing Division 1-4, (SK Bioscience) Marketing Division	<ul style="list-style-type: none"> - Roll out marketing activities with a focus on hospitals and clinics - Explore new markets by entering markets overseas - Execute accurate target marketing based on the market segmentation - Strengthen the organization via specialization and segmentation of the hospital organization - Create a new business via securing drug distribution quality

5. Risk Management and Derivatives Trading

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 the foreign exchange risk, commodity price risk and the 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 hedging instruments to hedge the foreign currency risk for foreign currency bonds. The final maturity of the foreign currency bonds is expected to be June 2023.

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 evaluated as very effective.

2) Hedging cash flows for the interest rate risk

The consolidated companies borrow funds at fixed and variable interest rates, and thus, are exposed to interest rate risk. To manage the interest rate risk, consolidated companies maintain an appropriate balance between fixed rate borrowings and variable rate borrowings, and have executed interest-rate swap contracts. The consolidated companies exchange the difference calculated by applying the difference between the fixed and variable interest rates for the pre-determined nominal principal under an interest-rate swap contract. Such 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 evaluated regularly 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 exposure in major currencies (Dollars, Euros and Yen) based on projected sales and purchases over the next 12 months. Furthermore, the consolidated companies execute 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. Hence, 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 and are implementing fund management regulations to minimize the risks caused by variables including raw materials and commodity prices and the exchange rates, and engage in stable management activities, the key details of which include the following:

- 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 consolidated companies' market risk management and the market risk management policies as per the above, the Company cannot hedge all market risks, and there is a limit to risk hedging.

B. Trading status such as derivatives and putback options (including the major consolidated subsidiaries)

[SK Chemicals]

The details of derivative instruments held by the Company as of the end of the reporting 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	1,825,609	159,003
Current liabilities in derivative financial instruments	Currency forward contracts	469,458	3,836,514
Non-current assets in derivative financial instruments	Put Option	368,001	-

As of the end of the current 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 relation to this, the details of 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	153,129,963	880,980
	Sell	108,023,488	475,172
Total		261,153,451	1,356,151

<End of the previous period>

(Unit: KRW one thousand)

Contracting party	Buy/Sell	Contract amount	Fair value
Hana Bank, etc.	Buy	79,457,417	(3,755,773)
	Sell	26,009,777	78,262
Total		105,467,194	(3,677,511)

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 instruments (Note 1)	Put option for SK Chemicals Daejeong Co., Ltd.'s common stocks	368,001

(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.

[SK Bioscience]

- 1) Derivatives trading for hedging risks from the exchange rate fluctuations

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

(Reference date: December 31, 2021)

(Unit: USD, KRW one thousand)

Classification	Details	
Contracting party	Hana Bank	
Sell/Buy	Sell	Buy
Contract amount	USD 238,790,000	USD 47,525,000
Valuation gain and loss	(300,521)	(142,932)

2) Currency swap derivatives trading

As of the date of preparation of report, the details of the derivatives for which hedging accounting is applied and designated as hedging instruments by SK Bioscience are as follows.

(Reference date: December 31, 2021)

(Unit: USD, 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	1,639,873
Valuation gain and loss:	
Amount reclassified as profit or loss for the current period	2,925,000
Other comprehensive income (Note 1)	1,256,961

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

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 documents, the major contracts in terms of management which the Company has executed consist of the license in contracts and other contracts, whose key details are as follows.

1) Green Chemicals

Classification	Contractual counterpart	Purpose and details of the contract	Period of contract execution & contract period	Contract amount & payment taking method (criteria)*
License out contract	Capchem	Patent's non-exclusive license and transfer of technology for the secondary batteries' electrolyte additive	August 2021 - June 2036	Prepaid technology fee and running royalty (constant rate of contract product sales)

2) Life Science (Pharma Business Division)

Classification	Item	Contractual counterparty	Target area	Contract 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)	Authorization in progress
	SKP204	Miravo Healthcare (Ireland)	Korea	2021.07.28	(Note 1)	(Note 1)	Authorization in progress
Other contract	Transfer of assets	Tiumbio Co., Ltd.	(Note 1)	2017.02.23	(Note 1)	(Note 1)	Different phase in progress for each task
	Joint research	Standigm Co., Ltd.	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.	-	2020.11.18	(Note 1)	(Note 1)	Fund investment in progress
	Joint research	Dr. Noah Biotech Co., Ltd.	Worldwide	2020.11.24	(Note 1)	(Note 1)	Joint research in progress
	Equity investment	Standigm Co., Ltd.	-	2021.05.14	(Note 1)	(Note 1)	Pre-IPO phase
	Equity investment	J2H Biotech Co., Ltd.	-	2021.07.29	(Note 1)	(Note 1)	Pre-IPO phase
	Fund investment	Sante Ventures	-	2021.09.14	(Note 1)	(Note 1)	Fund investment in progress
	Equity investment	Oncobix Co., Ltd.	-	2021.11.18	(Note 1)	(Note 1)	Series A Bridge phase

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

[SK Bioscience]

As of the date of preparation of report, the major contracts in terms of management which have been executed by SK Bioscience consist of the license out/in contracts, joint development contracts, C(D)MO contracts, and others, whose key details are as follows.

Classification	Item	Contractual counterparty	Target area	Contract date	Total contract amount	Amount received/paid	Progress, etc.
License out contract	A high efficiency influenza vaccine production technology of the cell culture method	Sanofi Pasteur	USA, Europe	2018.02.12	US\$ 155M	US\$ 35M	Contract terminated
License out contract	Genetic Recombination Factor VIII (Hemophilia Treatment)	CSL	All regions except Korea	2009.05.	(Note)	(Note)	Commercialization in USA, Europe (by country), Canada, etc.
License in contract	Introduction of Novavax COVID-19 vaccine technology	Novavax	Republic of Korea	2021.02.12	(Note)	(Note)	Commercial production
Joint development contract	Next generation pneumococcal vaccine	Sanofi Pasteur	(Note)	2014.03.19	US\$ 45M	US\$ 45M	Phase 2 clinical trial in the US
Joint development contract	Typhoid conjugate vaccine	International Vaccine Institute	Worldwide	2013.04	(Note)	(Note)	Product license for export
Joint development contract	Next generation pediatric enteritis vaccine	PATH (Health and Medical Adequate Technology Program)	Worldwide	2017.04	(Note)	(Note)	Phase 3 clinical trial completed
C(D)MO contract	CMO contract for COVID-19 vaccine	AstraZeneca	-	2020.07.03	(Note)	(Note)	Contract expired
C(D)MO contract	CMO contract for COVID-19 vaccine	Novavax	-	2020.08.11	(Note)	(Note)	-
Others	COVID-19 vaccine development and facility use contract	CEPI (Coalition for Epidemic Preparedness Innovations)	-	2020.06 2021.10 (extended)	(Note)	(Note)	-
Others	Next generation COVID-19 vaccine	Bill & Melinda Gates Foundation	-	2020.05	US\$ 3.6M	US\$ 3.6M	Phase 3 clinical trial

Classification	Item	Contractual counterparty	Target area	Contract date	Total contract amount	Amount received/ paid	Progress, etc.
	research funding contract						
Others	Next generation COVID-19 vaccine development project research funding contract	CEPI (Coalition for Epidemic Preparedness Innovations)	-	2020.12	US\$ 210.1 M	(Note)	Phase 3 clinical trial
Others	Next generation COVID-19 vaccine development project process development funding contract			2021.03			
Others	Next generation COVID-19 mutant virus response vaccine development project related research funding contract			2021.03			
Others	Next generation COVID-19 vaccine development project related additional research funding contract			2021.05			
Others	Sarbecovirus universal vaccine development project related R&D funding contract	CEPI (Coalition for Epidemic Preparedness Innovations)	-	2021.12	US\$ 50.0M	(Note)	-

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

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

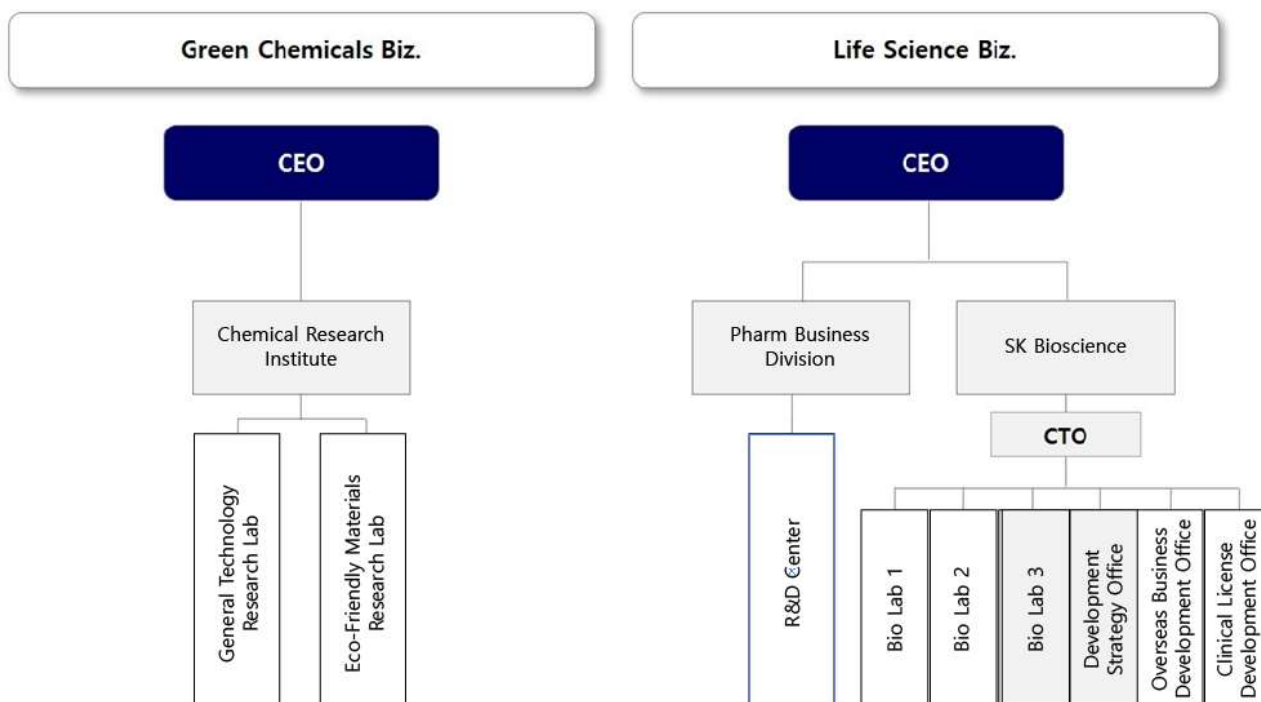
B. R&D activities (including the major consolidated subsidiaries)

1) Overview 3pt w of R&D activities

The Company's R&D organization consists of the Chemical Research Center of the Green Chemicals Biz. in charge of chemical products development and the R&D Center of the Life Science Biz., Pharma Business Division. SK Bioscience, a subsidiary, also operates an individual research institute, and the Company is continuously achieving development across the chemical, pharmaceutical, and vaccine fields via the research organizations of the head office and subsidiary.

2) R&D organization

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



(2) Status of personnel for the R&D organization

[SK Chemicals]

(Reference date: December 31, 2021)

(Unit: people)

Classification	Doctoral	Master's	Bachelor's	Technician	Total
R&D Center	3	28	27	6	64
Chemical Research Center	8	66	13	33	120
Total	11	94	40	39	184

※ 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	Kim Jung-Hoon	Head of R&D Center	Seoul National University / Pharmaceutical Science (Bachelor's), Seoul National University / Pharmacy (Master's), Univ. of Washington (MBA)	Not entered at request

[SK Bioscience]

(Reference date: December 31, 2021)

(Unit: people)

Classification	Doctoral	Master's	Others	Total
Number of personnel	17	143	51	211

(Pharmaceutical/bio related key research personnel)

Position	Name	Task in charge	Professional background	Key research performance
CTO	Kim Hoon	Supervision of R&D	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 AM) - 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):11981) - 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)

Position	Name	Task in charge	Professional background	Key research performance
				<ul style="list-style-type: none"> - 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) - Sahastrabuddhe 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.

Position	Name	Task in charge	Professional background	Key research performance
				<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) - Human papillomavirus quadrivalent vaccine's commercialization and the human papillomavirus 10-valent vaccine development (Ministry of Science, ICT and Future Planning-Biomedical Technology Development, 2015-2020) - Typhoid polysaccharide-protein conjugate vaccine production technology development (Ministry of Health and Welfare-Infectious disease crisis response technology development, 2013-2018) - Commercialization of the 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 the 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 line suspended in serum-free medium and method for preparing virus for vaccine using the cells (date of registration: 2018-02-14) - Vero cell line suspended in a serum-free medium and a method for producing a vaccine virus using the cells (date of registration: 2015-12-09) - Method of manufacturing capsular polysaccharide having pneumococcal serotype (date of registration: 2019-01-28) - Polyvalent pneumococcal polysaccharide-protein conjugate composition (date of registration: 2019-12-12)
Head of Overseas Business Development Office	Park Jin-Seon	Supervision of Overseas Business	Seoul National University. Pharmacy, Bachelor's; Seoul National University, Pharmaceutical Science,, Master's	-
Head of Development Strategy Office	Jo Tae-Joon	Supervision of Strategy	Sahmyook University, Pharmacy, Bachelor's;	-

Position	Name	Task in charge	Professional background	Key research performance
			Kyung Hee University, Clinical Pharmacy, Master's; Hanyang University, Global Medical Management (MBA)	
Head of Clinical License Development Office	Ryu Ji-Hwa	Clinical Supervision	Duksung Women's University, Pharmaceutical Science, Bachelor's; Duksung Women's University, Pharmacy, Master's; Sungkyunkwan University, Pharmacy, Doctoral in progress	<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. 2020 - 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 history]</p> <ul style="list-style-type: none"> - Performed approximately 20 Phase clinical trials, 10 Phase 2 clinical trials, and 20 Phase 3 clinical trials - Member of TFT for development of the 2016 Vaccine Clinical Evaluation Guidelines of the Ministry of Food and Drug Safety - Served as the head of the research department of the Korea Society for Clinical Development 2016-2017
Head of Bio Office 1	Park Yong-Wook	Biopharmaceutical R&D	Hanyang University, Biochemistry/Molecular Biology, Bachelor's; Gwangju Institute of Science and Technology, Life Science	<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)

Position	Name	Task in charge	Professional background	Key research performance
			(Master's)	
Head of Bio Office 2	Lee Soo-Jin	Biopharmaceutical R&D	Cheongju University, Genetic Engineering (Bachelor's); Cheongju University, Genetic Engineering (Master's); Catholic University, Biotechnology (Doctoral)	[Papers] - 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. [Patents] - 8 domestic applications, 17 overseas applications, 2 domestic registrations (10-1577745, 10-1831284), 7 overseas registrations (2614140, 6067560, 323937, 2011299761, IDP000053063, 104862267 B, 9447383) [Performance of assignment] Supervisor of assignment - RIGHT FUND, Development of a cost-effective Hepatitis A vaccine on a low-footprint, low-cost platform (2020-2023)
Head of Bio Office 3	Shin Jin-Hwan	Biopharmaceutical R&D	Korea University, Genetic Engineering (Bachelor's); KAIST, Molecular Genetics (Master's); Sungkyunkwan University, Molecular Pharmaceuticals (Doctoral)	[Papers] - 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 - Comparative evaluation of a newly developed 13-valent pneumococcal conjugate vaccine in a mouse model. Human vaccines & immunotherapeutics. 2017; 13 (5), 1169-1176 [Patents] - 19 domestic applications, 177 overseas applications, 3 domestic registrations, and 72 overseas registrations - Notable patents: US 9,981,029, US 9,636,392, US 10,058,607, US 10,034,949

(3) R&D expenses

[SK Chemicals]

(Reference date: December 31, 2021)

(Unit: KRW one million)

Account		The 5th Period	The 4th Period	The 3rd Period
Raw material expenses		1,822	2,096	2,402
Labor cost		15,794	14,098	16,105
Depreciation		4,950	4,036	4,457
Consignment service cost		4,165	2,690	2,582
Others		12,568	10,412	9,945
Total R&D expense		39,300	33,332	35,491
Accounting	Selling, general and administrative expenses	38,635	33,332	35,491
	Cost of sales	665	-	-
	Development cost (intangible assets)	-	-	-
R&D expenses / sales ratio [Total R&D expense ÷ Sales for the current period × 100]		3.6%	3.7%	4.1%

※ The R&D expense and sales related to the discontinued businesses are excluded for the current period, previous period, and the period before the last period.

[SK Bioscience]

(Reference date: December 31, 2021)

(Unit: KRW one million)

Account		The 4th Period	The 3rd Period	The 2nd Period
Classification by the nature of cost	Raw material expenses	24,688	8,577	9,584
	Labor cost	22,848	12,142	9,950
	Selling, general and administrative expenses, etc.	52,043	11,764	10,761
	Total R&D expense	99,579	32,483	30,295
	External subsidies, etc.	(52,149)	(6,496)	(2,575)
	Amount after deducting the subsidy	47,430	25,987	27,720
Details of accounting	Selling, general and administrative expenses	47,250	25,987	27,720
	Development cost (intangible assets)	180	-	-
	Total amount accounted	47,430	25,987	27,720
R&D expenses / sales ratio (%) [Total R&D cost ÷ Sales for the current period × 100]		10.7%	14.4%	16.5%

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

3) R&D and the patent application performance

(1) R&D performance

<Green Chemicals Biz.>

Year	Research task	Research results and the expected effects
2021	Commercialized PO3G's main purpose of use	It has been applied across various fields including spandex, waterproof and moisture permeable clothing, synthetic leather, 3D printing, and cushion material for shoes, and has been adopted and is planned for release for the products in companies such as global fashion sports brands and domestic car makers.
	Completed development of ECOTRIA Claro-CR50 & PN-CR50 grade	Development of products has been completed, containing 50% of chemically recycled raw materials for grades (Claro-CR50 & PN-CR50) sold in the cosmetic packaging field with high requirements for recycling, and a level of technology that can be applied to cosmetic grades with strict quality control standards has been secured. The production and sales are scheduled for 2H2021 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 2H2021.
	Acquired type 2 of Recycle Certification for ECOTRIA products	By acquiring both the GRS and ISCC Plus, which are the recycle certifications, it is possible to selectively respond to the customer needs, and as for the GRS certification, a clear guarantee of the recycle content included in the product is available, and as for the ISCC certification, the recycle content used for manufacturing can be allocated for various products, and thus, it has the advantage of being used with flexibility.
	Secured biodegradation certification for 2 grades of SK's highly flexible PLA	The biodegradation certification for 2 grades of biodegradable biopolymer (flexible PLA) developed in 2020 was secured. The flexible PLA developed this time is a new material developed with SK Chemicals' patented technology, and it has been confirmed that it has a distinct excellence in terms of bio-mass content, transparency, flexibility, and physical properties.

Year	Research task	Research results and the expected effects
		The commercialization and development are planned to use biodegradable film packaging materials such as high-end shopping bag packaging materials.
	Developed the Recycle Grade for flame retardant PET and secured the UL material certification	Enhanced the eco-friendliness of PET compound products by developing eco-friendly flame-retardant PET compound products. - Developed the flame retardant PET compound products applied with PCR (Post-Consumer Recycled), secured UL material certification, and entered the customer evaluation phase.
	Successfully completed the commercialization of ECOZEN Plus	Developed the new product of Ecozen Plus through the alloy technology of SK Chemicals' heat resistant copolyester resin ECOZEN and PCT resin. Developed this time, Ecozen Plus significantly reduced the residual stress in the molded part and improved the material's toughness. Sales began in a market for the transparent containers that can be washed, such as airtight containers and personal water bottles, which could not be entered with existing materials.
	Developed PPS Compound for automobile parts and began commercial sales	Developed the PPS compound products for automobile parts using the SK PPS (Ecotran) manufactured by a new polymerization method without the use of solvents. Qualified in the quality evaluation of the domestic and foreign auto parts market and began sales (for Thermostat Housing, Electric Water Pump, Impeller, Lighting Parts)
2019	Developed Polyester elastomer for the artificial leather's use	Developed and commercialized the artificial leather skin's film-forming technology. The existing artificial leather, which used solvent-type PU and plasticizer-containing PVC, will be replaced with solvent-free and 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.
2018	Composite materials for automobile parts	Developed the carbon fiber prepreg for automotive exterior parts. After molding the CFRP parts, the exterior quality was excellent compared to the existing products, and thus, it succeeded in applying the automotive exterior parts for the first time in Korea. Began the domestic sales and planned to expand into the markets including China in the future.
	Developed the flame retardant PET for motor insulator	Developed the flame-retardant PET compound material for the home appliances' motor parts with excellent strength and formability. Through such (Dupont's Rynite, etc.), the direct-drive method, which has been exclusively applied for the world-class products, has been applied successfully for the insulators of large home appliance motors. Expanded the use to the electrical and electronic insulating parts such as motor insulators, bobbins, and relays and direct drive and localized for the overseas proprietary materials for anticorrosive motor insulators.
	Developed and commercialized the PPS compound for Hyundai Motor's lamp parts	Developed the new product of PPS Compound with a significantly lower out-gas content. Addressed the haze issue for the volatile out-gas components of automobile lamp parts, applied for the Hyundai Mobis' automobile head lamp parts, and began the commercial sales.
	Developed and commercialized the PCT compound for microwave-safe cooking containers	Developed the first high heat-resistant material for the microwave-safe cooking containers in Korea with the improved heat resistance and impact resistance compared to the existing materials and secured the FDA certification. Began the domestic sales and in the future, it is planned to enter into the global market by expanding high-temperature applications such as oven-safe cooking containers.
2017	Developed the low hardness soft elastomer resin (TPEE)	Developed the low-hardness 80A polyester elastic resin (differentiated heat resistance and tensile properties relative to competitive resins). Application developed as a band material for smart devices, a weather strip for automobiles, and a sealing material.
	Developed the PCT compound for lead-free surface mount connectors	Developed the PCT compound with heat resistance and electrical properties which enables the direct bonding of pins without the use of lead, a hazardous substance. Commercialized the use for the automotive connectors.
	Secondary battery electrolyte (additive)	Developed the high-performance secondary battery materials (differentiated with high output and gas generation suppression performance, in cooperation with global battery customers). Demand is expected from global battery makers based on the growth of the battery market for electric vehicles.

<Life Science Biz.>

Classification	Name of assignment	Indicant	Development phase	Note
SK Bioscience	NBP613	Prevention of pediatric enteritis	Phase 1/2 clinical trial	Developed in-house
	GBP430	Prevention of Rotavirus (NRRV)	Phase 3 clinical trial	Jointly developed
	NBP615	Prevention of cervical cancer	Phase 1/2 clinical trial	Developed in-house
	NBP618	Prevention of Typhoid (TCV)	Product license for export	Jointly developed
	GBP410	Prevention of Pneumococcus (PCV)	Phase 2 clinical trial	Jointly developed
	NBP2001	Prevention of COVID-19	Phase 1 clinical trial	Developed in-house
	GBP510	Prevention of COVID-19	Phase 3 clinical trial	Jointly developed
Pharma Business Division	SID710	Dementia	Released in the US, approved in Brazil	Released Europe's first generic
	SID1806	Arthritis	Phase 3 clinical trial	
	SID1901	High blood pressure	Phase 1 clinical trial	Generic
	SID1903	Diabetes	Phase 1 clinical trial	Newly improved drug
	SID2003	Gout	Non-clinical	Newly improved drug
	SKR201	Rheumatoid arthritis	Non-clinical	New drug
	SKR202	Rheumatoid arthritis	Non-clinical	New drug
	SKR203	Idiopathic pulmonary fibrosis	Non-clinical	New drug
	SKR204	Non-alcoholic steatohepatitis	Discovery	New drug
	SKR205	Idiopathic pulmonary fibrosis	Discovery	New drug
	SKR206	Non-alcoholic steatohepatitis	Non-clinical	New drug
	SKR207	Idiopathic pulmonary fibrosis	Non-clinical	New drug
	NCE201	Non-alcoholic steatohepatitis	Non-clinical	New drug
	NCE202	Non-alcoholic steatohepatitis	Non-clinical	New drug
	NCE203	Idiopathic pulmonary fibrosis	Non-clinical	New drug
	NCE204	Non-alcoholic steatohepatitis	Discovery	New drug
	NCE205	Idiopathic pulmonary fibrosis	Discovery	New drug
	SKP201	Arthritis	Authorized	Generic
	SKP203	Hyperlipidemia	Released	Generic
	SKP204	Lou Gehrig's disease	Authorized	
SKP205	Migraine	Authorized	Newly improved drug	

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

(Performance of the completed R&Ds)

The status of new drugs whose development has been completed over the last 5 years is as follows. **[Pharma Business Division]**

Classification	Name of Product	Indicant	Released	Status	Note
Generic	Cosca Tab. 25mg	High blood pressure medication	2021	Sold domestically	Released (2021.07.01)
Natural product	Ginexin F Tab. 240mg	Improved blood circulation	2021	Sold domestically	High content tablet, improved convenience in taking
Generic	Laton SR Tab.	Insomnia	2020	Sold domestically	-
New drug	Ongentys	Parkinson's disease	2020	Sold domestically	-
Newly improved drug	Renexin SR Tab.	Inhibited chronic arterial occlusion, cerebral infarction's recurrence	2020	Sold domestically	Sustained released newly improved drug
Generic	Romelain Enteric Coated Tab.	Edema after trauma or surgery	2020	Sold domestically	-
Newly improved drug	Vimsk Inj.	Epilepsy treatment	2019	Sold domestically	Lacosamide ingredient Inj., first released in Korea
Generic	Cosca EX Tab.	High blood pressure medication	2018	Sold domestically	-
Newly improved drug	Qudexy XR	Epilepsy treatment	2018	Sold domestically	Sustained released newly improved drug
Generic	Vimsk Tab.	Epilepsy treatment	2016	Sold domestically	First generic drug
New drug	Remitch	Treatment for intractable pruritus	2016	Sold domestically	Rare disease
Generic	Invela	Serum phosphorus control	2015	Sold domestically	-
Newly improved drug	Anpla X SR Tab.	Platelet aggregation inhibitor	2015	Sold domestically	-
Newly improved drug	Exonin CR	Skeletal muscle relaxants	2015	Sold domestically	-
Generic	Celsk	Arthritis treatment	2015	Sold domestically	-
Generic	Amolanic ES	Antibiotic	2015	Sold domestically	-

[SK Bioscience]

Item	Indicant	Year of development completion	Current status	Note
Sky Cellflu 3 prefilled syringe Inj.	Flu prevention	2014	Sold in Korea under license from overseas	-
Sky Cellflu 4 prefilled syringe Inj.	Flu prevention	2015	Sold in Korea under license from overseas	Acquired WHO PQ
Sky Pneumo prefilled syringe Inj.	Prevention of Pneumococcus	2019 (young children); 2016 (adults)	Acquired authorization	Not sold in the market due to patent issues
Sky Zoster Inj.	Prevention of herpes zoster	2017	Sold in Korea under license from overseas	-
Sky Varicella Inj.	Prevention of chickenpox	2018	Sold in Korea under license from overseas	Acquired WHO PQ

(2) Patent application performance results

(Reference date: December 31, 2021)

(Unit: cases)

Year	Domestic		Overseas	
	Applied	Registered	Applied	Registered
2021	71	34	113	103
2020	42	19	135	103
2019	35	32	135	144

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

(3) Other R&D performance

SK Bioscience, the Company's subsidiary, is focused on the development of vaccine formulations with a high potential to lead the vaccine industry in the future based on its successful experience in developing and commercializing four vaccine products to date. We plan to expand our vaccine product portfolio by securing a pipeline composed of cervical cancer vaccine, childhood enteritis vaccine, typhoid vaccine, and next-generation pneumococcal vaccine, and based on our R&D capabilities, are strengthening our global position in the vaccine industry by actively building a global vaccine network through joint development and collaboration with global multinational companies, international organizations, and biotech companies. In addition, SK Bioscience is developing a COVID-19 vaccine by utilizing the vaccine development experience and technology it has accumulated over the years to overcome the COVID-19 pandemic. In particular, the Company's own COVID-19 vaccine GPB510, which was funded by BMGF/CEPI, secured approval for a phase 3 clinical trial (IND) from and by the Ministry of Food and Drug Safety in August 2021, and the company has been conducting global phase 3 clinical trials across various regions, including Europe and Southeast Asia, as well as in Korea.

The results of the major R&D assignments carried out by SK Bioscience are as follows. For the cell-cultured flu vaccine, which is the foundation and core product of SK Bioscience's vaccine business, we have successfully developed a trivalent vaccine for the first time in Korea and a quadrivalent vaccine for the first time in the world. Moreover, we have succeeded in launching our premium 'Sky Zoster' vaccine for the shingles vaccine market, previously a monopoly market, and this was followed by the release of 'Sky Varicella,' a chickenpox vaccine. Based on the success of such products in Korea, we are also in the process of entering overseas markets in earnest.

For the R&D assignments in progress by SK Bioscience, our most notable next-generation pneumococcal vaccine development project is with Sanofi Pasteur, a global vaccine specialized company. Launched in 2014, this project is

currently undergoing global phase 2 clinical trials, and when commercialized, is expected to enter the global pneumonia vaccine market, worth about 8 trillion* as of 2019. Beyond this, SK Bioscience is conducting joint research with foreign institutions with the goal of advancing into the global market. For our typhoid vaccine, which is undergoing joint development with the International Vaccine Research Institute, we have obtained the results of phase 3 clinical trials and are in the process of obtaining approval for export.

SK Bioscience will continue to pursue R&D assignments based on its excellent technology, and will maximize R&D performance by actively utilizing a network that includes external organizations and the government. (*Source: Global Vaccine Market Report, WHO, December 2020)

7. Other Matters of Reference

A. Related to intellectual property rights

1) Patent

In connection with the business we are engaged in, as of the date of preparation of the disclosure documents we have registered 1,274 patents domestically and 1,631 patents internationally.

In the Green Chemicals Biz. field, we have acquired numerous materials related patents, and in the Life Science Biz. field, have acquired the patents related to major pharmaceuticals such as Joins and Promac, while SK Bioscience, our subsidiary, has acquired patents related to our influenza vaccine and pneumococcal vaccine.

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

(Status of the patent acquisitions (cumulative))

(Reference date: December 31, 2021)

(Unit: cases)

Classification	Domestic	Overseas
Green Chemicals Biz.	1,049	1,057
Life Science Biz.	225	574

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

(Unit: cases)

Classification	2021	2020	2019
Domestic	34	19	32
Overseas	103	103	144

2) Trademark

In connection with the business we are engaged in, we have accumulated 161 domestic and 134 overseas registered trademarks as of the date of preparation of these disclosure documents.

B. Matters of regulation related to environment

In connection with our business, we strive to protect the environment by strictly complying with legal matters such as environmental regulations for various products and workplaces. In particular, in response to the government's low-carbon green growth policy, we have reported on the 'greenhouse gas emissions and energy consumption' generated at our workplaces to the government as required by the relevant laws and regulations, and have also transparently provided relevant information to the stakeholders through sustainability reports, etc. In 2016, we established and implemented the SHE (Safety, Health, Environment) system to systematically manage the environment, and are doing the best we can to help reduce the harmful and hazardous factors on the environment for the future.

1) Air and water quality

To systematically manage our air pollutant emissions, we have installed an automatic atmospheric measurement network (TMS) and carried out continuous environmental monitoring activities. In addition, when operating the air emission facilities, environmental protection such as compliance with emissions standards continues to remain the top priority of management. We have managed the discharge of water pollutants by operating wastewater treatment plants within our workplaces. To help minimize the emission of pollutants, we have installed environmental pollution prevention facilities including air and water pollution prevention facilities, and operate them to minimize our impact on the surrounding environment.

2) Hazardous chemicals

To respond to the laws and regulations related to hazardous chemicals and enhance the workplace safety, we have prepared the 'Chemical Accident Prevention Management Plan' which analyzes the extent of the impact on people and the environment caused by chemical accidents outside of the workplace. Furthermore, we have prepared and implemented accident prevention, off-site impact assessment, and emergency response programs, and have also notified local residents of the related information. Based on this, we are striving to minimize damages in the event of a chemical accident by establishing our own control plan and taking measures such as notifying local residents near our workplaces.

3) Compliance with the product environment regulations

As the regulations on hazardous chemicals are continuously being strengthened worldwide, SK Chemicals is producing and selling SKYGREEN, a copolyester material which contains no bisphenol derivatives (BPA, etc.) that can be harmful to the human body or phthalate plasticizers regulated by EU RoHS regulations, and which satisfies the food-contacting material requirements of Korea, the United States, Europe, China, and Japan, as well as ECOZEN, which achieves improved heat resistance by introducing biomass-derived ingredients (1-15% based on biomass-derived carbon elements).

4) Greenhouse gas reduction and the energy savings

Since 2015, we have been qualified for the allocation of the greenhouse gas emissions rights in accordance with Article 8 of the Act on the Allocation and Trading of Greenhouse-gas Emission Permits. Thus, in accordance with Article 24 of the same Act and the guidelines of the authorities, our greenhouse gas emissions and energy consumption, which have been verified by a third party with an external verification agency, have been reported to the government authorities and disclosed to our stakeholders, and we have engaged in numerous activities to reduce our greenhouse gas emissions and energy use.

C. Relevant laws and regulations or the government's regulations

As an industry directly related to public health, the pharmaceutical industry is subject to strict regulations under the Pharmaceutical Affairs Act and other relevant laws and regulations. The relevant regulations are implemented across various fields including the approval review of clinical trial plans, approval, re-examination after release, sanctions for use outside the scope of approval, and maintenance of the order of sales. In particular, in the drug approval process, we have effectively managed safety and efficacy, as well as testing methods, manufacturing-related information on drug main ingredients, and risk management plans, etc., to ensure that only thoroughly verified products are released to the market.

With a view to improving fair competition in the industry and enhancing the order of sales for drugs, the government has introduced the rebate double penalty system to punish both the unlawful recipients of rebates and the providers to promote transparency in the drug transaction and drug price system, and strengthened the penalties for providing and accepting rebates, such as by ensuring that the insurance price of the drugs for which the act of providing rebates has been caught can be lowered. Furthermore, through the amendment of the Pharmaceutical Affairs Act, the government is striving to maintain the order of drug sales by continuously legislating the economic profit and expense reporting system and the regulations against the sales agents.

The government's efforts to stabilize the pharmaceutical industry include various drug price reduction policies for the financial soundness of health insurance. Unlike other businesses, in the pharmaceutical industry, the government directly controls the drug prices, which means that the government's drug price policy has a direct impact on the sales and

profitability of individual companies. The drug price policy is managed at an appropriate level depending on the soundness of the health insurance finance at the time. The policy is focused on minimizing drug expenditure, a major component of insurance financial expenditure, by adjusting and lowering the drug prices based on the price and usage of drugs, and preventing health insurance from being consumed beyond what is needed.

Currently, the government recognizes the pharmaceutical and bio industries as key strategic industries which will create a national growth engine for the future, and is systematically fostering and supporting them. To help them secure international competitiveness, the government has devised a five-year comprehensive plan for fostering and supporting the pharmaceutical industry in accordance with the relevant special law and implemented it from 2013 through 2017. Moreover, by selecting excellent companies and registering them as innovative pharmaceutical companies, the government has extended various incentives including R&D investment expansion, tax support, policy funding support, tax reduction and exemption, and deregulation, and has continued to invest in the excellence of R&D and strived to promote the development of the pharmaceutical industry.

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 environments including fluctuations in exchange rates, the global economy and oil price volatility due to geopolitical risks in the Middle East. In particular, the Korean chemical industry has been laying the groundwork for growth through exports due to stagnant domestic demand, yet its growth engine has weakened due to further intensifying competition, such as the progress made toward self-sufficiency in China, the main export destination, and the increased supply in the Middle East and the United States.

By mainly producing and selling high value-added specialty products, however, the Company has seen continuous growth due to a steady increase in global demand for eco-friendly products and lightweight materials, and new businesses are also expected to enter into the stabilization phase in the near future.

(2) Domestic and foreign market conditions, etc.

[Highly functional copolyester resin]

In East Asia including Korea, China, and Japan, we have secured a market share of over 50% and are conducting our business in a very stable manner. In North America and Europe, our local marketing subsidiaries provide customer services to expand our market share, while the demand continues to increase through the development of new markets including Southeast Asia and Latin America.

Trends in the share of the global copolyester resin market

Product	2021	2020	2019
Copolyester	41%	36%	36%

※ Source: Estimated in-house

[DMT]

In Korea and Japan, we have secured a stable foundation for sales by executing long-term contracts with our major customers, maintaining a market share of over 90%. Furthermore, as the only manufacturer in East Asia, we have maintained a very large market share throughout Asia including China, Taiwan and India.

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

Product	2021	2020	2019
SKYDMT	90%	90%	73%

※ Source: Estimated in-house

[Copolyester adhesive]

Copolyester binder for bonding and coating is used for food can coating, steel sheet coating for home appliances, clothing and the packaging adhesives, etc., and the industry is maintaining stable growth at an average annual rate of 3%. In particular, in the area of food can coatings, copolyester binder is replacing epoxy, which was widely used in developed countries such as the United States and Europe, following the issue of exposure to BPA, an environmental hormone, and is growing rapidly each year at a rate of over 10%. We are also expanding our market share with competitiveness and excellent quality in the US and European markets. Moreover, in the area of steel coatings for home appliances, we have captured over 80% of the domestic market, and our sales are expanding to Asian regions including China.

Trends in the market share of the global polyester adhesive market

Product	2021	2020	2019
SKYBON (based on the solid's sales)	9%	7%	7%

※ Source: Estimated in-house

(3) Overview of business, etc.

[Highly functional copolyester]

Copolyester is used in a wide range of applications from packaging materials to home appliances and construction materials due to its safety, excellent physical performance, chemical resistance and transparency, as well as its lack of bisphenol A (BPA), an environmental hormone. Based on our stable production technology, we are expanding the market by developing various products that meet customer needs from high heat resistance to high strength.

Recently, we have launched the Ecotria series containing 30-50% recycled materials, and invested in Shuye, China, which has the technology to chemically decompose waste PET, to proactively respond to the issue of plastic recycling. Based on such new investments and product development, we plan to expand our recycling-related product portfolio to 50% by 2025 and 100% by 2030.

[DMT]

Notwithstanding its excellent quality, the industry has been shifting away from DMT and towards PTA as an alternative in the polyester and hot melt fields such as PET and PBT in recent years due to its relatively high price and limited supply. Our DMT is used as a raw material for CHDM in copolyester production to ensure the production stability, and by providing world-class high-quality products, we are continuously expanding our market share even in the face of declining demand.

[Copolyester adhesive]

In the adhesive and coatings market, the uses and application materials are very diverse, and thus developing a variety of products that meet customer needs in a timely manner and establishing a product portfolio for each use are key to competitiveness. Given such characteristics, there are entry barriers for new companies. The traditionally strong players in each region, such as Evonik in Europe, Bostik in the United States, and Toyobo in Japan have been conducting business exclusively in each region. Recently, however, major customers, such as paint companies, are promoting the dualization of supply to secure low-cost purchasing and raw material supply stability, which means that there are opportunities for regional expansion. Our Company has continuously been expanding our market share in overseas markets by taking advantage of our competitive advantages, including the technological prowess we have accumulated over the past 30 years in this business and the price competitiveness we can offer thanks to our in-house production of monomers such as DMT and CHDM. The adhesives and coatings market is a mature industry which has maintained stable growth, yet there are applications which require the replacement of existing technologies or have high growth potential due to external environmental changes such as regulations and technologies.

In particular, as our products do not contain the environmental hormone BPA, they are attracting attention for can coating applications, while the solvent-free hotmelt products that do not use organic solvents have excellent washing resistance and are used as the adhesives for thermal transfer films for clothing.

- (4) New businesses, etc.

[Biopolyol, an eco-friendly raw material for elastic materials]

Together with recycled materials, sustainable biomass-based materials are positioning themselves as a future industry that is drawing increased attention as a way to solve the problem of depletion of fossil resources in the near future and environmental problems that are approaching reality. In particular, the demand for eco-friendly materials is growing rapidly across all industries including the global sports and fashion industries due to the increased global interest in the environment, stricter regulations, and the declaration of ESG management. We are responding to such demands by launching the PO3G business. PO3G is a biopolyol made of corn. SK Chemicals' PO3G has secured bio-derived certification from the USDA (USA) and European TUV, and has also proven its eco-friendliness compared to fossil raw materials through the life cycle analysis. By applying the PO3G, the elastic materials industry including polyurethane and spandex can realize excellent performance while lowering the greenhouse gas emission rate of their products. The Company, which has been working with partners across various industries, will be equipped with an annual 5,000-ton facility from 2022 to further expand cooperation with partners to respond to market demands. Furthermore, we will further strengthen our competitiveness not only in PO3G but also in the field of eco-friendly materials to proactively respond to environmental changes in the eco-friendly materials market and lead the way in addressing environmental issues.

- 2) Life Science Biz.

- (1) Characteristics of the industry, etc.

The pharmaceutical and biopharmaceutical industry, which produces and sells the pharmaceuticals that are key to human health, is an industrial area that is directly related to the health of the nation and the people, and takes on the characteristics of a regulated industry with strict management and control. Given this, corporate responsibility and ethics are absolutely critical.

In particular, the vaccine industry not only takes the lead in public health through the disease prevention, but also contributes to promoting the health of all mankind through overseas exports, contributing to the promotion of the public interest.

The pharmaceutical and biopharmaceutical industry is a high value-added industry with high technology and research intensity, and is also drawing attention as a key industry for the future. In particular, biopharmaceuticals are a high value-added business compared to traditional synthetic drugs, and their share of the overall pharmaceuticals market is continuously expanding. The significance of a stable vaccine supply in terms of the national-social safety net to overcome a pandemic situation such as COVID-19 has become far more prominent around the globe, and the growth in the demand for high-growth, especially high-value-added premium vaccine market due to economic growth and aging population is expected to drive the market growth moving forward.

Furthermore, under the government's plan to achieve self-sufficiency in vaccines and expand the national vaccination support business, not only the domestic vaccine market but also the international vaccine market is expected to grow rapidly, with a focus on developing countries.

Total production of domestic pharmaceuticals, etc.

(Unit: KRW one billion)

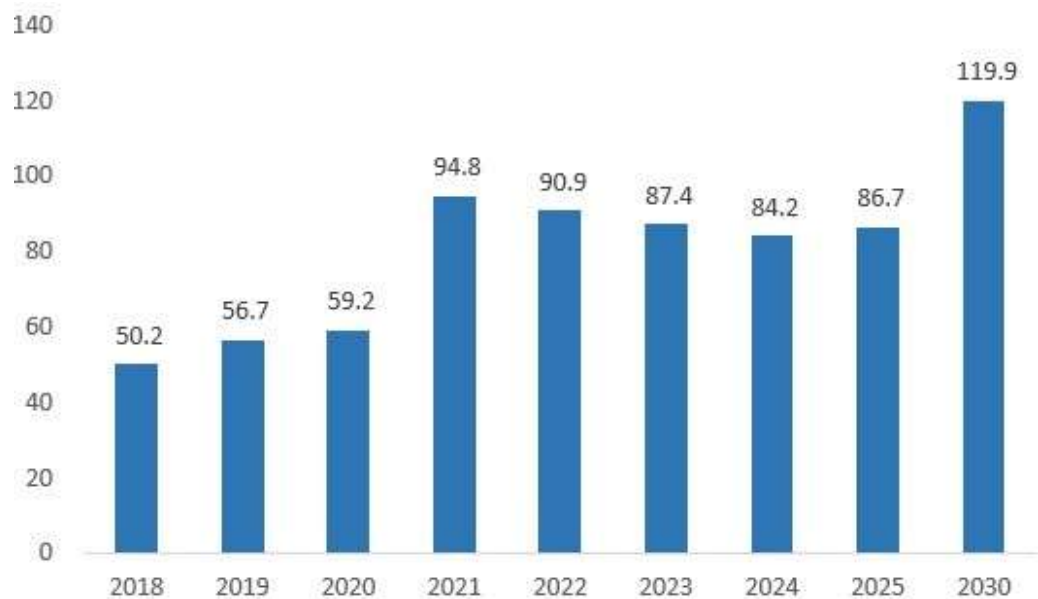
Year	Total production of domestic pharmaceuticals, etc. (Note 1)	Rate of increase	Gross domestic product (GDP)	Relative to GDP	Manufacturing GDP	Relative to Manufacturing GDP
2020	24,565	10.10%	1,933,152	1.27%	479,629	5.12%
2019	23,971	6.29%	1,919,040	1.18%	485,946	4.69%
2018	22,553	3.32%	1,893,497	1.19%	504,607	4.47%
2017	21,828	5.18%	1,730,399	1.26%	477,112	4.58%
2016	20,753	10.24%	1,637,421	1.27%	435,937	4.76%
2015	18,826	4.14%	1,564,124	1.20%	423,652	4.44%
2014	18,077	0.87%	1,485,078	1.22%	410,214	4.41%

(Note 1) Pharmaceuticals, etc.: Finished drugs, raw material drugs (including herbal medicines), quasi-drugs

※ Source: Ministry of Food and Drug Safety

Status and outlook of the global vaccine market (2018-2030)

(Unit: USD one billion)



Source: National Statistics Offices, UN Comtrade, TBRC Analysis, TBRC Estimates, TBRC Secondary (2021.11)

(2) Domestic and overseas market conditions, etc.

[Pharma Business (Pharma Business Division)]

The domestic pharmaceuticals market has continued to grow, yet the competition within the market is expected to intensify further. Competition among the pharmaceutical companies is intensifying due to the government's drug price management and strengthening of various regulatory, ethical, and compliance activities. Each pharmaceutical company is implementing a range of business strategies, including expanding product portfolios through partnerships and entering overseas markets to complement them. In particular, recently, the movement of 'open innovation strategy' to secure the new drug candidates from the outside to improve the R&D's efficiency and performance has increased. In addition, given the drug price cuts and intensifying competition, there is an increase in the internal operational efficiency for business diversification and improved profitability. Together with this, M&As and equity investment among pharmaceutical companies are expected to be active.

[Vaccine business (SK Bioscience)]

① CDMO market's growth

CDMO is an abbreviation of "Contract Development & Manufacturing Organization," which refers to the consigned development and the production of pharmaceuticals. Through the executed contracts with pharmaceutical and bio companies, new drug development processes such as candidate materials development, production processes, and clinical commercialization are outsourced beyond the CMO area for consigned development and production.

According to Evaluate Pharma, the global biopharmaceuticals market is expected to grow from USD 287.2 billion in 2020 to USD 416.7 billion by 2024, a CAGR of 9.8%. Accordingly, the size of the bio-CMO market is also expected to grow from USD 11.9 billion in 2019 to USD 25.3 billion by 2025, a CAGR of 13.4% over the next 10 years.

② M&A's facilitation

In 2020, the total number of M&A deals in the global biopharmaceutical industry was 673, and the transaction amount posted was USD 197.7 billion.* Companies are paying attention to new drugs with high profitability, and are pursuing mergers and acquisitions to preempt the new drug market. M&As are expected to be invigorated given the recent venture investment recovery strategy in the pharmaceutical and bio fields. In bioventures, there are technologies and ideas, yet the continuing capital provision is inadequate, whereas Big Pharma has both the capital and technical skills. If they take over a bioventure, they can develop new products by applying them to the pipelines they own. (*Source: GlobalData)

③ Government's policy support

After the 2009 H1N1 influenza pandemic, the importance of vaccines was highlighted, and the government declared the goal of 'Vaccine Sovereignty' to support the expansion of domestic self-sufficiency of vaccines after 2010. The government has designated and managed nationally essential vaccines in accordance with the Infectious Disease Control and Prevention Act, the number of which has consistently increased, rising from 8 types in 2009 to 17 types in 2017. To secure vaccine sovereignty, the government seeks to localize 21 out of 28 essential domestic vaccines by 2023. To this end, various ministries are making efforts to support vaccine development, through measures including the Ministry of Food and Drug Safety's global vaccine commercialization support group, vaccine WHO quality certification (PQ), and export support projects. [Changes in the domestic vaccine self-sufficiency plan]

Classification	2009	2010	2012	2014	2016	2017	2020	2023
Self-sufficiency vaccines	7/ 28 types	8/ 28 types	8/ 28 types	9/ 28 types	13/ 28 types	14/ 28 types	16/ 28 types	21/ 28 types
Rate of vaccine self-sufficiency	25%	29%	29%	32%	46%	50%	57%	75%

Source: Ministry of Food and Drug Safety, The 2019 Vaccine Self-Sufficiency Plan

Trends in the market share of Life Science Biz.'s major products in the domestic market

Business division	Major product	Market share			Note
		2021	2020	2019	
Pharmaceutical business (Pharma Business Division)	Joins	28%	28%	30%	Source: UBIST
	Ginexin	38%	39%	42%	Source: UBIST
Vaccine business (SK Bioscience)	Flu vaccine	-(Note 1)	31%	19%	Source: Estimated in-house (refer to the Ministry of Food and Drug Safety, The National Shipping Approval Data and the CDC Inoculation Rate)
	Herpes zoster vaccine	49%	48%	46%	Source: IMS data
	Chickenpox vaccine	75%	43%	21%	Source: IMS data

(Note 1) The production of the influenza vaccine has been temporarily discontinued for the production of the 2021 COVID-19 vaccines.

(3) Overview of business

[Pharmaceutical business (Pharma Business Division)]

Our pharmaceutical business (Pharma Business division) is primarily focused on manufacturing and selling natural and synthetic drugs, and is growing by continuously creating R&D outcomes and building strategic partnerships with leading global pharmaceutical companies. In 1999, we successfully developed the first new drug ‘Sunpla’ in Korea and opened a new chapter for the R&D of synthetic drugs. Thereafter, we have developed and launched ‘Joins,’ the first natural treatment for arthritis in Korea; ‘Mvix,’ an erectile dysfunction treatment which ranks first in the International Index of Erectile Function (IIEF), and ‘Mvix S,’ the world’s first film-type erectile dysfunction treatment. Furthermore, through Trans-dermal Drug Delivery System (TDDS) technology, which effectively delivers the required amount of drug at a constant concentration, we have grown into a notable Korean brand by launching ‘Trast,’ a patch-type arthritis treatment which maximizes the therapeutic effect and duration. Together with this, with the world's first generic version of Rivastigmine patch, SK Chemicals is expanding its sphere of influence in the advanced markets overseas by entering markets in 17 countries around the globe, securing the approval for sales in Europe in 2012, the United States in 2019, and Brazil in 2021.

In addition, we have achieved the recombinant hemophilia treatment of AFSTYLA, whose technology was exported to CSL (Australia) in 2009, was selected among the top 10 new technologies in Korea at the 2012 Korea Technology Awards and was conferred the Minister of Knowledge Economy Award. In 2016, global clinical trials were successfully completed, making it the first domestic biopharmaceutical to enter the US and European markets.

To further strengthen the Company's accumulated new drug development research capabilities, our Open Innovation Task Force organization was formed in 2019, while to effectively discover more diverse candidate substances based on the accumulated new drug development capabilities, we have partnered with leading domestic big data researchers, artificial intelligence (AI) companies, and venture companies specialized in the new drug development to conduct joint research. Currently, we are conducting joint research based on artificial intelligence technology with global companies including Standardigm, Dr. Noah Biotech, and Deargen, and are jointly studying new anticancer drugs and antifibrotic disease treatments with companies such as J2H and Simplex. Moving forward, we plan to continue to develop new drugs for intractable diseases through open innovations with companies and research centers across various fields.

[Vaccine business (SK Bioscience)]

SK Bioscience laid the foundation for its growth as a life science company by acquiring an interest 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 was the starting point for taking a leap toward becoming a world-class life science company through organic R&D and marketing, and was also an expression of our ambition to emerge as a leader in the biopharmaceutical industry by further developing through synergies based on the merger with Dongshin Pharmaceutical, which has unrivaled competitiveness in Korea. We paid attention to the fact that the paradigm in the world's life sciences was shifting from 'treatment' to 'prevention' in 2006, though at the time, the vaccine business in Korea was an unknown field. However, from 2008 to this day, we have executed large-scale investments of about KRW 500 billion for infrastructure construction and R&D. In 2012, the construction of the vaccine plant, L House, was completed to prepare a base for the production of most vaccines developed in Korea.

L House not only realizes flexibility in production through the single use system, but also promotes the best quality control with a perfect aseptic system. Each process room maintains a clean working environment through a verified HEPA filter, and blocks cross-contamination by building an air-lock system and an independent air conditioning system for each region. Furthermore, after storing it in the refrigerator, the final undiluted solution is prepared in a sealed disposable sterile bag to ensure stable quality even for a mass production system. The restricted access barrier system (RABS) is in place and undergoes special management for the charging space, which must be completely blocked from contamination. We also have a Future Extension Plan for future exports or pandemics.

Based on L House, we have taken another step toward vaccine sovereignty by achieving results such as Korea’s first trivalent cell-culture flu vaccine approval in 2014, the world’s first quadrivalent cell-culture flu vaccine approval in 2015, the world’s second shingles vaccine approval in 2017, and the second chickenpox vaccine approval in Korea in 2018.

Moreover, in recognition of our world-class R&D capabilities, in 2014, we collaborated with global vaccine company Sanofi Pasteur to develop a next-generation pneumococcal vaccine. In addition, AFSTYLA, a type A hemophilia treatment licensed out through technology transfer to CSL, received marketing approval from the FDA of the United States and Canada in 2016, the European Medicines Agency (EMA) in 2017, and Australia, becoming the first Korean technology-based new drug to enter into the US and EU and expand the area of approval. In 2018, we executed a contract to export the cell cultured influenza vaccine production platform technology with Sanofi Pasteur and released 'Sky Varicella,' a chickenpox vaccine, in Korea.

Commenced in 2014, the next-generation pneumococcal vaccine development project (in cooperation with Sanofi Pasteur) uses the clinical drugs produced at L House in Andong under the approval of the FDA (US) in December 2018, and is currently undergoing the global phase 2 clinical trials.

If the vaccine is successfully commercialized, it is expected to enter into the global pneumonia vaccine market, which is worth about KRW 8 trillion.

Beyond this, SK Bioscience is conducting joint research with foreign institutions with the goal of advancing into the global market. For the typhoid vaccine, which is undergoing joint development with IVI, we have secured the results of phase 3 clinical trials and are in the process of obtaining approval for export. In addition, 'GBP510,' a COVID-19 vaccine candidate substance funded by BMGF/CEPI, is undergoing phase 3 clinical trials in 5 countries including Korea, Europe, Southeast Asia and Oceania for a total of 4,000 patients.

Together with these, SK Bioscience plans to build a global R&PD center in Songdo International City to expand the global bio CDMO business and secure a new platform, and will strengthen its cooperation with international organizations, domestic and foreign bio companies and research institutes.

(4) New businesses, etc.

[Vaccine business (SK Bioscience)]

① Expansion of the vaccine pipelines for prevention and the expansion of new bio and platforms

A pipeline means a new drug development project undergoing R&D at and by a company. To develop new vaccine pipelines for prevention, including the COVID-19 vaccine, from the existing domestic premium vaccine-focused portfolio, we plan to make a range of efforts, including R&D investment and the deployment of human resources.

② Implementation of the CDMO/CMO business

Our CDMO contract plays a role in manufacturing the products or developing additional processes to supply vaccines worldwide by transferring antigen manufacturing. The earnings per share for preferred stocks for the current period is entered as the sum of the earnings per share for preferred stocks from continuing operations and viral vector technologies, and by expanding the contract for the production of COVID-19 vaccines in each Asian country and non-COVID-19 CDMO to push forward with the 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 5th Period		The 4th Period		The 3rd Period	
		Amount	Weight	Amount	Weight	Amount	Weight
Green Chemicals Biz.	Sales amount	1,037,059,042	50%	859,196,301	72%	826,181,322	74%
	Operating income	76,514,410	14%	67,404,290	43%	-13,331,092	-32%
	Depreciation (Note 1)	48,936,429	62%	44,897,135	62%	66,493,525	72%
	Total assets	1,253,284,966	32%	1,174,375,615	55%	1,407,410,103	66%
Life Science Biz.	Sales amount	1,229,179,081	59%	489,828,116	41%	415,589,933	37%
	Operating income	520,208,920	94%	90,065,304	58%	58,870,267	143%
	Depreciation (Note 1)	26,301,619	33%	23,563,336	33%	21,969,117	24%
	Total assets	2,308,476,688	58%	737,346,582	35%	584,167,851	27%
Consolidation procedures, etc.	Sales amount	-176,606,246	-8%	-150,243,647	-13%	-128,852,474	-12%
	Operating income	-41,537,420	-7%	-2,111,620	-1%	-4,306,411	-10%
	Depreciation (Note 1)	4,239,036	5%	3,936,305	5%	4,259,900	5%
	Total assets	393,870,740	10%	208,244,760	10%	140,131,196	7%

(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.

※ Following the sale of the PPS business, the sales amount and the profit and loss of the 5th and 4th periods' discontinued businesses were excluded, and following the sale of the bioenergy business, the sales amount and the profit and loss of the 4th and 3rd periods' discontinued businesses were excluded.

III. Matters Concerning Finance

1. Summary of Financial Information

A. Summarized consolidated financial information

(Unit: KRW one million)

Account	The 5th Period	The 4th Period	The 3rd Period
[Current assets]	2,784,059	923,286	792,023
- Quick assets	2,434,759	670,356	461,417
- Inventories	349,299	252,930	330,606
[Non-current assets]	1,171,574	1,196,681	1,339,686
- Affiliates and joint ventures investments	16,328	9,104	8,776
Tangible assets	999,246	1,070,000	1,165,065
- Intangible assets	44,422	36,956	37,429
- Other non-current assets	111,577	80,621	128,416
Total Assets	3,955,632	2,119,967	2,131,709
[Current liabilities]	1,086,649	645,679	718,865
[Non-current liabilities]	302,246	515,355	694,137
Total Liabilities	1,388,895	1,161,034	1,413,003
[Shares owned by the parent company]	2,053,542	952,878	715,629
- Capital stock	98,681	66,000	66,000
- Consolidated capital surplus	1,192,769	264,315	264,315
- Other items of consolidated capital	(21,346)	(18,118)	(9,890)
- Accumulated other comprehensive income on a consolidated basis	2,937	(2,624)	(2,594)
- Consolidated retained earnings	780,501	643,305	397,797
[Non-controlling interest]	513,196	6,055	3,078
Total shareholders' equity	2,566,737	958,933	718,706
Total liabilities and stockholders' equity	3,955,632	2,119,967	2,131,709
Number of companies included in the consolidation	9	9	7
	1/1/2021-12/31/2021	1/1/2020-12/31/2020	1/1/2019-12/31/2019
Sales amount	2,089,632	1,198,781	1,112,919
Operating income	555,186	155,358	41,233
Net income (loss) before income tax from continuing operations	538,622	125,872	(14,114)
Consolidated net income	268,743	255,161	5,022
Reversion of consolidated net income			
Equity attributable to the owners of the parent company	168,140	254,321	10,597
Non-controlling interest	100,604	840	(5,576)
EPS for the equity attributable to the owners of the parent company			
Basic earnings per share for common stocks (unit: KRW) (Note 1)	8,586	12,947	802
Diluted EPS for common stock (unit: KRW) (Note 2)	13,921	12,901	
EPS for preferred stock (Unit: KRW) (Note 3)	8,636	12,981	852

※ Following the sale of the PPS business, the sales amount and the profit and loss of the 5th and 4th periods' discontinued businesses were excluded, and following the sale of the bioenergy business, the sales amount and the

profit and loss of the 4th and 3rd periods' discontinued businesses were excluded.

- (Note 1) The basic earnings per share for common stocks for the current period are entered as the sum of basic earnings per share of common stocks from continuing operations of KRW 14,007 and the basic earnings per share of common stocks from discontinued operations of KRW -5,421.
- (Note 2) The diluted earnings per share for common stocks for the current period are entered as the sum of diluted earnings per share of common stocks from continuing operations of KRW 13,921 and diluted earnings per share of common stocks from discontinued operations of KRW 0.
- (Note 3) The earnings per share for preferred stocks for the current period is entered as the sum of the earning per share for preferred stocks from continuing operations of KRW 11,909 and the earning per share for preferred stocks from discontinued operations of KRW -3,273.
- ※ The financial statements above have been prepared in accordance with the Korean adopted 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."
 - ※ The 5th period's 'number of companies included in the consolidation' includes SK Multi-Utility Co., Ltd., which was incorporated as a consolidated subsidiary during the current period, and excludes SK Chemicals (Qingdao) Co., Ltd.
 - ※ The 4th period's 'number of consolidated companies included in the consolidation' includes SK Chemicals Daejung Co., Ltd., SK Environmental Materials (Yantai) Co., Ltd., and SK Chemicals Malaysia, which were incorporated among the consolidated subsidiaries during the previous period, and excludes JSI Co., Ltd.
 - ※ The 3rd period's 'number of companies included in the consolidation' includes SK Chemicals (Shanghai) Co., Ltd., which was incorporated among the consolidated subsidiaries during the previous period, and excludes Initz.
 - ※ The 5th period (current period) is the consolidated financial statement prior to approval at the general meeting of shareholders. Moving forward, if any agenda item related to the approval of the financial statements is rejected or revised at a regular meeting of shareholders, the relevant contents and reasons, etc. will be reflected in the correction report.

B. Summarized financial information

(Unit: KRW one million)

Account	The 5th Period	The 4th Period	The 3rd Period
[Current assets]	850,386	542,387	583,836
- Quick assets	673,715	390,369	324,388
- Inventories	176,670	152,018	259,448
[Non-current assets]	1,136,764	1,202,198	1,318,635
- Affiliates and joint ventures investments	13,176	5,091	5,091
- Subsidiaries' investments	369,310	248,206	224,280
- Tangible assets	663,485	878,396	969,586
- Intangible assets	25,582	18,815	17,609
- Other non-current assets	65,212	51,690	102,069
Total Assets	1,987,150	1,744,585	1,902,472
[Current liabilities]	608,416	461,441	654,993
[Non-current liabilities]	223,150	398,071	563,035
Total Liabilities	831,566	859,511	1,218,028
[Capital stock]	98,681	66,000	66,000
[Capital surplus]	155,974	188,347	188,347
[Other capital]	(12,345)	(9,117)	(889)
[Retained earnings]	913,274	639,843	430,985
Total equity	1,155,584	885,073	684,444
Total liabilities and stockholders' equity	1,987,150	1,744,585	1,902,472
Valuation method for the investment stocks for subsidiaries, affiliates, and joint ventures	Cost method	Cost method	Cost method

Account	The 5th Period	The 4th Period	The 3rd Period
	1/1/2021-12/31/2021	1/1/2020-12/31/2020	1/1/2019-12/31/2019
Sales amount	1,093,357	905,275	869,939
Operating income	82,293	97,695	52,477
Net income (loss) before income tax from continuing operations	540,885	78,834	9,040
Net income	302,503	215,743	27,097
Basic and diluted earnings per share			
Basic EPS for common stock (unit: KRW) (Note 1)	15,451	10,983	2,059
Diluted EPS for common stocks (unit: KRW) (Note 2)	20,531	10,943	
EPS for preferred stock (Unit: KRW) (Note 3)	15,501	11,016	2,109

※ Following the sale of the PPS business, the sales amount and the profit and loss of the 5th and 4th periods' discontinued businesses were excluded, and following the sale of the bioenergy business, the sales amount and the profit and loss of the 4th and 3rd periods' discontinued businesses were excluded.

(Note 1) The basic earnings per share of common stocks for the current period are entered as the sum of basic earnings per share of common stocks from continuing operations of KRW 20,659 and the basic earnings per share of common stocks from discontinued operations of KRW -5,208.

(Note 2) The diluted earnings per share for common stocks for the current period are entered as the sum of diluted earnings per share of common stocks from continuing operations of KRW 20,531 and diluted earnings per share of common stocks from discontinued operations of KRW 0.

(Note 3) The earnings per share for preferred stocks for the current period is entered as the sum of the earning per share for preferred stocks from continuing operations of KRW 20,726 and the earning per share for preferred stocks from discontinued operations of KRW -5,225.

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

※ The 5th 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 contents and reasons, etc., will be reflected in the correction report.

2. Consolidated Financial Statements

Consolidated Statement of Financial Position

The 5th Period as of December 31, 2021

The 4th Period as of December 31, 2020

The 3rd Period as of December 31, 2019

(Unit: KRW)

	The 5th Period	The 4th Period	The 3rd Period
Assets			
Current assets	2,784,058,669,420	923,286,317,987	792,022,789,246
Cash and cash equivalents	255,615,367,155	86,764,151,843	183,975,936,156
Short-term financial assets	1,794,156,437,313	339,928,469,816	88,673,666,823
Trade and other receivables	366,865,111,272	233,192,607,955	171,327,000,317
Inventories	349,299,225,904	252,930,309,986	330,606,087,802
Contract assets		979,914,679	
Other current assets	18,122,527,776	9,490,863,708	17,440,098,148
Non-current assets	1,171,573,724,836	1,196,680,638,899	1,339,686,360,783
Long-term financial assets	21,142,500,000	32,500,000	1,040,369,549
Trade and other receivables			883,548,359
Long-term investment assets	35,081,486,249	24,492,063,443	23,376,057,843
Long-term loans			10,596,800,527
Affiliates and joint ventures investments	16,328,276,602	9,104,020,171	8,776,408,020
Tangible assets	999,245,763,243	1,069,999,627,343	1,165,064,920,158
Right-of-use assets	15,386,726,242	16,101,459,538	58,182,699,644
Intangible assets	44,422,323,845	36,955,864,384	37,429,393,743
Investment real estate properties	17,212,277,612	17,055,665,021	15,104,065,924
Other non-current assets	11,327,379,952	2,344,511,421	1,950,322,430
Deferred income tax assets	11,426,991,091	20,594,927,578	17,281,774,586
Total Assets	3,955,632,394,256	2,119,966,956,886	2,131,709,150,029
Liabilities			
Current liabilities	1,086,649,251,139	645,679,130,159	718,865,361,025
Trade and other payables	452,892,821,032	232,021,734,019	231,781,907,093
Short-term borrowings	11,671,373,163	107,636,902,688	198,755,573,825
Current portion of long-term liabilities	207,864,113,268	96,947,494,138	241,571,981,995
Current portion of lease liabilities	2,788,637,923	3,038,108,909	11,534,922,051
Current portion of contract liabilities	114,455,430,866	96,226,901,452	10,291,411,717
Current portion of provisioning liabilities	22,437,979,100		
Current income tax liabilities	174,009,868,314	69,339,226,370	7,825,912,130
Other current liabilities	100,529,027,473	40,468,762,583	17,103,652,214
Non-current liabilities	302,245,734,599	515,355,033,495	694,137,496,145
Debenture	256,063,406,698	460,480,569,890	558,680,066,667
Long-term borrowings		31,135,000,000	72,909,200,000

	The 5th Period	The 4th Period	The 3rd Period
Lease liabilities	8,343,522,232	9,392,925,411	46,935,964,988
Defined benefit liabilities	4,869,971,132	7,643,269,177	7,945,076,095
Contract liabilities			7,595,408,331
Other non-current liabilities	2,629,873,359	4,085,315,565	
Deferred income tax liabilities	30,338,961,178	2,617,953,452	71,780,064
Total Liabilities	1,388,894,985,738	1,161,034,163,654	1,413,002,857,170
Equity			
Shares owned by the parent company	2,053,541,812,523	952,877,954,864	715,628,603,300
Capital	98,681,045,000	66,000,330,000	66,000,330,000
Capital surplus	1,192,768,791,273	264,314,596,680	264,314,596,680
Other capital	(21,346,012,463)	(18,117,669,311)	(9,889,506,203)
Accumulated other comprehensive income	2,937,290,315	(2,624,096,023)	(2,594,106,840)
Retained earnings	780,500,698,398	643,304,793,518	397,797,289,663
Non-controlling interest	513,195,595,995	6,054,838,368	3,077,689,559
Total equity	2,566,737,408,518	958,932,793,232	718,706,292,859
Total liabilities and stockholders' equity	3,955,632,394,256	2,119,966,956,886	2,131,709,150,029

Consolidated Statement of Comprehensive Income

The 5th Period From January 01, 2021 to December 31, 2021

The 4th Period From January 01, 2020 to December 31, 2020

The 3rd Period From January 01, 2019 to December 31, 2019

(Unit: KRW)

	The 5th Period	The 4th Period	The 3rd Period
Sales amount	2,089,631,876,416	1,198,780,770,389	1,112,918,780,388
Cost of sales	1,208,252,148,242	810,782,693,273	841,891,816,357
Gross profit	881,379,728,174	387,998,077,116	271,026,964,031
Selling, general and administrative expenses	326,193,817,735	232,640,102,759	229,794,200,331
Operating income	555,185,910,439	155,357,974,357	41,232,763,700
Other income	27,409,549,709	12,567,892,627	9,265,991,579
Other expenses	44,231,104,316	27,815,467,546	38,384,532,975
Financial income	62,588,844,094	44,134,696,501	25,984,691,261
Financial cost	63,950,494,455	60,130,736,952	54,254,629,693
Gain on equity method valuation	1,618,945,234	1,757,212,860	2,041,587,778
Net profit from continuing operations before income tax	538,621,650,705	125,871,571,847	(14,114,128,350)
Income tax expense on continuing operations	168,012,085,990	35,924,417,422	8,882,122,426
Net profit (loss) from continuing operations	370,609,564,715	89,947,154,425	(22,996,250,776)
Net income from discontinued operations before income tax	(134,418,662,607)	218,381,756,938	36,962,802,883
Income tax expense on discontinued operations	(32,552,435,910)	53,167,701,588	8,944,998,298
Net income from discontinued operations	(101,866,226,697)	165,214,055,350	28,017,804,585
Net profit before income tax expense	404,202,988,098	344,253,328,785	22,848,674,533
Income tax expense	135,459,650,080	89,092,119,010	17,827,120,724
Net income	268,743,338,018	255,161,209,775	5,021,553,809

	The 5th Period	The 4th Period	The 3rd Period
Other comprehensive income	(251,006,594)	(2,877,570,874)	(4,036,863,352)
Items subsequently reclassified as net profit or loss			
Capital change in equity method	66,701,118	307,469,584	17,308,041
Gains (loss) on translation of overseas business	4,238,697,803	(194,585,531)	579,448,852
Gain (loss) on valuation of derivatives	1,194,758,118	(145,731,021)	(76,943,579)
Items subsequently not reclassified as net profit or loss			
Remeasurement factors of defined benefit liabilities	(5,751,163,633)	(2,844,723,906)	(4,556,676,666)
Total comprehensive income for the current period	268,492,331,424	252,283,638,901	984,690,457
Reversion of net income from continuing operations			
Equity attributable to the owners of the parent company	270,006,042,994	89,106,714,563	(17,420,365,921)
Non-controlling interest	100,603,521,721	840,439,862	(5,575,884,855)
Reversion of net income			
Equity attributable to the owners of the parent company	168,139,816,297	254,320,769,913	10,597,438,664
Non-controlling interest	100,603,521,721	840,439,862	(5,575,884,855)
Reversion of total comprehensive income for the current period			
Equity attributable to the owners of the parent company	168,640,349,018	251,484,529,872	6,589,776,677
Non-controlling interest	99,851,982,406	799,109,029	(5,605,086,220)
Earnings per share			
Basic earnings per share (loss) (Unit: KRW)			
Basic earnings (loss) per share for common stocks (unit: KRW)	14,007	4,533	(1,318)
Basic earnings (loss) per share for common stocks from discontinued operations (unit: KRW)	(5,421)	8,414	2,120
Diluted earnings per share for common stocks from continuing operations (Unit: KRW)	13,921	4,523	
Diluted earnings per share for common stocks from discontinued operations (Unit: KRW)		8,378	
Basic earnings (loss) per share for preferred stocks (Unit: KRW)			
Basic earnings (loss) per share for preferred stocks from continuing operations (unit: KRW)	11,909	4,576	(1,400)
Basic earnings (loss) per share for preferred stocks from discontinued operations (unit: KRW)	(3,273)	8,405	2,252

Consolidated Statement of Changes in Equity

The 5th Period From January 01, 2021 to December 31, 2021

The 4th Period From January 01, 2020 to December 31, 2020

The 3rd Period From January 01, 2019 to December 31, 2019

(Unit: KRW)

	Equity							
	Capital attributable to the owners of the parent company						Non-controlling interest	Total equity
	Capital	Capital surplus	Other capital	Accumulated other comprehensive income	Retained earnings	Total capital attributable to the owners of the parent company		
January 1, 2019 (capital at beginning of period)	65,192,610,000	668,175,712,895	35,433,410,770	(3,115,429,018)	(2,988,117,336)	691,831,365,771	33,729,099,815	725,560,465,586
Net income					10,597,438,664	10,597,438,664	(5,575,884,855)	5,021,553,809
Capital change in equity method				17,308,041		17,308,041		17,308,041
Gain or loss on overseas operations translation				579,448,852		579,448,852		579,448,852
Derivatives valuation loss				(75,434,715)		(75,434,715)	(1,508,864)	(76,943,579)
Remeasurement factors of defined benefit liabilities					(4,528,984,165)	(4,528,984,165)	(27,692,501)	(4,556,676,666)
Capital increase without consideration								
Transfer of retained earnings of paid-in capital in excess of par value		400,000,000,000)			400,000,000,000			
Stock option granted			1,021,361,774			1,021,361,774	300,236,604	1,321,598,378
Exercise of stock option								
Cash dividend					(5,283,047,500)	(5,283,047,500)		(5,283,047,500)
Paid-in capital increase	807,720,000	10,427,884,450				11,235,604,450		11,235,604,450
Purchase of treasury stock								
Changes in non-controlling stockholders' interest		(14,289,000,665)	24,522,542,793			10,233,542,128	25,346,560,640)	(15,113,018,512)

	Equity							
	Capital attributable to the owners of the parent company						Non-controlling interest	Total equity
	Capital	Capital surplus	Other capital	Accumulated other comprehensive income	Retained earnings	Total capital attributable to the owners of the parent company		
2019.12.31 (capital at end of period)	66,000,330,000	264,314,596,680	(9,889,506,203)	(2,594,106,840)	397,797,289,663	715,628,603,300	3,077,689,559	718,706,292,859
January 1, 2019 (capital at beginning of period)	66,000,330,000	264,314,596,680	(9,889,506,203)	(2,594,106,840)	397,797,289,663	715,628,603,300	3,077,689,559	718,706,292,859
Net income					254,320,769,913	254,320,769,913	840,439,862	255,161,209,775
Capital change in equity method				307,469,584		307,469,584		307,469,584
Gain or loss on overseas operations translation				(194,585,531)		(194,585,531)		(194,585,531)
Derivatives valuation loss				(142,873,236)		(142,873,236)	(2,857,785)	(145,731,021)
Remeasurement factors of defined benefit liabilities					(2,806,250,858)	(2,806,250,858)	(38,473,048)	(2,844,723,906)
Capital increase without consideration								
Transfer of retained earnings of paid-in capital in excess of par value								
Stock option granted			561,602,700			561,602,700	575,453,503	1,137,056,203
Exercise of stock option			(4,354,860,000)			(4,354,860,000)		(4,354,860,000)
Cash dividend					(6,007,015,200)	(6,007,015,200)		(6,007,015,200)
Paid-in capital increase								
Purchase of treasury stock			(4,434,905,808)			(4,434,905,808)		(4,434,905,808)
Changes in non-controlling stockholders' interest							1,602,586,277	1,602,586,277
2020.12.31 (capital at end 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
January 1, 2019 (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

	Equity							
	Capital attributable to the owners of the parent company						Non-controlling interest	Total equity
	Capital	Capital surplus	Other capital	Accumulated other comprehensive income	Retained earnings	Total capital attributable to the owners of the parent company		
period)								
Net income					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
Gain or loss on overseas operations translation				4,238,697,803		4,238,697,803		4,238,697,803
Derivatives valuation loss				988,795,267		988,795,267	205,962,851	1,194,758,118
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)
Transfer of retained earnings of paid-in capital in excess of par value								
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
Cash dividend					(26,150,249,950)	(26,150,249,950)		(26,150,249,950)
Paid-In capital increase								
Purchase of treasury stock			(3,167,742,641)			(3,167,742,641)		(3,167,742,641)
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

Consolidated Statement of Cash Flows

The 5th Period From January 01, 2021 to December 31, 2021

The 4th Period From January 01, 2020 to December 31, 2020

The 3rd Period From January 01, 2019 to December 31, 2019

(Unit: KRW)

	The 5th Period	The 4th Period	The 3rd Period
Cash flows from operating activities			
Net income	268,743,338,018	255,161,209,775	5,021,553,809
Adjustments	352,160,892,583	(64,789,335,580)	167,086,571,181
Changes in assets and liabilities from operating activities	4,941,987,393	98,345,148,713	822,575,409
Interest received	1,351,693,026	897,067,477	1,386,874,460
Interest paid	(14,746,095,160)	(24,410,198,217)	(33,025,149,255)
Dividends received	3,757,950,000	2,910,840,000	
Income tax paid	(106,893,301,118)	(21,105,152,844)	(19,157,895,162)
Cash flows from investment activities			
Transfer of business	71,472,753,210	380,919,480,691	
Decrease in short-term security deposit		2,000,000	
Decrease in short-term loans	7,648,508,237		
Decrease in long-term security deposit	488,043,619	303,396,000	916,973,131
Decrease in long-term loans		3,262,039,786	388,039,473
Recovery of long-term investment assets	25,000,000		
Decrease in long-term financial assets	990,000,000		6,416,918
Disposal of tangible assets and right-of-use assets	1,436,420,016	47,890,722	1,627,671,452
Disposal of intangible assets		3,619,299,299	2,184,430,867
Government subsidies received	85,756,878	1,002,110,507	731,959,725
Net change in short-term financial assets	(1,460,408,834,006)	(247,074,693,315)	49,345,655,935
Increase in long-term loans			(8,964,242)
Increase in short-term security deposit			(78,456,120)
Increase in long-term financial products	(22,100,000,000)	(2,262,345)	(1,000,000,000)
Increase in long-term security deposit	(526,099,100)	(520,660,200)	(81,791,920)
Acquisition of long-term investment assets	(9,470,668,489)	(2,500,000,000)	(24,053,346,800)
Acquisition of tangible assets	(138,187,398,984)	(93,315,628,368)	(125,486,609,638)
Acquisition of tangible assets from capitalized borrowing cost	(1,087,644,835)	(1,532,379,847)	(1,185,682,865)
Acquisition of intangible assets	(6,650,456,470)	(2,311,777,141)	(3,167,096,252)
Government subsidies returned			(887,197,910)
Discard of tangible assets	(1,198,619,330)		
Acquisition of investments in affiliates and joint ventures	(7,699,750,000)		
Decrease from changes in the scope of consolidation	(1,400,823,583)	(916,732,213)	
Cash flows from financing activities			
Borrowing of short-term borrowings	14,823,630,881	116,000,000,000	93,505,291,740
Borrowing of long-term borrowings			10,000,000,000

	The 5th Period	The 4th Period	The 3rd Period
Borrowing of bonds			293,649,228,400
Paid-In capital increase	725,021,000		11,235,604,450
Cash inflow from consolidated capital transactions	1,481,370,713,920		5,664,855,196
Repayment of short-term borrowings	(79,550,000,000)	(177,780,844,282)	(68,674,529,141)
Net change in foreign currency short-term borrowings	(31,636,902,688)	(21,478,169,612)	(6,475,078,373)
Repayment of current portion of long-term borrowings	(1,003,200,000)	(104,401,400,000)	(93,576,400,000)
Repayment of current portion of bonds	(96,000,000,000)	(146,000,000,000)	(50,000,000,000)
Repayment of current portion of lease liabilities	(2,774,229,357)	(5,843,597,695)	(8,778,675,042)
Repayment of long-term borrowings	(32,059,000,000)	(30,625,000,000)	(18,816,000,000)
Settlement of derivatives transactions	(628,085,085)		
Acquisition of treasury stock	(3,167,742,641)	(4,434,905,808)	
Exercise of stock option		(4,354,860,000)	
Payment of dividends	(26,148,257,500)	(6,006,549,700)	(5,282,629,500)
Decrease in non-controlling interest			(45,300,416,500)
Increase in cash and cash equivalents	166,684,600,435	(96,933,664,197)	138,537,783,426
Cash and cash equivalents at beginning of period	86,764,151,843	183,975,936,156	45,286,768,519
Effect of exchange rate fluctuations such as foreign currency denominated cash	2,166,614,877	(278,120,116)	151,384,211
Cash and cash equivalents at end of period	255,615,367,155	86,764,151,843	183,975,936,156

3. Notes to the Consolidated Financial Statements

The 5th Period from January 1, 2021 to December 31, 2021

The 4th Period from January 1, 2020 to December 31, 2020

SK Chemicals Co., Ltd. and its subsidiaries

1. General

1-1 Overview of the parent company

For the purpose of manufacturing and selling synthetic resins and related products, as well as development, production and sales of pharmaceuticals and vaccines, SK Chemicals Co., Ltd. (hereinafter, "parent company") was established on December 1, 2017 via a spin-off from SK Discovery Co., Ltd. (formerly, SK Chemicals Co., Ltd.).

The parent 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 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. Furthermore, the parent company established SK Multi-Utility Co., Ltd. for the purposes of supplying utilities through a 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 parent company is as follows.

Name of shareholder	Common stocks		Preferred stocks	
	Number of shares held (shrs.)	Equity interest (%)	Number of shares held (shrs.)	Equity interest (%)
SK Discovery Co., Ltd.	6,137,781	34.83	-	-
SK Chemicals Co., Ltd. (Treasury shares)	30,857	0.18	148,133	7.00
Others	11,452,142	64.99	1,967,296	93.00
Total	17,620,780	100.00	2,115,429	100.00

The consolidated financial statements of the consolidated company were approved by the board of directors on February 10, 2022, and the final approval is expected to be made at the general meeting of shareholders on March 28, 2022.

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 Environmental Materials (Yantai) Co., Ltd. (Note 2)	China	December	100.00	Resin manufacturing
SK Chemicals (Shanghai) Co., Ltd.	China	December	100.00	Management consulting
SK Bioscience Co., Ltd.	Republic of Korea	December	68.43	Pharmaceutical manufacturing
SK Multi-Utility Co., Ltd. (Note 3)	Republic of Korea	December	100.00	Manufacturing
SK Chemicals Daejung Co., Ltd. (Notes 2, 4)	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 (Note 2)	Malaysia	December	100.00	Management consulting

(Note 1) During the current period, we have 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 closing date for the transaction will be in 2023.

(Note 2) During the previous period, it was newly invested by the parent company and was incorporated as a subsidiary.

(Note 3) During the current period, it was incorporated as a subsidiary after being split off from the parent company.

(Note 4) During the current period, the parent company sold 50% of the shares of its subsidiary of SK Chemicals Daejung Co., Ltd. to Daejung Chemicals & Metals Co., Ltd. It was determined that the parent company has control over SK Chemicals Daejung Co., Ltd. based on the fact that the chief executive officer of the parent company serves as the chief executive officer even after the interest was sold, and the chief executive officer has the decision-making authority given a deadlock situation.

(2) Summary of the subsidiaries' financial information

As of the end of the reporting period, the summary of the major subsidiaries' financial information among the consolidated subsidiaries is as follows.

<Current period>

(Unit: KRW one thousand)

Name of company	Assets	Liabilities	Equity	Sales	Net income (loss)
SK Chemicals (Suzhou) Co., Ltd. (Note 1)	-	-	-	15,934,633	1,346,878
SK Chemicals (Suzhou) Co., Ltd.	25,465,638	7,066,615	18,399,023	35,045,230	2,461,400
SK Environmental Materials (Yantai) Co., Ltd.	24,247,233	2,245,127	22,002,106	-	-
SK Chemicals (Shanghai) Co., Ltd.	2,174,992	1,493,935	681,057	2,773,581	486,308
SK Bioscience Co., Ltd.	2,110,122,672	508,810,724	1,601,311,948	929,000,930	355,139,277
SK Multi-Utility Co., Ltd.	182,621,118	21,676,862	160,944,256	11,002,552	351,591
SK Chemicals Daejung Co., Ltd.	17,209,578	3,075,529	14,134,049	20,377,621	2,164,602
SK Chemicals America	39,381,426	33,995,418	5,386,008	68,385,738	1,289,819
SK Chemicals GmbH	53,335,110	48,126,903	5,208,207	98,190,065	2,198,288
SK Chemicals Malaysia	341,627	11,567	330,060	-	(45,419)
Total	2,454,899,394	626,502,680	1,828,396,714	1,180,710,350	365,392,744

(Note 1) During the current period, the parent company lost control following the sale of its interest in SK Chemicals (Qingdao) Co., Ltd., a subsidiary, and excluded it from the list of subsidiaries, and this is profit and loss before the loss of the control.

<Previous period>

(Unit: KRW one thousand)

Name of company	Assets	Liabilities	Equity	Sales	Net income (loss)
SK Chemicals (Qingdao) Co., Ltd.	22,239,374	1,509,314	20,730,060	15,570,483	1,359,612
SK Chemicals (Suzhou) Co., Ltd.	20,463,797	6,287,411	14,176,386	32,630,887	1,615,590
SK Environmental Materials (Yantai) Co., Ltd.	11,173,322	111,592	11,061,730	-	-
SK Chemicals (Shanghai) Co., Ltd.	486,397	333,521	152,876	2,036,452	(4,751)
SK Bioscience Co., Ltd.	562,231,772	298,441,527	263,790,245	225,610,785	32,889,712
JSI Co., Ltd. (Note 1)	-	-	-	9,309,398	41,061
SK Chemicals Daejung Co., Ltd.	14,955,988	3,010,080	11,945,908	1,299,190	71,001
SK Chemicals America	23,366,061	19,649,249	3,716,812	66,475,750	1,337,597
SK Chemicals GmbH	35,679,505	32,551,007	3,128,498	86,468,851	2,047,672
SK Chemicals Malaysia	372,924	372,924	-	-	-
Total	690,969,140	362,266,625	328,702,515	439,401,796	39,357,494

(Note 1) During the previous period, the parent company lost control following the partial sale of its interest in JSI Co., Ltd., a subsidiary, and excluded it from the list of subsidiaries, and this is profit and loss before the loss of the control.

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. (Note 1)	Republic of Korea	December	40.00	Resin manufacturing
HDC Polyol (Note 2)	Republic of Korea	December	20.00	Manufacturing
ST Green Energy	Singapore	December	50.00	Wholesale

(Note 1) During the previous period, it was reclassified from a subsidiary to an affiliate as the control was lost following the partial sale of its interest.

(Note 2) During the current period, it was newly invested by the parent company and was incorporated as an affiliates and joint ventures investments.

1-4 Details of changes in the subsidiaries

The major subsidiaries excluded or added from the preparation of the consolidated financial statements during the current and previous period are as follows.

<Current period>

Classification	Name of subsidiaries	Reason
Added	SK Multi-Utility	Split-off
Excluded	SK Chemicals (Suzhou)	Sale of interest

<Previous period>

Classification	Name of subsidiaries	Reason
Added	SK Chemicals Daejung Co., Ltd.	Acquisition following new establishment
Added	SK Environmental Materials (Yantai) Co., Ltd.	Acquisition following new establishment
Added	SK Chemicals Malaysia	Acquisition following new establishment
Excluded	JSI Co., Ltd.	Sale of partial interest

1-5 Non-controlling interest

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

<Current period>

(Unit: KRW one thousand)

Classification	SK Bioscience	SK Chemicals Daejung	Total
Ratio of non-controlling interest	31.57%	50.00%	
Assets	2,110,122,672	17,209,578	2,127,332,250
Liabilities	508,810,724	3,075,529	511,886,253
Net assets	1,601,311,948	14,134,049	1,615,445,997
Non-controlling interest	506,128,571	7,067,025	513,195,596

<Previous period>

(Unit: KRW one thousand)

Classification	SK Bioscience
Ratio of non-controlling interest	1.96%
Assets	562,231,772
Liabilities	298,441,527
Net assets	263,790,245
Non-controlling interest	6,054,838

(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 Co., Ltd.	SK Chemicals Daejung Co., Ltd.	Total
Ratio of non-controlling interest	31.57%	50.00%	
<Total comprehensive income>			
Net income	355,139,277	2,164,602	357,303,879
Other comprehensive income (loss)	(1,813,403)	23,539	(1,789,864)
Total comprehensive net income	353,325,874	2,188,141	355,514,015
Net income allocated for non-controlling interest	99,693,785	909,737	100,603,522
Total comprehensive income allocated for non-controlling interest	98,930,476	921,507	99,851,983
<Cash flows>			
Cash flows from operating activities	169,395,262	1,424,980	170,820,242
Cash flows from investment activities	(448,887,031)	(169,359)	(449,056,390)
Cash flows from financing activities	302,547,502	(531,523)	302,015,979
Effect of exchange rate fluctuations	7,025	-	7,025
Net change in cash and cash equivalents	23,062,758	724,098	23,786,856

<Previous period>

(Unit: KRW one thousand)

Classification	SK Bioscience Co., Ltd.	JSI Co., Ltd. (Note 1)	Total
Ratio of non-controlling interest	1.96%	43.97%	
<Total comprehensive income>			
Net income	32,889,712	41,061	32,930,773
Other comprehensive income (loss)	(2,107,641)	-	(2,107,641)
Total comprehensive net income	30,782,071	41,061	30,823,132
Net income allocated for non-controlling interest	822,383	18,057	840,440
Total comprehensive income allocated for non-controlling interest	781,052	18,057	799,109
<Cash flows>			
Cash flows from operating activities	2,357,589	(156,740)	2,200,849
Cash flows from investment activities	(2,119,702)	(256,610)	(2,376,312)
Cash flows from financing activities	(30,176)	-	(30,176)
Net change in cash and cash equivalents	207,711	(413,350)	(205,639)

(Note 1) Its classification was changed from a subsidiary to an affiliate following the loss of control during the current period, and the details above are the financial information prior to the loss of the control.

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 key matters 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	546,270 shares	2021.12.12-2028.12.11	KRW 9,154/stock	KRW 1,649/stock

(Note 1) Following the paid-in capital increase and the stock split during the previous period, the number of stocks to be issued was adjusted from 18,209 to 546,270, the exercise price was adjusted from KRW 274,621/stock to KRW 9,154/stock, and the fair value of the date of grant was adjusted from KRW 49,465/stock to KRW 1,649/stock.

- (2) The fair value of stock options granted by SK Bioscience, a subsidiary of the consolidated companies, was calculated as per the binary option pricing model, and the variables applied for 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%

(Note 1) Following capital increase without consideration and the stock split during the previous period, the stock price and the exercise price of the date of grant were adjusted from KRW 274,621/stock to KRW 9,154/stock.

- (3) The details of the changes in stock options for the current period for the stock options granted by SK Bioscience, a subsidiary of the consolidated companies, are as follows.

<Current period>

(Unit: stocks, KRW one thousand)

Date of grant	Number of stocks to be issued		Valuation amount		
	Granted	End of period	Beginning of period	Increase	End of period (Note 1)
2018.12.11	546,270	546,270	900,710	-	900,710

(Note 1) The stock options granted by SK Bioscience are included in the non-controlling interest of the consolidated companies.

<Previous period>

(Unit: stocks, KRW one thousand)

Date of grant	Number of stocks to be issued (Note 1)		Valuation amount		
	Granted	End of period	Beginning of period	Increase	End of period
2018.12.11	546,270	546,270	325,256	575,454	900,710

(Note 1) Following the capital increase without consideration and the stock split during the previous period, the number of stocks to be issued was adjusted from 18,209 to 546,270.

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

2-1 Standards for the preparation of consolidated financial statements

The consolidated companies have prepared the consolidated financial statements on a historical cost basis, excluding the derivatives, debts and equity interest's financial assets, and the contingent consideration 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 consolidated financial statements are presented in Korean Won, and other amounts are also expressed in Korean Won unless otherwise specified. The financial statements are prepared on a historical cost basis, excluding the liabilities and shares' financial assets valued at fair value.

2-2 Applicable accounting standards

The financial statements of the consolidated companies have been prepared in accordance with the Korean International Accounting Standards (K-IFRS) enacted in accordance with the Act on External Audit of Stock Companies, Etc.

2-3 Consolidation standards

The consolidated financial statements consist of the financial statements of the parent company and its subsidiaries as of December 31 of each fiscal year. Control is acquired if and when they are exposed to, or has rights to, the variable gains from its involvement with the investee and when they have the ability to influence such gains 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 (that is, the existing right that gives it the present ability to direct the relevant activities of the investee)
- Exposure or right to the variable gains from involvement with the investee
- Ability to use its power over the investee to influence the amount of the investor's gains

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 the control. The consolidation of subsidiaries is carried out from the point in time at which the consolidated companies acquire the control over the subsidiary until they lose the control. The assets, liabilities, income and expenses of the subsidiaries acquired or disposed of during the period are included from the date on which the consolidated companies gain the control until the date on which the consolidated companies no longer control the subsidiary.

Each component of the net income and other comprehensive income is reverted to the owners of the parent company and the non-controlling interest even if the non-controlling interest becomes a negative balance. If necessary, the subsidiary's financial statements are revised in order to match the accounting policies of the subsidiaries with the consolidated companies. 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.

Any changes in the ownership interest of the parent company in a subsidiary without a loss of control are accounted for as equity transactions, and if the parent company should lose its control over the subsidiary, it is accounted for as follows.

- 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 parent 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. 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 proportional interest of the acquiree's identifiable net assets, and the acquisition related-costs are recognized as the expenses as incurred.

The consolidated companies determine 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 experience needed to carry 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 is considered unique or scarce, or to substitute, if any significant cost or effort is required, or if the ability to continue to produce outputs is delayed.

The consolidated companies classify or designate 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.

If the acquirer provides contingent consideration for the acquiree, the relevant consideration is measured at 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 as 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.

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 will review 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 less 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 gain 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.

2-5 Investment in affiliates and joint ventures

Affiliates are the companies over which the parent company has significant influence. Significant influence is the ability to participate in the investee's decision-making regarding its financial and operating policies, but is not the control or joint control of such policies.

A joint venture is a joint agreement in which the parties having joint control over the agreement are entitled to the net assets of the agreement. Joint control is a contractually agreed sharing of the control over an agreement, and exists only if and when the decisions on the relevant activities require the consent of all the parties sharing the control.

The consolidated companies account for their investments in the affiliates using the equity method. Investments in affiliates and joint ventures are recognized at the initial acquisition cost, and the book amount is increased or decreased to recognize the consolidated companies' corresponding amount of interest among the changes in the net assets of affiliates or joint ventures after the date of acquisition. The goodwill related to affiliates or joint ventures is included in the book amount of the investment and has not been amortized or tested for impairment on a separate basis.

Among the profits and losses of the affiliates and joint ventures, the corresponding amount of the interest of the consolidated companies is directly reflected in the consolidated statement of comprehensive income, and if and when any changes in the net assets of affiliates or joint ventures should arise from equity, the corresponding portion of the interest of the consolidated companies is reflected in equity, and where applicable, disclosed in the consolidated statement of changes in equity. Any unrealized gains and losses from transactions by and between the consolidated companies and the affiliates and joint ventures are derecognized as much as the corresponding amount of the interest of the consolidated companies.

Profits for the affiliates and joint ventures are presented in the statement of comprehensive income as the gains or losses on valuation using the equity method after the tax effects are deducted.

The reporting period for the financial statements of affiliates and joint ventures is the same as the reporting period for those of the parent company, and if needed for the application of the same accounting policies as the consolidated companies for the same transactions and events occurring under similar circumstances, the affiliates' and joint ventures' financial statements will be adjusted.

When applying the equity method, the consolidated companies determine at the end of each reporting period whether there is any objective evidence that their investments in affiliates and joint ventures are impaired in order to determine whether they need to recognize additional impairment losses for the investments in affiliates and joint ventures. If impairment is needed, the difference between the recoverable amount and the book amount of affiliates and joint ventures is recognized as an impairment loss in the statement of comprehensive income.

The consolidated companies account for their investments in affiliates and joint ventures using the equity method.

Investments in affiliates and joint ventures are recognized at the initial acquisition cost, and the book amount is adjusted to recognize the corresponding amount of the consolidated companies' interest in the net assets of affiliates or joint ventures after the date of acquisition. The goodwill related to affiliates and joint ventures is included in the book amount of the investment and has not been amortized or tested for impairment on a separate basis.

2-6 Foreign currency translation

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

(1) Transactions and balance

In preparing the financial statements of the consolidated companies, transactions conducted in a currency other than the functional currency are recorded using the exchange rate on the date of transaction, and 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, and 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 gains 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 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 the advance payment or receipt of consideration for each.

(2) Conversion for the overseas workplaces

The assets and liabilities of overseas workplaces are converted into Korean Won using the exchange rate as of the end of the reporting period, the items in the consolidated statement of comprehensive income are converted into Korean Won by applying the average exchange rate for the relevant period, and the foreign exchange differences arising from such translations are 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 converted at the exchange rate as of the end of the reporting period.

2-7 Profits from the contracts with customers

The consolidated companies operate the two business divisions of Green Chemicals and Life Science. The Green Chemicals Business Division produces and sells PET resins, highly functional PETG resins, and industrial adhesives, etc., while the Life Science Business Division is engaged in the pharmaceutical and vaccine businesses. For contracts with customers, and when the control of goods or services is transferred to the customer, the consolidated companies recognize the profits at an amount which reflects the consideration for which they expect to be entitled for the relevant goods or services. The consolidated companies have reached the conclusion for themselves since they control 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 consolidated companies shall consider whether other promises under the contracts are 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 factors, non-cash consideration and the consideration payable to the customers.

- Licensing: the parties to the contract

A license agreement corresponds to the right to use the intellectual property which exists at the time the license is granted, which means that at the point in time the license is transferred, the customer can direct the use of the license and acquire most of the remaining benefits from the license. When the consolidated companies provide a license to a customer, the consolidated companies recognize it as a performance obligation carried out at a point in time.

- Licensing: right of access

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

- Sales of vaccines and biopharmaceuticals

The sales profits from vaccines and biopharmaceuticals are generally recognized upon the delivery of the vaccines and biopharmaceuticals, 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 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 sale of goods, the consolidated companies consider variable consideration, significant financing factors, non-cash consideration and the consideration payable to the customers.

- Consigned production and development of the vaccines and biopharmaceuticals

We provide services such as the consigned production and development of the vaccines and biopharmaceuticals consigned by the customers, and the bioanalysis. There is no substitute of use for the manufactured products, and there is an enforceable right to claim payment for the completed performance. The reason is that 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. The revenue from the contracts with customers is recognized when a portion of the performance obligations are satisfied, and is recognized over a portion of the period of time. 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 profits over a period of time. 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 the companies, not for the contracting counterparty to acquire the outputs of a typical corporate activity, but to participate in an activity or process, and if the parties to the contract share the risks and benefits arising from such activity or process, they recognize them as contracts of joint type. Regarding the costs input for a collaboration agreement, the intangible assets or expenses are recognized depending on whether the conditions for identifiability, control, and future economic benefits are satisfied, while for the residual agreements, which are the agreements to provide distinguished goods or services and receive relevant consideration therefor, they are recognized as profits in accordance with the performance obligations identified under the contract. The performance obligations do not include the obligations to share under the contract the resources to be 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 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 of the 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 of time. To estimate the goods which will not be returned, the consolidated companies use expected values at which they are expected to better predict the consideration to which the consolidated companies 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 consolidated companies recognize the goods which are expected to be returned, not as profits, 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 will retroactively provide a quantity rebate to a specific customer 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 a rebate expected in the future, the consolidated companies apply the most probable 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 the 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 element on the promised consideration (amount) if the period between the point of transfer of the promised goods or services to the customer at the commencement of the contract and the payment of the consideration for the goods or services 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 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. 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 a company's obligation to transfer goods or services to a customer equivalent to the consideration which the consolidated companies have already taken from the customer (or the consideration for which the payment is due). 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. The contract liabilities are recognized as profits when the consolidated companies carry out their performance obligations pursuant to the contract.

(3) Contractual performance cost

The contractual performance cost is the cost incurred from performing a contract executed with a customer, and if the cost is directly related to a contract or a specifically identifiable and expected contract, and if the cost creates or enhances the company's resources to use in performing (or continuing to perform) the future obligations, and is expected to be recovered, then is recognized as asset, and the assetized contractual performance cost is recognized as the cost of sales in line with the future rate of progress. 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 less 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 fulfilment of ancillary conditions therefor. Profits-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 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 in 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 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 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 extinct 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, and 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 acquired deferred tax benefits recognized are applied to reduce the book amount of the goodwill related to the acquisition, and if the book amount of the goodwill is zero, the remaining deferred tax benefits are recognized as current 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 deducting 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. The remeasurement elements consisting of the actuarial gains and losses, revenue from the plan assets excluding the amount included in the net interest, and the changes in the effect of the ceiling on the asset recognition excluding the amount included in the net interest are recognized immediately as other comprehensive income and are subsequently not reclassified as current 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 net 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.

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 varies depending on the contractual cash flows' characteristics of the financial assets and the business model of the consolidated companies 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 consolidated companies initially measure 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 principal only (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. That is, it is recognized on the date on which the consolidated companies agree 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 current 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 current profit or loss upon derecognition
- Financial assets measured at fair value through profit or loss

① Financial assets measured at amortized cost (debt instruments)

This category is most 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.

- Financial assets are held as net profit or loss, and
- According to the contractual terms of financial assets, cash flows are generated, which consist only 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 net 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.

- 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 gains and losses, and impairment or reversal are calculated in the same manner as financial assets measured at amortized cost and are recognized as net 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 net 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 current 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 gain 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 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. The financial assets acquired for the purposes of sale or repurchase within a short period of time 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 flow does 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 net 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 net profit or loss when the rights are confirmed.

As for the derivatives embedded in hybrid contracts, if the economic characteristics and risks are not closely related to the main contract, and if a separate instrument with the same terms and conditions as the embedded derivatives satisfies the definition of a derivative, and if the hybrid contracts are not measured at fair value through profit or loss, they are accounted for as the separate derivatives from the main contract.

The embedded derivatives are measured at fair value, and the changes in fair value are recognized as net profit or loss. A reevaluation 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
- The consolidated companies have 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 event, the consolidated companies neither transfer substantially most of the risks and rewards of holding the financial assets, nor transfer or hold most of the risks and rewards of holding the financial assets, yet transfer the control over the assets.

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 consolidated companies have neither held nor transferred most of the risks and rewards of a financial asset, they would continue to recognize the financial asset to the extent that they continue to be involved with it. In such event, the consolidated companies recognize the relevant liabilities. The liabilities related to the transferred assets are measured by reflecting the rights and obligations of the consolidated companies.

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
- Trade receivables including the debt instruments and contract assets measured at fair value through other comprehensive income

The consolidated companies recognize 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 consolidated companies, 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 consolidated companies may apply the simplified method for the calculation of the expected credit loss. 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 consolidated companies provide a table of provisioning rate based on the past credit loss related experiences adjusted to reflect the future prospects for the specific debtors and the economic environment.

For the debt instruments measured at fair value through other comprehensive income, the consolidated companies apply the low credit risk expedient method. On each date of settlement, the consolidated companies assess 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 consolidated companies re-evaluate the internal credit ratings of the relevant 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 of 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, under certain circumstances, the consolidated companies may consider that an event of default has occurred against financial assets if and when internal or external information indicates that the consolidated companies will not be able to receive the principal in full under contract until all credit enhancements by the consolidated companies 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 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 of time. 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.

Gains or losses on financial liabilities, which are trading items, are recognized as net 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 consolidated companies have 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 gains 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, cancelled or expire. 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 net 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.

2-12 Measurement of fair value

The consolidated companies assess 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 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 reevaluation 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 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: 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 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 account for 'most of the changes in value' resulting from the economic relationship between the hedged items and the hedging instruments.
- The hedging ratio of the hedging relationship is equivalent to the ratio between the number of hedged items which the relevant company actually hedges and the number of hedging instruments actually used by the consolidated companies to hedge the risks of the number of hedged items.

Hedging relationships satisfying 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 net 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 net 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 gains or losses is discontinued.

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

- Cash flow hedging

The effective portion of profit or loss from the hedging instruments is recognized as other comprehensive income within the cash flow hedge reserves, and the ineffective portion is recognized immediately as net profit or loss. The cash flow hedge reserves are adjusted to the accumulated profit or loss of the 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, and 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 net profit or loss during the period in which the hedged cash flows affect the net 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 net 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 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.

2-16 Tangible assets

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

tangible assets are presented as the balance of the acquisition cost less the accumulated depreciation and the accumulated impairment losses. Such costs include the replacement 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 the tangible assets, and all repair and maintenance costs are reflected in the net 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 the 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 disposal value and the book amount is reflected in the net 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 the tangible assets, and where any changes are needed, apply them in a forward-looking manner, and 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 of time 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 replacement 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, and 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 gained from the disposal or use of the investment real estate properties, the consolidated companies derecognize them from the consolidated financial statements, and the resulting difference between the net amount of disposal and the book amount is reflected in net 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 replaced with 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 of time 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-of-use assets presenting the right to use the underlying assets.

1) Right-of-use assets

The consolidated companies recognize the right-of-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 measurement. 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-of-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, less any lease incentives received. The right-of-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-of-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-of-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 lease payments (including the substantive fixed lease payments, less 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 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 the leases of assets of small amount for the leases of office supplies that are considered the assets of small amount. Lease payments for the short-term leases and leases of assets of small amount 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 are applicable.

- 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 liability 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 net 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. Intangible assets Amortization is reflected in the net 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 sale amount and the book amount of the intangible assets when derecognized.

- 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.

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

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 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, 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 net profit or loss as an expense item consistent with the function of the impaired asset. However, if there is a previously recognized reevaluation surplus as an asset for which the reevaluation model is applied, it is offset against the reevaluation surplus with the previous reevaluation 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 reevaluation model is applied, the relevant reversal amount is accounted for an increase in the reevaluation 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, and 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, and the differences between the book amount and the consideration for disposal are accounted for as the 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, and 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 granting 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 to or subtracted from the consolidated statements 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 granting. 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, and if there are no service provision terms and conditions (or performance conditions), they are recognized as expenses immediately thereby.

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 cancelled, 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 asset being classified as held for sale.

Tangible and intangible assets classified as held for sale are neither depreciated nor 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. Any additional matters related to the discontinued operations are disclosed under Note 36, and the amounts of discontinued operations are included unless otherwise provided under other notes to the financial statements.

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 consolidated companies generally exercise the option to extend the lease, as there is a significant negative impact on the production if replacement assets are 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 that have 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.

(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, and 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, pre-clinical 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, and the expenses incurred in the previous phase are treated as R&D expenses for the current period. The development cost subject to assetization was calculated based on the senior management's assumptions about the expected future cash flow, discount rate, and period of economic benefits from the asset. As of the end of the current period, the book amount of development cost recognized as assets based on the best estimate was KRW 13,088,066,000.

(5) Deferred income tax assets

Where it is highly likely that future taxable income for which the tax loss can be used will occur, 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-of-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) Uncertainties of the impact of COVID-19

Various prevention and control measures, including movement restrictions, are being implemented worldwide to block the spread of COVID-19, and as a result, the global economy is seeing far-reaching impacts. In addition, various types of government support policies are being announced to respond to COVID-19. Through reviewing the impact of the spread of COVID-19 on the financial statements of the consolidated companies, the consolidated companies determined that there will be an impact on the lower-of-cost-or-market approach to inventory (refer to Note 6) and the fixed asset impairment assessment (refer to Note 12) given the spread of COVID-19, etc., and accordingly, prepared the financial statements by reasonably estimating the impact of COVID-19 on the Company.

However, significant uncertainties exist in estimating when COVID-19 will end and its impact on the Company.

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

4-1 Application of the enacted and amended standards

The consolidated companies applied the standards and amendments for the first time for the first fiscal year beginning on or after January 1, 2021. The consolidated companies have not applied early the standards, interpretations or amendments which have been announced yet have not been enforced.

(1) Corporate Accounting Standard Nos. 1109, 1039, 1107, 1104 and 1116 (amended) - Interest rate index related reform - Phase 2

The amendments provide a temporary exemption to address the effect on financial reporting when the Interbank Loan Rate (IBOR) is replaced by the Alternative Risk Free Indicator Interest Rate (RFR).

The amendments include the following practical expedient method.

- Contractual changes, or changes in cash flows directly affected by the reform, are accounted for as if they were changed to a floating interest rate.

- The changes required by the interest rate index related reform are allowed for hedging designation and hedging documentation without interruption of the hedging relationship.
 - A temporary exemption is provided where the financial instruments which reference the alternative risk-free rate interest rates (RFRs) are deemed to meet the requirements to be separately identifiable if they are designated as a hedging factor. Meanwhile, the application of these amendments does not have a material impact on the financial position or business management performance of the consolidated companies.
- (2) Corporate Accounting Standard No. 1116 Lease - Rental payment related discounts related to COVID-19 on or after June 30, 2021, etc.

During 2020, Amendment to Corporate Accounting Standard No. 1116 'Lease' - 'Rental payment related discounts related to COVID-19 on or after June 30, 2021, etc.' were announced. The relevant amendments eased the application of lease change accounting for Corporate Accounting Standard No. 1116 'Lease' for the lessees for rent payment discounts, etc., which arose as a direct result of the global pandemic of COVID-19. Based on the practical expedient method, a lessee may not assess whether the rental payment discounts, etc., incurred in connection with COVID-19 constitute a lease change. The lessee who has made such choice must account for the lease change caused by rental payment discounts, etc., consistently with the provisions made under these standards if and where it is not such a change. The practical expedient method was planned to be applied until June 30, 2021, yet the application period of the practical expedient method was extended to until June 30, 2022 due to the impact of COVID-19. This amendment is effective for the fiscal year beginning on or after April 1, 2021, with early application allowed. While the consolidated companies did not receive a rental payment discount related to COVID-19, the practical expedient method will be applied if there are any applicable cases within the application period allowed.

4-2 Accounting standards announced but not yet enforced

The details of the enacted or amended 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 yet been applied since the date of enforcement has not yet arrived, are as follows.

- (1) Amendment to Corporate Accounting Standard No. 1103 'Business Combination' - Citation of the conceptual framework

The purpose of the relevant amendment is, in the event of a change following the reference made to the 'Conceptual Framework for the Preparation and Presentation of Financial Statements' announced in 1989 towards the 'Conceptual Framework for Financial Reporting' announced in March 2018, to ensure that there are no changes in the significant requirements. To ensure that day 2 profit or loss on the liabilities and contingent liabilities are within the scope of Corporate Accounting Standard No. 1037 'Provisioning liabilities, contingent liabilities, and contingent assets' or Corporate Accounting Standard No. 2121 'Charges', exceptions have been added to the recognition principle of Corporate Accounting Standard No. 1103. Furthermore, the guidelines for contingent assets of Corporate Accounting Standard No. 1103 have been articulated to ensure that the changes made in the conceptual framework for financial reporting do not have an impact. These amendments are applied from the first fiscal year beginning on or after January 1, 2022, and are applied in a forward looking manner.

- (2) Amendment to Corporate Accounting Standard No. 1016 'Tangible assets' - Amount of sale before the intended use

The purpose of this amendment is to ensure that the cost of goods sold is not deducted from the cost of bringing the assets to the location and condition required to operate them in the manner intended by the senior management. Instead, the company recognizes as net profit or loss the revenue from the sale of such items and the costs of producing the items each.

This amendment is applied for the fiscal year beginning on or after January 1, 2022, and must be applied retrospectively for the tangible assets which reach a location and condition capable of operating in the manner intended by the senior management during the earliest comparative period or thereafter. The consolidated companies expect that this amendment will not have a material impact on the financial statements.

- (3) Amendment to Corporate Accounting Standard No. 1037 'Provisioning liabilities, contingent liabilities and

contingent assets' - onerous contract: contractual performance cost

When identifying onerous contracts, it was clarified that the scope of the contractual performance cost is the allocation of incremental costs to perform the contract and other costs directly related to the contractual performance. The general administration costs are excluded unless they are directly related to the contract and cannot be expressly charged to the counterparty to the transaction under the contract. This amendment is applied from the fiscal year beginning on or after January 1, 2022, with early application allowed. The consolidated companies expect that this amendment will not have a material impact on the financial statements.

(4) The amendments to Corporate Accounting Standard No. 1001 'Presentation of financial statements' - Current/non-current classification of liabilities and Corporate Accounting Standard No. 1001 Paragraphs 69-76 clarify the following requirements for current and non-current classification of liabilities.

- Meaning of the right to defer payment
- The right to defer must exist at the end of the reporting period
- The possibility of a company exercising the right to defer does not affect the liquidity classification.
- The condition of liability does not affect the liquidity classification only if and where the embedded derivative of a convertible liability is itself an equity instrument.

This amendment is applied for the first fiscal year beginning on or after January 1, 2023, and is applied retrospectively. The consolidated companies assess the impact of the amendment on the current practice and whether a renegotiation is needed for the existing loan agreements.

(5) Corporate Accounting Standard No. 1001 'Presentation of financial statements' - Disclosure of the accounting policy

This amendment provides the requirements and guidelines that allow companies to more effectively disclose their accounting policies. Corporate Accounting Standard No. 1001 requires that companies disclose their significant accounting policies. The amendment changed the 'significant' accounting policy to the 'material' accounting policy, and added explanations for the material accounting policy information. It allows companies to provide a more useful accounting policy information when making decisions on the accounting policy disclosures.

The amendment to Corporate Accounting Standard No. 1001 'Presentation of financial statements' is applied from the first fiscal year beginning on or after January 1, 2023, with early application allowed. The consolidated companies expect that this amendment will not have a material impact on the financial statements.

(6) Corporate Accounting Standard No. 1008 'Accounting policy, and changes and errors in accounting estimates' - Definition of 'accounting estimates'

The amended standards clearly distinguish the changes in accounting estimates, changes in accounting policies, and correction of accounting errors. Furthermore, the amended standards also articulate how a company can use the measurement techniques and input variables to develop the accounting estimates. This amendment is applied from the first fiscal year beginning on or after January 1, 2023, and is applied for the changes in accounting policies and accounting estimates arising at or after this point in time. Early application is allowed. The consolidated companies expect that this amendment will not have a material impact on the financial statements.

(7) Amendment to Corporate Accounting Standard No. 1012 'Corporate tax' - Reduced scope of exception for the initial recognition of deferred tax

This amendment has been made with a view to addressing the issue of different accounting practices for the recognition of deferred income tax liabilities and assets for the transactions in which a temporary difference to be added and a temporary difference to be deducted for the same amount are recognized at the same time. This amendment added the requirements (3) to the provisos of Paragraphs 15 and 24 of Corporate Accounting Standard No. 1012 (exceptions-related provisions for the initial recognition of deferred tax), and if and when an asset and a liability are initially recognized in a single transaction, and if there is a taxable temporary difference and a deductible temporary difference of the same amount, it allows for the deferred income tax liabilities and assets to be recognized. This amendment is applied in a forward-looking manner from the first fiscal year beginning on or after January 1, 2023, with early application allowed. This

amendment is not expected to have a material impact on the consolidated companies.

4-3 Annual improvement of the Korean International Financial Reporting Standards for 2018-2020

- (1) Corporate Accounting Standard No. 1101, 'First adoption of the Korean International Financial Reporting Standards': Subsidiaries which adopted K-IFRS for the first time

Where a subsidiary chooses to apply Paragraph D16(1) of the Corporate Accounting Standard No. 1101 on the first adoption of IFRS, the amended standards allow for the subsidiary to measure the cumulative translation differences using the amount reported by the parent company as of the date of transition towards the K-IFRS of the parent company. This amendment is also applied for the affiliates or joint ventures which have chosen to apply Paragraph D16(1) of the standards.

This amendment is applied for the first fiscal year beginning on or after January 1, 2022, with early application allowed.

- (2) Corporate Accounting Standard No. 1109 'Financial instruments': Fees related to the 10% test for the purposes of derecognizing financial liabilities

This amendment specifies the fees which a company includes when assessing whether the terms of a new or modified financial liability are materially different from the terms of the existing financial liability. Included in such fees are only the fees paid or received by and between the creditor and the debtor and the fees paid or received by the creditor and the debtor on behalf of each other. A company applies this amendment for financial liabilities that are changed or exchanged after the fiscal year in which this amendment is first applied. This amendment is applied from the fiscal year beginning on or after January 1, 2022, with early application allowed. The consolidated companies will apply this amendment for the financial liabilities changed or exchanged after the financial year first beginning on or after the date of enforcement. This amendment is not expected to have a material impact on the consolidated companies.

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	Derivatives assets of hedging accounting	Total
Current assets:					
Short-term financial assets (Note 1)	1,794,156,437	-	-	-	1,794,156,437
Trade and other receivables	2,277,046	364,588,065	-	-	366,865,111
Other current assets (Note 2)	-	178,067	-	-	178,067
Subtotal	1,796,433,483	364,766,132	-	-	2,161,199,615
Non-current assets:					
Long-term financial assets	-	21,142,500	-	-	21,142,500
Long-term investment assets	32,081,459	-	3,000,027	-	35,081,486
Other non-current assets (Note 2)	368,001	1,274,378	-	1,639,873	3,282,252
Subtotal	32,449,460	22,416,878	3,000,027	1,639,873	59,506,238
Total	1,828,882,943	387,183,010	3,000,027	1,639,873	2,220,705,853

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

(Note 2) Included are the short- and long-term security deposits and the derivative financial assets.

<End of the previous period>

(Unit: KRW one thousand)

Classification	Financial assets measured at fair value through profit or loss	Financial assets measured at amortized cost	Total
Current assets:			
Short-term financial assets (Note 1)	339,928,470	-	339,928,470
Trade and other receivables (Note 2)	287,361	232,905,247	233,192,608
Other current assets (Note 3)	-	158,273	158,273
Subtotal	340,215,831	233,063,520	573,279,351
Non-current assets:			
Long-term financial assets	-	32,500	32,500
Long-term investment assets	24,492,063	-	24,492,063
Other non-current assets (Note 3)	-	1,254,412	1,254,412
Subtotal	24,492,063	1,286,912	25,778,975
Total	364,707,894	234,350,432	599,058,326

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

(Note 2) Included are the treasury share association's loans for the executives and employees of SK Bioscience Co., Ltd., a subsidiary.

(Note 3) Included are 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 assets measured at fair value through profit or loss	Financial liabilities measured at amortized cost	Total
Current liabilities:			
Trade and other payables	1,364,347	451,528,474	452,892,821
Short-term borrowings	-	11,671,373	11,671,373
Current portion of long-term liabilities	-	207,864,113	207,864,113
Current portion of lease liabilities (Note 1)	-	2,788,638	2,788,638
Other current liabilities (Note 2)	-	11,830,767	11,830,767
Subtotal	1,364,347	685,683,365	687,047,712
Non-current liabilities:			
Debenture	-	256,063,407	256,063,407
Lease liabilities (Note 1)	-	8,343,522	8,343,522
Other non-current liabilities (Note 2)	-	2,110,026	2,110,026
Subtotal	-	266,516,955	266,516,955
Total	1,364,347	952,200,320	953,564,667

(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 assets measured at fair value through profit or loss	Financial liabilities measured at amortized cost	Derivative liabilities of hedging accounting	Total
Current liabilities:				
Trade and other payables	3,911,928	228,109,806	-	232,021,734
Short-term borrowings	-	107,636,903	-	107,636,903
Current portion of long-term liabilities	-	96,947,494	-	96,947,494
Current portion of lease liabilities (Note 1)	-	3,038,109	-	3,038,109
Other current liabilities (Note 2)	-	20,116,134	-	20,116,134
Subtotal	3,911,928	455,848,446	-	459,760,374
Non-current liabilities:				
Debenture	-	460,480,570	-	460,480,570
Long-term borrowings	-	31,135,000	-	31,135,000
Lease liabilities (Note 1)	-	9,392,925	-	9,392,925
Other non-current liabilities (Note 2)	-	-	3,617,387	3,617,387
Subtotal	-	501,008,495	3,617,387	504,625,882
Total	3,911,928	956,856,941	3,617,387	964,386,256

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

(Note 2) Included are the short- and long-term security deposits and the derivative financial assets.

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 (Note 1)	Financial assets measured at fair value through profit or loss	Financial assets measured at amortized cost	Derivative liabilities of hedging accounting	Financial liabilities measured at amortized cost	Total
Net income:					
Interest income (expense)	-	2,273,356	-	(10,600,102)	(8,326,746)
Profit or loss on the valuation of financial instruments measured at fair value through profit or loss	(6,357,019)	-	-	-	(6,357,019)
Profit or loss on the transaction of financial instruments measured at fair value through profit or loss	12,615,764	-	-	-	12,615,764
Dividend income	1,190,000	-	-	-	1,190,000
Gains or losses on foreign currency translation	-	(130,179)	-	(4,900,003)	(5,030,182)
Gain and loss on foreign currency transactions	-	11,025,512	-	(10,615,873)	409,639
Gains or losses on the valuation of derivatives	1,280,700	-	2,925,000	-	4,205,700
Gains or losses on the transaction of derivatives	(114,720)	-	45,915	-	(68,805)
Reversal of allowance for bad debts	-	137,774	-	-	137,774
Other reversals of allowance for bad debts	-	170,716	-	-	170,716
Subtotal	8,614,725	13,477,179	2,970,915	(26,115,978)	(1,053,159)
Other comprehensive income:					
Gains or losses on the valuation of derivatives (Note 1)	-	-	1,194,758	-	1,194,758
Subtotal	-	-	1,194,758	-	1,194,758
Total	8,614,725	13,477,179	4,165,673	(26,115,978)	141,599

(Note 1) The profits and losses from discontinued operations are not included.

(Note 2) This amount is obtained from deducting the corporate tax.

<Previous period>

(Unit: KRW one thousand)

Classification (note 1)	Financial instruments measured at fair value through profit or loss	Financial assets measured at amortized cost	Derivative liabilities of hedging accounting	Financial liabilities measured at amortized cost	Total
Net income:					
Interest income (expense)	-	606,526	-	(19,074,586)	(18,468,060)
Profit or loss on the valuation of financial instruments measured at fair value through profit or loss	(1,026,682)	-	-	-	(1,026,682)
Profit or loss on the transaction of financial instruments measured at fair value through profit or loss	3,058,891	-	-	-	3,058,891
Dividend income	1,190,000	-	-	-	1,190,000
Gains or losses on foreign currency translation	-	(3,061,775)	-	11,022,932	7,961,157
Gain and loss on foreign currency transactions	-	(4,281,506)	-	1,631,098	(2,650,408)
Gains or losses on the valuation of derivatives	(3,624,567)	-	(3,490,000)	-	(7,114,567)
Gains or losses on the transaction of derivatives	1,053,628	-	-	-	1,053,628
Reversal of allowance for bad debts	-	813,943	-	-	813,943
Other bad debt expenses	-	(3,660,948)	-	-	(3,660,948)
Subtotal	651,270	(9,583,760)	(3,490,000)	(6,420,556)	(18,843,046)
Other comprehensive income:					
Gains or losses on the valuation of derivatives (Note 2)	-	-	(145,731)	-	(145,731)
Subtotal	-	-	(145,731)	-	(145,731)
Total	651,270	(9,583,760)	(3,635,731)	(6,420,556)	(18,988,777)

(Note 1) The profits and losses from discontinued operations are not included.

(Note 2) 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
Long-term financial assets	32,500	32,500	Security deposit for opening current deposit account
	21,110,000	-	Provision of loan collateral of the treasury share association
Total	21,142,500	32,500	

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	184,875,238	152,717,476
Allowance for bad debts for trade receivables	(4,767,211)	(5,735,033)
Accounts receivable	183,517,371	78,804,538
Allowance for bad debts for accounts receivable	(232,871)	(109,347)
Short-term loans	3,750,000	11,260,343
Allowance for bad debts for short-term loans	(3,750,000)	(4,050,000)
Accrued revenue	1,195,538	17,270
Derivative financial assets	2,277,046	287,361
Total	366,865,111	233,192,608

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	9,894,380	10,128,090
Placement (reversal) (Note 1)	(214,347)	2,918,720
Removal and exchange rate fluctuations, etc.	28,829	(2,822,349)
Business transfer (Note 2)	(958,780)	(106,242)
Change in the scope of consolidation	-	(223,839)
End of period	8,750,082	9,894,380

(Note 1) The allowance for bad debts of KRW 94,144,000 (previous period: KRW 71,714,000 of placement for bad debts) arising from the discontinued division was reclassified as the profit or loss from discontinued operations.

(Note 2) During the current period, the composite material business division and the PPS business division were sold to Toray Advanced Materials Korea Inc. and HDC Polyol Co., Ltd. each.

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	329,933,375	198,722,371
Within 90 days	40,867,330	37,272,957
Within 180 days	250,000	2,614,060
Over 180 days	4,564,488	4,477,600
Subtotal	375,615,193	243,086,988
(Deducted allowance for bad debts)	(8,750,082)	(9,894,380)
Deductions	366,865,111	233,192,608

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)	-	31,636,903	Resource obligation

(Note 1) The consolidated companies recognize 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	19,738,982	(1,089,881)	18,649,101
Products	113,932,193	(2,380,003)	111,552,190
Processed products	28,932,174	(1,542,724)	27,389,450
Half finished products	73,216,391	(2,385,624)	70,830,767
Goods in process	12,519,681	-	12,519,681
Raw materials	71,938,574	(3,052,841)	68,885,733
Stored goods	32,683,672	(855,723)	31,827,949
Goods to arrive	7,055,291	-	7,055,291
Other inventories	589,064	-	589,064
Total (Note 1)	360,606,022	(11,306,796)	349,299,226

(Note 1) Included are KRW 36,960,182,000 for the amount of contract assets related to the CMOs and CDMOs (refer to Note 21).

<End of the previous period>

(Unit: KRW one thousand)

Classification	Acquisition cost	Assessment allowance	Book amount
Goods	10,888,307	(183,423)	10,704,884
Products	103,529,541	(13,327,078)	90,202,463
Processed products	22,070,735	(1,908,652)	20,162,083
Half finished products (Note 1)	35,530,817	(1,237,171)	34,293,646
Goods in process	10,125,679	-	10,125,679
Raw materials	63,997,986	(380,746)	63,617,240
Stored goods	18,454,093	(87,493)	18,366,600
Goods to arrive	4,633,956	-	4,633,956
Other inventories	823,759	-	823,759
Total (Note 1)	270,054,873	(17,124,563)	252,930,310

(Note 1) Included are KRW 15,662,393,000 for the amount of contract assets related to the CMOs and CDMOs (refer to Note 21).

7-2 During the current period, the reversal of loss on the valuation of inventories recognized in connection with the inventories was KRW 11,868,000 (reversal of loss on the valuation of inventories for the previous period: KRW 16,515,084,000), which was added or subtracted from the cost of sales.

8. Other assets

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	178,067	158,273
Advance payments	12,217,621	932,415
Prepaid expenses	4,905,473	3,727,953
Prepaid corporate taxes	436,645	889,720
Prepaid VATs	317,678	125,789
Carbon emission right assets	45,025	-
Other assets	22,019	3,656,714
Total	18,122,528	9,490,864
Other non-current assets:		
Derivatives assets	2,007,874	64,870
Long-term security deposits	1,274,378	1,254,412
Long-term prepaid expenses	5,902	154,371
Defined benefit assets (Note 1)	7,103,496	-
Other assets	935,730	935,728
Total	11,327,380	2,409,381

(Note 1) These are the net defined benefit assets which resulted from the accumulation of the defined benefit plan in excess of liabilities. There is no restrictive effect due to the ceiling on asset recognition for the current period.

9. Long-term and short-term financial assets

The details of the long-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)	1,794,156,437	339,928,470
Long-term financial assets:		
Security deposit for opening current deposit account	32,500	32,500
Time deposits (Note 2)	21,110,000	-
Subtotal	21,142,500	32,500
Total	1,815,298,937	339,960,970

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

(Note 2) They are provided as a collateral for the treasury share association's loans (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 (EFKL) (Note 1)	21,572,864	-	-	1,933,230	23,506,094
Yongyeon Industrial District 4 Industrial Water Management Association	419,199	-	-	-	419,199
Standigm Co., Ltd. (Notes 2, 3)	-	3,000,008	-	-	3,000,008
Subtotal	21,992,063	3,000,008	-	1,933,230	26,925,301
Debt securities					
Korea Investment Bio Global Fund (Note 4)	2,500,000	2,500,000	(25,000)	(789,475)	4,185,525
Sante Health Ventures IV, LP (Note 2)	-	970,633	-	-	970,633
Subtotal	2,500,000	3,470,633	(25,000)	(789,475)	5,156,158
Financial assets measured at fair value through other comprehensive income:					
Unmarketable equity securities					
J2H Biotech Co., Ltd. (Note 2)	-	1,500,052	-	-	1,500,052
Oncobix Co., Ltd. (Note 2)	-	999,980	-	-	999,980
Citi Cells Co., Ltd. (Note 2)	-	499,995	-	-	499,995
Subtotal	-	3,000,027	-	-	3,000,027
Total	24,492,063	9,470,668	(25,000)	1,143,755	35,081,486

- (Note 1) The consolidated companies hold a put option for the interest in the preferred stocks of Eastman Fiber Korea Co., Ltd. and granted a call option of the same amount for Eastman Chemical Korea B.V., the largest shareholder, and considering the option, reflected the assessment of the investment assets at fair value.
- (Note 2) During the current period, the consolidated companies newly acquired redeemable convertible preferred stocks of Standigm Co., Ltd., common stocks of J2H Biotech Co., Ltd., common stocks of Oncobix Co., Ltd., and common stocks of Citi Cells Co., Ltd., and newly invested in Sante Health Ventures IV, LP.
- (Note 3) 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 4) During the current period, the consolidated companies made additional investments in the Korea Investment Bio Global Fund and recovered a portion of the investments.

<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 (EFKL) (Note 1)	22,956,859	-	(1,383,995)	21,572,864
Yongyeon Industrial District 4 Industrial Water Management Association	419,199	-	-	419,199
Subtotal	23,376,058	-	(1,383,995)	21,992,063
Debt securities				
Korea Investment Bio Global Fund	-	2,500,000	-	2,500,000
Total	23,376,058	2,500,000	(1,383,995)	24,492,063

(Note 1) The consolidated companies hold a put option for the interest in the preferred stocks of Eastman Fiber Korea Co., Ltd. and granted a call option of the same amount for Eastman Chemical Korea B.V., the largest shareholder, and considering the option, reflected the assessment of the investment assets at fair value.

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	6,863,112	50.00	7,373,304
JSI Co., Ltd. (Note 1)	Republic of Korea	40.00	534,172	40.00	451,933
HDC Polyol Co., Ltd. (Notes 2, 3)	Republic of Korea	20.00	7,699,750	-	-
ST Green Energy	Singapore	50.00	1,231,243	50.00	1,278,783
Total			16,328,277		9,104,020

(Note 1) During the previous period, it was reclassified from a subsidiary to an affiliate as the control was lost following the partial sale the interest owned by JSI Co., Ltd.

(Note 2) During the current period, the PPS Business Division was transferred to HDC Polyol Co., Ltd., and a 20% interest-1 share was acquired from HDC Polyol Co., Ltd. The consolidated companies is determined to have influence over HDC Polyol Co., Ltd. based on the fact that the consolidated companies can appoint 20% of the directors.

(Note 3) The consolidated companies have put options for all of their interest in HDC Polyol 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	Acquired	Gains or losses on valuation using equity method	Dividends	Others (Note 1)	End of period
Entis Co., Ltd.	7,373,304	-	1,489,808	(2,000,000)	-	6,863,112
JSI Co., Ltd.	451,933	-	82,239	-	-	534,172
HDC Polyol Co., Ltd.	-	7,699,750	-	-	-	7,699,750
ST Green Energy	1,278,783	385,515	46,898	(567,950)	87,996	1,231,242
Total	9,104,020	8,085,265	1,618,945	(2,567,950)	87,996	16,328,276

(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	Gains or losses on valuation using equity method	Dividends	Others (Note 1)	End of period
Entis Co., Ltd.	7,421,945	951,359	(1,000,000)	-	7,373,304
JSI Co., Ltd.	-	93,627	-	358,306	451,933
ST Green Energy	1,354,463	712,227	(720,840)	(67,067)	1,278,783
Total	8,776,408	1,757,213	(1,720,840)	291,239	9,104,020

(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
Entis Co., Ltd.	20,184,219	2,416,784	8,874,781	-	13,726,222	48,033,806	2,688,305
JSI Co., Ltd.	3,525,486	7,643,890	11,937,952	1,540,304	(2,308,880)	13,313,925	197,546
HDC Polyol Co., Ltd.	29,161,094	14,056,867	4,717,961	-	38,500,000	-	-
ST Green Energy	8,284,236	142,786	5,964,537	-	2,462,485	265,259,025	357,081

<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.	19,914,948	2,588,114	6,998,284	758,170	14,746,608	35,963,005	1,902,718
JSI Co., Ltd.	3,021,864	8,265,789	12,257,156	1,544,974	(2,514,477)	12,292,622	(139,667)
ST Green Energy	6,993,744	179,274	4,615,453	-	2,557,565	164,534,888	1,690,118

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 (Note 1)	Impairment loss (Note 1)	Transfer of business (Note 2)	Others (Note 3)	End of period
Land	203,507,833	488,849	-	-	-	(9,209,440)	(212,735)	194,574,507
Building	306,490,611	15,041,762	(636,626)	(9,973,602)	(9,271,731)	(957,498)	9,790,880	310,483,796
Structure	106,744,282	5,120,519	(212,859)	(3,399,839)	(3,105,329)	(75,485)	7,203,711	112,275,000
Mechanical equipment	359,739,076	36,593,481	(846,734)	(63,269,764)	(90,608,774)	(5,098,249)	40,668,327	277,177,363
Vehicles and transport equipment	299,301	-	(15)	(85,325)	-	(3,812)	2,004	212,153
Other tangible assets	11,242,647	5,316,102	(58,804)	(4,720,345)	(435,328)	(209,101)	2,858,035	13,993,206
Construction in progress	81,085,394	76,679,578	(1,315,322)	-	-	(1,231,804)	(67,034,180)	88,183,666
Machineries in transit	890,483	3,719,246	-	-	-	-	(2,263,657)	2,346,072
Total	1,069,999,627	142,959,537	(3,070,360)	(81,448,875)	(103,421,162)	(16,785,389)	(8,987,615)	999,245,763

(Note 1) Included are the profits and losses classified from discontinued operations.

(Note 2) During the current period, the composite material business and the PPS business were transferred to Toray Advanced Materials Korea Inc. and HDC Polyol Co., Ltd. each.

(Note 3) Included are the main account replacement of construction in progress, replacement of investment real estate properties with the intangible assets, receipt of government subsidies, and the effect of exchange rate fluctuations, etc.

<Previous period>

(Unit: KRW one thousand)

Classification	Beginning of period	Acquired	Disposed	Depreciation (Note 1)	Impairment loss (Note 1)	Transfer of business (Note 2)	Changes in the scope of consolidation	Others (Note 3)	End of period
Land	214,963,136	-	-	-	-	(6,638,976)	(2,870,910)	(1,945,417)	203,507,833
Building	310,658,423	2,919,005	(1,683,166)	(9,860,019)	(3,929,393)	(2,912,128)	(2,444,497)	13,742,386	306,490,611
Structure	101,979,280	6,925,914	(477,421)	(3,036,502)	(1,316,058)	(4,487,363)	-	7,156,432	106,744,282
Mechanical equipment	428,572,290	24,109,387	(3,641,782)	(71,547,638)	(42,702,920)	(10,513,440)	(1,145,651)	36,608,830	359,739,076
Vehicles and transport equipment	391,962	-	(2)	(93,188)	-	-	-	529	299,301
Other tangible assets	10,802,405	4,001,271	(2,075)	(3,952,916)	(96,219)	(192,010)	(193,016)	875,207	11,242,647
Construction in progress	93,852,714	53,269,164	(2,501,107)	-	-	(2,324,475)	(26,400)	(61,184,502)	81,085,394
Machineries in transit	3,844,710	2,654,501	-	-	-	-	-	(5,608,728)	890,483
Total	1,165,064,920	93,879,242	(8,305,553)	(88,490,263)	(48,044,590)	(27,068,392)	(6,680,474)	(10,355,263)	1,069,999,627

(Note 1) Included are the profits and losses classified from discontinued operations.

(Note 2) During the previous period, the bio-energy business division was sold to SK Eco Prime Co., Ltd.

(Note 3) Included are the main account replacement of assets for construction in progress, replacement of investment real estate properties with the intangible assets, receipt of government subsidies, and the effect of exchange rate fluctuations, etc.

The capitalized borrowing costs during the current period are KRW 1,087,645,000 (previous period: KRW 1,532,380,000). The interest rate for capitalization used to calculate the borrowing costs available for capitalization is 2.85%-3.42% (previous period: 2.74%-3.45%).

12-3 Insured assets

As of the end of the current period, the consolidated companies are subscribed for all property risk insurance policy with an insured amount of 2,453,647,973,000 and CNY 134,812,452 (previous period: KRW 2,540,989,774,000, CNY 228,932,773) for the tangible assets, etc.

12-4 Impairment of the PPS Business Division

The consolidated companies conducted an impairment test for the PPS Business Division considering the accumulated net loss and business uncertainties due to COVID-19.

Every year, the consolidated companies conduct impairment tests for the tangible and intangible assets and the cash-generating units if any signs of impairment are discovered. Any impairment of the individual assets, etc., is reflected when discovered, and thereafter, the independent cash-generating unit is assessed for the value in use, and an impairment test is conducted. For the independent cash-generating units, impairment tests were conducted due to the accumulated operating losses of the PPS Business Division and uncertainties due to COVID-19.

The consolidated companies define, in principle, a cash-generating unit for a business division whose cash inflows from other business divisions are almost independent and classified as of the lowest level of identifiable cash inflows, and the recoverable amount of the independent cash-generating unit was calculated using the fair market transaction value with a third party of no special interest.

As a result of the test conducted for the cash-generating unit, the impairment loss of tangible assets for KRW 103,421 million (previous period: KRW 48,045 million) was recognized for some of the exclusive facilities and the individual assets related to the PPS Business Division, and was reflected as losses from discontinued operations.

13. Lease

(3) Company as a lessee

13-1 The changes in the book value of right-of-use assets for the current and previous periods are as follows.

<Current period>

(Unit: KRW one thousand)

Classification	Beginning of period	Acquired	Disposed	Depreciation (Note 1)	Business transfer (Note 2)	Others (Note 3)	End of period
Land	3,582,070	-	-	(78,980)	-	410,144	3,913,234
Building	3,955,244	387,046	(20,999)	(725,412)	(898,770)	93,898	2,791,007
Structure	3,334,722	13,640	-	(117,765)	-	-	3,230,597
Mechanical equipment	3,512,313	2,221,498	(1,700,000)	(814,392)	-	-	3,219,419
Vehicles and transport equipment	1,717,111	2,353,058	(490,799)	(1,351,527)	(7,905)	12,508	2,232,469
Total	16,101,460	4,975,242	(2,211,798)	(3,088,076)	(906,675)	516,550	15,386,726

(Note 1) Included are the profits and losses classified from discontinued operations.

(Note 2) During the current period, the composite material business division was transferred to Toray Advanced Materials Korea Inc. (Note 3) They consist of the effect of exchange rate fluctuations, etc.

<Previous period>

(Unit: KRW one thousand)

Classification	Beginning of period	Acquired	Disposed	Depreciation (Note 1)	Business transfer (Note 2)	Others (Note 3)	End of period
Land	-	3,444,874	-	-	-	137,196	3,582,070
Building	3,263,328	1,272,553	-	(582,837)	-	2,200	3,955,244
Structure	48,012,713	2,103,538	-	(822,795)	(45,958,734)	-	3,334,722
Mechanical equipment	4,426,770	-	-	(914,457)	-	-	3,512,313
Vehicles and transport equipment	2,479,889	1,018,571	(402,950)	(1,376,544)	(2,805)	950	1,717,111
Total	58,182,700	7,839,536	(402,950)	(3,696,633)	(45,961,539)	140,346	16,101,460

(Note 1) Included are the profits and losses classified from discontinued operations.

(Note 2) During the previous period, the bio-energy business division was sold to SK Eco Prime Co., Ltd.

(Note 3) They consist of the effect 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	2,835,307	2,788,638	3,104,689	3,038,109
2 years or less	2,276,326	2,174,335	2,524,550	2,361,766
5 years or less	3,414,156	3,015,212	4,537,220	3,848,561
Over 5 years	5,257,900	3,153,975	5,577,133	3,182,598
Total	13,783,689	11,132,160	15,743,592	12,431,034

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	12,431,034	58,470,887
Increase	4,975,242	4,394,662
Disposal	(2,652,966)	(425,898)
Interest expenses	474,321	1,264,886
Lease payments made	(3,248,550)	(7,108,484)
Business transfer (Notes 1, 2)	(986,431)	(44,166,801)
Others (Note 3)	139,510	1,782
End of period	11,132,160	12,431,034

(Note 1) During the current period, the composite material business was transferred to Toray Advanced Materials Korea Inc.

(Note 2) During the previous period, the bio-energy business division was sold to SK Eco Prime Co., Ltd.

(Note 3) They consist of the effect 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	931,275	682,534
Lease of small amount	309,781	272,039
Variable lease payments	-	3,658,586
Depreciation and impairment losses		
Amortization of right-of-use assets	3,088,076	3,696,633
Net financial cost		
Lease liabilities' interest expenses	474,321	1,264,886

The consolidated companies had a cash outflow of KRW 4,489,606,000 in total (previous period: KRW 11,721,643,000) 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 apply their material judgment in determining whether it is significantly certain that such extension and termination options will be exercised.

(4) Company as a lessor

The consolidated companies have executed operating lease agreement for a portfolio of investment real estate properties consisting of specific offices and manufacturing properties. The terms of these leases run from 1 to 50 years. Included in all leases is a provision which allows for an increase in rental payment on an annual basis depending on the 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 1,895,746,000 (previous period: KRW 1,458,533,000).

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
1 year or less	1,804,884	1,609,752
Over 1 year and 5 years or less	3,010,397	2,096,426
Over 5 years	10,470,680	3,722,319
Total	15,285,961	7,428,497

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	Write-down (Note 1)	Business transfer (Note 2)	Others (Note 3)	End of period
Goodwill	86,234	-	-	-	-	-	86,234
Industrial property rights	6,790,551	136,964	(83,438)	(1,396,997)	(987,737)	1,496,705	5,956,048
Memberships	5,799,179	1,257,326	-	-	-	-	7,056,505
Development costs	15,221,386	180,178	-	(2,313,498)	-	-	13,088,066
Softwares	9,058,514	5,075,989	-	(4,590,164)	-	8,691,132	18,235,471
Total	36,955,864	6,650,457	(83,438)	(8,300,659)	(987,737)	10,187,837	44,422,324

(Note 1) Included are the profits and losses classified from discontinued operations.

(Note 2) During the current period, the composite material business and the PPS business were transferred to Toray Advanced Materials Korea Inc. and HDC Polyol Co., Ltd. each.

(Note 3) They consist of the main account replacement for construction in progress and the effect of exchange rate fluctuations, etc.

<Previous period>

(Unit: KRW one thousand)

Classification	Beginning of period	Acquired	Disposed	Write-down (Note 1)	Changes in the scope of consolidation	Transfer of business (Note 2)	Others (Note 3)	End of period
Goodwill	86,234	-	-	-	-	-	-	86,234
Industrial property rights	4,387,018	52,499	(317,866)	(1,100,678)	(1)	(105,771)	3,875,350	6,790,551
Memberships	9,400,565	-	(3,546,386)	(55,000)	-	-	-	5,799,179
Development costs	17,534,884	-	-	(2,313,498)	-	-	-	15,221,386
Softwares	5,798,571	2,259,278	(90,051)	(2,445,686)	(3,333)	-	3,539,735	9,058,514
Other intangible assets	222,122	484	-	(8,195)	-	-	(214,411)	-
Total	37,429,394	2,312,261	(3,954,303)	(5,923,057)	(3,334)	(105,771)	7,200,674	36,955,864

(Note 1) Included are the profits and losses classified from discontinued operations.

(Note 2) During the previous period, the bio-energy business division was sold to SK Eco Prime Co., Ltd.

(Note 3) They consist of the main account replacement for construction in progress and the effect 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	Cumulative amount of impairment loss	
Completed development	Genetic recombination	NBP601 (Note 1)	-	5,100,000	5,100,000	2,550,000	-	5 years
	Vaccine	NBP607 (Note 2)	4,354,658	-	4,354,658	1,998,900	-	4 years
	Vaccine	NBP608 Herpes Zoster (Note 3)	10,199,115	-	10,199,115	6,034,477	-	6 years
	Vaccine	NBP608 Chickenpox (Note 4)	3,486,768	-	3,486,768	2,324,511	-	7 years
Development in progress	Vaccine	GBP510 COVID-19 (Note 5)	180,178	-	180,178	180,178	-	10 years
		Subtotal	18,220,719	5,100,000	23,320,719	13,088,066	-	

<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	Cumulative amount of impairment loss	
Completed development	Genetic recombination	NBP601 (Note 1)	-	5,100,000	5,100,000	3,060,000	-	6 years
	Vaccine	NBP607 (Note 2)	4,354,658	-	4,354,658	2,433,809	-	5 years
	Vaccine	NBP608 Herpes Zoster (Note 3)	10,199,115	-	10,199,115	7,054,387	-	7 years
	Vaccine	NBP608 Chickenpox (Note 4)	3,486,768	-	3,486,768	2,673,190	-	8 years
			Subtotal	18,040,541	5,100,000	23,140,541	15,221,386	-

(Note 1) NBP 601 is a treatment for hemophilia and is currently on sale after securing the approval for sales in Europe and the United States, etc.

(Note 2) NBP 607 is an influenza vaccine product, which was approved for sale in 2015 and is currently on sale.

(Note 3) As a herpes zoster vaccine product for adults, it is currently on sale after securing the approval for sales in 2017.

(Note 4) As a chickenpox vaccine for infants and toddlers, it is currently on sale after securing the approval for sales in 2018.

(Note 5) GBP 510 is a COVID-19 preventive vaccine product, which is currently undergoing the phase 3 clinical trial.

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	3,060,000	2,433,809	7,054,387	2,673,190	-	15,221,386
Acquired	-	-	-	-	180,178	180,178
Written off	(510,000)	(434,909)	(1,019,910)	(348,679)	-	(2,313,498)
Book amount at end of period	2,550,000	1,998,900	6,034,477	2,324,511	180,178	13,088,066

<Previous period>

(Unit: KRW one thousand)

Classification	NBP601	NBP607	NBP608		Total
			Herpes zoster	Chickenpox	
Book amount at beginning of period	3,570,000	2,868,718	8,074,300	3,021,866	17,534,884
Written off	(510,000)	(434,909)	(1,019,913)	(348,676)	(2,313,498)
Book amount at end of period	3,060,000	2,433,809	7,054,387	2,673,190	15,221,386

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, general and administrative expenses	138,034,837	65,903,940
External subsidies, etc.	(52,149,264)	(6,665,212)
Total	85,885,573	59,238,728

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	Written off	Replacements (Note 1)	End of period
Land	16,521,136	-	276,270	16,797,406
Building	534,529	(37,448)	(82,209)	414,872
Total	17,055,665	(37,448)	194,061	17,212,278

(Note 1) These are the replacements of investment real estate properties and the tangible assets of buildings, etc., due to the execution of lease agreements for some land for Entis Co., Ltd., etc.

<Previous period>

(Unit: KRW one thousand)

Classification	Beginning of period	Written off	Replacements (Note 1)	End of period
Land	14,575,719	-	1,945,417	16,521,136
Building	528,347	(46,131)	52,313	534,529
Total	15,104,066	(46,131)	1,997,730	17,055,665

(Note 1) They have been replaced from tangible assets due to the execution of a lease agreement for SK D&D Co., Ltd.

15-2 During the current period, the rental income from investment real estate properties is KRW 1,895,746,000 (previous period: KRW 1,458,533,000), which includes the revenue from discontinued operations of KRW 221,390,000 (previous period: KRW 59,701,000).

As of the end of the current period, the fair value of investment real estate properties is not significantly different from the book amount.

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	168,149,443	83,729,567
Accounts payable	212,524,106	98,908,020
Accrued expenses	70,854,925	45,472,219
Derivative financial liabilities	1,364,347	3,911,928
Total	452,892,821	232,021,734

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	11,671,373	107,636,903
Current portion of long-term liabilities:		
Current portion of bonds payable	207,864,113	95,944,294
Current portion of long-term borrowings	-	1,003,200
Subtotal	207,864,113	96,947,494
Debenture	256,063,407	460,480,570
Long-term borrowings	-	31,135,000
Total	475,598,893	696,199,967

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
KDB, etc.	General borrowings from banks	-	-	76,000,000
Hana Bank, etc.	Trade receivable discounts	-	-	31,636,903
Coalition for Epidemic Preparedness Innovations (CEPI)	Other borrowings (Note 1)	-	11,671,373	-
Total			11,671,373	107,636,903

(Note 1) As a subsidy for the R&D support for the COVID-19 vaccine candidate substance of 'GBP510' undergoing development by the consolidated companies, there exists a repayment obligation at the point of commercialization.

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 7-2nd public placement bonds	2021.07.27	-	-	11,000,000
The 2-2nd public placement bonds	2022.07.26	3.34	48,000,000	48,000,000
The 9-1st public placement bonds	2021.04.30	-	-	75,000,000
The 9-2nd public placement bonds	2023.04.30	3.52	66,000,000	66,000,000
The 10-1st private placement bonds	2021.10.30	-	-	10,000,000
The 10-2nd private placement bonds	2022.10.30	3.10	20,000,000	20,000,000
The 11-1st public placement bonds	2022.01.28	2.37	70,000,000	70,000,000
The 11-2nd public placement bonds	2024.01.31	2.91	80,000,000	80,000,000
The 12-1st public placement bonds	2022.10.30	2.17	70,000,000	70,000,000
The 12-2nd public placement bonds	2024.10.30	2.77	75,000,000	75,000,000
Overseas bonds	2023.06.29	US 3M Libor + 1.88	35,565,000	32,640,000
Total			464,565,000	557,640,000
(Deducted: discount on bonds premium on bonds)			(637,480)	(1,215,136)
(Deducted: current portion of bonds)			(207,864,113)	(95,944,294)
Deductions			256,063,407	460,480,570

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	Annual interest rate at end of current period (%)	End of the current period	End of the previous period
Korea Development Bank	Energy facilities fund	-	-	378,200
Shinhan Bank	Other facilities fund	-	-	10,000,000
Hana Bank	General borrowings from banks	-	-	21,760,000
Subtotal			-	32,138,200
(Deducted: current portion of borrowings from financial institutions)			-	(1,003,200)
Deductions			-	31,135,000

18. Other liabilities

18-1 The details of other current 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	42,053,815	16,346,313
Deposits	46,003,224	3,822,983
Deposits received	11,827,891	20,115,250
Carbon emission liabilities	430,388	-
Dividends payable	2,876	884
Unearned revenue	210,833	183,333
Total	100,529,027	40,468,763
Other non-current liabilities		
Long-term employee benefit liabilities	519,847	467,929
Long-term deposits received	2,110,026	-
Derivatives liabilities	-	3,617,387
Total	2,629,873	4,085,316

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: 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	669,373	-	653,951	-	653,951	-	648,986	-	648,986	-	3,275,247	-
Allocated free of charge	530,173	-	530,173	-	530,173	-	525,208	-	525,208	-	2,640,935	-
Additionally allocated (Note 1)	139,200	-	139,200	-	139,200	-	139,200	-	139,200	-	696,000	-
Allocation cancelled (Note 1)	-	-	(15,422)	-	(15,422)	-	(15,422)	-	(15,422)	-	(61,688)	-
Changes due to emission rights trading	1,300	45,025	-	-	-	-	-	-	-	-	1,300	45,025
Purchased	1,300	45,025	-	-	-	-	-	-	-	-	1,300	45,025
Sold	-	-	-	-	-	-	-	-	-	-	-	-
Carried over from previous period	38,220	-	-	-	-	-	-	-	-	-	38,220	-
Carried over to next period	-	-	-	-	-	-	-	-	-	-	-	-
End of period	708,893	45,025	653,951	-	653,951	-	648,986	-	648,986	-	3,314,767	45,025

(Note 1) They are the estimates resulting from a split-off and the sale of business division, and may differ from the confirmed values of the future.

19-3 The changes in the emission rights assets for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	
	Quantity	Amount
Beginning of period	-	-
Emission rights purchased	1,300	45,025
Emission rights sold	-	-
End of period	1,300	45,025

19-4 The changes in emission rights liabilities for the current and previous periods are as follows.

(Unit: ton, KRW one thousand)

Classification	Current period	
	Quantity	Amount
Beginning of period	-	-
Emissions cost	12,170	430,388
End of period	12,170	430,388

19-5 The confirmed value of the greenhouse gas emissions for the previous period was 497,684 tCO₂-eq, and the estimate of the greenhouse gas emissions for the current period is 696,804 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	7,643,269	7,945,076
Decrease in defined benefit liabilities (retirement benefit payments)	(7,291,838)	712,635
Total expenses recognized as net income	16,285,671	15,511,074
Remeasurement elements	8,268,658	3,752,753
Contributions paid	(26,000,000)	(19,500,000)
Affiliates' transfers, etc.	(1,139,285)	(362,409)
Change in the scope of consolidation	-	(415,860)
End of period	(2,233,525)	7,643,269
Components in the statement of financial position:		
Present value of defined benefit liabilities	131,211,458	134,670,576
Fair value of plan assets	(133,444,983)	(127,027,307)
Total	(2,233,525)	7,643,269
Defined benefit assets (Note 1)	(7,103,496)	-
Defined benefit liabilities	4,869,971	7,643,269

(Note 1) The net defined benefit assets were recognized as other non-current assets.

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	16,127,051	15,334,232
Interest expenses	2,513,358	2,240,352
Expected return on plan assets	(2,354,738)	(2,063,510)
Total	16,285,671	15,511,074

20-3 The changes in the present value of defined benefit liabilities for the current and previous periods are as follow.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Beginning of period	134,670,576	124,140,730
Current service cost	16,127,051	15,334,232
Interest expenses	2,513,358	2,240,352
Remeasurement elements	7,788,672	3,814,044
Retirement benefits paid	(25,490,098)	(7,718,103)
Affiliates' transfers	(2,571,223)	217,891
Business transfer (Note 1)	(1,826,878)	(2,942,709)
Change in the scope of consolidation	-	(415,861)
End of period	131,211,458	134,670,576

(Note 1) During the current period, the composite material business division was transferred to Toray Advanced Materials Korea Inc., and the PPS business division was transferred to HDC Polyol Co., Ltd., while the bio-energy business division was sold to SK Eco Prime Co., Ltd. during the previous period.

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	127,027,307	116,195,654
Expected return	2,354,738	2,063,510
Remeasurement elements	(479,986)	61,291
Retirement benefits paid	(18,198,260)	(8,430,738)
Contributions paid	26,000,000	19,500,000
Affiliates' transfers	(1,431,938)	580,299
Business transfer (Note 1)	(1,826,878)	(2,942,709)
End of period	133,444,983	127,027,307

(Note 1) During the current period, the composite material business division was transferred to Toray Advanced Materials Korea Inc., and the PPS business division was transferred to HDC Polyol Co., Ltd., while the bio-energy business division was sold to SK Eco Prime Co., Ltd. during the previous period.

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	Current period	Previous period
Discount rate	2.45%-2.60%	1.71%-2.09%
Expected return on plan assets	2.45%-2.60%	1.71%-2.09%
Future rate of wage growth	4.77%-6.73%	2.00%-5.47%

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	-	5,002,389
Financial assumptions	3,001,869	(3,417,672)
Changes adjusted	4,786,803	2,229,327
Remeasurement elements of plan assets	479,986	(61,291)
Total	8,268,658	3,752,753

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 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	(11,383,105)	13,373,362	13,274,159	(11,517,254)

<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	(12,346,039)	14,484,237	14,417,862	(12,514,634)

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)	36,960,182	15,662,393
Contract assets	-	979,915
Contract liabilities	114,455,431	96,226,901

(Note 1) The contractual performance cost, which is the consolidated companies' contract asset, and the unclaimed consideration are appropriated as inventories. The contractual performance cost included in the inventories includes the direct costs related to the production of the C(D)MO's finished products.

21-2 The changes in contract assets and contract liabilities for the current and previous periods are as follows.

<End of the current period>

(Unit: KRW one thousand)

Classification	Contract assets			Contract liabilities		
	Contract assets - contractual performance cost (Note 1)	Contract assets - unclaimed (Note 2)	Subtotal	Refund liabilities (Note 3)	Unearned revenue (Note 4)	Subtotal
Beginning of period	324,164	655,751	979,915	7,039,917	89,186,984	96,226,901
Placement and reversal	(324,164)	(655,751)	(979,915)	(2,013,880)	20,252,844	18,238,964
Others (Note 5)	-	-	-	(10,434)	-	(10,434)
End of period	-	-	-	5,015,603	109,439,828	114,455,431

<End of the current period>

(Unit: KRW one thousand)

Classification	Contract assets			Contract liabilities		
	Contract assets - contractual performance cost (Note 1)	Contract assets - unclaimed (Note 2)	Subtotal	Refund liabilities (Note 3)	Unearned revenue (Note 4)	Subtotal
Beginning of period	-	-	-	5,951,178	11,935,642	17,886,820
Placement and reversal	324,164	655,751	979,915	1,069,678	77,251,342	78,321,020
Others (Note 5)	-	-	-	19,061	-	19,061
End of period	324,164	655,751	979,915	7,039,917	89,186,984	96,226,901

(Note 1) They consist of the costs of technology transfer and prototype production activities performed to manufacture the products ordered by customers. Since the activities are not those which must precede the production of 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 the contract assets. The contractual performance cost for the current period is included in the inventories.

(Note 2) They were recognized due to the differences between the extent of performance of the performance obligation and the consideration charged to the customer. The unclaimed consideration for the current period is included in the inventories.

(Note 3) The consolidated companies appropriate the contract liabilities for the returned goods for expected returns based on past experience with returns for the products. All assumptions applied for the contract liability calculations above were calculated based on the current products' sales level and the currently available information on the returns expected to occur during the returnable period for products sold under returnable conditions.

(Note 4) This is an amount received from the customer for the contract with the customer to be performed over the period.

(Note 5) They consist of the effect of exchange rate fluctuations, etc.

22. Provisioning liabilities

The provisioning liabilities as of the end of the current period are as follows.

(Unit: KRW one thousand)

Classification	End of the current period
Provisioning liabilities for contribution (Note 1)	21,281,360
Provisioning liabilities for PFAD (Note 2)	1,156,619
Total	22,437,979

(Note 1) Since the possibility of paying a damages relief contribution in accordance with the Special Act on Remedy for Damage Caused by Humidifier Disinfectants has increased, the provisioning liabilities for contribution have been placed based on the best estimates possible.

(Note 2) The consolidated companies have executed an agreement to compensate SK Eco Prime Co., Ltd. in the event the price of PFAD varies from the prices of soybean oil and palm oil by more than a certain spread in connection with the transfer of the bio-energy business during the previous period, and accordingly, the provisioning liabilities have been placed.

23. Risk management activities and derivatives

The consolidated companies are exposed to certain risks in connection with their ongoing business operations. The major risks managed using derivatives are the foreign exchange risk, commodity price risk and the interest rate risk. The consolidated companies' risk management strategies and risk management methods are explained under Note 34 below.

23-1 Risk management activities

(5) 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 final maturity of foreign currency bonds is expected to be June 2023.

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.

(6) Hedging cash flows for the interest rate risk

The consolidated companies borrow funds at the fixed and variable interest rates, and thus, is 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 pre-determined nominal principal under the interest-rate swap contract. Such 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.

(7) 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 Dollars, Euros and the Yens) 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	2,277,046	287,361
Current derivative financial liabilities	Currency forward contracts	1,364,347	3,911,928
Non-current derivative financial assets	Put Option	368,001	-
Derivative instruments designated as the hedging instruments:			
Non-current derivative financial assets	Currency interest-rate swap	1,639,873	-
Non-current derivative financial liabilities	Currency interest-rate swap	-	3,617,387

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	209,645,994	738,048
	Sell	391,502,994	174,651
Total		601,148,988	912,699

<End of the previous period>

(Unit: KRW one thousand)

Contracting party	Classification	Contract amount	Fair value
Hana Bank, etc.	Buy	85,930,268	(3,735,180)
	Sell	54,312,215	110,613
Total		140,242,483	(3,624,567)

23-4 As of the end of the reporting period, the details of the non-current derivative financial instruments not designated as the hedging instruments by the consolidated companies are as follows.

<End of the current period>

(Unit: KRW one thousand)

Classification	Type	Fair value
Derivative assets (Note 1)	Put option for SK Chemicals Daejeong Co., Ltd.'s common stocks	368,001

(Note 1) This is a put option which allows for SK Chemicals Daejeong Co., Ltd.'s subsidiaries' investment stocks to be sold to Daejung Chemicals & Metals Co., Ltd.

23-5 As of the end of the reporting period, the details of the derivative financial instruments designated as the hedging instruments by the consolidated companies and for which hedging account is applied are as follows.

<End of the current 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	1,639,873
Valuation gain and loss:	
Amount reclassified as net profit or loss	2,925,000
Other comprehensive income (Note 1)	1,256,961

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

<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)	Variable interest rate foreign currency privately placed bonds (par value of USD 20,000,000)
Contract period	2018.06. 29-2023.06. 29	2018.06. 29-2023.06. 29
Buy/Sell	Buy	Buy
Purpose of transaction	Exchange rate risk and interest rate risk hedging	
Contract amount	33,645,000	22,434,000
Fair value	(2,180,220)	(1,437,168)
Valuation gain and loss:		
Amount reclassified as net profit or loss	(3,490,000)	
Other comprehensive income (Note 1)	(145,731)	

(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	Parent company and 12 others	2,240,000	1st trial in progress
Indemnity claims (Notes 1, 2)	National Health Insurance Service	Parent company and 12 others	6,970,000	1st trial in progress
Claims for damages (Note 2)	Kang Chan-Ho and 299 others	Parent company and 19 others	11,200,000	1st trial in progress
Claims for damages (Note 2)	Aekyung Industrial Co., Ltd.	Parent company	710,000	1st trial in progress
Claims for the prohibition of patent infringements and for damages	Novartis AG	Parent company	27,500,000	1st trial in progress
Claims for the revocation of corrective order, etc.	Parent company and 1 others	Fair Trade Commission	113,000	3rd trial in progress
Prohibition of patent infringements	Wyeth LLC, Pfizer Korea	SK Bioscience	300,000	1st trial in progress

(Note 1) As of the end of the current term, part of the land owned by the parent company has been temporarily seized in connection with the litigation above.

(Note 2) This is a civil lawsuit against the parent company related to damages caused by a humidifier disinfectant, etc., and a number of other civil lawsuits are in progress.

In addition to the litigation above, the parent company has been indicted for violating the Special Act on Remedy for Damage Caused by Humidifier Disinfectants on the grounds that they submitted an opinion which was not true at the Ministry of Environment's requirement of data submission by the parent company, and a related criminal trial is now in progress.

The results of the pending lawsuits as of the end of the current period cannot be predicted, and the uncertainties of such lawsuits are not reflected in the consolidated financial statements of the consolidated companies.

24-2 As of the end of the current period, no assets were provided as collateral in connection with the borrowings from financial institutions.

24-3 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 88,500 million and another on the foreign currency borrowings of USD 53.2 million
	An agreement on the opening of a letter of credit of USD 137.8 million and EUR 22.0 million, etc.
	An agreement on the limit with the exemption of security deposit for derivatives of USD 225.5 million, KRW 11,000 million, etc.
Seoul Guarantee Insurance, etc.	A contractual performance payment guarantee with a limit of KRW 38,032 million, etc.

24-4 In accordance with Article 530-9 Paragraph 1 of the Commercial Act, the parent company is jointly and severally liable for repaying the existing liabilities of the parent company and SK Discovery Co., Ltd., the surviving company of the spin-off which occurred on or before December 1, 2017, the date of spin-off.

24-5 Fair Trade Commission's corrective actions

The Fair Trade Commission determined that the act of labeling the humidifier disinfectants before the parent company's spin-off violated the Act on Fair Labeling and Advertising, and took corrective actions, imposed fines, and filed a complaint with the prosecutors' office. The parent company must carry out such corrective actions and comply with the order to pay fines issued by the Fair Trade Commission jointly with SK Discovery Co., Ltd., the surviving company of spin-off.

24-6 Technology transfer agreement and joint development

On February 12, 2018, the consolidated companies executed a technology transfer agreement with Sanofi Pasteur Inc. of the United States to produce a high-efficiency influenza vaccine using cell culture, and the total amount related to the contract is USD 155,000,000. A portion of this amount is recognized as revenue in installments until the period when the obligations are terminated according to the clinical entry and approval, and the consolidated companies may receive sales royalties depending on the conditions. The consolidated companies were notified of the termination of the relevant agreement on December 9, 2021.

Furthermore, on March 19, 2014, the consolidated companies executed an agreement with Sanofi Pasteur Inc. of the United States on the joint development and sales of a next-generation pneumococcal conjugate vaccine, and the total size of the relevant agreement is USD 45,000,000, including the initial technology royalties and milestones for each phase of the development. The Company recognized them as revenue when the requirements for the right to receive consideration for each phase are satisfied.

24-7 Contract Manufacturing Organization (CMO) and Contract Development & Manufacturing Organization (CDMO) contracts

The consolidated companies executed a COVID-19 vaccine CMO contract with AstraZeneca UK Limited on July 3, 2020, and the amount related to the relevant contract is recognized as revenue in installments until the contract-related obligations are terminated.

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 when the contract-related obligations are

terminated. Meanwhile, on February 12, 2021, they executed an agreement with Novavax on granting the exclusive right to develop, produce, and sell the COVID-19 vaccine developed by Novavax in the target territories under the contract. On December 23, 2021, they secured the non-exclusive rights to Thailand and Vietnam based on a contract to change the existing contract, and added a CMO contract for 2022.

The consolidated companies have prepaid Novavax a portion of the license expenses incurred by and from the Novavax COVID-19 vaccine sold by the consolidated companies, and if the Ministry of Food and Drug Safety approves of the COVID-19 vaccine developed by Novavax, they will have the obligation to pay a portion of the remaining license expenses to Novavax in a lump sum (refer to Note 37).

The revenue which the consolidated companies recognized from the CMO and CDMO contracts for the current period was KRW 214,907 million.

24-8 The consolidated companies purchased Palm Fatty Acid Distillate (PFADs) from ST Green Energy, a joint venture of the consolidated companies, and executed a contract with SK Eco Prime Co., Ltd. to supply them to SK Eco Prime Co., Ltd. As part of the contract, a special agreement was executed to fix the weighted average spread between the PFADs and the soybean oil and palm oil, and the provisioning liabilities for the expected losses were placed.

24-9 On December 27, 2021, the consolidated companies executed a sales contract for a land located in Songdo-dong, Yeonsu-gu, Incheon, with the Incheon Free Economic Zone Authority for the purpose of newly building research facilities. The consolidated companies have 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, and any failure to do so may result in the rescission of the sales contract.

24-10 As of the end of the current term, the consolidated companies have lost a bill of Shinhan Bank and plans to proceed with the nullification judgment procedures.

25. Related party (parties)

25-1 As of the end of the current period, the details of the consolidated companies' related parties are as follows.

Classification	Name of Company
Companies exercising a significant influence	SK Discovery Co., Ltd.
Affiliates and joint ventures	Entis Co., Ltd., JSI Co., Ltd. (Note 1), HDC Polyol Co., Ltd. (Note 2), ST Green Energy
Others	Subsidiaries and affiliates of SK Discovery Co., Ltd., affiliates of SK corporate group, etc. (Note 3)

(Note 1) During the previous period, they were reclassified from a subsidiary to an affiliate as the control was lost following the partial sale of the interest owned.

(Note 2) During the current period, it was newly invested by the parent company and was incorporated as Affiliates and joint ventures investments.

(Note 3) The large-scaled corporate groups' affiliates designated by the Fair Trade Commission were determined to be related parties according to the substantive relationship provided under Paragraph 10 of the Korean International Financial Reporting Standards No. 1024.

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 (Note 1)	Other income and asset sales, etc. (Note 1)	Purchase (Note 1)	Other expenses and capital expenditures, etc. (Note 1)
Companies exercising a significant influence	SK Discovery Co., Ltd.	63,636	110,508	-	1,327,143
Affiliates and joint ventures	Entis Co., Ltd.	1,268,092	3,779,346	3,492,735	538
	JSI Co., Ltd.	64,060	109,716	93,510	-
	ST Green Energy	-	589,952	-	213,882,734
Others	SK Gas Co., Ltd.	541,806	-	6,211,366	4,199,736
	SK Plasma Co., Ltd.	1,720,195	1,236,564	353,017	13,512
	SK Advanced Co., Ltd.	3,903,094	1,129,639	7,279,652	274,293
	Huvis Co., Ltd.	12,481,991	135	22,414,559	17,450
	SK Eco Plant Co., Ltd. (Notes 2, 3)	-	-	-	10,378,517
	SK Networks Co., Ltd.	8,666,193	-	11,310,417	437,929
	SK NETWORKS HONGKONG	-	-	24,191,033	-
	SKC Co., Ltd.	4,267,324	4,529	298,425	180,396
	SK Energy Co., Ltd.	14,661,175	-	265,271	1,386,994
	SK Geo Centric Co., Ltd. (Note 4)	-	-	38,278,079	-
	SK Co., Ltd.	-	-	-	7,468,194
	SK Hynix Co., Ltd.	1,279,091	-	-	-
	Happy Narae Co., Ltd.	-	-	2,575,144	11,117,424
	Others	4,047,899	-	389,640	8,701,138
Total		52,964,556	6,960,389	117,152,848	259,385,998

(Note 1) Included are the amounts of transactions conducted with related parties replaced by the profit or loss from discontinued operations.

(Note 2) The corporate name was changed from SK E&C Co., Ltd. to SK Eco Plant Co., Ltd. during the current period.

(Note 3) The consolidated companies have acquired the tangible assets of KRW 10,269,702,000 from SK Eco Plant Co., Ltd. during the current period.

(Note 4) The corporate name was changed from SK Chemicals Co., Ltd. to SK Geo Centric Co., Ltd. during the current period.

<Previous period>

(Unit: KRW one thousand)

Classification	Name of related parties	Sales (Note 1)	Other income and asset sales, etc. (Note 1)	Purchase (Note 1)	Other expenses and capital expenditures, etc. (Note 1)
Companies exercising a significant influence	SK Discovery Co., Ltd.	63,636	70,500	-	247,397
Affiliates and joint ventures	JSI Co., Ltd.	21,000	28,241	50,577	-
	Entis Co., Ltd.	1,148,954	2,107,965	1,178,111	716
	ST Green Energy	-	732,590	67,899,861	96,452,407
Other related parties	SK Gas Co., Ltd.	260,450	-	5,477,198	876,279
	SK Plasma Co., Ltd.	2,213,741	738,211	7,936,713	23,420
	SK Advanced Co., Ltd.	3,800,806	641,550	6,801,326	266,933
	Huvis Co., Ltd.	6,528,398	-	13,208,780	37,202
	SK E&C Co., Ltd. (Note 2)	-	-	-	11,062,810
	SK Networks Co., Ltd.	1,693,994	-	8,859,453	237,173
	SK NETWORKS HONGKONG	-	-	15,992,056	32,330
	SK Incheon Petrochem Co., Ltd.	2,943,128	-	-	-
	SKC Co., Ltd.	2,334,459	50,281	51,272	878
	SK Energy Co., Ltd.	54,046,317	-	28,453	1,166,459
	SK Incheon Petrochem Co., Ltd.	-	-	46,117,502	-
	SK Co., Ltd.	-	-	-	8,568,470
	SK Hynix Co., Ltd.	1,544,198	-	-	-
	Happy Narae Co., Ltd.	-	-	1,925,311	9,976,754
	Others	408,231	197,525	180,200	6,628,403
Total		77,007,312	4,566,863	175,706,813	135,577,631

(Note 1) Included are the amounts of transactions conducted with related parties replaced by the profit or loss from discontinued operations.

(Note 2) The consolidated companies have acquired the tangible assets of KRW 11,062,810,000 from SK E&C Co., Ltd. during the current 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
Companies exercising a significant influence	SK Discovery Co., Ltd.	35,000	10,130	-	296,082
Affiliates and joint ventures	Entis Co., Ltd.	148,675	508,511	240,062	-
	JSI Co., Ltd. (Note 1)	15,488	3,750,000	-	-
	HDC Polyol Co., Ltd.	-	1,161,028	-	-
	ST Green Energy	-	22,002	-	104,850,770
Others	SK Gas Co., Ltd.	25,488	480,972	880,110	2,632,712
	SK Plasma Co., Ltd.	87,777	5,476	-	-
	SK Advanced Co., Ltd.	499,893	324,728	639,037	3,076,508
	Huvis Co., Ltd.	-	-	3,423,392	-
	SK Eco Plant Co., Ltd. (Note 2)	-	164,426	-	65,994
	SK Networks Co., Ltd.	-	-	1,393,244	26,800
	SK NETWORKS HONGKONG	-	968,739	13,714,225	325,133
	SKC Co., Ltd.	357,808	-	15,802	-
	SK Energy Co., Ltd.	2,298,473	-	-	235,672
	SK Geo Centric Co., Ltd. (Note 3)	-	-	3,490,860	-
	SK Co., Ltd.	-	-	-	846,887
	SK Hynix Co., Ltd.	95,225	-	-	-
	Happy Narae Co., Ltd.	-	-	189,005	1,245,508
	Others	591,149	40,373	138,996	829,975
Total		4,154,976	7,436,385	24,124,733	114,432,041

(Note 1) The consolidated companies have placed an allowance for bad debts for the loan of KRW 3,750 million for JSI Co., Ltd. in full.

(Note 2) The corporate name was changed from SK E&C Co., Ltd. to SK Eco Plant Co., Ltd. during the current period.

(Note 3) The corporate name was changed from SK Chemicals Co., Ltd. to SK Geo Centric Co., Ltd. during the current period.

<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 exercising a significant influence	SK Discovery Co., Ltd.	35,000	-	-	198,443
Affiliates and joint ventures	JSI Co., Ltd. (Note 1)	60,544	4,050,000	31,833	-
	Entis Co., Ltd.	146,038	324,898	133,056	7,059
	ST Green Energy	-	11,750	-	76,971,937
Other related parties	SK Gas Co., Ltd.	23,875	215,832	442,194	2,776,747
	SK Plasma Co., Ltd.	114,907	64,086	1,283,097	2,310
	SK Advanced Co., Ltd.	343,549	39,844	499,592	3,178,359
	Huvis Co., Ltd.	367,360	-	3,853,602	-
	SK Networks Co., Ltd.	-	-	662,953	-
	SK NETWORKS HONGKONG	-	275,451	8,728,819	-
	SKC Co., Ltd.	486,268	-	28,200	-
	SK Energy Co., Ltd.	1,502,422	-	-	87,126
	SK Petrochem Co., Ltd.	-	-	2,494,270	-
	SK Co., Ltd.	-	-	-	712,348
	SK Hynix Co., Ltd.	115,292	-	-	2,797
	Happy Narae Co., Ltd.	-	-	134,935	1,096,316
	Others	17,560	-	-	679,246
Total		3,212,815	4,981,861	18,292,551	85,712,688

(Note 1) The consolidated companies have placed an allowance for bad debts for the loan of KRW 4,050 million for JSI Co., Ltd. in full.

25-4 The details of major transactions conducted with related parties for the current and previous periods are as follows.

③ Investments

<Current period>

(Unit: KRW one thousand)

Classification	Name of related parties	Investments
Affiliates and joint ventures	HDC Polyol Co., Ltd.	7,699,750
	ST Green Energy	385,515

④ 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)	4,050,000	(300,000)	3,750,000

(Note 1) The consolidated companies have placed an allowance for bad debts for the loan of KRW 3,750 million for JSI Co., Ltd. in full.

<Previous period>

(Unit: KRW one thousand)

Classification	Target companies	Beginning of period	Placement (Note 1)	End of period
SK Chemicals Co., Ltd.	JSI Co., Ltd.	-	4,050,000	4,050,000

(Note 1) The consolidated companies have placed an allowance for bad debts for the loan of KRW 4,050 million for JSI Co., Ltd. in full.

25-5 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>

Recipient companies	Amount of payment guaranteed		Details of the payment guarantee	Payment guarantor
	Currency	Amount		
ST Green Energy	USD	7,200,000	Trade facility	Hana Bank Singapore Branch
	USD	4,000,000		Development Bank of Singapore

<End of the previous period>

Recipient companies	Amount of payment guaranteed		Details of the payment guarantee	Payment guarantor
	Currency	Amount		
ST Green Energy	USD	5,000,000	Trade facility	Hongkong & Shanghai Banking Corp.
	USD	4,000,000		Development Bank of Singapore

25-6 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	5,197,322	3,452,255
Retirement benefits	986,700	777,295
Share-based compensation	93,252	640,726
Total	6,277,274	4,870,276

The key senior management of the consolidated companies 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	Shares	17,620,780	2,115,429	11,741,396	1,458,670
Capital (Note 1)	KRW one thousand	88,103,900	10,577,145	58,706,980	7,293,350

(Note 1) The parent company increased its capital by KRW 32,630,715,000 by executing a capital increase without consideration by using the capital surplus as the financial resource.

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 (Note 1)	235,917,593	268,290,410
Other capital surplus (Note 2)	956,851,198	(3,975,813)
Total	1,192,768,791	264,314,597

(Note 1) During the current period, the parent company executed a capital increase without consideration by using the capital surplus as the financial resource.

(Note 2) The parent company sold a portion of its interest in SK Bioscience Co., Ltd., a subsidiary, and SK Bioscience Co., Ltd., a subsidiary, executed a paid-in capital increase, while the amount which recognized gains or losses on capital transactions as other capital surplus in this connection is included.

26-3 Consolidated other equity

(8) The details of the consolidated other equity as of the end of the reporting period are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Treasury stocks (Note 1)	(8,921,443)	(5,753,700)
Stock options (Note 2)	1,831,164	1,891,764
Other capital adjustments	(14,255,733)	(14,255,733)
Total	(21,346,012)	(18,117,669)

(Note 1) The parent company acquired the shares of the parent 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 parent company owns the treasury stocks of 30,857 common stocks and 148,133 preferred stocks, and the acquisition price of KRW 8,921,443,000 was deducted from equity for recognition.

(Note 2) There were no new stock options granted anew during the current period, and they were increased by KRW 125,937,000 due to the recognition of share-based compensation cost for the current period, and were decreased by KRW 186,538,000 due to their exercises.

(9) The parent company has granted stock options for key executives, and the matters of importance related to this are as follows.

(Unit: shares, 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	2021.3.27 - 2025.3.26	72,009	16,226
2018.3.26 (2nd)	44,984	2022.3.27 - 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 during the current 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 entered.

(Note 2) As of December 31, 2021, the weighted average residual maturity of the unexercised stock options is 3.54 years.

- (10) 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: shares, KRW) 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 during the current period, the exercise price has been adjusted, and the share price on the date of grant has been adjusted and entered.

- (11) The changes in stock options for the year are as follows.

(Unit: KRW one thousand)

Date of grant	Number of stocks to be issued			Valuation amount			
	Beginning of period	Exercise (Note 3)	End of period	Beginning of period	Increase	Exercise	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 2)	44,984	-	44,984	582,779	34,281	-	617,060
2019.3.6 (Note 2)	10,000	(10,000)	-	170,993	15,545	(186,538)	-
2019.3.25 (1st) (Note 1)	22,491	-	22,491	189,353	17,214	-	206,566
2019.3.25 (2nd) (Note 2)	22,492	-	22,492	107,978	58,897	-	166,875
Total	152,446	(10,000)	142,446	1,891,764	125,937	(186,538)	1,831,163

- (Note 1) Following the capital increase without consideration during the current period, the number of shares to be issued has been adjusted.

- (Note 2) This is the number of shares before adjustment following the capital increase without consideration.

- (Note 3) The weighted average market price as of the date of exercise for the exercised stock options is KRW 366,604.

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
Derivatives valuation loss	(204,395)	(1,460,383)
Capital change in equity method	362,323	295,623
Gain or loss on overseas operations translation	2,779,362	(1,459,336)
Total	2,937,290	(2,624,096)

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)	3,744,031	1,129,006
Unappropriated retained earnings	776,756,667	642,175,788
Total	780,500,698	643,304,794

(Note 1) In accordance with the provisions of the Commercial Act, the parent 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 parent 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 receive dividends (shares)	17,589,923 shares	1,967,296 shares	11,728,768 shares	1,313,519 shares
Dividend per share (KRW)	KRW 3,000	KRW 3,050	KRW 2,000	KRW 2,050
Dividend rate (%)	60%	61%	40%	41%
Amount of cash dividend	52,769,769	6,000,253	23,457,536	2,692,714

The parent company decided to pay dividends of KRW 26,150,250,000 for the fiscal period ending on December 31, 2020, and paid them in April 2021.

27. Sales division

The consolidated companies have 2 reporting divisions, which are strategic operating units. The strategic business units provide different products and services each, 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, information communication materials, highly functional PETG resin, polyester adhesive, and carbon fiber composite materials, 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	1,037,059,042	1,229,179,081	(176,606,247)	2,089,631,876
Operating income	76,514,410	520,208,920	(41,537,420)	555,185,910
Depreciation (Note 1)	48,936,429	26,301,619	4,239,036	79,477,084

(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.

<Previous period>

(Unit: KRW one thousand)

Classification	Green Chemicals Biz.	Life Science Biz.	Internal transactions, etc.	Total
Sales amount	859,196,301	489,828,116	(150,243,647)	1,198,780,770
Operating income	67,404,290	90,065,304	(2,111,620)	155,357,974
Depreciation (Note 1)	44,897,135	23,563,336	3,936,305	72,396,776

(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.

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	1,253,284,965	2,308,476,688	393,870,741	3,955,632,394
Fixed assets (Note 1)	649,534,607	318,777,394	107,955,090	1,076,267,091

(Note 1) Included are the tangible assets, intangible assets, right-of-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	1,174,375,614	737,346,582	208,244,761	2,119,966,957
Fixed assets (Note 1)	741,904,315	289,789,561	108,418,740	1,140,112,616

(Note 1) Included are the tangible assets, intangible assets, right-of-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 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	933,572,377	837,262,845	(149,396,471)	1,621,438,751
Sales of goods	12,483,917	122,904,023	(2,287,251)	133,100,689
Sales of services	53,458,469	258,598,086	(30,208,384)	281,848,171
Other sales	37,544,278	10,414,127	5,285,860	53,244,265
Total	1,037,059,041	1,229,179,081	(176,606,246)	2,089,631,876
Geographic markets (Note 1):				
Korea	241,918,032	962,920,723	4,639,122	1,209,477,877
China	210,645,705	8,054,815	(17,912,448)	200,788,072
Japan	75,546,462	-	-	75,546,462
Asia (excluding China and Japan)	106,442,488	433,572	-	106,876,060
Americas	149,229,544	52,308,426	(66,001,670)	135,536,300
Europe	212,391,738	205,374,018	(99,047,066)	318,718,690
Others	40,885,072	87,527	1,715,816	42,688,415
Total	1,037,059,041	1,229,179,081	(176,606,246)	2,089,631,876
Point of revenue recognition:				
Recognized at a point in time	983,435,221	968,372,957	(146,397,862)	1,805,410,316
Recognized over time	53,623,820	260,806,124	(30,208,384)	284,221,560
Total	1,037,059,041	1,229,179,081	(176,606,246)	2,089,631,876

<Previous period>

(Unit: KRW one thousand)

Classification	Green Chemicals Biz.	Life Science Biz.	Consolidation procedures	Total
Types of goods or services:				
Sales of products	783,015,480	335,690,357	(140,769,515)	977,936,322
Sales of goods	17,699,145	121,659,021	(1,819,403)	137,538,763
Sales of services	23,394,790	10,420,347	(9,040,015)	24,775,122
Other sales	35,086,886	22,058,391	1,385,286	58,530,563
Total	859,196,301	489,828,116	(150,243,647)	1,198,780,770
Geographic markets:				
Korea	207,451,501	417,215,106	(1,938,529)	622,728,078
China	169,121,094	7,525,501	(17,009,805)	159,636,790
Japan	64,182,042	-	-	64,182,042
Asia (excluding China and Japan)	71,498,212	5,816,245	-	77,314,457
Americas	134,231,335	17,657,707	(54,905,618)	96,983,424
Europe	177,198,782	41,566,960	(76,819,603)	141,946,139
Others	35,513,335	46,597	429,908	35,989,840
Total	859,196,301	489,828,116	(150,243,647)	1,198,780,770
Point of revenue recognition:				
Recognized at a point in time	835,801,511	479,407,769	(141,203,632)	1,174,005,648
Recognized over time	23,394,790	10,420,347	(9,040,015)	24,775,122
Total	859,196,301	489,828,116	(150,243,647)	1,198,780,770

Meanwhile, only one customer accounted for over 10% of sales during the current period, and the sales amounted to KRW 637,935,767,000.

29. Operating income

29-1 The details of the cost of goods sold and the selling, general and administrative expenses for the current and previous periods is as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Changes in inventories	(84,224,160)	18,966,991
Use of raw materials	588,517,213	366,499,346
Cost of merchandise sold	119,317,547	124,002,340
Depreciation (Note 1)	79,477,084	72,396,776
Labor cost	266,320,471	214,299,146
Logistics cost	85,603,728	59,774,097
Fees and expenses	283,692,054	48,000,741
Marketing cost	17,487,997	15,485,092
Other expenses	178,254,032	123,998,268
Total	1,534,445,966	1,043,422,796

(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.

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
Payroll	89,351,692	72,936,178
Retirement benefits	11,486,142	7,749,697
Welfare benefits	16,450,601	11,158,214
Travel expenses	5,236,622	4,652,442
Communication expenses	727,550	686,656
Utilities expenses	504,084	587,918
Taxes and public dues	1,697,333	1,121,089
Rents	543,550	191,209
Share based compensation expenses	125,937	1,117,234
Depreciation	2,960,573	3,147,317
Repairs and maintenance	451,069	452,162
Insurance premiums	1,632,165	1,430,641
Entertainment expenses	1,443,203	1,156,513
Freight expenses and custody charges	38,765,213	14,396,184
Consumables expenses for office	801,899	539,134
Vehicle maintenance cost	985,633	892,738
Education and training expenses	3,911,863	2,933,228

Classification	Current period	Previous period
Books	143,541	118,809
Commissions and fees	25,279,208	15,156,253
R&D expenses	85,885,573	59,238,728
Advertising expenses	16,520,359	14,760,308
Sales commissions	9,997,011	10,146,476
Promotions	162,126	122,845
Samples expenses	800,697	588,914
Packaging cost	4,199,813	3,484,016
Reversal of allowance for bad debts	(137,774)	(813,943)
Meetings and conferences	536,025	542,494
Amortization of intangible assets	3,981,896	2,293,881
Miscellaneous expenses and others	1,750,214	1,852,768
Total	326,193,818	232,640,103

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	552,064	2,320
Gain on disposal of right-of-use assets	441,373	22,948
Gain on disposal of intangible assets	-	235,110
Gain on disposal of stocks invested in subsidiaries	-	2,041,764
Gains from sales of business divisions	3,966,975	-
Other reversals of allowance for bad debts	170,716	-
Miscellaneous gains	22,278,422	10,265,751
Total	27,409,550	12,567,893
Other expenses:		
Losses on disposal of inventories	705	77,284
Losses on disposal of tangible assets	1,857,015	4,536,170
Losses on discard of tangible assets	1,198,619	-
Losses on disposal of right-of-use assets	182	-
Losses on disposal of intangible assets	83,438	561,322
Other bad debt expenses	-	3,660,948
Contributions	4,386,165	4,776,747
Miscellaneous expenses and others	36,704,980	14,202,997
Total	44,231,104	27,815,468

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	2,273,356	606,526
Gain on transaction of financial instruments measured at fair value through profit or loss	12,615,764	3,058,891
Gain on valuation of financial instruments measured at fair value through profit or loss	2,494,539	362,011
Dividend income	1,190,000	1,190,000
Gain on foreign currency transactions	23,749,997	21,643,082
Gain on foreign exchange translation	1,152,887	11,325,143
Derivatives transaction profit	13,542,254	5,661,683
Derivatives valuation gain	5,570,047	287,361
Total	62,588,844	44,134,697
Financial cost:		
Interest expenses	10,600,102	19,074,586
Losses on valuation of financial instruments measured at fair value through profit or loss	8,851,558	1,388,693
Losses on foreign currency transactions	23,340,358	24,293,489
Losses on foreign exchange translation	6,183,069	3,363,986
Derivatives transaction loss	13,611,059	4,608,055
Derivatives valuation loss	1,364,348	7,401,928
Total	63,950,494	60,130,737

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	98,792,562	83,991,557
Adjustments recognized for the current period for the current income tax for the previous periods	(2,075,218)	(2,002,483)
Changes in the deferred income tax due to temporary differences	36,888,944	6,194,193
Income tax expense directly reflected in equity	1,853,362	908,852
Income tax expense	135,459,650	89,092,119
Income tax expense on continuing operations	168,012,086	35,924,417
Income tax expense (revenue) from discontinued operations	(32,552,436)	53,167,702

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	(401,299)	46,526
Remeasurement factors for defined benefit plan	1,993,004	908,029
Others	261,657	(45,703)
Total	1,853,362	908,852

31-3 The relationship between the net profit 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 profit from continuing operations before income tax	538,621,651	125,871,572
Net income from discontinued operations before income tax	(134,418,663)	218,381,757
Net profit before income tax expense	404,202,988	344,253,329
Corporate tax according to applicable tax rate	136,297,240	84,735,884
Adjustments:		
Non-taxable income	(951,792)	(1,175,032)
Non-deductible expenses	1,038,829	784,233
Deferred tax effect due to tax credit carried forward	(11,808,197)	(8,679,093)
Non-recognition effect of deferred tax among temporary differences	6,006,687	16,188,491
Adjustments recognized for the current period for the current income tax for the previous periods	(440,860)	(2,002,483)
Corporate tax effect on non-reflux income	3,458,416	-
Others (Note 1)	1,859,327	(759,881)
Income tax expense	135,459,650	89,092,119
Income tax expense on continuing operations	168,012,086	35,924,417
Income tax expense on discontinued operations	(32,552,436)	53,167,702
Effective tax rate (income tax expense/net profit before income tax expense)	33.51%	25.88%

(Note 1) Included are the adjustments due to the intra-consolidated companies merger during the current and previous periods, and 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	Current profit or loss reflected	Directly reflected in equity	End of the current period
Government subsidies	5,982,120	(1,548,423)	-	4,433,697
Allowance for bad debts	2,335,646	(606,894)	-	1,728,752
Tangible assets	(29,279,396)	3,963,880	-	(25,315,516)
Right-of-use assets	(2,267,599)	(498,768)	-	(2,766,367)
Lease liabilities	2,332,426	612,201	-	2,944,627
Intangible assets	14,725,141	(3,074,323)	-	11,650,818
Inventory assets	5,079,665	1,718,000	-	6,797,665
Accrued interest	(108,343)	1,656,729	-	1,548,386
Accrued expenses	8,841,496	3,131,047	-	11,972,543
Derivatives	875,407	(960,014)	(401,299)	(485,906)
Securities	(663,938)	157,362	(21,295)	(527,871)
Advanced depreciation provision	(3,154,481)	(2,987,038)	-	(6,141,519)
Provisioning liabilities	-	5,523,006	-	5,523,006
Contract liabilities	(218,929)	697,455	-	478,526
Retirement benefits	139,765	(2,136,075)	1,993,004	(3,306)
Stock options	675,779	(14,665)	-	661,114
Loans	34,927	(34,927)	-	-
Tax credits carried forward	16,004,994	(12,692,528)	-	3,312,466
Others	(3,357,705)	(31,648,331)	282,952	(34,723,084)
Total	17,976,975	(38,742,306)	1,853,362	(18,911,969)
Deferred income tax assets	20,594,928			11,426,991
Deferred income tax liabilities	(2,617,953)			(30,338,960)

<Previous period>

(Unit: KRW one thousand)

Classification	Beginning of period	Current profit or loss reflected	Directly reflected in equity	Changes in the scope of consolidation, etc.	End of period
Government subsidies	5,709,647	272,772	-	(299)	5,982,120
Allowance for bad debts	3,234,885	(899,239)	-	-	2,335,646
Tangible assets	(31,458,169)	2,021,496	-	157,277	(29,279,396)
Right-of-use assets	(11,244,825)	8,977,226	-	-	(2,267,599)
Lease liabilities	11,399,223	(9,066,797)	-	-	2,332,426
Intangible assets	17,846,589	(3,121,448)	-	-	14,725,141
Inventory assets	9,522,153	(4,442,488)	-	-	5,079,665
Accrued interest	(13,780)	(94,563)	-	-	(108,343)
Accrued expenses	6,999,564	1,841,932	-	-	8,841,496
Derivatives	(15,699)	844,580	46,526	-	875,407
Securities	(1,059,886)	379,718	16,230	-	(663,938)
Advanced depreciation provision	(2,731,218)	(423,263)	-	-	(3,154,481)
Contract liabilities	1,303,866	(1,522,795)	-	-	(218,929)
Retirement benefits	242,030	(925,098)	908,029	(85,196)	139,765
Stock options	488,927	186,852	-	-	675,779
Loans	-	34,927	-	-	34,927
Contributions	2,003,778	(2,003,778)	-	-	-
Tax credits carried forward	8,867,092	248,508	-	6,889,394	16,004,994
Others	(3,884,182)	588,410	(61,933)	-	(3,357,705)
Total	17,209,995	(7,103,048)	908,852	6,961,176	17,976,975
Deferred income tax assets	17,281,775				20,594,928
Deferred income tax liabilities	(71,780)				(2,617,953)

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 the temporary differences to be deducted, which are not recognized as the deferred income tax assets in the consolidated statement of financial position, unused tax losses, and the unused tax credits, etc., is KRW 54,689,781,000 (previous period: KRW 48,683,094,000).

32. Earnings per share

32-1 The calculation details of the basic earnings per share for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Net income	268,743,338	255,161,210
Net income attributable to the owners of the parent company	168,139,816	254,320,770
Net income from non-controlling interest	100,603,522	840,440
Deducted: preferred stock dividend	(6,008,027)	(2,792,565)
Deducted: portion reverted for preferred stocks among additional profits available for dividend	(11,003,502)	(23,731,997)
Net income reverted for common stock ownership	151,128,287	227,796,208
Continuing operating income reverted for common stock ownership	246,546,353	79,756,513
Gain (loss) on discontinued operations reverted for common stock ownership	(95,418,066)	148,039,695
Net income reverted for common stock ownership	17,011,529	26,524,562
Continuing operating income reverted for preferred stock ownership	23,459,690	9,350,202
Gain (loss) on discontinued operations reverted for preferred stock ownership	(6,448,161)	17,174,360
Number of weighted average common shares outstanding	17,601,765	17,593,634
Weighted average number of outstanding preferred stocks	1,969,845	2,043,340
Basic earnings per common share	8,586	12,948
Basic earnings per common share on continuing operations	14,007	4,533
Basic earnings (losses) per common share on discontinued operations	(5,421)	8,414
Basic earnings per preferred share (Note 1)	8,636	12,981
Basic earnings per preferred share on continuing operations	11,909	4,576
Basic earnings (losses) per preferred share on discontinued operations	(3,273)	8,405
Diluted earnings per common share	8,535	12,844
Diluted earnings per common share on continuing operations	13,921	4,523
Diluted earnings per common share on discontinued operations	-	8,378

(Note 1) As the preferred stocks issued in accordance with the old Commercial Act before its amendment in 1997, these preferred stocks 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 consolidated companies' number of weighted average common shares outstanding for the current and previous periods are as follows.

<Current period>

(Unit: shares)

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	2021.1.1	2021.12.31	365	17,593,152	17,593,152
Exercise of stock option	2021.4.2	2021.12.31	274	15,000	11,260
Stock repurchase	2021.11.9	2021.12.31	53	(18,229)	(2,647)
Number of weighted average common shares outstanding				17,589,923	17,601,765

<Previous period>

(Unit: shares)

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	2020.1.1	2020.12.31	366	17,594,574	17,594,574
Additional stock repurchase	2020.5.4	2020.12.31	242	(1,422)	(940)
Number of weighted average common shares outstanding				17,593,152	17,593,634

32-3 The calculation details of the consolidated companies' number of weighted average preferred shares outstanding for the current and previous periods are as follows.

<Current period>

(Unit: shares) Shares

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	2021.1.1	2021.12.31	365	1,970,278	1,970,278
Stock repurchase	2021.11.9	2021.12.31	53	(2,982)	(433)
Number of weighted average preferred shares outstanding				1,967,296	1,969,845

<Previous period>

(Unit: shares)

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	2020.1.1	2020.12.31	366	2,185,929	2,185,929
Additional stock repurchase	2020.5.4	2020.12.31	242	(215,651)	(142,589)
Number of weighted average preferred shares outstanding				1,970,278	2,043,340

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 will 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 calculating the number of stocks to be acquired at fair value based on the monetary value of the exercise of the right added to the stock options, and by comparing this number of stocks with the number of stocks to be issued if the stock options are assumed to have been exercised.

(Unit: shares)

Classification	Current period	Previous period
Net income for common shares	246,546,353	79,756,512
Adjustments: stock options	80,629	258,039
Net income for common shares for calculation of diluted earnings per share	246,626,982	80,014,551
Number of weighted average common shares outstanding	17,601,765	17,593,634
Adjustments: stock options	114,250	97,272
Number of weighted average common shares outstanding for calculation of diluted earnings per share	17,716,015	17,690,906
Diluted earnings per share (KRW/share)	13,921	4,523

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 (Note 1)	Previous period (Note 1)
Income tax expense	135,459,650	89,092,119
Interest income	(2,273,356)	(606,526)
Interest expenses	14,896,758	25,464,130
Reversal of losses on valuation of inventories	(11,868)	(16,515,084)
Losses on disposal of inventories	705	77,284
Retirement benefits	16,285,671	15,511,074
Reversal of allowance for bad debts	(48,379)	(742,164)
Other bad debt expenses (reversal of other bad debt provisions)	(165,967)	3,660,883
Depreciation (Note 2)	84,574,399	92,233,027
Amortization of intangible assets	8,300,659	5,923,057
Gain on disposal of tangible assets	(552,066)	(3,167)
Gain on disposal of right-of-use assets	(441,373)	(22,948)
Losses on disposal of tangible assets	1,858,033	9,129,678
Losses on discard of tangible assets	1,198,619	-
Losses on disposal of right-of-use assets	182	-
Impairment losses on tangible assets	103,421,162	48,044,590
Gain on disposal of intangible assets	-	(235,110)
Losses on disposal of intangible assets	83,438	570,115
Gain on foreign exchange translation	(1,152,887)	(11,325,143)
Losses on foreign exchange translation	6,183,069	3,363,986
Derivatives valuation gain	(5,570,047)	(287,361)
Derivatives valuation loss	1,364,347	7,401,928
Dividend income	(1,190,000)	(1,190,000)
Gain on equity method valuation	(1,618,945)	(1,757,213)
Gain on transaction of financial assets measured at fair value through profit or loss	(12,615,764)	(3,058,891)
Gain on valuation of financial assets measured at fair value through profit or loss	(2,494,539)	(362,011)
Losses on valuation of financial assets measured at fair value through profit or loss	8,851,558	1,388,693
Share based compensation expenses	125,937	1,137,056
Transfer (reversal) of contract liabilities and provisioning liabilities	-	(11,935,642)
Gains from sales of business divisions	(4,232,942)	(319,194,304)

Classification	Current period (Note 1)	Previous period (Note 1)
Gain on disposal of stocks invested in subsidiaries	-	(2,041,764)
Others	1,924,839	1,490,372
Total	352,160,893	(64,789,336)

(Note 1) This is the amount which includes the profit and loss from discontinued operations.

(Note 2) This is the depreciation for the tangible assets, investment real estate properties, and the right-of-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	(39,824,327)	(26,906,979)
Other receivables	(104,998,707)	(75,410,151)
Inventories	(129,195,959)	22,392,954
Other current assets	(8,701,737)	406,449
Long-term accounts receivable	2,245,127	883,548
Other non-current assets	14,565	(249,686)
Trade payables	86,247,031	23,449,066
Other payables	127,623,279	59,684,354
Other current liabilities	59,746,275	25,024,478
Retirement benefits paid	(192,908)	712,635
Affiliates' transfers	-	(362,409)
Plan assets paid	(26,000,000)	(19,500,000)
Contract assets	979,915	(979,915)
Current portion of contract liabilities	18,238,965	90,256,661
Provisioning liabilities	22,437,979	-
Derivatives transactions settled	(3,677,511)	(1,055,856)
Total	4,941,987	98,345,149

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
Replacement of construction in progress with another account	68,893,642	61,155,691
Acquisition of accounts payable for construction in progress	3,684,492	2,469,861
Replacement of current portion for long-term liabilities	207,752,001	95,891,553
Replacement of current portion for lease liabilities	1,763,669	3,551,124
Replacement of tangible assets for investment real estate properties	82,210	-
Replacement of investment real estate properties for tangible assets	276,270	1,997,730
Recognition of right-of-use assets and lease liabilities	7,662,853	3,935,684
Write-off of trade and other receivables	116,518	2,674,230
Changes in accounts payable for retirement benefits	8,357,682	-
Accounts payable for affiliates' investment shares	385,515	-

33-4 Changes in the liabilities arising from financing activities are as follows.

<Current period>

(Unit: KRW one thousand)

Classification	Beginning of period	Financing activities Cash flows	Exchange rate fluctuations	Business transfer (Note 1)	Others (Note 2)	End of period
Short-term borrowings	107,636,903	(96,363,272)	397,742	-	-	11,671,373
Current portion of long-term borrowings	1,003,200	(1,003,200)	-	-	-	-
Long-term borrowings	31,135,000	(32,059,000)	-	-	924,000	-
Current portion of bonds payable	95,944,294	(96,000,000)	-	-	207,919,819	207,864,113
Debenture	460,480,570	-	2,925,000	-	(207,342,163)	256,063,407
Current portion of lease liabilities	3,038,109	(2,774,229)	-	(133,332)	2,658,090	2,788,638
Lease liabilities	9,392,925	-	-	(853,100)	(196,303)	8,343,522
Total	708,631,001	(228,199,701)	3,322,742	(986,432)	3,963,443	486,731,053

(Note 1) During the current period, the composite material business division was transferred to Toray Advanced Materials Korea Inc.

(Note 2) Included are the account reclassification effect for bonds and long-term borrowings, replacement 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 the cash flows from operating activities.

<Previous period>

(Unit: KRW one thousand)

Classification	Beginning of period	Financing activities Cash flows	Exchange rate fluctuations	Changes in the scope of consolidation	Business transfer (Note 1)	Others (Note 2)	End of period
Short-term borrowings	198,755,574	(83,259,014)	(2,024,199)	(9,955,300)	-	4,119,842	107,636,903
Current portion of long-term borrowings	95,651,400	(104,401,400)	-	-	-	9,753,200	1,003,200
Long-term borrowings	72,909,200	(30,625,000)	(1,396,000)	-	-	(9,753,200)	31,135,000
Current portion of bonds (net amount)	145,920,582	(146,000,000)	-	-	-	96,023,712	95,944,294
Debenture (net amount)	558,680,067	-	(2,094,000)	(800,000)	-	(95,305,497)	460,480,570
Current portion of lease liabilities	11,534,922	(5,843,598)	-	-	(8,724,390)	6,071,175	3,038,109
Lease liabilities	46,935,965	-	-	-	(35,442,411)	(2,100,629)	9,392,925
Total	1,130,387,710	(370,129,012)	(5,514,199)	(10,755,300)	(44,166,801)	8,808,603	708,631,001

(Note 1) During the current period, the bio-energy business division was sold to SK Eco Prime Co., Ltd.

(Note 2) Included are the account reclassification effect for bonds and long-term borrowings, replacement 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 the 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 risk, credit risk, and liquidity risk. The consolidated companies' senior management supervise 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 exchange 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 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 for 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.

(12) 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	-	76,000,000
Long-term borrowings	-	10,378,200
Total	-	86,378,200

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	-	-	(760,000)	760,000
Long-term borrowings	-	-	(103,782)	103,782
Total	-	-	(863,782)	863,782

(13) 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	162,654,290	216,682,711	86,692,002	94,589,383
CNY	15,918,457	986,456	7,184,382	891,791
EUR	9,032,243	1,597,977	35,959,992	20,202,025
GBP	297,848	2,654	1,562	-
JPY	4,911,900	16,436	1,776,607	48,882
Total	192,814,737	219,286,234	131,614,545	115,732,081

(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 years ended December 31, 2016 and 2015 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	(2,701,421)	2,701,421	(394,869)	394,869
CNY	746,600	(746,600)	314,630	(314,630)
EUR	371,713	(371,713)	787,898	(787,898)
GBP	14,760	(14,760)	78	(78)
JPY	244,773	(244,773)	86,386	(86,386)
Total	(1,323,575)	1,323,575	794,123	(794,123)

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, and thus, the effect on the profit and loss is restricted.

(14) Other price risks

Included among price risks other than the interest rate risk or foreign exchange risk is the risk of the fair value of financial instruments or future cash flows fluctuating due to fluctuations in the market prices. Since the consolidated companies have no traded equity instruments, there is no effect on the profit or loss due to other price fluctuation risks as of the end of current period. Furthermore, the consolidated companies are 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 consolidated companies due to the transaction counterparty's failure to perform its obligations.

(15) 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.

(16) Other assets

The credit risk arising from the consolidated companies' other assets consisting of cash equivalents, long-term and short-term deposits, and 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, and 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 the risks arising from a lack of funds through the liquidity strategies and plans, and match 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	452,892,821	-	-	-	452,892,821
Short-term borrowings	11,671,373	-	-	-	11,671,373
Current portion of long-term liabilities	208,000,000	-	-	-	208,000,000
Current portion of lease liabilities	2,835,307	-	-	-	2,835,307
Other current liabilities (Note 1)	11,827,891	-	-	-	11,827,891
Debenture (Note 2)	-	101,565,000	155,000,000	-	256,565,000
Lease liabilities	-	2,276,326	3,414,156	5,257,899	10,948,381
Other non-current liabilities (Note 1)	-	2,110,026	-	-	2,110,026
Total	687,227,392	105,951,352	158,414,156	5,257,899	956,850,799

(Note 1) These are deposits taken.

(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	231,930,603	-	-	-	231,930,603
Short-term borrowings	107,636,903	-	-	-	107,636,903
Current portion of long-term liabilities	97,003,200	-	-	-	97,003,200
Current portion of lease liabilities	3,104,689	-	-	-	3,104,689
Other current liabilities (Note 1)	20,115,250	-	-	-	20,115,250
Debenture (Note 2)	-	208,000,000	253,640,000	-	461,640,000
Long-term borrowings	-	1,875,000	29,260,000	-	31,135,000
Lease liabilities	-	2,524,550	4,537,220	5,577,133	12,638,903
Other non-current liabilities	-	-	3,617,387	-	3,617,387
Total	459,790,645	212,399,550	291,054,607	5,577,133	968,821,935

(Note 1) These are deposits taken.

(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	1,388,894,986	1,161,034,164
(Adjustments: cash and cash equivalents)	(255,615,367)	(86,764,152)
Adjusted liabilities	1,133,279,619	1,074,270,012
Equity capital	2,566,737,409	958,932,793
Debt-to-equity ratio	44.15%	112.03%

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, and 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)	-	2,277,046	-	2,277,046
Short-term financial assets	-	1,794,156,437	-	1,794,156,437
Long-term investment assets	-	-	35,081,486	35,081,486
Other non-current assets (Note 1)		1,639,873	368,001	2,007,874
Total	-	1,798,073,356	35,449,487	1,833,522,843
Financial liabilities				
Trade and other payables (Note 1)	-	1,364,347	-	1,364,347
Total	-	1,364,347	-	1,364,347

(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 (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	-	339,928,470	-	339,928,470
Trade and other receivables (Note 1)	-	287,361	-	287,361
Long-term investment assets	-	-	24,492,063	24,492,063
Total	-	340,215,831	24,492,063	364,707,894
Financial liabilities				
Trade and other payables (Note 1)	-	3,911,928	-	3,911,928
Derivatives designated for hedging	-	3,617,387	-	3,617,387
Total	-	7,529,315	-	7,529,315

(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 (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 for SK Chemicals Daejung Co., Ltd.	368,001	Discounted cash flow method	Liquidation cash flow, weighted average cost of capital
Long-term investment assets	Eastman Fiber Korea Co., Ltd.'s preferred stocks	23,506,094	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
Long-term investment assets	Eastman Fiber Korea Co., Ltd.'s preferred stocks	21,572,864	Expected price considering the value of call options and put options	Exchange rate

36. Business transfer and discontinued operations

36-1 The parent company sold the bioenergy business division to SK Eco Prime Co., Ltd. for the purpose of reorganizing the portfolio and securing the investment resources for future growth engines in line with the resolution of the board of directors on February 5, 2020. Furthermore, in line with the resolution of the board of directors on October 27, 2021, they sold the PPS business division to HDC Polyol Co., Ltd., and the two business transfers were classified as discontinued operations. Meanwhile, the comparatively presented statements of comprehensive income for the previous period have been reprepared to demonstrate the discontinued operations separated from the continuing operations.

36-2 The details of profit or loss from discontinued operations for the reporting period appropriated in the statement of comprehensive income in connection with the PPS business division are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Sales amount	33,477,032	15,928,438
Cost of sales	(50,292,941)	(53,613,934)
Gross profit	(16,815,909)	(37,685,496)
Selling, general and administrative expenses	(9,984,908)	(11,389,485)
Operating income	(26,800,817)	(49,074,981)
Other income	272,571	139,747
Other expenses	(103,870,851)	(52,647,069)
Financial income	11,123	-
Financial cost	(4,296,656)	(5,310,925)
Income tax expense	32,616,800	25,920,919
Total profit and loss from discontinued operating activities	(102,067,830)	(80,972,309)
Gain on disposal of discontinued operations before tax	265,967	-
Relevant income tax expense	(64,364)	-
Gain on disposal of discontinued operations	201,603	-
Profit and loss from discontinued operations	(101,866,227)	(80,972,309)

36-3 The net cash flows from discontinued operations related to the PPS business division are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Cash flows from operating activities	15,859,813	7,119,613
Cash flows from investment activities	37,904,391	(1,224,844)
Cash flows from financing activities	-	-
Net cash flows	53,764,204	5,894,769

36-4 The details of profit or loss from discontinued operations for the reporting period appropriated in the statement of comprehensive income in connection with the bio-energy business division are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Sales amount	-	161,714,128
Cost of sales	-	(138,905,635)
Gross profit	-	22,808,493
Selling, general and administrative expenses	-	(7,179,203)
Operating income	-	15,629,290
Other income	-	158,082
Other expenses	-	(8,628,073)
Financial cost	-	(1,078,618)
Income tax expense	-	(1,672,187)
Total profit and loss from discontinued operating activities	-	4,408,494
Gain on disposal of discontinued operations before tax	-	319,194,304
Relevant income tax expense	-	(77,416,434)
Gain on disposal of discontinued operations	-	241,777,870
Profit and loss from discontinued operations	-	246,186,364

36-5 The net cash flows from discontinued operations related to the bio-energy business division are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Cash flows from operating activities	-	4,504,108
Cash flows from investment activities	-	374,396,501
Cash flows from financing activities	-	(3,103,373)
Net cash flows	-	375,797,236

36-6 The consolidated companies sold their composite materials related operations in their entirety to Toray Advanced Materials Korea Inc. during the current period. The calculation details of the profit from sales of the business division are as follows.

(Unit: KRW one thousand)

Classification	Consideration for transfer (Note 1)	Transferred business				Profits from sales of business division
		Assets	Liabilities	Equity (Note 2)	Net assets	
Composite materials business division	33,711,343	38,175,991	7,113,002	1,318,621	29,744,368	3,966,975

(Note 1) The incidental expenses incurred during the transfer are taken into account.

(Note 2) This is the reclassification of other comprehensive income.

37. Events following the reporting period for which corrections are not required

37-1 Novavax COVID-19 vaccine acquired product license in Korea

Novavax's COVID-19 vaccine produced by the consolidated companies under a contract with Novavax acquired product authorization from the Ministry of Food and Drug Safety on January 12, 2022.

37-2 Receipt of a mediation proposal from the Mediation Committee for Damage Recovery of Humidifier Disinfectants

In March 2022, the consolidated companies received a mediation proposal from the 'Mediation Committee for Damage Recovery of Humidifier Disinfectants.' The Company is reviewing the mediation proposal, and nothing in relation to this has been confirmed to date.

4. Financial Statements

Statement of Financial Position

The 5th Period as of December 31, 2021

The 4th Period as of December 31, 2020

The 3rd Period as of December 31, 2019

(Unit: KRW)

	The 5th Period	The 4th Period	The 3rd Period
Assets			
Current assets	850,385,823,428	542,386,697,294	583,836,268,797
Cash and cash equivalents	102,201,908,694	36,666,181,689	154,482,694,483
Short-term financial assets	214,551,624,180	145,208,941,838	
Trade and other receivables	349,597,114,345	201,600,472,662	160,588,208,292
Inventories	176,670,484,280	152,017,683,321	259,448,122,248
Other current assets	7,364,691,929	6,893,417,784	9,317,243,774
Non-current assets	1,136,764,094,471	1,202,198,118,635	1,318,635,483,156
Long-term financial assets	32,500,000	32,500,000	1,032,500,000
Long-term investment assets	34,581,491,369	24,492,063,443	23,376,057,843
Trade and other receivables	2,245,126,852		883,548,359
Affiliates and joint ventures investments	13,175,778,325	5,090,513,325	5,090,513,325
Subsidiaries' investments	369,310,002,987	248,206,168,483	224,280,418,283
Tangible assets	663,484,729,233	878,396,296,608	969,586,401,209
Right-of-use assets	1,078,904,249	7,430,750,867	53,632,141,596
Intangible assets	25,581,562,950	18,815,248,305	17,609,393,592
Investment real estate properties	17,212,277,612	17,055,665,021	15,104,065,924
Other non-current assets	8,859,518,669	1,615,773,781	1,276,850,781
Deferred income tax assets	1,202,202,225	1,063,138,802	6,763,592,244
Total Assets	1,987,149,917,899	1,744,584,815,929	1,902,471,751,953
Liabilities			
Current liabilities	608,416,133,260	461,440,722,505	654,992,966,725
Trade and other payables	334,166,345,831	190,846,337,416	195,546,730,643
Short-term borrowings		106,636,902,688	190,139,270,825
Current portion of long-term liabilities	159,886,421,716	85,953,003,944	241,571,981,995
Current portion of lease liabilities	615,347,491	1,786,785,263	10,519,842,389
Current portion of contract liabilities	15,475,431,335	978,603,271	701,169,180
Current portion of provisioning liabilities	22,437,979,100		

	The 5th Period	The 4th Period	The 3rd Period
Current income tax liabilities	70,778,733,402	63,708,030,987	7,685,583,537
Other current liabilities	5,055,874,385	11,531,058,936	8,828,388,156
Non-current liabilities	223,149,669,532	398,070,772,061	563,034,948,341
Debenture	220,560,771,999	380,007,551,432	464,407,698,301
Long-term borrowings		9,375,000,000	49,753,200,000
Lease liabilities	478,871,282	5,433,745,338	43,331,374,050
Defined benefit liabilities		3,254,475,291	5,542,675,990
Other non-current liabilities	2,110,026,251		
Total Liabilities	831,565,802,792	859,511,494,566	1,218,027,915,066
Equity			
Capital	98,681,045,000	66,000,330,000	66,000,330,000
Capital surplus	155,974,381,098	188,347,198,411	188,347,198,411
Other capital	(12,345,389,915)	(9,117,046,764)	(888,883,656)
Retained earnings	913,274,078,924	639,842,839,716	430,985,192,132
Total equity	1,155,584,115,107	885,073,321,363	684,443,836,887
Total liabilities and stockholders' equity	1,987,149,917,899	1,744,584,815,929	1,902,471,751,953

Comprehensive Income Statement

The 5th Period From January 01, 2021 to December 31, 2021

The 4th Period From January 01, 2020 to December 31, 2020

The 3rd Period From January 01, 2019 to December 31, 2019

(Unit: KRW)

	The 5th Period	The 4th Period	The 3rd Period
Sales amount	1,093,356,680,705	905,274,693,060	869,939,185,931
Cost of sales	829,072,845,806	652,901,500,834	665,367,508,720
Gross profit	264,283,834,899	252,373,192,226	204,571,677,211
Selling, general and administrative expenses	181,990,857,414	154,677,911,194	152,094,270,334
Operating income	82,292,977,485	97,695,281,032	52,477,406,877
Other income	488,792,502,374	11,261,719,908	9,540,932,726
Other expenses	41,362,691,966	21,231,924,327	36,209,100,514
Financial income	43,397,938,556	40,541,724,156	23,108,541,947
Financial cost	32,235,463,899	49,432,978,219	39,877,416,926
Net profit from continuing operations before income tax	540,885,262,550	78,833,822,550	9,040,364,110
Income tax expense on continuing operations	136,417,287,717	28,087,244,608	9,961,115,337
Net profit from continuing operations	404,467,974,833	50,746,577,942	(920,751,227)
Net income from discontinued operations before income tax	(134,518,761,720)	218,163,748,291	36,962,802,883

	The 5th Period	The 4th Period	The 3rd Period
Income tax expense on discontinued operations	(32,553,540,336)	53,167,701,588	8,944,998,298
Net profit from discontinued operations	(101,965,221,384)	164,996,046,703	28,017,804,585
Net profit before income tax expense	406,366,500,830	296,997,570,841	46,003,166,993
Income tax expense	103,863,747,381	81,254,946,196	18,906,113,635
Net income	302,502,753,449	215,742,624,645	27,097,053,358
Other comprehensive income	(2,921,264,291)	(877,961,861)	(3,284,212,511)
Items subsequently not reclassified as net profit or loss	(2,921,264,291)	(877,961,861)	(3,284,212,511)
Remeasurement factors of defined benefit liabilities	(2,921,264,291)	(877,961,861)	(3,284,212,511)
Total comprehensive income for the current period	299,581,489,158	214,864,662,784	23,812,840,847
Earnings per share			
Basic earnings per share (loss) (Unit: KRW)			
Basic earnings per share for common stocks from continuing operations (Unit: KRW)	20,659	2,583	(70)
Basic earnings (loss) per share for common stocks from discontinued operations (unit: KRW)	(5,208)	8,400	2,129
Diluted earnings per share for common stocks from continuing operations (Unit: KRW)	20,531	2,580	
Diluted earnings per share for common stocks from discontinued operations (Unit: KRW)		8,363	
Basic earnings (loss) per share for preferred stocks (Unit: KRW)			
Basic earnings per share for preferred stocks from continuing operations (Unit: KRW)	20,726	2,591	(72)
Basic earnings (loss) per share for preferred stocks from discontinued operations (unit: KRW)	(5,225)	8,425	2,181

Statement of Changes in Equity

The 5th Period From January 01, 2021 to December 31, 2021

The 4th Period From January 01, 2020 to December 31, 2020

The 3rd Period From January 01, 2019 to December 31, 2019

(Unit: KRW)

	Equity				
	Capital	Capital surplus	Other capital	Retained earnings	Total equity
January 1, 2019 (capital at beginning of period)	65,192,610,000	690,804,742,785	(1,910,245,430)	12,455,398,785	766,542,506,140
Net income				27,097,053,358	27,097,053,358
Remeasurement factors of defined benefit liabilities				(3,284,212,511)	(3,284,212,511)
Merger loss due to merger		(112,885,428,824)			(112,885,428,824)

	Equity				
	Capital	Capital surplus	Other capital	Retained earnings	Total equity
Transfer of retained earnings of paid-in capital in excess of par value		(400,000,000,000)		400,000,000,000	
Stock option granted			1,021,361,774		1,021,361,774
Exercise of stock option					
Cash dividend				(5,283,047,500)	(5,283,047,500)
Paid-in capital increase	807,720,000	10,427,884,450			11,235,604,450
Capital increase without consideration					
Purchase of treasury stock					
2019.12.31 (capital at end of period)	66,000,330,000	188,347,198,411	(888,883,656)	430,985,192,132	684,443,836,887
January 1, 2019 (capital at beginning of period)	66,000,330,000	188,347,198,411	(888,883,656)	430,985,192,132	684,443,836,887
Net income				215,742,624,645	215,742,624,645
Remeasurement factors of defined benefit liabilities				(877,961,861)	(877,961,861)
Merger loss due to merger					
Transfer of retained earnings of paid-in capital in excess of par value					
Stock option granted			561,602,700		561,602,700
Exercise of stock option			(4,354,860,000)		(4,354,860,000)
Cash dividend				(6,007,015,200)	(6,007,015,200)
Paid-in capital increase					
Capital increase without consideration					
Purchase of treasury stock			(4,434,905,808)		(4,434,905,808)
2020.12.31 (capital at end of period)	66,000,330,000	188,347,198,411	(9,117,046,764)	639,842,839,716	885,073,321,363
January 1, 2019 (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				302,502,753,449	302,502,753,449
Remeasurement factors of defined benefit liabilities				(2,921,264,291)	(2,921,264,291)
Merger loss due to merger					
Transfer of retained earnings of paid-in capital in excess of par value					
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

	Equity				
	Capital	Capital surplus	Other capital	Retained earnings	Total equity
Cash dividend				(26,150,249,950)	(26,150,249,950)
Paid-in capital increase					
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)
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

Statement of Cash Flows

The 5th Period From January 01, 2021 to December 31, 2021

The 4th Period From January 01, 2020 to December 31, 2020

The 3rd Period From January 01, 2019 to December 31, 2019

(Unit: KRW)

	The 5th Period	The 4th Period	The 3rd Period
Cash flows from operating activities			
Net income	302,502,753,449	215,742,624,645	27,097,053,358
Adjustments	(187,191,487,993)	(92,339,223,140)	112,593,061,374
Changes in assets and liabilities from operating activities	(53,245,780,477)	29,279,267,913	(14,562,905,995)
Interest received	579,673,872	354,163,301	504,338,201
Interest paid	(11,479,551,082)	(20,216,410,647)	(20,387,151,563)
Dividends received	8,952,750,000	5,873,600,000	
Income tax paid	(95,999,462,006)	(19,303,810,420)	(10,596,211,510)
Cash flows from investment activities			
Transfer of business	71,472,753,210	380,919,480,691	
Recovery of security deposits	339,043,619	127,500,000	862,973,131
Recovery of short-term borrowings	300,000,000	800,000,000	
Decrease in long-term financial assets			2,500,000
Recovery of long-term investment assets	25,000,000		
Disposal of tangible assets and right-of-use assets	2,447,014,817	47,436,177	1,455,636,363
Disposal of intangible assets	735,778,790	3,150,532,026	2,178,490,688
Government subsidies received	85,756,878	124,713,507	543,356,725
Increase in cash following merger			1,447,142,428
Disposal of subsidiaries' investment shares	498,114,884,460	38,500	
Net change in short-term financial assets	(65,382,558,834)	(142,288,023,478)	31,132,834,950

	The 5th Period	The 4th Period	The 3rd Period
Increase in security deposits	(141,541,000)	(237,500,000)	(35,791,920)
Increase in long-term loans		(800,000,000)	
Increase in long-term financial assets			(1,000,000,000)
Acquisition of long-term investment assets	(8,970,673,609)	(2,500,000,000)	(24,053,346,800)
Acquisition of tangible assets	(83,994,724,969)	(79,491,303,757)	(99,385,054,248)
Acquisition of tangible assets from capitalized borrowing cost	(943,630,987)	(1,341,008,513)	(581,428,327)
Discard and overhaul of tangible assets	(1,198,619,330)		
Acquisition of intangible assets	(5,598,777,628)	(1,916,946,173)	(2,896,528,859)
Government subsidies returned			(887,197,910)
Decrease in cash due to spin-off	(57,000,000,000)		
Acquisition of subsidiaries' and joint ventures' investment shares	(16,838,150,000)	(11,677,638,900)	(65,367,353,600)
Cash flows from financing activities			
Borrowing of short-term borrowings		115,000,000,000	20,000,000,000
Borrowing of long-term borrowings			10,000,000,000
Borrowing of bonds			293,649,228,400
Paid-in capital increase			11,235,604,450
Inflows from exercise of stock options	725,021,000		
Net change in foreign currency short-term borrowings	(31,636,902,688)	(21,478,169,612)	(6,475,078,373)
Repayment of short-term borrowings	(75,000,000,000)	(175,000,000,000)	(55,000,000,000)
Repayment of current portion of bonds	(85,000,000,000)	(146,000,000,000)	(50,000,000,000)
Repayment of current portion of long-term borrowings	(1,003,200,000)	(104,401,400,000)	(13,776,400,000)
Repayment of current portion of lease liabilities	(1,428,642,346)	(4,823,119,406)	(7,879,204,181)
Repayment of long-term borrowings	(9,375,000,000)	(30,625,000,000)	(7,566,000,000)
Acquisition of treasury stock	(3,167,742,641)	(4,434,905,808)	
Payment of dividends	(26,148,257,500)	(6,006,549,700)	(5,282,629,500)
Inflows from exercise of stock options		(4,354,860,000)	
Increase in cash and cash equivalents	65,535,727,005	(117,816,512,794)	126,969,937,282
Cash and cash equivalents at beginning of period	36,666,181,689	154,482,694,483	27,512,757,201
Cash and cash equivalents at end of period	102,201,908,694	36,666,181,689	154,482,694,483

5. Notes to the Financial Statements

The 5th Period From January 1, 2021 to December 31, 2021

The 4th Period From January 1, 2020 to December 31, 2020

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, "parent company") was established on December 1, 2017 via a spin-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.

Furthermore, the Company established SK Multi-Utility Co., Ltd. for the purpose of supplying utilities through a 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 (shrs.)	Equity interest (%)	Number of shares held (shrs.)	Equity interest (%)
SK Discovery Co., Ltd.	6,137,781	34.83	-	-
SK Chemicals Co., Ltd. (Treasury shares)	30,857	0.18	148,133	7.00
Others	11,452,142	64.99	1,967,296	93.00
Total	17,620,780	100.00	2,115,429	100.00

The financial statements of the Company were approved by the board of directors on February 10, 2022, and the final approval is expected to be made at the general meeting of shareholders on March 28, 2022.

2. Significant accounting policies and the 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 Accounting 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 practiced 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 net 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) Transaction 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, and 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, and 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. The 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 gains 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 Revenue from the contracts with customers

The Company operates the two business divisions of Green Chemicals and Life Science. The Green Chemicals Business Division produces and sells the PET resins, highly functional PETG resins, and the industrial adhesives, etc., while the Life Science Business Division is engaged in the pharmaceutical business. For the contracts with its customers, when the 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 consolidated companies 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 good. 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 goods

Certain contracts provide the customers with the right to return goods within a certain period of time. 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. The 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 goods

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 less the expected cost of recovering the products and any potential reduction in the value of the products returned.

② Refund liabilities

A 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 fulfilment of ancillary conditions therefor. Profits-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 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.

2-6 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 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 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 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 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 extinct 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, and 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 in addition to 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 acquired deferred tax benefits recognized are applied to reduce the book amount of the goodwill related to the acquisition, and if the book amount of the goodwill is zero, the remaining deferred tax benefits are recognized as current 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 of any 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 a 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.

2-7 Retirement benefits

The Company operates a defined benefit retirement pension plan, and the benefit cost of the defined benefit plan is determined using the projected unit credit method. The actuarial gains and losses, revenue from the plan assets excluding the amount included in the net interest, and the rereasurement elements consisting of changes in the effect of the ceiling on asset recognition excluding the amount included in the net interest are recognized as other comprehensive income immediately when incurred and are not subsequently reclassified as net 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 net 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.

2-8 Financial instruments: initial recognition and subsequent measurements Initial recognition and 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 consolidated companies initially measure 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 principal only (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 consolidated companies agree 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 current 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 current profit or loss upon derecognition
- 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 net 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.

- 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 gains and losses, and impairment or reversal are calculated in the same manner as financial assets measured at amortized cost and are recognized as net 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 net 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 current 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 of time 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 flow 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 net 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 net 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 net profit or loss. A reevaluation 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
- The consolidated companies have 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 event, the consolidated companies neither transfer substantially most of the risks and rewards of holding the financial assets, nor transfer or hold most of the risks and rewards of holding the financial assets, yet transfer the control over the assets.
- 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 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 event, the consolidated companies recognize 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- 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 consolidated companies may apply the simplified method for the calculation of the expected credit loss. 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 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 consolidated companies assess 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 consolidated companies consider 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 consolidated companies use 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 consolidated companies may consider that an event of default has occurred against financial assets if and when internal or external information indicates that the consolidated companies will not be able to receive the principal in full under contract until all credit enhancements by the consolidated companies 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 of time. This category also includes the derivatives which are not designated as the hedging instruments in a hedging relationship as defined under Corporate Accounting Standard No. 1109. Furthermore, the separated embedded derivatives are classified as trading items unless they are designated as effective hedging instruments.

Gains or losses on financial liabilities, which are trading items, are recognized as net 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 consolidated companies have 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 gains 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, cancelled or expire. 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 net 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 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 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 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 reevaluation 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 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, the changes in the fair value of derivatives are directly reflected in the income statement, and the effective part for 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 the hedging 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 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 the hedge accounting are accounted for as follows.

- Fair value hedging

Changes in the fair value of the hedging instruments are recognized as net 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 net 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 net 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 gains or losses is discontinued.

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

- Cash flow hedging

The effective portion of profit or loss from the hedging instruments is recognized as other comprehensive income within the cash flow hedge reserves, and the ineffective portion is recognized immediately as net profit or loss. The cash flow hedge reserves are adjusted to the accumulated profit or loss of the 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, and 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 net profit or loss during the period in which the hedged cash flows affect the net 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 net 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 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.

2-12 Inventories

The Company assesses the inventory assets at the less of the acquisition cost or the net realizable value, 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 less the accumulated impairment losses, and the tangible assets are presented as the balance of acquisition cost less the accumulated depreciation and accumulated impairment losses. Such costs include the replacement 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 the tangible assets, and all repair and maintenance costs are reflected in the net 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 the 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 disposal value and the book amount is reflected in the net 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 the tangible assets, and where any changes are needed, apply 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 of time 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

replacement 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 goodwill is appropriated at cost less the accumulated impairment losses.

When it is expected that the future economic benefits can no longer be gained 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 net 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 the tangible assets, the fair value at the point where the purpose of use is changed is applied as the deemed cost. Furthermore, when the tangible assets are replaced with investment real estate properties, the relevant real estate properties are accounted for in the same manner as the tangible assets until the purpose 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 of time in exchange for consideration under contract.

(1) Accounting as lessor

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-of-use assets presenting the right to use the underlying assets.

1) Right-of-use assets

The Company recognizes the right-of-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-of-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, less any lease incentives received. The right-of-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-of-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-of-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, less 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 amount for the leases of office supplies that are considered the assets of small amount. Lease payments for the short-term leases and leases of assets of small amount 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 are applicable.

- 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 liability 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 net 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 net 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 gain or loss arising from the differences between the net sale amount and the book amount on the net profit or loss.

- 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 granted 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
Softwares	5 years
Memberships	Not subject to amortization

2-20 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 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 net profit or loss as an expense item consistent with the function of the impaired asset. However, if there is a previously recognized reevaluation surplus as an asset for which the reevaluation model is applied, it is offset against the reevaluation surplus with the previous reevaluation amount as the ceiling.

For the assets other than goodwill, at the end of each reporting period, an assessment is made as to whether there are any signs such 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 reevaluation model is applied, the relevant reversal amount is accounted for an increase in the reevaluation 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 amount.

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 where 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 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.

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 consolidated 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 the 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 the non-vesting conditions. The non-vesting conditions are reflected when the fair value of share-based payment costs are measured, and if there are no service provision terms and conditions (or performance conditions), they are recognized as expenses immediately thereby.

No expense is recognized for the 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 cancelled, it is deemed 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 replacement, 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 less 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 gain 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 Non-current 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 present it as a single amount in the statement of income. Any additional matters related to the discontinued operations are disclosed under Note 36, and the amounts of discontinued operations are included unless otherwise provided under other notes to the financial statements.

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 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 consolidated companies apply 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 replacement 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 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 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 consolidated 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.

(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, and 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 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 consolidated companies' 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. 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-of-use asset with similar collateral over a similar period in a similar economic environment. Accordingly, the incremental borrowing rate reflects

the matters which the Company 'must pay' for which the 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 Company must measure the incremental borrowing rate using observable input variables where possible and prepare the company-specific estimates.

(8) Uncertainties of the impact of COVID-19

Various prevention and control measures, including movement restrictions, are implemented across the globe to block the spread of COVID-19, and as a result, the global economy is having a far-reaching impact. In addition, various types of the government's support policies are announced to respond to COVID-19. As a result of reviewing the impact on its financial statements due to the spread of COVID-19, the Company has determined that, given the spread of COVID-19, the future inventory low-cost method (refer to Note 7) and the fixed asset impairment assessment (refer to Note 12), etc., may be affected, and accordingly, has prepared the financial statements by reasonably estimating the impact of COVID-19 on the Company

However, significant uncertainties exist in estimating when COVID-19 will end and its impact on the Company.

4. Changes in the accounting policy and announcements

4-1 Application of the enacted and amended standards

The Company applied the standards and amendments for the first time for the first fiscal year beginning on or after January 1, 2021. The Company has not applied early the standards, interpretations or the amendments which have been announced yet have not been enforced.

(1) Corporate Accounting Standard Nos. 1109, 1039, 1107, 1104 and 1116 (amended) - Interest rate index related reform - Phase 2

The amendments provide a temporary exemption to address the effect on financial reporting when the Interbank Loan Rate (IBOR) is replaced by the Alternative Risk Free Indicator Interest Rate (RFR).

The amendments include the following practical expedient method.

- The contractual changes, or changes in cash flows directly affected by the reform, are accounted for as if they were changed to a floating interest rate, such as changes in the market interest rates.
- The changes required by the interest rate index related reform are allowed for hedging designation and hedging documentation without interruption of the hedging relationship.
- A temporary exemption is provided where a financial instrument which references an alternative risk-free rate interest rate (RFR) is deemed to satisfy the requirement to be separately identifiable if designated as a hedging factor.

Meanwhile, the application of such amendments does not have a material impact on the Company's financial position or business management performance.

(2) Corporate Accounting Standard No. 1116 Lease - Rental payment related discounts related to COVID-19 on or after June 30, 2021, etc.

During 2020, amendments to Corporate Accounting Standard No. 1116 'Lease' - 'Rental payment related discounts related to COVID-19 on or after June 30, 2021, etc.' were announced. The relevant amendments eased the application of lease change accounting for Corporate Accounting Standard No. 1116 'Lease' for the lessees for rent payment discounts, etc., which arose as a direct result of the global pandemic of COVID-19. Based on the practical expedient method, a lessee may not assess whether the rental payment discounts, etc., incurred in connection with COVID-19 constitute a lease change. The lessee who has made such choice must account for the lease change caused by rental payment discounts, etc., consistently with the provisions made under these standards if and where it is not such a change. The practical expedient method was planned to be applied until June 30, 2021, yet the application period of the practical expedient method was extended to until June 30, 2022 due to the impact of COVID-19. This amendment is effective for the fiscal year beginning

on or after April 1, 2021, with early application allowed. While the Company did not receive a rental payment discount related to COVID-19, the practical expedient method will be applied if there are any applicable cases within the application period allowed.

4-2 Accounting standards announced but not yet enforced

The details of the enacted or amended 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 yet been applied since the date of enforcement has not yet arrived, are as follows.

- (1) Amendment to Corporate Accounting Standard No. 1103 'Business Combination' - Refer to the conceptual framework for financial reporting

The purpose of the relevant amendment is, in the event of a change following the reference made to the 'Conceptual Framework for the Preparation and Presentation of Financial Statements' announced in 1989 towards the 'Conceptual Framework for Financial Reporting' announced in March 2018, to ensure that there are no changes in the significant requirements. To ensure that day 2 profit or loss on the liabilities and contingent liabilities are within the scope of Corporate Accounting Standard No. 1037 'Provisioning liabilities, contingent liabilities, and contingent assets' or Corporate Accounting Standard No. 2121 'Charges', exceptions have been added to the recognition principle of Corporate Accounting Standard No. 1103. Furthermore, the guidelines for contingent assets of Corporate Accounting Standard No. 1103 have been articulated to ensure that the changes made in the conceptual framework for financial reporting do not have an impact. These amendments are applied from the first fiscal year beginning on or after January 1, 2022, and are applied in a forward looking manner.

- (2) Amendment to Corporate Accounting Standard No. 1016 'Tangible assets' - Amount of sale before the intended use

The purpose of this amendment is to ensure that the cost of goods sold is not deducted from the cost of bringing the assets to the location and condition required to operate them in the manner intended by the senior management. Instead, the company recognizes as net profit or loss the revenue from the sale of such items and the costs of producing the items each.

This amendment is applied for the fiscal year beginning on or after January 1, 2022, and must be applied retrospectively for the tangible assets which reach a location and condition capable of operating in the manner intended by the senior management during the earliest comparative period or thereafter. The Company expects that this amendment will not have a material impact on the financial statements.

- (3) Amendment to Corporate Accounting Standard No. 1037 'Provisioning liabilities, contingent liabilities and contingent assets' - onerous contract: contractual performance cost

This amendment clarified the costs which a company should include when assessing whether a contract is an onerous contract or a contract incurring a loss. The amended Standards apply the "directly related cost approach." The costs directly related to a contract for providing goods or services include both the incremental costs and the cost allocations which are directly related to the contractual activities. The general administration costs are excluded unless they are directly related to the contract and cannot be expressly charged to the counterparty to transaction under the contract. This amendment is applied for for the first fiscal year beginning on or after January 1, 2022, with early application allowed. At the beginning of the annual reporting period for which this amendment will be first applied, these amended Standards will be applied for the contracts under which all obligations have not yet been fulfilled.

- (4) The amendments to Corporate Accounting Standard No. 1001 'Presentation of financial statements' - Current/non-current classification of liabilities and Corporate Accounting Standard No. 1001 Paragraphs 69-76 clarify the following requirements for the current and non-current classification of liabilities.

- Meaning of the right to defer payment
- The right to defer must exist at the end of the reporting period
- The possibility of a company exercising the right to defer does not affect the liquidity classification.

- The condition of liability does not affect the liquidity classification only if and where the embedded derivative of a convertible liability is itself an equity instrument.

This amendment is applied for the first fiscal year beginning on or after January 1, 2023, and is applied retrospectively. The consolidated companies assess the impact of the amendment on the current practice and whether a renegotiation is needed for the existing loan agreements.

- (5) Corporate Accounting Standard No. 1001 'Presentation of financial statements' - Disclosure of the 'accounting policy'

This amendment provides the requirements and guidelines that allow companies to more effectively disclose their accounting policies. Corporate Accounting Standard No. 1001 requires that companies disclose their significant accounting policies. The amendment changed the 'significant' accounting policy to the 'material' accounting policy, and added explanations for the material accounting policy information. It allows companies to provide a more useful accounting policy information when making decisions on the accounting policy disclosures.

The amendment to Corporate Accounting Standard No. 1001 'Presentation of financial statements' is applied from the first fiscal year beginning on or after January 1, 2023, with early application allowed. The Company expects that this amendment will not have a material impact on the financial statements.

- (6) Corporate Accounting Standard No. 1008 'Changes in and errors of the accounting policy and accounting estimates' - Definition of 'accounting estimates' The amended Standards clearly distinguish the changes in accounting estimates, changes in accounting policies, and corrections of accounting errors. Furthermore, the amended standards also articulate how a company can use the measurement techniques and input variables to develop the accounting estimates. This amendment is applied from the first fiscal year beginning on or after January 1, 2023, and is applied for the changes in accounting policies and accounting estimates arising at or after this point in time. Early application is allowed. The Company expects that this amendment will not have a material impact on the financial statements.

- (7) Amendment to Corporate Accounting Standard No. 1012 'Corporate tax' - Reduced scope of exception for the initial recognition of deferred tax

These amendments have been made to address the issue of varying accounting practices for the recognition of deferred income tax liabilities and assets for the transactions in which a temporary difference to be added and a temporary difference to be deducted in the same amount are recognized at the same time. This amendment added the requirements (3) to the provisos of Paragraphs 15 and 24 of Corporate Accounting Standard No. 1012 (exceptions related provisions for the initial recognition of deferred tax), and if and when an asset and a liability are initially recognized in a single transaction, and if there is a taxable temporary difference and a deductible temporary difference of the same amount, allows for the deferred income tax liabilities and assets to be recognized each. This amendment is applied in a forward-looking manner from the first fiscal year beginning on or after January 1, 2023, with early application allowed. This amendment is not expected to have a material impact on the Company.

4-3 Annual improvement of the Korean International Financial Reporting Standards for 2018-2020

- (1) Corporate Accounting Standard No. 1101, 'First adoption of the Korean International Financial Reporting Standards': Subsidiaries which adopted K-IFRS for the first time

Where a subsidiary chooses to apply Paragraph D16(1) of Corporate Accounting Standard No. 1101 on the first adoption of IFRS, the amended standards allow for the subsidiary to measure the cumulative translation differences using the amount reported by the parent company as of the date of transition towards the K-IFRS of the parent company. This amendment is also applied for the affiliates or joint ventures which have chosen to apply Paragraph D16(1) of the standards. This amendment is applied from the fiscal year beginning on or after January 1, 2022, with early application allowed.

- (2) Corporate Accounting Standard No. 1109 'Financial instruments': Fees related to the 10% test for the purpose of derecognition of financial liabilities

These amendments clarify the fees a company includes when assessing whether the terms of new or changed financial

liabilities are materially different from those of the existing financial liabilities. Included in such fees are only the fees paid or received by and between the creditor and the debtor and the fees paid or received by the creditor and the debtor on behalf of each other. A company applies this amendment for financial liabilities that are changed or exchanged after the fiscal year in which this amendment is first applied. This amendment is applied from the fiscal year beginning on or after January 1, 2022, with early application allowed. The Company will apply this amendment for the financial liabilities changed or exchanged after the financial year first beginning on or after the date of enforcement. This amendment is not expected to have a material impact on the Company.

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 profit or loss	Financial assets measured at amortized cost	Total
Current assets:				
Short-term financial assets (Note 1)	214,551,624	-	-	214,551,624
Trade and other receivables	1,825,609	-	347,771,505	349,597,114
Other current assets (Note 2)	-	-	39,814	39,814
Subtotal	216,377,233	-	347,811,319	564,188,552
Non-current assets:				
Long-term financial assets	-	-	32,500	32,500
Long-term investment assets	32,081,459	2,500,032	-	34,581,491
Trade and other receivables	-	-	2,245,127	2,245,127
Other non-current assets (Note 2)	368,001	-	537,972	905,973
Subtotal	32,449,460	2,500,032	2,815,599	37,765,091
Total	248,826,693	2,500,032	350,626,918	601,953,643

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

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

<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	Total
Current assets:			
Short-term financial assets (Note 1)	145,208,942	-	145,208,942
Trade and other receivables	159,003	201,441,470	201,600,473
Other current assets (Note 2)	-	39,814	39,814
Subtotal	145,367,945	201,481,284	346,849,229
Non-current assets:			
Long-term financial assets	-	32,500	32,500
Long-term investment assets	24,492,063	-	24,492,063
Other non-current assets (Note 2)	-	765,725	765,725
Subtotal	24,492,063	798,225	25,290,288
Total	169,860,008	202,279,509	372,139,517

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

(Note 2) These are the 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	469,458	333,696,888	334,166,346
Current portion of long-term liabilities	-	159,886,422	159,886,422
Current portion of lease liabilities (Note 1)	-	615,347	615,347
Other current liabilities (Note 2)	-	1,105,875	1,105,875
Subtotal	469,458	495,304,532	495,773,990
Non-current liabilities:			
Debenture	-	220,560,772	220,560,772
Lease liabilities (Note 1)	-	478,872	478,872
Other non-current liabilities (Note 2)	-	2,110,026	2,110,026
Subtotal	-	223,149,670	223,149,670
Total	469,458	718,454,202	718,923,660

(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 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	3,836,514	187,009,823	190,846,337
Short-term borrowings	-	106,636,903	106,636,903
Current portion of long-term liabilities	-	85,953,004	85,953,004
Current portion of lease liabilities (Note 1)	-	1,786,785	1,786,785
Other current liabilities (Note 2)	-	2,948,452	2,948,452
Subtotal	3,836,514	384,334,967	388,171,481
Non-current liabilities:			
Debenture	-	380,007,551	380,007,551
Long-term borrowings	-	9,375,000	9,375,000
Lease liabilities (Note 1)	-	5,433,745	5,433,745
Subtotal	-	394,816,296	394,816,296
Total	3,836,514	779,151,263	782,987,777

(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.

<End of the current period>

(Unit: KRW one thousand)

Classification (Note 1)	Financial instruments measured at fair value through profit or loss	Financial assets measured at amortized cost	Financial liabilities measured at amortized cost	Total
Interest income (expense)	-	656,946	(7,312,589)	(6,655,643)
Losses on valuation of financial instruments measured at fair value through profit or loss	1,695,378	-	-	1,695,378
Losses on valuation of financial instruments measured at fair value through profit or loss	3,408,499	-	-	3,408,499
Dividend income	1,190,000	-	-	1,190,000
Gains or losses on foreign currency translation	-	(45,270)	(1,073,769)	(1,119,039)
Gain and loss on foreign currency transactions	-	7,070,013	(9,047,341)	(1,977,328)
Gains or losses on the valuation of derivatives	1,724,153	-	-	1,724,153
Gains or losses on the transaction of derivatives	5,133,705	-	-	5,133,705
Reversal of allowance for bad debts	-	208,425	-	208,425
Other reversals of allowance for bad debts	-	211,971	-	211,971
Total	13,151,735	8,102,085	(17,433,699)	3,820,121

(Note 1) The profits and losses from discontinued operations are not included.

<Previous period>

(Unit: KRW one thousand)

Classification (Note 1)	Financial instruments measured at fair value through profit or loss	Financial assets measured at amortized cost	Financial liabilities measured at amortized cost	Total
Interest income (expense)	-	302,163	(14,916,722)	(14,614,559)
Losses on valuation of financial instruments measured at fair value through profit or loss	(1,175,053)	-	-	(1,175,053)
Gain on valuation of financial instruments measured at fair value through profit or loss	1,711,977	-	-	1,711,977
Dividend income	1,190,000	-	-	1,190,000
Gains or losses on foreign currency translation	-	(2,740,768)	6,229,996	3,489,228
Gain and loss on foreign currency transactions	-	(2,838,290)	1,730,699	(1,107,591)
Gains or losses on the valuation of derivatives	(3,677,511)	-	-	(3,677,511)
Gains or losses on the transaction of derivatives	608,655	-	-	608,655
Reversal of bad debt expenses	-	1,551,021	-	1,551,021
Other reversals of bad debt expenses	-	634,337	-	634,337
Total	(1,341,932)	(3,091,537)	(6,956,027)	(11,389,496)

(Note 1) The profits and losses from discontinued operations are not included.

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	32,500	32,500	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
Liquidity:		
Trade receivables	177,304,667	140,756,175
Allowance for bad debts for trade receivables	(3,887,057)	(4,097,723)
Accounts receivable	174,479,349	64,903,518
Allowance for bad debts for accounts receivable	(292,989)	(210,763)
Short-term loans	3,750,000	4,050,000
Allowance for bad debts for short-term loans	(3,750,000)	(4,050,000)
Accrued revenue	167,535	90,263
Derivative financial assets	1,825,609	159,003
Subtotal	349,597,114	201,600,473
Illiquidity:		
Long-term accounts receivable	2,245,127	-
Total	351,842,241	201,600,473

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	8,358,486	13,251,486
Placement (reversal) (Note 1)	(326,252)	(2,113,644)
Write offs	(95,709)	(2,673,108)
Business transfer (Notes 2, 4)	(6,405)	(106,242)
Split-off (Note 3)	(74)	-
Investment in kind (Note 5)	-	(6)
End of period	7,930,046	8,358,486

(Note 1) The reversal of bad debt provisions of KRW 94,144,000 (previous period: KRW 71,714,000 set for bad debt provisions) arising from the discontinued division was reclassified as profit or loss from discontinued operations.

(Note 2) During the current period, the composite material business division and the PPS business division were sold to Toray Advanced Materials Korea Inc. and HDC Polyol Co., Ltd., respectively.

(Note 3) During the current period, SK Multi-Utility Co., Ltd. was established through a split-off.

(Note 4) During the previous period, the bio-energy business division was sold to SK Eco Prime Co., Ltd.

(Note 5) During the previous period, the reagent business division was invested in kind for SK Chemicals (Daejung) Co., Ltd., a subsidiary.

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	352,936,920	205,603,485
Within 90 days	2,888,471	1,307,721
Within 180 days	72,009	77,573
Over 180 days	3,874,887	2,970,180
Subtotal	359,772,287	209,958,959
(Deducted: bad debt provisions)	(7,930,046)	(8,358,486)
Deductions	351,842,241	201,600,473

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)	-	31,636,903	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.

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	18,157,202	(438,641)	17,718,561
Products	75,224,261	(2,284,748)	72,939,513
Processed products	28,668,559	(1,542,724)	27,125,835
Half finished products	10,793,516	(72,169)	10,721,347
Goods in process	6,970,816	-	6,970,816
Raw materials	32,215,546	(1,783)	32,213,763
Stored goods	1,507,445	(68)	1,507,377
Goods to arrive	7,030,432	-	7,030,432
Other inventories	442,840	-	442,840
Total	181,010,617	(4,340,133)	176,670,484

<End of the previous period>

(Unit: KRW one thousand)

Classification	Acquisition cost	Assessment allowance	Book amount
Goods	8,758,935	(167,385)	8,591,550
Products	74,138,709	(13,221,544)	60,917,165
Processed products	21,933,592	(1,908,652)	20,024,940
Half finished products	6,982,879	(6,595)	6,976,284
Goods in process	4,998,392	-	4,998,392
Raw materials	43,697,460	(361,584)	43,335,876
Stored goods	2,033,136	(1,974)	2,031,162
Goods to arrive	4,589,063	-	4,589,063
Other inventories	553,251	-	553,251
Total	167,685,417	(15,667,734)	152,017,683

7-2 The reversal of the valuation of inventories recognized in connection with the inventories during the current period is KRW 5,516,450,000 (previous period: reversal of the valuation of inventories of KRW 14,191,021,000).

8. Other assets

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	4,637,369	819,593
Prepaid expenses	2,350,577	2,548,214
Security deposits	39,814	39,814
Prepaid corporate taxes	291,907	-
Other assets	45,025	3,485,797
Total	7,364,692	6,893,418
Other non-current assets:		
Derivatives assets	368,001	-
Long-term security deposits	537,972	765,725
Net defined benefit assets (Note 1)	7,103,496	-
Other assets	850,050	850,049
Total	8,859,519	1,615,774

(Note 1) These are the net defined benefit assets which resulted from the accumulation of the defined benefit plan in excess of liabilities. As of the end of the current period, there is no effect of restriction due to the maximum recognition of assets.

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)	214,551,624	145,208,942
Long-term financial assets:		
Deposits	32,500	32,500

(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.

<End of the 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 (Shares) (Note 1)	21,572,864	-	-	1,933,230	23,506,094
Yongyeon Industrial District 4 Industrial Water Management Association	419,199	-	-	-	419,199
Standigm Co., Ltd. (Notes 2, 3)	-	3,000,007	-	-	3,000,007
Subtotal	21,992,063	3,000,007	-	1,933,230	26,925,300
Debt securities					
Korea Investment Bio Global Fund (Note 4)	2,500,000	2,500,000	(25,000)	(789,474)	4,185,526
Sante Health Ventures IV, LP (Note 2)	-	970,633	-	-	970,633
Subtotal	2,500,000	3,470,633	(25,000)	(789,474)	5,156,159
Financial assets measured at fair value through profit or loss					
Unmarketable equity securities					
J2H Biotech Co., Ltd. (Note 2)	-	1,500,052	-	-	1,500,052
Oncobix Co., Ltd. (Note 2)	-	999,980	-	-	999,980
Subtotal	-	2,500,032	-	-	2,500,032
Total	24,492,063	8,970,672	(25,000)	1,143,756	34,581,491

(Note 1) The Company holds a put option for the interest in the preferred stocks of Eastman Fiber Korea Co., Ltd. and granted a call option of the same amount for Eastman Chemical Korea B.V., the largest shareholder, and considering the option, reflected the assessment of the investment assets at fair value.

(Note 2) During the current period, the Company newly acquired redeemable convertible preferred stocks of Standigm Co., Ltd., common stocks of J2H Biotech Co., Ltd., common stocks of Oncobix Co., Ltd., and common stocks of Citi Cells Co., Ltd., and newly invested in Sante Health Ventures IV, LP.

(Note 3) 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 4) During the current period, the Company has made additional investments in the Korea Investment Bio Global Fund and partially recovered its investments.

<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 (Shares) (Note 1)	22,956,859	-	(1,383,995)	21,572,864
Yongyeon Industrial District 4 Industrial Water Management Association	419,199	-	-	419,199
Subtotal	23,376,058	-	(1,383,995)	21,992,063
Debt securities				
Korea Investment Bio Global Fund	-	2,500,000	-	2,500,000
Total	23,376,058	2,500,000	(1,383,995)	24,492,063

(Note 1) The Company holds a put option for the interest in the preferred stocks of Eastman Fiber Korea Co., Ltd. and granted a call option of the same amount for Eastman Chemical Korea B.V., the largest shareholder, and considering the option, reflected the assessment of the investment assets at fair value.

11. Subsidiaries' investments and the affiliates and joint ventures investments

11-1 The details of major transactions conducted with related parties for the current and previous periods are as follows.

<End of the current period>

(Unit: KRW one thousand)

Classification	Beginning of period	Increase (Notes 1, 2)	Decrease (Notes 3, 4, 5)	End of period
Subsidiaries' investment shares	248,206,168	169,150,054	(48,046,219)	369,310,003

(Note 1) During the current period, a paid-in capital increase was executed for SK Environmental Materials (Yantai) Co., Ltd.

(Note 2) During the current period, SK Multi-Utility was established through a split-off.

(Note 3) During the current period, 7,650,000 shares of SK Bioscience Co., Ltd., which had been held, were disposed of. During the year, 50% of the shares of SK Chemicals Daejung Co., Ltd., which had been held, were disposed of.

(Note 4) The Company determined that it retains the control based on the fact that the Company's chief executive officer continues to serve the position of chief executive officer even after the shares were sold, and the chief executive officer has the decision-making rights in an impasse.

(Note 5) During the current period, 100% of the shares of SK Chemicals (Qingdao) Co., Ltd. have been disposed of.

<Previous period>

(Unit: KRW one thousand)

Classification	Beginning of period	Increase (Notes 1, 2, 3)	Decrease (Note 4)	End of period
Subsidiaries' investment shares	224,280,418	23,925,750	-	248,206,168

(Note 1) During the previous period, SK Chemicals Daejung Co., Ltd. was established and invested in at KRW 3,000, and an additional interest was acquired for KRW 12,278,042,000 through in-kind investments.

(Note 2) During the previous period, SK Environmental Materials (Yantai) Co., Ltd. was established and invested in for KRW 11,271,784,000.

(Note 3) During the previous period, KRW 372,924,000 of contribution were paid in for SK Chemicals Malaysia.

(Note 4) During the previous period, it was reclassified from a subsidiary to an affiliate since the control was lost following the partial sale of the interest held in JSI Co., Ltd.

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
SK Chemicals (Qingdao) Co., Ltd. (Note 1)	China	-	-	100.00	17,213,532
SK Chemicals (Suzhou) Co., Ltd. (Note 2)	China	100.00	11,419,751	100.00	11,419,751
SK Environmental Materials (Yantai) Co., Ltd. (Note 3)	China	100.00	20,410,185	100.00	11,271,784
SK Chemicals (Shanghai) Co., Ltd.	China	100.00	101,938	100.00	101,938
SK Bioscience Co., Ltd. (Note 4)	Republic of Korea	68.43	168,971,884	98.04	193,664,050
SK Chemicals Daejung Co., Ltd. (Notes 5, 6)	Republic of Korea	50.00	6,140,521	100.00	12,281,042
SK Multi-Utility Co., Ltd. (Note 7)	Republic of Korea	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			369,310,004		248,206,168

(Note 1) During the current period, 100% of the shares of SK Chemicals (Qingdao) Co., Ltd. have been disposed of.

(Note 2) During the current period, we have 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 closing date for the transaction will be in 2023.

(Note 3) During the current period, a paid-in capital increase was executed for SK Environmental Materials (Yantai) Co., Ltd.

(Note 4) During the current period, 7,650,000 shares of SK Bioscience Co., Ltd., which had been held, were disposed of.

(Note 5) During the current period, 50% of the shares of SK Chemicals Daejung Co., Ltd., which had been held, were disposed of.

(Note 6) The Company has a put option for all of its interest in SK Chemicals Daejung Co., Ltd.

(Note 7) During the current period, SK Multi-Utility was established through a split-off.

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
ST Green Energy (Note 1)	Singapore	50.00	584,160
JSI Co., Ltd.	Republic of Korea	40.00	-
HDC Polyol Co., Ltd. (Notes 2, 3)	Republic of Korea	20.00	7,699,750
Total			13,175,778

(Note 1) During the current period, a paid-in capital increase was executed for ST Green Energy.

(Note 2) During the current period, the PPS Business Division was transferred to HDC Polyol Co., Ltd., and a 20% interest-1 share was acquired from HDC Polyol Co., Ltd. The Company is determined to have influence over HDC Polyol Co., Ltd. based on the fact that the Company can appoint 20% of the directors.

(Note 3) The Company has a put option for all of its interest in HDC Polyol Co., Ltd.

<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	Singapore	50.00	198,645
JSI Co., Ltd. (Note 1)	Republic of Korea	40.00	-
Total			5,090,513

(Note 1) During the previous period, it was reclassified from a subsidiary to an affiliate as the control was lost following the partial sale of the interest owned by JSI Co., Ltd.

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.

<End of the current period>

(Unit: KRW one thousand)

Classification	Beginning of period	Acquired	Disposed	Depreciation (Note 1)	Impairment (Note 1)	Transfer of business (Note 2)	Split-off	Others (Note 4)	End of period
Land	190,755,296	-	-	-	-	(9,209,440)	(25,477,072)	(276,270)	155,792,514
Building	192,165,557	5,038,805	(636,626)	(6,294,596)	(9,271,731)	(939,244)	(6,979,667)	8,158,208	181,240,706
Structure	105,263,719	4,877,751	(212,859)	(3,253,258)	(3,105,329)	(75,485)	(39,979,287)	7,058,122	70,573,374
Mechanical equipment	308,854,993	26,301,519	(805,088)	(52,633,078)	(90,608,774)	(3,739,779)	(31,190,278)	36,428,146	192,607,661
Vehicles and transport equipment	261,433	-	(2)	(71,615)	-	(9)	(1)	-	189,806
Other tangible assets	8,942,433	2,817,557	(350,548)	(3,766,572)	(435,328)	(196,466)	(323,232)	2,802,919	9,490,763
Construction in progress	71,262,384	45,420,854	(2,096,822)	-	-	(1,231,804)	(1,638,322)	(59,977,842)	51,738,448
Machineries in transit	890,482	3,224,631	-	-	-	-	-	(2,263,656)	1,851,457
Total	878,396,297	87,681,117	(4,101,945)	(66,019,119)	(103,421,162)	(15,392,227)	(105,587,859)	(8,070,373)	663,484,729

(Note 1) Included are the profits and losses classified as discontinued operations.

(Note 2) During the current period, the composite material business division and the PPS business division were sold to Toray Advanced Materials Korea Inc. and HDC Polyol Co., Ltd., respectively.

(Note 3) During the current period, SK Multi-Utility Co., Ltd. was established through a split-off.

(Note 4) They consist of the main account replacement for construction in progress, replacement with investment real estate properties and intangible assets, and the acquisition of tangible assets following the receipt of government subsidies, etc.

<Previous period>

(Unit: KRW one thousand)

Classification	Beginning of period	Acquired	Disposed	Depreciation (Note 1)	Impairment	Transfer of business (Note 2)	Investment in kind (Note 3)	Others (Note 4)	End of period
Land	202,207,077	-	-	-	-	(6,638,976)	(2,867,388)	(1,945,417)	190,755,296
Building	202,251,431	2,874,835	(1,683,166)	(6,361,295)	(3,929,393)	(2,912,128)	(1,390,968)	3,316,241	192,165,557
Structure	100,988,339	6,912,164	(477,421)	(3,010,858)	(1,316,058)	(4,487,363)	(501,516)	7,156,432	105,263,719
Mechanical equipment	385,317,443	19,995,864	(3,641,782)	(61,847,564)	(42,702,920)	(10,513,440)	(168,607)	22,415,999	308,854,993
Vehicles and transport equipment	333,643	-	(2)	(72,208)	-	-	-	-	261,433
Other tangible assets	9,444,838	2,710,521	(1,052)	(3,404,508)	(96,219)	(192,010)	(119,500)	600,363	8,942,433
Construction in progress	65,783,877	45,159,465	(2,501,107)	-	-	(2,324,475)	(91,660)	(34,763,716)	71,262,384
Machineries in transit	3,259,753	2,654,501	-	-	-	-	-	(5,023,772)	890,482
Total	969,586,401	80,307,350	(8,304,530)	(74,696,433)	(48,044,590)	(27,068,392)	(5,139,639)	(8,243,870)	878,396,297

(Note 1) Included are the profits and losses classified as discontinued operations.

(Note 2) During the previous period, the bio-energy business division was sold to SK Eco Prime Co., Ltd.

(Note 3) During the previous period, the reagent business division was invested in kind for SK Chemicals Daejung Co., Ltd., a subsidiary.

(Note 4) They consist of the main account replacement for construction in progress, replacement with investment real estate properties and intangible assets, and the acquisition of tangible assets following the receipt of government subsidies, etc.

12-2 The borrowing costs capitalized during the current period are KRW 943,631,000 (previous period: KRW 1,341,009,000). The interest rate for capitalization used to calculate the borrowing costs available for capitalization is 2.85% (previous period: 2.74%).

12-3 Insured assets

As of the end of the current period, the Company has subscribed for all property risk insurance policy for the insured amount of KRW 2,093,904,057,000 (previous period: KRW 2,194,009,397,000) for the tangible assets.

12-4 Impairment of the PPS Business Division

The Company conducted an impairment test for the PPS Business Division considering the accumulated net loss during the current period and business uncertainties due to COVID-19.

Every year, the Company conducts impairment tests for the tangible and intangible assets and the cash-generating units if any signs of impairment are discovered. Any impairment of the individual assets, etc., is reflected when discovered, and thereafter, the independent cash-generating unit is assessed for the value in use, and impairment test is conducted. Among the independent cash-generating units, impairment tests were conducted due to the accumulated operating losses of the PPS Business Division and uncertainties due to COVID-19.

The Company defines, in principle, a business division whose cash inflows are considered to be almost independent from other business divisions and classified as of the lowest level of identifiable cash inflows as a cash-generating unit, and calculated the recoverable amount of the independent cash-generating unit using the fair market transaction value with a third party of no special interest.

As a result of the test conducted for the cash-generating unit, the impairment loss of tangible assets for KRW 103,421 million (previous period: KRW 48,445 million) was recognized for some of the exclusive facilities and the individual assets related to the PPS Business Division, and was reflected as losses from discontinued operations.

13. Lease

(1) Company as a lessee

13-1 The changes in lease liabilities for the current and previous periods are as follows.

<Current period>

(Unit: KRW one thousand)

Classification	Beginning of period	Acquired	Disposed	Depreciation (Note 1)	Split-off (Note 1)	End of period
Building	161,274	35,694	(16,042)	(78,253)	-	102,673
Structure	3,334,722	13,641	-	(108,005)	(3,240,358)	-
Mechanical equipment	2,942,525	2,221,498	(1,700,000)	(618,729)	(2,845,294)	-
Vehicles and transport equipment	992,230	917,801	(208,282)	(717,764)	(7,754)	976,231
Total	7,430,751	3,188,634	(1,924,324)	(1,522,751)	(6,093,406)	1,078,904

(Note 1) During the current period, SK Multi-Utility Co., Ltd. was established through a split-off.

<Previous period>

(Unit: KRW one thousand)

Classification	Beginning of period	Acquired	Disposed	Depreciation (Note 1)	Transfer of business (Note 2)	Investment in kind (Note 3)	End of period
Building	182,819	59,688	-	(81,233)	-	-	161,274
Structure	48,012,713	2,103,538	-	(822,795)	(45,958,734)	-	3,334,722
Mechanical equipment	3,714,536	-	-	(772,010)	-	-	2,942,526
Vehicles and transport equipment	1,722,074	605,700	(374,646)	(945,528)	(2,805)	(12,566)	992,229
Total	53,632,142	2,768,926	(374,646)	(2,621,566)	(45,961,539)	(12,566)	7,430,751

(Note 1) Included are the profits and losses classified as discontinued operations.

(Note 2) During the previous period, the bio-energy business division was sold to SK Eco Prime Co., Ltd.

(Note 3) During the previous period, the reagent business division was invested in kind for SK Chemicals Daejung Co., Ltd., a subsidiary.

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	621,544	615,347	1,834,344	1,786,785
2 years or less	415,579	403,824	1,512,762	1,396,619
5 years or less	78,478	75,047	2,486,573	1,976,129
Over 5 years	-	-	4,041,000	2,060,998
Total	1,115,601	1,094,218	9,874,679	7,220,531

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	7,220,531	53,851,216
Increase	3,188,634	2,768,926
Disposed	(2,352,489)	(396,142)
Interest expenses	276,560	1,021,015
Lease payments made	(1,705,202)	(5,844,135)
Split-off (Note 1)	(5,533,816)	-
Business transfer (Note 2)	-	(44,166,800)
Investment in kind (Note 3)	-	(13,549)
End of period	1,094,218	7,220,531

(Note 1) During the current period, SK Multi-Utility Co., Ltd. was established through a split-off.

(Note 2) During the previous period, the bio-energy business division was sold to SK Eco Prime Co., Ltd.

(Note 3) During the previous period, the reagent business division was invested in kind for SK Chemicals Daejung Co., Ltd., a subsidiary.

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	639,932	396,871
Lease of small amount	160,319	191,987
Variable lease payments	-	3,658,586
Depreciation and impairment losses		
Amortization of right-of-use assets	1,522,751	2,621,566
Net financial cost		
Lease liabilities' interest expenses	276,560	1,021,015

The Company had a cash outflow of KRW 2,505,453,000 in total during the current period (previous period: KRW 10,091,579,000) 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 apply 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 agreement for a portfolio of investment real estate properties consisting of specific offices and manufacturing properties. The terms of these leases run from 1 to 50 years. Included in all leases is a provision which allows for an increase in rental payment on an annual basis depending on the 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 2,948,303,000 (previous period: KRW 2,184,806,000).

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
1 year or less	3,760,575	2,428,588
Over 1 year and 5 years or less	3,010,397	2,163,165
Over 5 years	10,470,680	3,722,319
Total	17,241,652	8,314,072

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	Amortization (Note 1)	Transfer of business (Note 2)	Split-off	Replacements (Note 4)	End of period
Industrial property rights	6,272,314	112,457	(64,111)	(1,328,370)	(987,737)	-	1,477,517	5,482,070
Softwares	6,743,755	4,228,995	(754,848)	(3,501,052)	-	(72,658)	6,398,797	13,042,989
Memberships	5,799,179	1,257,326	-	-	-	-	-	7,056,505
Total	18,815,248	5,598,778	(818,959)	(4,829,422)	(987,737)	(72,658)	7,876,314	25,581,564

(Note 1) Included are the profits and losses classified as discontinued operations.

(Note 2) During the current period, the composite material business division and the PPS business division were transferred to Toray Advanced Materials Korea Inc. and HDC Polyol Co., Ltd., respectively.

(Note 3) During the current period, SK Multi-Utility Co., Ltd. was established through a split-off.

(Note 4) These are the main account replacements from the construction in progress.

<Previous period>

(Unit: KRW one thousand)

Classification	Beginning of period	Acquired	Disposed	Amortization (Note 1)	Transfer of business (Note 2)	Investment in kind (Note 3)	Replacements (Note 4)	End of period
Industrial property rights	3,868,886	43,278	(317,867)	(1,036,886)	(105,771)	-	3,820,674	6,272,314
Softwares	4,573,599	1,873,668	(90,050)	(1,848,586)	-	(65,626)	2,300,750	6,743,755
Memberships	9,166,908	-	(3,312,729)	(55,000)	-	-	-	5,799,179
Total	17,609,393	1,916,946	(3,720,646)	(2,940,472)	(105,771)	(65,626)	6,121,424	18,815,248

(Note 1) Included are the profits and losses classified as discontinued operations.

(Note 2) During the previous period, the bio-energy business division was sold to SK Eco Prime Co., Ltd.

(Note 3) During the previous period, the reagent business division was invested in kind for SK Chemicals (Daejung) Co., Ltd., a subsidiary.

(Note 4) These are the main account replacements 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	38,635,498	33,500,626
Government subsidies	-	(168,904)
R&D expenses recognized as expenses	38,635,498	33,331,722

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	Replacements (Note 1)	End of period
Land	16,521,136	-	276,270	16,797,406
Building	534,529	(37,448)	(82,210)	414,871
Total	17,055,665	(37,448)	194,060	17,212,277

(Note 1) These are the replacements of investment real estate properties and the tangible assets of buildings, etc., due to the execution of lease agreements for some land for Entis Co., Ltd., etc.

<Previous period>

(Unit: KRW one thousand)

Classification	Beginning of period	Depreciation	Replacements (Note 1)	End of period
Land	14,575,719	-	1,945,417	16,521,136
Building	528,347	(46,131)	52,313	534,529
Total	15,104,066	(46,131)	1,997,730	17,055,665

(Note 1) They have been replaced from tangible assets due to the execution of a lease agreement for SK D&D Co., Ltd.

15-2 During the current period, the rental income from investment real estate properties is KRW 2,948,303,000 (previous period: KRW 2,184,806,000), which includes the revenue from discontinued operations of KRW 221,390,000 (previous period: KRW 59,701,000). As of the end of the current period, the fair value of investment real estate properties is not significantly different from the book amount.

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	92,938,858	68,108,225
Accounts payable	201,457,693	85,569,039
Accrued expenses	39,300,337	33,332,559
Derivative financial liabilities	469,458	3,836,514
Total	334,166,346	190,846,337

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	-	106,636,903
Current portion of long-term liabilities		
Current portion of bonds payable	159,886,422	84,949,804
Current portion of long-term borrowings	-	1,003,200
Subtotal	159,886,422	85,953,004
Debenture	220,560,772	380,007,551
Long-term borrowings	-	9,375,000
Total	380,447,194	581,972,458

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
KDB, etc.	General borrowings from banks	-	-	75,000,000
Hana Bank, etc.	Trade receivable discounts	-	-	31,636,903
Total			-	106,636,903

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 9-1st public placement bonds	2021.04.30	-	-	75,000,000
The 9-2nd public placement bonds	2023.04.30	3.52	66,000,000	66,000,000
The 10-1st private placement bonds	2021.10.30	-	-	10,000,000
The 10-2nd private placement bonds	2022.10.30	3.10	20,000,000	20,000,000
The 11-1st public placement bonds	2022.01.28	2.37	70,000,000	70,000,000
The 11-2nd public placement bonds	2024.01.31	2.91	80,000,000	80,000,000
The 12-1st public placement bonds	2022.10.30	2.17	70,000,000	70,000,000
The 12-2nd public placement bonds	2024.10.30	2.77	75,000,000	75,000,000
Total			381,000,000	466,000,000
(Deducted: discount on bonds premium)			(552,806)	(1,042,645)
(Deducted: current portion of bonds)			(159,886,422)	(84,949,804)
Deductions			220,560,772	380,007,551

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	End of the previous period
Korea Development Bank	Energy facilities fund	-	-	378,200
Shinhan Bank	Other facilities fund	-	-	10,000,000
Subtotal			-	10,378,200
(Deducted: current portion of borrowings from financial institutions)			-	(1,003,200)
Deductions			-	9,375,000

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	311,863	5,411,083
Unearned revenue	210,833	183,333
Deposits	3,427,303	2,988,191
Deposits received	1,102,999	2,947,568
Dividends payable	2,876	884
Total	5,055,874	11,531,059
Other non-current liabilities		
Long-term deposits received	2,110,026	-
Total	2,110,026	-

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: 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	317,208	-	287,386	-	287,386	-	284,664	-	284,664	-	1,461,307	-
Allocated free of charge	530,173	-	530,173	-	530,173	-	525,208	-	525,208	-	2,640,935	-
Additionally allocated (Note 1)	139,200	-	124,800	-	124,800	-	123,600	-	123,600	-	636,000	-
Allocation cancelled (Note 1)	-	-	(367,587)	-	(367,587)	-	(364,144)	-	(364,144)	-	(1,463,462)	-
Changes due to spin-off and merger	(352,165)	-	-	-	-	-	-	-	-	-	(352,165)	-
Changes due to emission rights trading	1,300	45,025	-	-	-	-	-	-	-	-	1,300	45,025
Purchased	1,300	45,025	-	-	-	-	-	-	-	-	1,300	45,025
Sold	-	-	-	-	-	-	-	-	-	-	-	-
Carried over from previous period	38,220	-	-	-	-	-	-	-	-	-	38,220	-
Carried over to next period	-	-	-	-	-	-	-	-	-	-	-	-
End of period	356,728	45,025	287,386	-	287,386	-	284,664	-	284,664	-	1,500,827	45,025

(Note 1) They are the estimates resulting from a split-off and the sale of business division and may differ from the confirmed values of the future.

19-3 The changes in the emission rights assets for the current and previous periods are as follows.

(Unit: tons)

Classification	Current period	
	Quantity	Amount
Beginning of period	-	-
Emission rights purchased	1,300	45,025
Emission rights sold	-	-
End of period	1,300	45,025

19-4 The changes in emission rights liabilities for the current and previous periods are as follows.

(Unit: tons)

Classification	Current period	
	Quantity	Amount
Beginning of period	-	-
Emissions cost	11,156	390,454
Split-off	(11,156)	(390,454)
End of period	-	-

19-5 The confirmed value of the greenhouse gas emissions for the previous period is 497,684 tCO₂-eq, and the estimated greenhouse gas emissions for the current period is 332,469 tCO₂-eq after deduction of 333,974 tCO₂-eq, which was succeeded by SK Multi-Utility Co., Ltd., which was established via a split-off during the current period.

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: tons)

Classification	Current period	Previous period
Changes in the defined benefit liabilities (assets):		
Beginning of period	3,254,475	5,542,676
Decrease in plan assets (retirement benefits paid)	(7,224,525)	644,270
Total expenses recognized as profit or loss for the current period	11,271,394	11,396,737
Remeasurement elements	3,853,911	1,158,261
Contributions paid	(17,000,000)	(15,000,000)
Affiliates' transfers and other account replacements, etc.	(1,258,751)	(487,469)
End of period (Note 1)	(7,103,496)	3,254,475
Components in the statement of financial position:		
Present value of defined benefit liabilities	100,722,597	105,422,819
Fair value of plan assets	(107,826,093)	(102,168,344)
Total (Note 1)	(7,103,496)	3,254,475

(Note 1) The net defined benefit assets were appropriated as other non-current assets.

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	11,203,678	11,285,412
Interest expenses	1,904,358	1,845,359
Expected return on plan assets	(1,836,642)	(1,734,034)
Total	11,271,394	11,396,737

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	105,422,819	104,093,402
Current service cost	11,203,678	11,285,412
Interest expenses	1,904,358	1,845,359
Remeasurement elements	3,525,709	1,263,069
Retirement benefits paid	(11,107,939)	(7,097,233)
Affiliates' transfers	(4,115,078)	(2,495,916)
Business transfer (Notes 1, 3)	(1,826,878)	(2,942,709)
Split-off (Note 2)	(4,284,072)	-
Investment in kind (Note 4)	-	(528,565)
End of period	100,722,597	105,422,819

(Note 1) During the current period, the composite material business division and the PPS business division were transferred to Toray Advanced Materials Korea Inc. and HDC Polyol Co., Ltd., respectively.

(Note 2) During the current period, SK Multi-Utility Co., Ltd. was established through a split-off.

(Note 3) During the previous period, the bio-energy business division was sold to SK Eco Prime Co., Ltd.

(Note 4) During the previous period, the reagent business division was invested in kind for SK Chemicals (Daejung) Co., Ltd., a subsidiary.

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	102,168,344	98,550,726
Expected return	1,836,642	1,734,034
Remeasurement elements	(328,202)	104,808
Contributions paid	17,000,000	15,000,000
Affiliates' transfers	(2,856,327)	(2,008,447)
Retirement benefits paid	(3,883,416)	(7,741,503)
Business transfer (Notes 1, 3)	(1,826,878)	(2,942,709)
Split-off (Note 2)	(4,284,070)	-
Investment in kind (Note 4)	-	(528,565)
End of period	107,826,093	102,168,344

(Note 1) During the current period, the composite material business division and the PPS business division were transferred to Toray Advanced Materials Korea Inc. and HDC Polyol Co., Ltd., respectively.

(Note 2) During the current period, SK Multi-Utility Co., Ltd. was established through a split-off.

(Note 3) During the previous period, the bio-energy business division was sold to SK Eco Prime Co., Ltd.

(Note 4) During the previous period, the reagent business division was invested in kind for SK Chemicals (Daejung) Co., Ltd., a subsidiary.

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	Current period	Previous period
Discount rate	2.51%	1.87%
Expected return on plan assets	2.51%	1.87%
Future rate of wage growth	4.92%	4.42%

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	-	3,709,073
Financial assumptions	1,424,566	(4,769,500)
Changes adjusted	2,101,143	2,323,496
Remeasurement elements of plan assets	328,202	(104,808)
Total	3,853,911	1,158,261

20-7 The results of sensitivity analysis on the effect of changes in the major assumptions used for the actuarial valuation of the defined benefit liabilities on the changes in the present value of the defined benefit liabilities for the current and previous periods are as follows.

<End of the 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 liabilities	(8,150,989)	9,471,648	9,430,476	(8,269,243)

<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 liabilities	(8,406,646)	9,773,480	9,745,815	(8,540,826)

21. Contract liabilities

21-1 The details of the contract 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
Refund liabilities (Note 1)	2,974,758	978,603
Payment on goods received in advance (Note 2)	12,392,160	-
Other contract liabilities	108,513	-
Total	15,475,431	978,603

(Note 1) The Company appropriates the contract liabilities for the returned goods of expected returns based on past experience with returns for the products sold. All assumptions applied for the contract liability calculations above were calculated based on the current products' sales level 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.

21-2 The changes in contract assets and contract liabilities for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Beginning of period	978,603	701,169
Placements (reversal)	14,496,828	277,434
End of period	15,475,431	978,603

22. Provisioning liabilities

22-1 The details of the provisioning liabilities as of the end of the current period are as follows.

(Unit: KRW one thousand)

Classification	End of the current period
Provisioning liabilities for contribution (Note 1)	21,281,360
Provisioning liabilities for PFAD (Note 2)	1,156,619
Total	22,437,979

(Note 1) Since the possibility of paying a damages relief contribution in accordance with the Special Act on Remedy for Damage Caused by Humidifier Disinfectants has increased, the provisioning liabilities for contribution have been placed based on the best estimates possible.

(Note 2) The Company has executed an agreement to compensate SK Eco Prime Co., Ltd. in the event the price of PFAD differs from that of soybean oil or palm oil by more than a certain spread in connection with the transfer of the bio-energy business during the previous period, and accordingly, the provisioning liabilities have been placed.

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 (Dollars, Euros, Yens, etc.) based on the sales and purchases expected over the next 12 months. Furthermore, the Company executes foreign currency forward contracts to avoid such exposures.

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 hedging instruments:			
Current assets in derivative financial instruments	Currency forward contracts	1,825,609	159,003
Current liabilities in derivative financial instruments	Currency forward contracts	469,458	3,836,514
Non-current assets in derivative financial instruments	Put Option	368,001	-

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	153,129,963	880,980
	Sell	108,023,488	475,171
Total		261,153,451	1,356,151

<End of the previous period>

(Unit: KRW one thousand)

Contracting party	Buy/Sell	Contract amount	Fair value
Hana Bank, etc.	Buy	79,457,417	(3,755,773)
	Sell	26,009,777	78,262
Total		105,467,194	(3,677,511)

23-4 As of the end of the current period, the details of the non-current derivative financial instruments which are not designated as hedging instruments by the Company are as follows.

(Unit: KRW one thousand)

Classification	Type	Fair value
Non-current assets in derivative financial instruments (Note 1)	Put option for SK Chemicals Daejeong Co., Ltd.'s common stocks	368,001

(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.

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)	National Health Insurance Service	Company and 12 others	6,970,000	1st trial in progress
Claims for damages (Note 2)	Kang Chan-Ho and 299 others	Company and 19 others	11,200,000	1st trial in progress
Claims for damages (Note 2)	Aekyung Industrial Co., Ltd.	Company	710,000	1st trial in progress
Claims for the prohibition of patent infringements and for damages	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	113,000	3rd 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.

In addition to the litigation above, the Company has been indicted for violating the Special Act on Remedy for Damage Caused by Humidifier Disinfectants on the grounds that they submitted an opinion which was not true at the Ministry of Environment's requirement of data submission, and a related criminal trial is now in progress.

The results of the pending lawsuits as of the end of the current period cannot be predicted, and the uncertainties of such lawsuits are not reflected in the consolidated financial statements of the Company.

24-2 As of the end of the current period, no assets were provided as collateral in connection with the borrowings from financial institutions.

24-3 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.	An agreement on a limit of KRW 75,000 million and another on the foreign currency borrowings of USD 23.2 million
	An agreement on the opening of a letter of credit of USD 137.8 million and EUR 22 million, etc.
	An agreement on the limit with the exemption of security deposit for derivatives of KRW 41.5 million, etc.
Seoul Guarantee Insurance, etc.	A contractual performance payment guarantee with a limit of KRW 11,004 million, etc.

24-4 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 of the spin-off which occurred on or before December 1, 2017, the date of spin-off.

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 Bioscience Co., Ltd., the newly established company through the split-off which occurred on or before July 1, 2018, the date of split-off.

24-6 Fair Trade Commission's corrective actions

The Fair Trade Commission determined that the act of labeling the humidifier disinfectants before the Company's spin-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 issued by the Fair Trade Commission jointly with SK Discovery Co., Ltd., the surviving company of spin-off.

24-7 The Company purchased the Palm Fatty Acid Distillates (PFADs) from ST Green Energy, a joint venture, and executed a contract with SK Eco Prime to supply them for SK Eco Prime Co., Ltd. As part of the contract, a special agreement was executed to fix the weighted average spread between the PFADs and the soybean oil and palm oil, and the provisioning liabilities for the expected losses were placed.

24-8 As of the end of the current period, the Company has lost a bill of Shinhan Bank and plans to proceed with the nullification judgment procedures.

25. Related parties of special interest

25-1 As of the end of the current period, the details of the Company's related parties are as follows.

Classification	Name of Company
Companies exercising a significant influence	SK Discovery Co., Ltd.
Subsidiaries	SK Bioscience Co., Ltd., SK Multi-Utility Co., Ltd., SK Chemicals Daejung Co., Ltd., SK Environmental Materials (Yantai) Co., Ltd., SK Chemicals (Suzhou) Co., Ltd. (Note 1), SK Chemicals (Shanghai) Co., Ltd., SK Chemicals America, SK Chemicals GmbH, SK Chemicals Malaysia
Joint ventures and affiliates	JSI Co., Ltd., Entis Co., Ltd., HDC Polyol Co., Ltd. (Note 2), ST Green Energy
Others	Subsidiaries and affiliates of SK Discovery Co., Ltd., affiliates of SK corporate group, etc. (Note 4)

(Note 1) During the current period, we have 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 closing date for the transaction will be in 2023.

(Note 2) During the current period, 20% of shares-1 share of HDC Polyol Co., Ltd. were purchased for KRW 7,700 million and newly incorporated as an affiliate. Refer to Note 11 for important judgment concerning significant impact.

(Note 3) During the current period, 100% of the shares of SK Chemicals (Qingdao) Co., Ltd. were disposed of and therefore SK Chemicals (Qingdao) Co., Ltd. was excluded from the related parties as of the end of the current period.

(Note 4) The large-scaled corporate groups' affiliates designated by the Fair Trade Commission were determined to be related parties according to the substantive relationship provided under Paragraph 10 of the Korean International Financial Reporting Standards No. 1024.

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 (Note 1)	Other income and asset sales, etc. (Note 1)	Purchase (Note 1)	Other expenses and capital expenditures, etc. (Note 1)
Companies exercising a significant influence	SK Discovery Co., Ltd.	63,636	110,508	-	1,056,606
Subsidiaries	SK Bioscience Co., Ltd.	2,814,848	1,524,604	-	226,950
	SK Multi-Utility Co., Ltd.	12,537	389	-	6,625,737
	SK Chemicals Daejung Co., Ltd.	1,095,504	2,743,014	-	4,106
	SK Chemicals (Qingdao) Co., Ltd. (Note 2)	15,636	5,214,889	2,644,995	-
	SK Chemicals (Suzhou) Co., Ltd.	18,329,881	75,352	124,222	-
	SK Chemicals (Shanghai) Co., Ltd.	2,645,977	40,634	-	2,878,172
	SK Chemicals America	66,750,356	393,409	-	21,173
	SK Chemicals GmbH	99,068,835	456,017	-	376,606
Affiliates and joint ventures	Entis Co., Ltd.	1,236,536	3,779,346	3,492,735	538
	JSI Co., Ltd.	64,060	109,716	93,510	-
	ST Green Energy	-	589,952	-	213,882,734
Others	SK Gas Co., Ltd.	541,806	-	6,211,366	3,454,732
	SK Plasma Co., Ltd.	1,274,484	1,236,564	-	1,648
	SK Advanced Co., Ltd.	3,448,646	847,238	7,140,954	274,293
	Huvis Co., Ltd.	12,481,991	135	22,414,559	17,450
	SK Eco Plant Co., Ltd. (Notes 3, 4)	-	-	-	1,249,469
	SK Networks Co., Ltd.	8,666,193	-	11,202,280	437,929
	SK NETWORKS HONGKONG	-	-	24,191,033	-
	SKC Co., Ltd.	2,177,803	4,529	298,425	-
	SK Energy Co., Ltd.	14,661,175	-	265,271	1,284,145
	SK Geo Centric Co., Ltd. (Note 5)	-	-	35,024,637	-
	SK Co., Ltd.	-	-	-	5,899,445
	SK Hynix Co., Ltd.	914,819	-	-	-
	Happy Narae Co., Ltd.	-	-	2,081,802	8,694,783
	Others	6,000	-	389,640	7,189,580
Total		236,270,723	17,126,296	115,575,429	253,576,096

(Note 1) Included are the amounts of transactions conducted with related parties classified as the profit or loss from discontinued operations.

(Note 2) During the current period, 100% of the shares of SK Chemicals (Qingdao) Co., Ltd. were disposed of and therefore SK Chemicals (Qingdao) Co., Ltd. was excluded from the related parties as of the end of the current period.

(Note 3) The corporate name was changed from SK E&C Co., Ltd. to SK Eco Plant Co., Ltd. during the current period.

(Note 4) The Company has acquired the tangible assets of KRW 1,161,199,000 from SK Eco Plant Co., Ltd. during the current period.

(Note 5) The corporate name was changed from SK Chemicals Co., Ltd. to SK Geo Centric Co., Ltd. during the current period.

<Previous period>

(Unit: KRW one thousand)

Classification	Name of related parties	Sales (Note 1)	Other income and asset sales, etc. (Note 1)	Purchase (Note 1)	Other expenses and capital expenditures, etc. (Note 1)
Companies exercising a significant influence	SK Discovery Co., Ltd.	63,636	70,500	-	247,397
Subsidiaries	SK Chemicals (Qingdao) Co., Ltd.	64,027	2,988,605	1,885,970	3,379
	SK Chemicals (Suzhou) Co., Ltd.	19,722,274	68,642	-	-
	SK Bioscience Co., Ltd.	4,988,022	1,947,974	-	218,133
	SK Chemicals Daejung Co., Ltd.	26,548	13,097,545	-	-
	SK Chemicals (Shanghai) Co., Ltd.	160,526	-	-	2,103,540
	SK Chemicals America	54,905,618	6,598	-	82,197
	SK Chemicals GmbH	76,819,603	35,850	-	-
Joint ventures	Entis Co., Ltd.	1,126,016	2,107,965	1,011,341	716
	JSI Co., Ltd. (Note 2)	84,000	115,842	131,289	-
	ST Green Energy	-	732,590	67,899,861	96,452,407
Others	SK Gas Co., Ltd.	260,450	-	5,477,198	419,492
	SK Plasma Co., Ltd.	1,275,079	737,815	-	1,476
	SK Advanced Co., Ltd.	3,800,806	641,550	6,801,326	266,933
	Huvis Co., Ltd.	6,528,398	-	13,208,780	37,202
	SK E&C Co., Ltd. (Note 3)	-	-	-	11,062,810
	SK Networks Co., Ltd.	1,693,994	-	8,859,453	204,474
	SK NETWORKS HONGKONG	-	-	15,992,056	32,330
	SK Incheon Petrochem Co., Ltd.	2,943,128	-	-	-
	SKC Co., Ltd.	2,334,459	50,281	51,272	878
	SK Energy Co., Ltd.	54,046,317	-	28,453	1,068,214
	SK Petrochem Co., Ltd.	-	-	46,072,041	-
	SK Co., Ltd.	-	-	-	7,834,383
	SK Hynix Co., Ltd.	1,465,091	-	-	-
	Happy Narae Co., Ltd.	-	-	1,745,068	8,212,652
	Others	189,333	197,525	180,201	6,083,089
Total		232,497,325	22,799,282	169,344,309	134,331,702

(Note 1) Included are the amounts of transactions conducted with related parties replaced by the profit or loss from discontinued operations.

(Note 2) Included are the details of the transactions conducted before its reclassification as an affiliate.

(Note 3) The Company has acquired the tangible assets of KRW 11,062,810,000 from SK E&C 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	Name of related parties	Receivables		Payables	
		Trade receivables	Other receivables	Trade payables	Other payables
Companies exercising a significant influence	SK Discovery Co., Ltd.	35,000	10,130	-	217,306
Subsidiaries	SK Bioscience Co., Ltd.	305,824	84,107	-	49
	SK Multi-Utility Co., Ltd.	13,790	1,265,829	-	7,266,116
	SK Chemicals Daejung Co., Ltd.	231,552	3,357	-	-
	SK Environmental Materials (Yantai) Co., Ltd.	-	2,245,127	-	-
	SK Chemicals (Suzhou) Co., Ltd.	5,724,424	86,423	-	-
	SK Chemicals (Shanghai) Co., Ltd.	-	3,056	-	-
	SK Chemicals America	29,908,030	2,164	-	-
	SK Chemicals GmbH	45,271,199	57,983	-	-
Affiliates and joint ventures	Entis Co., Ltd.	113,963	508,511	240,062	-
	JSI Co., Ltd. (Note 1)	15,488	3,750,000	-	-
	HDC Polyol Co., Ltd.	-	1,161,028	-	-
	ST Green Energy	-	22,002	-	104,850,770
Others	SK Gas Co., Ltd.	25,488	-	880,110	-
	SK Plasma Co., Ltd.	87,777	5,476	-	-
	SK Advanced Co., Ltd.	-	42,327	486,469	-
	Huvis Co., Ltd.	-	-	3,423,392	-
	SK Eco Plant Co., Ltd. (Note 2)	-	131,541	-	-
	SK Networks Co., Ltd.	-	-	1,393,244	26,800
	SK NETWORKS HONGKONG	-	968,739	13,714,225	325,133
	SKC Co., Ltd.	357,808	-	15,802	-
	SK Energy Co., Ltd.	-	-	-	36,294
	SK Geo Centric Co., Ltd. (Note 3)	-	-	3,362,407	-
	SK Co., Ltd.	-	-	-	669,723
	SK Hynix Co., Ltd.	-	-	-	-
	Happy Narae Co., Ltd.	-	-	167,714	838,642
	Others	-	-	138,996	570,569
Total		82,090,343	10,347,800	23,822,421	114,801,402

(Note 1) The Company has placed an allowance for bad debts for the loan of KRW 3,750 million for JSI Co., Ltd. in full.

(Note 2) The corporate name was changed from SK E&C Co., Ltd. to SK Eco Plant Co., Ltd. during the current period.

(Note 3) The corporate name was changed from SK Chemicals Co., Ltd. to SK Geo Centric Co., Ltd. during the current period.

<End of the current period>

(Unit: KRW one thousand)

Classification	Name of related parties	Receivables		Payables	
		Trade receivables	Other receivables	Trade payables	Other payables
Companies exercising a significant influence	SK Discovery Co., Ltd.	35,000	-	-	198,443
Subsidiaries	SK Chemicals (Qingdao) Co., Ltd.	64,027	69,264	194,343	33,687
	SK Chemicals (Suzhou) Co., Ltd.	5,280,028	71,036	-	-
	SK Bioscience Co., Ltd.	323,982	25,215	-	-
	SK Chemicals Daejung Co., Ltd.	29,203	1,421,320	-	300,408
	SK Chemicals (Shanghai) Co., Ltd.	160,526	-	-	-
	SK Chemicals America	18,515,922	5,549	-	-
	SK Chemicals GmbH	31,675,948	18,115	-	-
Affiliates and joint ventures	JSI Co., Ltd. (Note 1)	60,544	4,050,000	31,833	-
	Entis Co., Ltd.	135,809	324,898	133,056	7,059
	ST Green Energy	-	11,750	-	76,971,937
Others	SK Gas Co., Ltd.	23,875	-	442,194	1,613
	SK Plasma Co., Ltd.	114,907	64,086	-	-
	SK Advanced Co., Ltd.	343,549	39,844	499,592	3,178,359
	Huvis Co., Ltd.	367,360	-	3,853,602	-
	SK Networks Co., Ltd.	-	-	662,953	-
	SK NETWORKS HONGKONG	-	275,451	8,728,819	-
	SKC Co., Ltd.	486,268	-	28,200	-
	SK Energy Co., Ltd.	1,502,422	-	-	86,759
	SK Petrochem Co., Ltd.	-	-	2,444,263	-
	SK Co., Ltd.	-	-	-	536,815
	SK Hynix Co., Ltd.	115,292	-	-	-
	Happy Narae Co., Ltd.	-	-	132,361	906,884
	Others	-	-	-	573,449
Total		59,234,662	6,376,528	17,151,216	82,795,413

(Note 1) The Company has placed an allowance for bad debts for the loan of KRW 4,050 million for JSI Co., Ltd. in full.

25-4 The details of major 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	SK Environmental Materials (Yantai) Co., Ltd.	9,138,400
Affiliates and joint ventures	HDC Polyol Co., Ltd.	7,699,750
	ST Green Energy	385,515

<Previous period>

(Unit: KRW one thousand)

Classification	Name of related parties	Investments
Subsidiaries	SK Chemicals Daejung Co., Ltd.	12,281,042
	SK Environmental Materials (Yantai) Co., Ltd.	11,271,784
	SK Chemicals Malaysia	372,924

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)	4,050,000	(300,000)	3,750,000

(Note 1) The Company has placed an allowance for bad debts for the loan of KRW 3,750 million for JSI Co., Ltd. in full.

<Previous period>

(Unit: KRW one thousand)

Classification	Target companies	Beginning of period (Note 1)	Loaned	Recovered	End of period
SK Chemicals Co., Ltd.	JSI Co., Ltd. (Note 1)	4,050,000	-	-	4,050,000
	SK Chemicals Daejung Co., Ltd.	-	800,000	(800,000)	-

(Note 1) The Company has placed an allowance for bad debts for the loan of KRW 4,050 million for JSI Co., Ltd. in full.

25-5 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: KRW one thousand) USD

Recipient companies	Amount of payment guaranteed		Details of the payment guarantee	Payment guarantor
	Currency	Amount		
ST Green Energy	USD	7,200,000	Trade facility	Hana Bank Singapore Branch
	USD	4,000,000		Development Bank of Singapore

<End of the previous period>

(Unit: KRW one thousand) USD

Recipient companies	Amount of payment guaranteed		Details of the payment guarantee	Payment guarantor
	Currency	Amount		
ST Green Energy	USD	5,000,000	Trade facility	Hongkong & Shanghai Banking Corp.
	USD	4,000,000		Development Bank of Singapore
SK Chemicals America	USD	3,000,000	Borrowings	Shinhan Bank America

25-6 The details of the compensation made for the key senior management of the Company for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Short-term benefits	2,859,392	2,209,564
Retirement benefits	371,836	414,502
Share-based compensation	93,252	295,435
Total	3,324,480	2,919,501

The key senior management of the consolidated companies 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	Shares	17,620,780	2,115,429	11,741,396	1,458,670
Capital	KRW one thousand	88,103,900	10,577,145	58,706,980	7,293,350

(Note 1) The Company increased its capital by KRW 32,630,715,000 by executing a capital increase without consideration by using the capital surplus as the financial resource.

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 (Note 1)	235,917,593	268,290,410
Gains from merger	32,942,217	32,942,217
Losses from merger	(112,885,429)	(112,885,429)
Total	155,974,381	188,347,198

(Note 1) During the current period, the Company executed a capital increase without consideration by using the capital surplus as the financial resource.

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 (Note 1)	(8,921,443)	(5,753,700)
Stock options (Note 2)	1,831,164	1,891,764
Other capital adjustments	(5,255,111)	(5,255,111)
Total	(12,345,390)	(9,117,047)

(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 the treasury stocks of 30,857 common stocks and 148,133 preferred stocks, and the acquisition price of KRW 8,921,443,000 was deducted from equity for recognition.

(Note 2) There were no new stock options granted anew during the current period, and they were increased by KRW 125,937,000 due to the recognition of share-based compensation cost for the current period and were decreased by KRW 186,538,000 due to their exercises.

(2) As of the end of the current period, the details of stock options are as follows.

(Unit: shares, 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	2021.3.27 - 2025.3.26	72,009	16,226
2018.3.26 (2nd)	44,984	2022.3.27 - 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 during the current 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 entered.

(Note 2) As of December 31, 2021, the weighted average residual maturity of the unexercised stock options is 3.54 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) KRW)

Classification	2018.3.6 Granted portion	2018.3.26 Granted portion (1st)	2018.3.26 Granted portion (2nd)	2019.3.25 Granted portion (1st)	2019.3.25 Granted portion (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 during the current 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 entered.

- (4) The changes in stock options for the year are as follows.

(Unit: KRW one thousand)

Date of grant	Number of stocks to be issued			Valuation amount			
	Beginning of period	Exercise (Note 3)	End of period	Beginning of period	Increase	Exercise	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 2)	44,984	-	44,984	582,779	34,281	-	617,060
2019.3.6 (Note 2)	10,000	(10,000)	-	170,993	15,545	(186,538)	-
2019.3.25 (1st) (Note 1)	22,491	-	22,491	189,353	17,214	-	206,567
2019.3.25 (2nd) (Note 2)	22,492	-	22,492	107,978	58,897	-	166,875
Total	152,446	(10,000)	142,446	1,891,764	125,937	(186,538)	1,831,163

(Note 1) Following the capital increase without consideration during the current period, the number of shares to be issued has been adjusted.

(Note 2) This is the number of shares before adjustment following the capital increase without consideration.

(Note 3) The weighted average market price as of the date of exercise for the exercised stock options is KRW 366,604.

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)	3,744,031	1,129,006
Unappropriated retained earnings	909,530,048	638,713,834
Total	913,274,079	639,842,840

(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	909,530,048	638,713,834
Unappropriated retained earnings carried over from previous period	609,948,559	423,849,171
Net income	302,502,753	215,742,625
Remeasurement factors of defined benefit liabilities	(2,921,264)	(877,962)
II. Amount of retained earnings disposed of	(64,647,024)	(28,765,275)
Payment of dividends	(58,770,022)	(26,150,250)
Accumulation of legal reserves	(5,877,002)	(2,615,025)
III. Unappropriated retained earnings carried forward	844,883,024	609,948,559

The expected date of disposal of the retained earnings above for the current period is March 28, 2022, and the confirmed date of disposal of the retained earnings for the previous period was March 31, 2021.

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	17,589,923 shares	1,967,296 shares	11,728,768 shares	1,313,519 shares
Dividend per share	KRW 3,000	KRW 3,050	KRW 2,000	KRW 2,050
Dividend rate (%)	60%	61%	40%	41%
Amount of cash dividend	52,769,769	6,000,253	23,457,536	2,692,714

The Company decided to pay dividends of KRW 26,150,250,000 for the fiscal period ending on December 31, 2020, and paid them in April 2021.

27. Sales division

The Company has 2 reporting divisions, which are strategic operating units. They operate separately they provide different products and services and require different technologies and marketing strategies. 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, information communication materials, highly functional PETG resin, polyester adhesive, and carbon fiber composite materials, 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	785,349,622	300,178,151	7,828,908	1,093,356,681
Operating income	68,920,324	44,696,882	(31,324,229)	82,292,977
Depreciation (Note 1)	46,717,391	7,225,889	5,067,486	59,010,766

(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.

<Previous period>

(Unit: KRW one thousand)

Classification	Green Chemicals Biz.	Life Science Biz.	Others	Total
Sales amount	645,405,289	252,281,690	7,587,714	905,274,693
Operating income	59,195,259	40,419,215	(1,919,193)	97,695,281
Depreciation (Note 1)	42,936,062	7,035,899	4,573,332	54,545,293

(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.

27-3 As of the end of the reporting period, the assets held by reporting divisions are as follows, and most of the liabilities are not managed according to each division, and for this reason, the liabilities of each reporting division are not disclosed.

<End of the current period>

(Unit: KRW one thousand)

Classification	Green Chemicals Biz.	Life Science Biz.	Others	Total
Total assets	909,116,095	198,483,893	879,549,930	1,987,149,918
Fixed assets (Note 1)	508,579,358	80,732,706	118,045,410	707,357,474

(Note 1) Included are the tangible assets, intangible assets, right-of-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	1,045,638,247	175,114,810	523,831,759	1,744,584,816
Fixed assets (Note 1)	722,364,936	82,453,052	116,879,973	921,697,961

(Note 1) Included are the tangible assets, intangible assets, right-of-use assets, and the investment real estate properties.

28. Revenue 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	687,720,132	198,375,604	-	886,095,736
Sales of goods	9,807,462	96,811,046	-	106,618,508
Sales of services	50,684,888	1,369,208	5,101,995	57,156,091
Other sales	37,137,140	3,622,293	2,726,913	43,486,346
Total	785,349,622	300,178,151	7,828,908	1,093,356,681
Geographic markets:				
Korea	212,695,006	267,061,704	7,828,908	487,585,618
China	157,849,193	8,054,814	-	165,904,007
Japan	75,546,462	-	-	75,546,462
Asia (excluding China and Japan)	106,078,139	200,304	-	106,278,443
Americas	78,513,946	3,899,997	-	82,413,943
Europe	114,516,282	20,873,805	-	135,390,087
Others	40,150,594	87,527	-	40,238,121
Total	785,349,622	300,178,151	7,828,908	1,093,356,681
Point of revenue recognition:				
Recognized at a point in time	734,499,382	297,094,189	2,726,913	1,034,320,484
Recognized over time	50,850,240	3,083,962	5,101,995	59,036,197
Total	785,349,622	300,178,151	7,828,908	1,093,356,681

<Previous period>

(Unit: KRW one thousand)

Classification	Green Chemicals Biz	Life Science Biz.	Others	Total
Types of goods or services:				
Sales of products	575,536,603	187,489,407	-	763,026,010
Sales of goods	13,423,462	60,749,133	-	74,172,595
Sales of services	21,358,338	1,163,261	5,449,341	27,970,940
Other sales	35,086,886	2,879,889	2,138,373	40,105,148
Total	645,405,289	252,281,690	7,587,714	905,274,693
Geographic markets:				
Korea	199,522,044	216,639,234	7,587,714	423,748,992
China	118,604,674	7,525,501	-	126,130,175
Japan	63,365,311	-	-	63,365,311
Asia (excluding China and Japan)	70,243,763	389,631	-	70,633,394
Americas	67,755,584	78,572	-	67,834,156
Europe	90,400,578	27,602,155	-	118,002,733
Others	35,513,335	46,597	-	35,559,932
Total	645,405,289	252,281,690	7,587,714	905,274,693
Point of revenue recognition:				
Recognized at a point in time	624,046,951	251,118,429	2,138,373	877,303,753
Recognized over time	21,358,338	1,163,261	5,449,341	27,970,940
Total	645,405,289	252,281,690	7,587,714	905,274,693

Meanwhile, there was no major customer who accounted for over 10% of sales for the current and previous periods.

29. Operating income

29-1 The details of the cost of goods sold and the selling, general and administrative expenses for the current and previous periods is as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Changes in inventories	(40,750,406)	31,367,467
Use of raw materials	456,557,331	292,667,839
Cost of merchandise sold	96,330,985	66,371,778
Depreciation (Note 1)	59,010,766	54,545,293
Labor cost	173,585,182	160,304,109
Logistics cost	78,035,766	48,483,933
Fees and expenses	40,028,715	33,105,454
Marketing cost	15,497,409	13,047,939
Other expenses	132,767,955	107,685,600
Total	1,011,063,703	807,579,412

(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.

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
Payroll	58,591,415	55,435,924
Retirement benefits	9,574,776	6,237,141
Welfare benefits	11,881,604	8,229,712
Travel expenses	3,777,570	3,324,736
Communication expenses	479,561	477,163
Utilities expenses	479,751	550,554
Taxes and public dues	1,172,294	784,699
Rents	185,328	119,292
Share based compensation expenses	125,937	541,781
Depreciation	2,116,414	2,371,158
Repairs and maintenance	369,719	376,720
Insurance premiums	948,609	989,954
Entertainment expenses	865,433	884,738
Consumables expenses for office	603,300	353,619
Vehicle maintenance cost	520,045	564,193
Education and training expenses	2,053,197	2,338,988
Books	106,168	107,591
Commissions and fees	17,343,910	11,993,960
R&D expenses	38,635,498	33,331,722
Advertising expenses	14,572,334	12,334,529
Sales commissions	9,388,864	8,366,219
Promotions	139,791	115,206
Samples expenses	780,470	585,179
Packaging cost	4,192,196	3,478,657
Reversal of bad debt expenses	(208,425)	(1,551,021)
Meetings and conferences	308,115	349,820
Amortization of intangible assets	2,985,966	1,928,437
Miscellaneous expenses and others	1,017	57,240
Total	181,990,857	154,677,911

30. Non-operating profits and losses

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	533,777	2,319
Gain on disposal of right-of-use assets	428,165	21,497
Gain on disposal of intangible assets	19,495	-
Gain on disposal of stocks invested in subsidiaries	467,495,829	39
Gains from sales of business divisions	4,081,176	3,213,527
Other reversals of allowance for bad debts	211,971	634,337
Miscellaneous gains	16,022,089	7,390,001
Total	488,792,502	11,261,720
Other expenses:		
Losses on disposal of inventories	-	76,975
Losses on disposal of tangible assets	1,859,717	4,526,809
Losses on discard of tangible assets	1,198,619	-
Losses on disposal of intangible assets	102,675	570,115
Losses on disposal of subsidiaries' investment shares	213,632	-
Contributions	1,879,329	3,528,897
Miscellaneous loss	36,108,720	12,529,128
Total	41,362,692	21,231,924

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	656,946	302,163
Gain on valuation of financial assets measured at fair value through profit or loss	2,484,854	208,942
Gain on transaction of financial assets measured at fair value through profit or loss	3,408,499	1,711,977
Dividend income	8,952,750	5,873,600
Gain on foreign currency transactions	16,092,870	20,844,188
Gain on foreign exchange translation	795,905	6,424,567
Derivatives valuation gain	2,193,610	159,003
Derivatives transaction profit	8,812,505	5,017,284
Total	43,397,939	40,541,724
Financial cost:		
Interest expenses	7,312,589	14,916,722
Losses on foreign currency transactions	18,070,198	21,951,780
Losses on foreign exchange translation	1,914,944	2,935,339
Losses on valuation of financial assets measured at fair value through profit or loss	789,476	1,383,994
Derivatives valuation loss	469,457	3,836,514
Derivatives transaction loss	3,678,800	4,408,629
Total	32,235,464	49,432,978

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	105,146,313	77,229,026
Adjustments recognized for the current period for the current income tax for the previous periods	(2,076,149)	(1,954,832)
Changes in the deferred income tax due to temporary differences	(139,063)	5,700,453
Income tax expense directly reflected in equity	932,646	280,299
Income tax expense	103,863,747	81,254,946
Income tax expense on continuing operations	136,417,287	28,087,245
Income tax expense (revenue) from discontinued operations	(32,553,540)	53,167,701

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	932,646	280,299
Total	932,646	280,299

31-3 The relationship between the net profit 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 profit from continuing operations before income tax	540,885,263	78,833,823
Net income (loss) before income tax from continuing operations	(134,518,762)	218,163,748
Net profit before income tax expense	406,366,501	296,997,571
Corporate tax according to applicable tax rate (Note 1)	101,388,788	71,411,412
Adjustments:		
Non-taxable income	(867,243)	(1,169,222)
Non-deductible expenses	849,303	630,263
Deferred tax effect due to tax credits	(3,191,131)	(3,625,283)
Non-recognition effect of deferred tax among temporary differences	6,006,687	15,510,028
Adjustments recognized for the current period for the current income tax for the previous periods	(2,076,149)	(1,954,833)
Others	1,753,492	452,581
Income tax expense	103,863,747	81,254,946
Income tax expense on continuing operations	136,417,287	28,087,245
Income tax expense (revenue) from discontinued operations	(32,553,540)	53,167,701
Effective tax rate (income tax expense/net profit before income tax expense)	25.56%	27.36%

(Note 1) Considered for the applicable tax rate are the corporate tax rate (10% for KRW 200 million or less; 20% for KRW 200 million to KRW 20 billion; 22% for KRW 20 billion to KRW 300 billion; 25% for over KRW 300 billion) and the local income tax rate for corporate tax (10% of 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 net profit or loss	Directly reflected in equity	End of the current period
Government subsidies	3,451,248	(904,985)	-	2,546,263
Accrued interest	(72,408)	(79,531)	-	(151,939)
Accrued expenses	6,227,341	(68,779)	-	6,158,562
Inventories	3,791,592	(2,741,279)	-	1,050,313
Tangible assets	(14,115,769)	2,098,074	-	(12,017,695)
Intangible assets	532,812	-	-	532,812
Securities	634,743	(55,159)	-	579,584
Right-of-use assets	(330,594)	69,500	-	(261,094)
Financial lease liabilities	345,686	(80,885)	-	264,801
Advanced depreciation provision	(3,154,481)	(2,987,038)	-	(6,141,519)
Derivatives	-	(89,056)	-	(89,056)
Retirement benefits	-	(932,646)	932,646	-
Allowance for bad debts	2,335,647	(606,894)	-	1,728,753
Provisioning liabilities	-	5,429,991	-	5,429,991
Contract liabilities	236,822	485,107	-	721,929
Stock options	457,807	(14,665)	-	443,142
Tax credits carried forward	71,327	(42,382)	-	28,945
Others	651,366	(272,956)	-	378,410
Total	1,063,139	(793,583)	932,646	1,202,202

<Previous period>

(Unit: KRW one thousand)

Classification	Beginning of period	Reflected in the net profit or loss	Directly reflected in equity	End of period
Government subsidies	3,343,662	107,586	-	3,451,248
Accrued interest	(34,428)	(37,980)	-	(72,408)
Accrued expenses	5,453,233	774,108	-	6,227,341
Inventories	7,242,879	(3,451,287)	-	3,791,592
Tangible assets	(13,838,072)	(277,697)	-	(14,115,769)
Intangible assets	532,812	-	-	532,812
Securities	265,350	369,393	-	634,743
Right-of-use assets	(11,244,824)	10,914,230	-	(330,594)
Financial lease liabilities	11,399,223	(11,053,537)	-	345,686
Advanced depreciation provision	(2,731,218)	(423,263)	-	(3,154,481)
Retirement benefits	-	(280,299)	280,299	-
Allowance for bad debts	3,234,885	(899,238)	-	2,335,647
Contract liabilities	169,683	67,139	-	236,822
Stock options	410,215	47,592	-	457,807
Contributions carried forward	2,003,778	(2,003,778)	-	-
Tax credits carried forward	-	71,327	-	71,327
Others	556,414	94,952	-	651,366
Total	6,763,592	(5,980,752)	280,299	1,063,139

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 the temporary differences to be deducted that are not recognized as the deferred income tax assets in the statement of financial position, unused tax losses, and the unused tax credits, etc., is KRW 54,689,781,000 (previous period: KRW 48,683,094,000).

32. Earnings (losses) per share

32-1 The calculation details of the basic earnings (losses) per share for the current and previous periods are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Net income	302,502,753	215,742,625
Deducted: preferred share dividends	(6,008,027)	(2,792,565)
Deducted: Portion reverted for preferred shares among the profits available for additional dividends	(24,526,874)	(19,717,719)
Continuing operating income reverted for common stock ownership	271,967,852	193,232,341
Continuing operating income reverted for common stock ownership	363,640,612	45,451,752
Gain (loss) on discontinued operations reverted for common stock ownership	(91,672,760)	147,780,589
Continuing operating income reverted for common stock ownership	30,534,901	22,510,284
Continuing operating income reverted for preferred stock ownership	40,827,362	5,294,827
Gain (loss) on discontinued operations reverted for preferred stock ownership	(10,292,461)	17,215,457
Weighted average number of common shares outstanding	17,601,765	17,593,634
Weighted average number of preferred shares outstanding	1,969,845	2,043,340
Basic earnings per common share	15,451	10,983
Basic earnings per common share on continuing operations	20,659	2,583
Basic earnings (losses) per common share on discontinued operations	(5,208)	8,400
Basic earnings per preferred share (Note 1)	15,501	11,016
Basic earnings per preferred share on continuing operations	20,726	2,591
Basic earnings (losses) per preferred share on discontinued operations	(5,225)	8,425
Diluted earnings per common share	15,356	10,928
Diluted earnings per common share on continuing operations	20,531	2,580
Diluted earnings per common share on discontinued operations	-	8,363

(Note 1) As the preferred stocks issued in accordance with the old Commercial Act before its amendment in 1997, these preferred stocks 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: shares)

Classification	Initial date	Date of settlement	Number of days	Number of shares	Weighted average number of common shares outstanding
Outstanding shares at beginning of period	2021.1.1	2021.12.31	365	17,593,152	17,593,152
Exercise of stock option	2021.4.2	2021.12.31	274	15,000	11,260
Stock repurchase	2021.11.9	2021.12.31	53	(18,229)	(2,647)
Weighted average number of common shares outstanding				17,589,923	17,601,765

<Previous period>

(Unit: shares)

Classification	Initial date	Date of settlement	Number of days	Number of shares	Weighted average number of common shares outstanding
Outstanding shares at beginning of period	2020.1.1	2020.12.31	366	17,612,094	17,612,094
Treasury stocks	2020.1.1	2020.12.31	366	(17,520)	(17,520)
Additional stock repurchase	2020.5.4	2020.12.31	242	(1,422)	(940)
Weighted average number of common shares outstanding				17,593,152	17,593,634

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: shares)

Classification	Initial date	Date of settlement	Number of days	Number of shares	Weighted average number of preferred shares outstanding
Outstanding shares at beginning of period	2021.1.1	2021.12.31	365	1,970,278	1,970,278
Stock repurchase	2021.11.9	2021.12.31	53	(2,982)	(433)
Weighted average number of preferred shares outstanding				1,967,296	1,969,845

<Previous period>

(Unit: shares)

Classification	Initial date	Date of settlement	Number of days	Number of shares	Weighted average number of preferred shares outstanding
Outstanding shares at beginning of period	2020.1.1	2020.12.31	366	2,188,005	2,188,005
Treasury stocks	2020.1.1	2020.12.31	366	(2,076)	(2,076)
Additional stock repurchase	2020.5.4	2020.12.31	242	(215,651)	(142,589)
Weighted average number of preferred shares outstanding				1,970,278	2,043,340

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 will 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 calculating the number of stocks to be acquired at fair value based on the monetary value of the exercise of the right added to the stock options, and by comparing this number of stocks with the number of stocks to be issued if the stock options are assumed to have been exercised.

(Unit: share)

Classification	Current period	Previous period
Net income for common shares	363,640,612	45,451,751
Adjustments: stock options	80,629	115,539
Net income for common shares for calculation of diluted earnings per share	363,721,241	45,567,290
Weighted average number of common shares outstanding	17,601,765	17,593,634
Adjustments: stock options	114,250	64,877
Weighted average number of common shares outstanding for calculation of diluted earnings per share	17,716,015	17,658,511
Diluted earnings per share (KRW/share)	20,531	2,580

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)	67,579,318	77,364,130
Losses on disposal of inventories	-	76,976
Amortization of intangible assets	4,829,422	2,940,471
Retirement benefits	11,271,394	11,396,737
Gain on disposal of right-of-use assets	(428,165)	(21,497)
Gain on disposal of tangible assets	(533,780)	(3,166)
Losses on disposal of tangible assets	1,860,736	9,129,110
Losses on discard of tangible assets	1,198,619	-
Impairment losses on tangible assets	103,421,162	48,044,590
Gain on disposal of intangible assets	(19,495)	-
Losses on disposal of intangible assets	102,675	570,115
Interest income	(656,946)	(302,163)
Dividend income	(8,952,750)	(5,873,600)
Gain on transaction of financial assets measured at fair value through profit or loss	(3,408,499)	(1,711,977)
Gain on valuation of financial assets measured at fair value through profit or loss	(2,484,854)	(208,942)
Losses on valuation of financial assets measured at fair value through profit or loss	789,476	1,383,994
Gain on disposal of stocks invested in subsidiaries	(467,495,829)	(39)
Losses on disposal of subsidiaries' investment shares	213,632	-
Derivatives valuation gain	(2,193,610)	(159,003)
Derivatives valuation loss	469,458	3,836,514
Interest expenses	11,609,244	21,306,266
Income tax expense	103,863,747	81,254,946
Share based compensation expenses	125,937	561,603
Reversal of losses on valuation of inventories	(5,516,450)	(14,191,022)
Reversal of bad debt expenses	(119,030)	(1,479,242)
Other reversals of bad debt expenses	(207,222)	(634,402)
Gain on foreign exchange translation	(795,905)	(6,424,567)
Losses on foreign exchange translation	1,914,944	2,935,339
Transfer of contract liabilities	-	277,436
Gains from sales of business divisions	(4,347,143)	(322,407,830)
Others	718,426	-
Total	(187,191,488)	(92,339,223)

(Note 1) This is the depreciation for the tangible assets, investment real estate properties, and the right-of-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	(47,291,575)	(26,690,606)
Other receivables	(109,920,796)	(61,289,603)
Inventories	(52,979,670)	48,482,453
Other current assets	(3,882,716)	1,129,060
Other non-current assets	-	(228,923)
Long-term accounts receivable	-	883,548
Trade payables	33,046,606	27,415,267
Other payables	117,997,334	53,356,160
Other current liabilities	(6,346,666)	2,761,716
Contributions for plan asset paid	(17,000,000)	(15,000,000)
Affiliates' transfers	-	(487,469)
Retirement benefits paid	(125,594)	3,521
Settlement of derivatives transactions	(3,677,511)	(1,055,856)
Provisioning liabilities	22,437,979	-
Contract liabilities	14,496,828	-
Total	(53,245,781)	29,279,268

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 replacements for construction in progress and machineries in transit	62,241,499	39,787,486
Other account replacements for tangible assets	276,270	2,008,755
Other account replacements for investment real estate properties	82,210	-
Acquisition of accounts payable for construction in progress	2,828,518	(524,963)
Replacement of current portion for long-term liabilities	161,068,010	99,573,040
Increase in right-of-use assets and lease liabilities	3,188,634	2,768,926
Write-off of trade and other receivables	95,709	2,673,108
Deposits received for sale of SK Chemicals (Suzhou) Co., Ltd.	2,110,026	-
Accrued retirement benefits	8,357,682	(151,848)
Accounts payable for affiliates' investment shares	385,515	-

33-4 Changes in liabilities due to financing activities for the current and previous periods are as follows.

<End of the current period>

(Unit: KRW one thousand)

Classification	Beginning of period	Cash flows from financing activities	Split-off (Note 1)	Others (Note 2)	End of the current period
Short-term borrowings	106,636,903	(106,636,903)	-	-	-
Current portion of long-term borrowings	1,003,200	(1,003,200)	-	-	-
Long-term borrowings	9,375,000	(9,375,000)	-	-	-
Current portion of bonds payable	84,949,804	(85,000,000)	-	159,936,618	159,886,422
Debenture	380,007,551	-	-	(159,446,779)	220,560,772
Current portion of lease liabilities	1,786,785	(1,428,642)	(810,805)	1,068,009	615,347
Lease liabilities	5,433,745	-	(4,723,010)	(231,864)	478,871
Total	589,192,988	(203,443,745)	(5,533,815)	1,325,984	381,541,412

(Note 1) During the current period, SK Multi-Utility Co., Ltd. was established through a split-off.

(Note 2) Included are the account reclassification effect for bonds and long-term borrowings, replacement 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 Company classifies the payment of interests as the cash flows from operating activities.

<Previous period>

(Unit: KRW one thousand)

Classification	Beginning of period	Cash flows from financing activities	Par value of exchange	Business transfer (Note 1)	Investment in kind (Note 2)	Others (Note 3)	End of period
Short-term borrowings	190,139,271	(81,478,170)	(2,024,198)	-	-	-	106,636,903
Current portion of long-term borrowings	95,651,400	(104,401,400)	-	-	-	9,753,200	1,003,200
Long-term borrowings	49,753,200	(30,625,000)	-	-	-	(9,753,200)	9,375,000
Current portion of bonds (net amount)	145,920,582	(146,000,000)	-	-	-	85,029,222	84,949,804
Debenture (net amount)	464,407,698	-	-	-	-	(84,400,147)	380,007,551
Current portion of lease liabilities	10,519,842	(4,823,119)	-	(8,724,390)	(5,388)	4,819,840	1,786,785
Lease liabilities	43,331,374	-	-	(35,442,411)	(8,161)	(2,447,057)	5,433,745
Total	999,723,367	(367,327,689)	(2,024,198)	(44,166,801)	(13,549)	3,001,858	589,192,988

(Note 1) During the current period, the bio-energy business division was sold to SK Eco Prime Co., Ltd.

(Note 2) During the previous period, the reagent business division was invested in kind for SK Chemicals Daejung Co., Ltd., a subsidiary.

(Note 3) Included are the account reclassification effect for bonds and long-term borrowings, replacement 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 Company classified the payment of interests as the 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 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 trade derivatives.

The Company is exposed to market risk, credit risk, and liquidity risk. 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 where the fair value or future cash flows of financial instruments will fluctuate due to changes in the market prices. Market risk consists of three types of risk, which are interest rate risk, foreign exchange 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 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 for 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 where the fair value of financial instruments or future cash flows will fluctuate due to the fluctuations of 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	-	75,000,000
Long-term borrowings	-	10,378,200
Total	-	85,378,200

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	-	-	(750,000)	750,000
Long-term borrowings	-	-	(103,782)	103,782
Total	-	-	(853,782)	853,782

(2) Foreign exchange risk

Foreign exchange risk is one which the fair value or future cash flows will fluctuate due to the 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	79,737,732	148,494,232	50,320,485	81,255,790
CNY	23,888,008	986,456	7,184,382	891,791
EUR	54,314,167	1,597,976	35,959,950	20,202,025
GBP	297,848	-	1,562	-
JPY	4,911,900	16,436	1,776,607	48,882
Total	163,149,655	151,095,099	95,242,986	102,398,488

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 years ended December 31, 2016 and 2015 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	(3,437,825)	3,437,825	(1,546,765)	1,546,765
CNY	1,145,078	(1,145,078)	314,630	(314,630)
EUR	2,635,810	(2,635,810)	787,896	(787,896)
GBP	14,892	(14,892)	78	(78)
JPY	244,773	(244,773)	86,386	(86,386)
Total	602,728	(602,728)	(357,775)	357,775

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 risk

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, and 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 the liquidity strategies and plans, and match 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.

<End of the current period>

(Unit: KRW one thousand)

Classification	Less than 1 year	2 year or less	5 year or less	Over 5 years	Total
Trade and other payables	334,166,346	-	-	-	334,166,346
Current portion of long-term liabilities	160,000,000	-	-	-	160,000,000
Current portion of lease liabilities	621,544	-	-	-	621,544
Other current liabilities (Note 1)	1,102,999	-	-	-	1,102,999
Debenture	-	66,000,000	155,000,000	-	221,000,000
Lease liabilities	-	415,579	78,478	-	494,057
Other non-current liabilities (Note 1)	-	2,110,026	-	-	2,110,026
Total	495,890,889	68,525,605	155,078,478	-	719,494,972

(Note 1) These are deposits taken.

<Previous period>

(Unit: KRW one thousand)

Classification	Less than 1 year	2 year or less	5 year or less	Over 5 years	Total
Trade and other payables	190,846,337	-	-	-	190,846,337
Short-term borrowings	106,636,903	-	-	-	106,636,903
Current portion of long-term liabilities	86,003,200	-	-	-	86,003,200
Current portion of lease liabilities	1,834,344	-	-	-	1,834,344
Other current liabilities (Note 1)	2,947,568	-	-	-	2,947,568
Debenture	-	160,000,000	221,000,000	-	381,000,000
Long-term borrowings	-	1,875,000	7,500,000	-	9,375,000
Lease liabilities	-	1,512,762	2,486,573	4,041,000	8,040,335
Total	388,268,352	163,387,762	230,986,573	4,041,000	786,683,687

(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	831,565,803	859,511,495
(Adjustments: cash and cash equivalents)	(102,201,909)	(36,666,182)
Adjusted liabilities	729,363,894	822,845,313
Equity capital	1,155,584,115	885,073,321
Debt-to-equity ratio	63.12%	92.97%

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, and 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				
Short-term financial assets	-	214,551,624	-	214,551,624
Trade and other receivables (Note 1)	-	1,825,609	-	1,825,609
Long-term investment assets	-	-	34,581,491	34,581,491
Other non-current assets	-	-	368,001	368,001
Total	-	216,377,233	34,949,492	251,326,725
Financial liabilities				
Trade and other payables (Note 1)	-	469,458	-	469,458
Total	-	469,458	-	469,458

(Note 1) 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	-	145,208,942	-	145,208,942
Trade and other receivables (Note 1)	-	159,003	-	159,003
Long-term investment assets	-	-	24,492,063	24,492,063
Total	-	145,367,945	24,492,063	169,860,008
Financial liabilities				
Trade and other payables (Note 1)	-	3,836,514	-	3,836,514
Total	-	3,836,514	-	3,836,514

(Note 1) 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 for SK Chemicals Daejung Co., Ltd.	368,001	Level 3	Discounted cash flow method	Liquidation cash flow, weighted average cost of capital
Long-term investment assets	Eastman Fiber Korea Co., Ltd.'s preferred stocks	23,506,094	Level 3	Expected price considering the value of call options and put options	Exchange rate

<End of the current period>

(Unit: KRW one thousand)

Categories of financial instruments	Type	Fair value	Level	Valuation techniques	Input variables
Long-term investment assets	Eastman Fiber Korea Co., Ltd.'s preferred stocks	21,572,864	Level 3	Expected price considering the value of call options and put options Expected price	Exchange rate

36. Business transfer and discontinued operations

36-1 The Company sold the bio-energy business division to SK Eco Prime Co., Ltd. for the purpose of reorganizing the portfolio and securing investment resources for future growth engines in line with the resolution of the board of directors on February 5, 2020. Furthermore, in line with the resolution of the board of directors on October 27, 2021, the Company sold the PPS business division to HDC Polyol Co., Ltd., and the two business transfers were classified as discontinued operations. Meanwhile, the comparatively presented statements of comprehensive income for the previous period have been reprepared to demonstrate the discontinued operations separated from the continuing operations.

36-2 The details of profit or loss from discontinued operations for the reporting period appropriated in the statement of comprehensive income in connection with the PPS business division are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Sales amount	32,439,088	15,858,921
Cost of sales	(49,582,985)	(53,765,526)
Gross profit	(17,143,897)	(37,906,605)
Selling, general and administrative expenses	(9,783,508)	(11,389,485)
Operating income	(26,927,405)	(49,296,090)
Other income	310,183	142,847
Other expenses	(103,870,851)	(52,647,069)
Financial cost	(4,296,656)	(5,310,925)
Income tax expense	32,617,904	25,920,919
Total profit and loss from discontinued operating activities	(102,166,825)	(81,190,317)
Gain on disposal of discontinued operations before tax	265,968	-
Relevant income tax expense	(64,364)	-
Gain on disposal of discontinued operations	201,602	-
Profit and loss from discontinued operations	(101,965,221)	(81,190,317)

36-3 The net cash flows from discontinued operations related to the PPS business division are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Cash flows from operating activities	15,760,818	6,901,604
Cash flows from investment activities	37,904,391	(1,224,844)
Cash flows from financing activities	-	-
Net cash flows	53,665,209	5,676,760

36-4 The details of profit or loss from discontinued operations for the reporting period appropriated in the statement of comprehensive income in connection with the bio-energy business division are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Sales amount	-	161,714,128
Cost of sales	-	(138,905,635)
Gross profit	-	22,808,493
Selling, general and administrative expenses	-	(7,179,203)
Operating income	-	15,629,290
Other income	-	158,082
Other expenses	-	(8,628,073)
Financial cost	-	(1,078,618)
Income tax expense	-	(1,672,187)
Total profit and loss from discontinued operating activities	-	4,408,494
Gain on disposal of discontinued operations before tax	-	319,194,304
Relevant income tax expenses	-	(77,416,434)
Gain on disposal of discontinued operations	-	241,777,870
Profit and loss from discontinued operations	-	246,186,364

36-5 The net cash flows from discontinued operations related to the bio-energy business division are as follows.

(Unit: KRW one thousand)

Classification	Current period	Previous period
Cash flows from operating activities	-	4,504,108
Cash flows from investment activities	-	374,396,501
Cash flows from financing activities	-	(3,103,373)
Net cash flows	-	375,797,236

36-6 The Company sold its composite materials related operations in their entirety to Toray Advanced Materials Korea Inc. during the current period. The calculation details of the profit from sales of the business division are as follows.

(Unit: KRW one thousand)

Classification	Consideration for transfer (Note 1)	Transferred business			Profit from sales of business division
		Assets	Liabilities	Net assets	
Composite materials business division	33,711,343	34,228,663	4,598,496	29,630,167	4,081,176

(Note 1) The incidental expenses incurred during the transfer are taken into account.

(Note 2) This is the reclassification of other comprehensive income.

37. Split-off

37-1 In line with the split-off plan approved by the extraordinary meeting of shareholders on October 25, 2021, the Company has executed the division as follows on December 1, 2021, the date of split-off (December 2 being the date of split-off registration).

Classification	Name of Company	Details of major business
Surviving company	SK Chemicals Co., Ltd.	All business divisions excluding the businesses subject to division
Divided and newly established company	SK Multi-Utility Co., Ltd.	Utility supply division

37-2 General information related to division

① Explanation of the division method

As provided under Articles 530-2 through 530-2 of the Commercial Act, the utility supply business division was divided in the manner of a split-off where the company to be divided acquires the total number of issued shares of the company to be established.

② The assets transferred to the divided and newly established company and their values

The details of the assets and liabilities transferred to the divided and newly established company via division for the current period are as follows.

(Unit: KRW one thousand)

Classification	SK Multi-Utility Co., Ltd. (divided and newly established company)
Assets	
Current assets	66,052,315
Cash and cash equivalents	57,000,000
Trade and other receivables	4,318,349
Inventories	1,360,246
Other current assets	3,373,720
Non-current assets	111,753,923
Tangible assets	105,587,859
Right-of-use assets	6,093,406
Intangible assets	72,658
Total Assets	177,806,238
Liabilities	
Current liabilities	13,071,574
Trade and other payables	11,870,315
Lease liabilities	810,805
Other current liabilities	390,454
Non-current liabilities	4,723,010
Lease liabilities	4,723,010
Total Liabilities	17,794,584
Consideration for transfer	160,011,654

The values of the assets and liabilities transferred to the divided and newly established company via division are consistent with the list of succession targets attached to the spin-off plan approved by the regular meeting of shareholders dated October 25, 2021, yet the changes made in the assets incurred for the relevant business division which is transferred following the division were added or subtracted until the date of spin-off.

38. Post reporting period events for which amendments are not required

In March 2022, the Company received a mediation proposal from the 'Mediation Committee for Damage Recovery of Humidifier Disinfectants.' The Company is reviewing the mediation proposal, and nothing has been confirmed to date.

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.

Furthermore, since the corporate division executed in 2017, the dividend has incrementally expanded following the increases in profits, and the mid-term dividend policy was announced during the current period to enhance the predictability of the investors' return for the shareholders by specifying the return to shareholders.

(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 implementation planned from 2022

The above dividend policy is subject to change depending on the business management environment and other conditions, and 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 (Initial Date of Dividend for New Shares)

In the event the Company issues new stocks through a paid-in capital increase, a capital increase without consideration, or a stock dividend, they shall be deemed to have been issued at the end of the business year immediately preceding the business year in which the new stocks are issued with respect to dividends of profit on the new stocks.

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 1/2 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 Dividends Payment)

- 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.

※ The Company plans to change some of the details of the Articles of Incorporation related to dividends through the approval of the 5th general meeting of shareholders scheduled to be held on March 28, 2022. For more details, please refer to 'I. Overview of the Company -5. Matters Concerning the Articles of Incorporation.'

On March 28, 2022, the Company proposed a cash dividend at the 5th regular meeting of shareholders as follows, and in the event of a rejection or amendment at the regular meeting of shareholders, the details and reasons will be reflected in the correction report.

- KRW 3,000 per share (common share) / KRW 3,050 (preferred share)
- Total amount of dividends: KRW 58,770,021,800

B. Major indicators of dividend

Classification	Type of Stock	Current period	Previous period	Period before the previous period
		The 5th Period	The 4th Period	The 3rd Period
Par value per share (KRW)		5,000	5,000	5,000
(Consolidated) Net income (KRW millions)		168,140	254,321	10,597
(Separate) Net income (KRW one millions)		302,503	215,743	27,097
(Consolidated) Earnings per share (KRW)		8,586	12,947	802
Total amount of cash dividends (KRW one million)		58,770	26,150	6,007
Total amount of stock dividends (KRW one million)		-	-	-
(Consolidated) Cash dividend payout ratio (%)		35.0	10.3	56.7
Cash dividend yield (%)	Common stocks	2.0	0.5	0.7
	Preferred stocks	3.3	1.2	1.8
Stock dividend yield (%)	Common stocks	-	-	-
	Preferred stocks	-	-	-
Cash dividend per share (KRW)	Common stocks	3,000	2,000	450
	Preferred stocks	3,050	2,050	500
Stock dividend per share (KRW)	Common stocks	-	-	-
	Preferred stocks	-	-	-

- ※ The cash dividends for the current period of the table above are made before the approval of the regular meeting of shareholders, and in the event of a rejection or amendment at the regular meeting of shareholders in the future, the relevant details and reasons will be reflected in the correction report.
- ※ The '(Consolidated) net income' above has been prepared based on the ownership interest of the parent company.
- ※ Following the sale of the PPS business, the sales and profits and losses of the 5th and 4th periods' discontinued businesses were excluded, and following the sale of the bio-energy business, the sales and profits and losses of the 4th and 3rd periods' discontinued businesses were excluded.
- ※ The '(Consolidated) Earnings per share' above is the earnings per share for common stocks, and for the current period, KRW 14,007 of the basic earnings per share for common shares from continuing operations, and KRW -5,421 of the basic earnings per share for common shares from discontinued operations were combined and entered.

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
-	4	1.1	0.8

- ※ The settlement of dividends for 2021 (5th term) is made before the approval of the regular meeting of shareholders, and in the event of a rejection or amendment 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 2.1%, and the average dividend yield for the last 5 years is 1.6%.
- ※ 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 (reduction)

[SK Chemicals]

(Reference date: December 31, 2021)

(Unit: KRW, stocks)

Date of stock issuance (decrease)	Form of issuance (decrease)	Details of the shares issued (decreased)				
		Type	Quantity	Par value per share	Issuance (decrease) price per share	Note
2021.10.22	Capital increase without consideration	Common stocks	5,869,384	5,000	5,000	-
2021.10.22	Capital increase without consideration	Preferred stocks	656,759	5,000	5,000	-
2021.04.02	Exercise of stock option	Common stocks	10,000	5,000	72,824	-
2019.05.24	Paid-in capital increase (through third-party allotment)	Common stocks	161,544	5,000	69,600	New shares issued for the purpose of maintaining a continuous PPS business cooperation with Teijin

[SK Bioscience]

(Reference date: December 31, 2021)

(Unit: KRW one million, stocks)

Date of stock issuance (decrease)	Form of issuance (decrease)	Details of the shares issued (decreased)				
		Type	Quantity	Par value per share	Issuance (decrease) price per share	Note
2018.12.11	Paid-in capital increase (through third-party allotment)	Common stocks	40,000	5,000	274,621	Employee shares ownership association
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 division	Common stocks	55,080,000	500	500	Stock split (1/10)
2021.03.13	Capital increase (by public offering)	Common stocks	15,300,000	500	65,000	Newly listed

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: December 31, 2021)

(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
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-

B. Outstanding balance of commercial papers and securities

(Reference date: December 31, 2021)

(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	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-

C. Outstanding balance of short-term bonds

(Reference date: December 31, 2021)

(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 [SK Chemicals]

(Reference date: December 31, 2021)

(Unit: KRW one million)

Residual maturity		1 year or less	Over 1 year 2 year 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	140,000	66,000	155,000	-	-	-	-	361,000
	Private placement	20,000	-	-	-	-	-	-	20,000
	Total	160,000	66,000	155,000	-	-	-	-	381,000

[SK Bioscience]

(Reference date: December 31, 2021)

(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 year 4 years or less	Over 4 year 5 years or less	Over 5 year 10 years or less	Over 10 year	Total
Outstanding balance	Public offering	48,000	-	-	-	-	-	-	48,000
	Private placement	-	35,565	-	-	-	-	-	35,565
	Total	48,000	35,565	-	-	-	-	-	83,565

※ The privately placed corporate bonds are the foreign currency denominated bonds, and as for the exchange rate for the KRW conversion, the initial basic exchange rate of December 31, 2021 was applied.

E. Outstanding balance of hybrid securities

(Reference date: December 31, 2021)

(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: December 31, 2021)

(Unit: KRW one million)

Residual maturity		1 year or less	Over 1 years 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: December 31, 2021)

(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 9-2nd public placement bonds	2018.04.30	2023.04.30	66,000	2018.04.18	Korea Securities Finance
The 11-1st public placement bonds	2019.01.31	2022.01.28	70,000	2019.01.21	Korea Securities Finance
The 11-2nd public placement bonds	2019.01.31	2024.01.31	80,000	2019.01.21	Korea Securities Finance
The 12-1st public placement bonds	2019.10.30	2022.10.30	70,000	2019.10.18	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: June 30, 2021)

Status of financial ratio maintenance	Details of agreements	400% or less of debt-to-equity ratio (on a consolidated basis)
	Status of performance	Performed (52.23% of debt-to-equity ratio as of June 30, 2021)
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 (1.43% of total equity combining payment guarantees and secured assets as of June 30, 2021)
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) (Note 1)
	Status of performance	Performed (KRW 34.4 billion of asset disposal, 0.93% of total assets, January 1, 2021-June 30, 2021)
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 (September 2021)

※ 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 details above are the performance status of debt securities transferred to SK Chemicals. (Note 1) In the case of The 9-1st and The 9-2nd, the details of the asset disposal restriction contract have been changed.

[SK Bioscience]

(Reference date: December 31, 2021)

(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 2-2nd public placement bonds	2017.07.26	2022.07.26	48,000	2017.06.30	DB Financial Investment Co., Ltd.

(Reference date for performance status: June 30, 2021)

Status of financial ratio maintenance	Details of agreements	400% or less of debt-to-equity ratio (on a consolidated basis)
	Status of performance	Performed (33.36% of debt-to-equity ratio as of June 30, 2021)
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 (1.64% of equity combining payment guarantees and secured assets)
Status of restrictions on asset disposal	Details of agreements	KRW 2 trillion or less of asset disposal (on a consolidated basis) 70% of total assets for asset disposal (on a consolidated basis)
	Status of performance	Performed (KRW 25 million of asset disposal / 0.001% of total assets)
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 (September 13, 2021)

- ※ 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 corporate bonds above are the corporate bonds transferred from SK Chemicals Co., Ltd. at the time of division and new establishment on July 1, 2018.

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: December 31, 2021)

(Unit: KRW one million)

Classification	Session	Date of payment	Plans for use of funds such as securities declarations		History of the actual funds used Details		Reason for difference, etc.
			Purpose of use	Amount raised	Details	Amount	
Public placement bonds	The 9-2nd	4/30/2018-12/31/2019	For repayment of debt	66,000	For repayment of debt	66,000	-
Public placement bonds	The 11-1st	January 31, 2019	For repayment of debt	30,000	For repayment of debt	30,000	-
Public placement bonds	The 11-1st	January 31, 2019	Operating capital	40,000	Operating capital	40,000	-
Public placement bonds	The 11-2nd	January 31, 2019	Operating capital	80,000	Operating capital	80,000	-
Public placement bonds	The 12-1st	October 30, 2019	For repayment of debt	46,000	For repayment of debt	46,000	-
Public placement bonds	The 12-1st	October 30, 2019	Operating capital	24,000	Operating capital	24,000	-
Public placement bonds	The 12-2nd	October 30, 2019	Operating capital	75,000	Operating capital	75,000	-

※ The history of the use of public placement bonds above are the details of the bonds issued after the division 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: December 31, 2021)

(Unit: KRW one million)

Classification	Session	Date of payment	Plans for use of funds such as securities declarations		History of the actual funds used Details		Reason for difference, etc.
			Plan for the use of funds Purpose of use	Amount raised	Details	Amount	
Newly listed on the securities market	-	2021.03.12	Facility funds	393,400	Facility funds	34,387	-
Newly listed on the securities market	-	2021.03.12	Operating capital	223,567	Operating capital	46,267	-

Newly listed on the securities market	-	2021.03.12	Others	368,196	Others	-	-
Total	-	-	-	985,163	-	80,654	-

※ 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.

B. History of the use of privately placed funds

(Reference date: December 31, 2021)

(Unit: KRW one million)

Classification	Session	Date of payment	Plan of use of funds for the report on key matters		History of the actual funds used Details		Reason for difference, etc.
			Purpose of use	Amount raised	Details	Amount	
Paid-in capital increase through 3rd party allocation	-	2019.05.23	-	11,243	Operating capital	11,243	-

※ As for the paid-in capital increase above, no securities declaration was submitted in line with the resale restrictions.

※ All funds raised were used for the repayment of general loans.

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 reprepared the consolidated and separate financial statements for the comparative period.

2) Merger, spin-off, asset transfer, and business transfer

For the information such mergers, refer to "XI. Other Matters Required for Investor Protection - 4. Major Matters which Occurred after the Date of Preparation - B. Post-merger information, etc."

3) Matters concerning the accounting of asset sales related to asset securitization and 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 other 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 other 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 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	2.02%
The 4th Period	Trade receivables	152,717,476	5,735,033	3.76%
	Accounts receivable	78,804,538	109,347	0.14%
	Short-term loans	11,260,343	4,050,000	35.97%
	Accrued revenue	17,270	-	-
	Derivative financial assets	287,361	-	-
	Total	243,086,988	9,894,380	4.07%
The 3rd Period	Trade receivables	177,741,253	9,600,493	5.40%
	Accounts receivable	3,448,098	527,597	15.30%
	Short-term loans	10,535	-	-
	Accrued revenue	165,548	-	-
	Derivative financial assets	89,656	-	-
	Long-term accounts receivable	883,548	-	-
	Total	182,338,638	10,128,090	5.55%

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 5th Period	The 4th Period	The 3rd Period
Beginning of period	9,894,380	10,128,090	9,712,159
Placement (reversal) (Note 1)	(214,347)	2,918,720	748,510
Removal and exchange rate fluctuations, etc.	28,829	(2,822,349)	(332,579)
Business transfer (Note 2)	(958,780)	(106,242)	-
Change in the scope of consolidation	-	(223,839)	-
End of period	8,750,082	9,894,380	10,128,090

(Note 1) KRW 94,144,000 set for bad debt provisions (previous period: KRW 71,714,000 set for bad debt provisions) arising from the discontinued division was reclassified as profit or loss from discontinued operations.

(Note 2) During the current period, the composite material business division and the PPS business division were sold to Toray Advanced Materials Korea Inc. and HDC Polyol Co., Ltd., respectively.

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		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: December 31, 2021)

(Unit: KRW one million)

Classification	The 5th Period	The 4th Period	The 3rd Period
Unmatured	329,933,375	198,722,371	162,628,978
Within 90 days	40,867,330	37,272,957	9,174,598
Within 180 days	250,000	2,614,060	208,643
Over 180 days	4,564,488	4,477,600	10,326,419
Subtotal	375,615,193	243,086,988	182,338,638
(Deducted: bad debt provisions)	(8,750,082)	(9,894,380)	(10,128,090)
Deductions	366,865,111	233,192,608	172,210,548

C. Status of inventories, etc. (based on the consolidated financial statements)

1) Status of the inventories held by business division

(Reference date: December 31, 2021)

(Unit: KRW one thousand)

Business Division	The 5th Period	The 4th Period	The 3rd Period
Green Chemicals Biz.	162,536,782	140,550,558	252,169,382
Life Science Biz.	183,888,464	112,350,735	77,081,750
Others	2,873,980	29,017	1,354,955
Total	349,299,226	252,930,310	330,606,087
Inventory composition ratio to total assets (%) [Inventory assets ÷ Total assets at the end of the year × 100]	8.83	11.93	15.51
Inventory turnover (number of times) [Annualized cost of sales ÷ {(Stock at beginning of period + Stock at end of period) ÷ 2}]	4.01	2.96	3.34

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	19,738,982	(1,089,881)	18,649,101
Products	113,932,193	(2,380,003)	111,552,190
Processed products	28,932,174	(1,542,724)	27,389,450
Half finished products	73,216,391	(2,385,624)	70,830,767
Goods in process	12,519,681	-	12,519,681
Raw materials	71,938,574	(3,052,841)	68,885,733
Stored goods	32,683,672	(855,723)	31,827,949
Goods to arrive	7,055,291	-	7,055,291
Other inventories	589,064	-	589,064
Total (Note 1)	360,606,022	(11,306,796)	349,299,226

(Note 1) Included are KRW 36,960,182,000 for the amount of contract assets related to the CMOs and CDMOs.

<End of the previous period>

(Unit: KRW one thousand)

Classification	Acquisition cost	Assessment allowance	Book amount
Goods	10,888,307	(183,423)	10,704,884
Products	103,529,541	(13,327,078)	90,202,463
Processed products	22,070,735	(1,908,652)	20,162,083
Half finished products (Note 1)	35,530,817	(1,237,171)	34,293,646
Goods in process	10,125,679	-	10,125,679
Raw materials	63,997,986	(380,746)	63,617,240
Stored goods	18,454,093	(87,493)	18,366,600
Goods to arrive	4,633,956	-	4,633,956
Other inventories	823,759	-	823,759
Total (Note 1)	270,054,873	(17,124,563)	252,930,310

(Note 1) Included are KRW 15,662,393,000 for the amount of contract assets related to the CMOs and CDMOs.

2) Details of the due diligence of inventories (including the 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: 2022.01.07	3 persons	1 person	Due diligence of inventories
Cheongju Plant: 2022.01.04	1 person	1 person	Due diligence of inventories
Cheonan Outsourced Warehouse: 2021.12.31	2 persons	1 person	Due diligence of inventories

(3) Method of due diligence

- Performed on 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.

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: December 31, 2021)

(Unit: KRW one million)

Account title	Acquisition cost	Amount held	Assessment allowance	Balance at end of the current period	Note
Goods	18,157	18,157	(439)	17,719	
Products	114,686	114,686	(3,900)	110,787	
Work in progress	6,971	6,971	0	6,971	
Raw materials	32,216	32,216	(2)	32,214	
Stored goods	1,507	1,507	(0)	1,507	
Scraps	443	443	0	443	
Goods to arrive	7,030	7,030	0	7,030	
Total	181,011	181,011	(4,340)	176,670	

[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: 2022.01.05	2 persons	3 persons	Due diligence of inventories
Hwasung Logistics Warehouse: 2022.01.05	1 person	2 persons	Due diligence of inventories

(3) Method of due diligence

- Performed on 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: December 31, 2021)

(Unit: KRW one million)

Classification	Acquisition cost	Assessment allowance	Book amount
Goods	1,088	(647)	441
Products	5,081	(88)	4,993
Half finished products	62,423	(2,313)	60,110
Goods in process	5,549	-	5,549
Raw materials	36,848	(3,049)	33,799
Stored goods	30,985	(856)	30,129
Goods to arrive	25	-	25
Total (Note 1)	141,999	(6,953)	135,046

(Note 1) Included are KRW 36,960 million of contract assets related to the CMOs and CDMOs.

D. Details of the fair value assessment (based on the consolidated financial statements)

The Group classifies the fair value measurements according to the fair value hierarchy reflective of the significance of the inputs used for the fair value measurement, and the levels of the fair value hierarchy are as follows.

Level 1: Quoted (unadjusted) prices in the active markets for the same assets or liabilities

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)	-	2,277,046	-	2,277,046
Short-term financial assets	-	1,794,156,437	-	1,794,156,437
Long-term investment assets	-	-	35,081,486	35,081,486
Other non-current assets (Note 1)	-	1,639,873	368,001	2,007,874
Total	-	1,798,073,356	35,449,487	1,833,522,843
Financial liabilities				
Trade and other payables (Note 1)	-	1,364,347	-	1,364,347
Total	-	1,364,347	-	1,364,347

(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 (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	-	339,928,470	-	339,928,470
Trade and other receivables (Note 1)	-	287,361	-	287,361
Long-term investment assets	-	-	24,492,063	24,492,063
Total	-	340,215,831	24,492,063	364,707,894
Financial liabilities				
Trade and other payables (Note 1)	-	3,911,928	-	3,911,928
Derivatives designated for hedging	-	3,617,387	-	3,617,387
Total	-	7,529,315	-	7,529,315

(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 (refer to Note 35-3).

As for the financial instruments which are repeatedly recognized at fair value, the Group re-evaluate the classification at the end of each reporting period (based on the lowest level among all of the significant inputs for the measurement in entirety) to determine whether there is any movement between the levels.

There is no change in the Group' valuation process, valuation technique, and the types of inputs used to measure the fair value for the current period.

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 the various assumptions related to the future business environment, and these assumptions may turn out 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 spin-off from SK Discovery Co., Ltd. (formerly, SK Chemicals Co., Ltd.) on December 1, 2017, the date of spin-off. After the spin-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.

In 2021, notwithstanding the difficult business environment caused by COVID-19 and the aggravating adverse conditions such as the rising raw material prices and global logistics costs, the Company has been able to achieve the business management performance results beyond the Company's business goals as well as the previous year's performance thanks to the support of our shareholders and the efforts of all of the executives and employees. In 2021, the Company posted the sales of KRW 2089.6 billion, operating profit of KRW 555.2 billion, and the net income of KRW 268.7 billion, up 74%, 257%, and 5% each year on year, thereby achieving solid results where the profitability has improved along with the external growth. Furthermore, based on the separate financial statements, the sales were posted at KRW 1093.4 billion, operating profit at KRW 82.3 billion, and the net income at KRW 302.5 billion, respectively.

The Green Chemicals Biz has satisfied a solid demand based on the continuous development of new purposes of use and the expansion of the customer base. Despite rising raw materials prices and logistics costs, the Company has generated profits that exceed the target by improving the overall business management factors, such as by increasing sales through the operation of a new facility (#4).

For the Life Science Biz, the Pharma business has experienced steady growth in sales and improved profits due to the increase in the sales of its own new drugs and the expansion of introduced items, despite the continued reduction in hospital admissions due to the outbreak of COVID-19 and the restrictions on face-to-face business activities. Above all, SK Bioscience, a subsidiary in charge of the vaccine business, has further developed its plans for the future and laid the foundation for the Company's financial stability, such as by achieving record-high earnings with the increased sales and profits related to the COVID-19 vaccines following the successful IPO.

In terms of the Biz Portfolio, 2021 was a year that made a meaningful turning point. Based on the sale of the composite material business and the PPS business, the Company has created an environment where we can focus more on our existing core businesses, and we are also making a significant progress in the area of eco-friendly materials, which is one of the future growth engines, such as by executing equity investments in the recycling business, the world's first

commercial production of chemical recycle products, and the construction of a new PO3G plant. Furthermore, we took the first step in contributing to the local community based on the achievement of Carbon Net-Zero and promotion of the district electricity business through the separate launch of SK Multi-Utility.

In 2022, the Green Chemicals Biz sector will also secure a global base for Copolyester #5 and make investment decisions, realize a surplus for the first year of the PO3G business, promote full-scale investments and the commercialization of the Recycle Solution business, and furthermore, strive to discover a high-quality second new business pipeline in conformity with the ESG business environment which has potential for future growth.

The Pharma business of the Life Science Biz division will continue to pursue growth in the main product area, expand alliances with its business partners, and seek to progress through Open Innovation. SK Bioscience will also strive to grow into a global bio platform hub by strengthening its own vaccine business and expanding its business across the areas of relevance.

3. Financial position and operating performance results (on a consolidated basis)

1) Financial position

(Unit: KRW one thousand)

Account	The 5th Period	The 4th Period	Amount of increase	Rate of increase
[Current assets]	2,784,059	923,286	1,860,772	201.54%
[Non-current assets]	1,171,574	1,196,681	-25,107	-2.10%
Total Assets	3,955,632	2,119,967	1,835,665	86.59%
[Current liabilities]	1,086,649	645,679	440,970	68.30%
[Non-current liabilities]	302,246	515,355	-213,109	-41.35%
Total Liabilities	1,388,895	1,161,034	227,861	19.63%
[Shares owned by the parent company]	2,053,542	952,878	1,100,664	115.51%
[Non-controlling interest]	513,196	6,055	507,141	8375.79%
Total equity	2,566,737	958,933	1,607,805	167.67%
Total liabilities and stockholders' equity	3,955,632	2,119,967	1,835,665	86.59%

※ The 5th 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 contents and reasons, etc., will be reflected in the correction report.

- On a consolidated basis in 2021, the assets posted KRW 3955.6 billion, an increase of 201.54% year on year. The current assets increased by 201.54% while the non-current assets decreased slightly due to the sales of old stocks following the listing of SK Bioscience.
- The liabilities increased by 19.63% from the previous year to KRW 1388.9 billion, with current liabilities increasing by 68.30% due to increases in corporate tax liabilities, etc., while the non-current liabilities decreased by 41.35% due to a decrease in bonds and long-term borrowings.
- The equity is KRW 2566.7 billion, an increase of 167.67% year on year. Following the listing of SK Bioscience, the consolidated capital surplus increased by 351.27%, resulting in the parent company's ownership of KRW 2,053.5 billion and the non-controlling interests of KRW 513.2 billion.

2) Operating performance results

(Unit: KRW one thousand)

Account	The 5th Period	The 4th Period	Amount of increase	Rate of increase
Sales amount	2,089,632	1,198,781	890,851	74.31%
Cost of sales	1,208,252	810,783	397,469	49.02%
Gross profit	881,380	387,998	493,382	127.16%
Selling, general and administrative expenses	326,194	232,640	93,554	40.21%
Operating income	555,186	155,358	399,828	257.36%
Other income	27,410	12,568	14,842	118.09%
Other expenses	44,231	27,815	16,416	59.02%
Financial income	62,589	44,135	18,454	41.81%
Financial cost	63,950	60,131	3,820	6.35%
Gain on equity method valuation	1,619	1,757	-138	-7.87%
Net profit from continuing operations before income tax	538,622	125,872	412,750	327.91%
Net income	268,743	255,161	13,582	5.32%

※ Following the sale of the PPS business, the sales and profits and losses of the 5th and 4th periods' discontinued businesses were excluded, and following the sale of the bio-energy business, the sales and profits and losses of the 4th and 3rd periods' discontinued businesses were excluded.

※ The 5th 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 contents and reasons, etc., will be reflected in the correction report.

- In 2021, the consolidated sales recorded KRW 2089.6 billion, up 74.31% from the previous year, thanks to the even growth of the Green Chemicals Biz. and the Life Science Biz. achieved. The Green Chemicals Biz.'s Copolyester business increased its customer base via the development of new purposes of use and largely increased its sales volume due to the full-fledged operation of a new plant, and SK Bioscience in charge of Life Science Biz. recorded the finest performance ever thanks to the increase in the sales of undiluted chemicals and finished products related to the COVID-19 vaccine.

<Operating performance by business division>

<Current period>

(Unit: KRW one thousand)

Classification	Green Chemicals Biz.	Life Science Biz.	Internal transactions, etc.	Total
Sales amount	1,037,059,042	1,229,179,081	(176,606,247)	2,089,631,876
Operating income	76,514,410	520,208,920	(41,537,420)	555,185,910

<Previous period>

(Unit: KRW one thousand)

Classification	Green Chemicals Biz.	Life Science Biz.	Internal transactions, etc.	Total
Sales amount	859,196,301	489,828,116	(150,243,647)	1,198,780,770
Operating income	67,404,290	90,065,304	(2,111,620)	155,357,974

3) Overview of new business

[SK Bioscience]

(1) Implementation of the CDMO/CMO business

Amidst the COVID-19 pandemic, the Company has stably produced and supplied the undiluted solution and finished products of the COVID-19 vaccine of 'Vaxzevria (AZD1222)' developed by AstraZeneca based on the technical cooperation without disruptions, and by participating in the antigen production process of the vaccine of 'Nuvaxovid (NVX-CoV2373)' among the global contract developments and production suppliers (CDMO, contract development and production), we are supplying the COVID-19 vaccines we produce across the globe.

Our CDMO contract plays a role in supplying vaccines worldwide by manufacturing the products or developing additional processes by transferring antigen manufacturing technology from the companies with vaccine source technologies. We have expanded our areas of business to the CDMO while carrying out the consigned production of the COVID-19 vaccine with our synthetic antigen and viral vector technologies in place, and by expanding the contract for the production of COVID-19 vaccine in each Asian country and non-COVID-19 CDMO to push forward with the business.

(2) In-house development of COVID-19 vaccine

Our in-house developed COVID-19 vaccine 'GBP510,' which was funded by BMGF/CEPI, is currently undergoing the global phase 3 clinical trial. Global clinical trials of GBP510 are being conducted in cooperation with IVI, and for IVI, multi-national phase 3 clinical trials of GBP510 are carried out across Europe and Southeast Asia, etc., based on which we are in the process of preparing for the WHO PQ (Pre-Qualification Assessment) certification and securing emergency licenses for each country. Since IVI is developing a COVID-19 vaccine with global companies in many countries around the world, we expect very rapid clinical progress and approval based on the utilization of the existing network. When GBP510 is commercialized, we will supply the inoculation volumes for the world, including underdeveloped countries, through the COVAX Facility, and contribute to the stabilization of domestic vaccines' supply and demand, which is dependent on imports. And for the long-term, based on the platform technology, it is expected that it will help to secure the vaccine sovereignty by enabling rapid responses when a mutant virus arises.

4) Discontinued business and reorganization

In May 2020, the Company sold its bio-energy business to focus its corporate capabilities on its core businesses and raise funds for investments in the new growth businesses of the future. Furthermore, we completed the sale of the composite material business in October 2021 and the PPS business in December, thereby procuring the conditions for highly advancing our business portfolio focused on eco-friendly materials.

In December 2021, 'SK Multi-Utility' was newly established through a split-off of the utility supply business, such as

electricity and steam, to specialize in the utility supply business.

For more details, please refer to "XI. Other Matters Required for the Investor Protection - 4. Other Matters Such as Major Issues which Arose After the Reference Date of Preparation - B. Post Merger Information, Etc."

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	162,654,290	216,682,711	86,692,002	94,589,383
CNY	15,918,457	986,456	7,184,382	891,791
EUR	9,032,243	1,597,977	35,959,992	20,202,025
GBP	297,848	2,654	1,562	-
JPY	4,911,900	16,436	1,776,607	48,882
Total	192,814,737	219,286,234	131,614,545	115,732,081

(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	(2,701,421)	2,701,421	(394,869)	394,869
CNY	746,600	(746,600)	314,630	(314,630)
EUR	371,713	(371,713)	787,898	(787,898)
GBP	14,760	(14,760)	78	(78)
JPY	244,773	(244,773)	86,386	(86,386)
Total	(1,323,575)	1,323,575	794,123	(794,123)

6) Recognition of the asset impairment loss

The Company reviews the individual assets or cash-generating units for impairment each year. The recoverable amount of the cash-generating unit was determined based on the value-in-use calculation. An impairment loss on an individual asset is recognized by the carrying amount in excess of its recoverable amount, and the recoverable amount is determined as the larger of the fair value less the cost of disposal and the value in use. The amount of impairment loss recognized for the fixed assets for the current period is KRW 103,421 million (previous year: KRW 48,045 million).

For the details of the asset impairment loss, refer to 'III. Matters Concerning Finance - 3. Notes to the Consolidated Financial Statements.'

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	11,671,373	107,636,903
Current portion of long-term liabilities:		
Current portion of bonds payable	207,864,113	95,944,294
Current portion of long-term borrowings	-	1,003,200
Subtotal	207,864,113	96,947,494
Debenture	256,063,407	460,480,570
Long-term borrowings	-	31,135,000
Total	475,598,893	696,199,967

(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
KDB, etc.	General borrowings from banks	-	-	76,000,000
Hana Bank, etc.	Trade receivable discounts	-	-	31,636,903
Coalition for Epidemic Preparedness Innovations (CEPI)	Other borrowings (Note 1)	-	11,671,373	-
Total			11,671,373	107,636,903

(Note 1) As a subsidy for the R&D support for the COVID-19 vaccine candidate substance of 'GBP510' undergoing development by the consolidated companies, there exists a repayment obligation at the point of commercialization.

(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 7-2nd public placement bonds	2021.07.27	-	-	11,000,000
The 2-2nd public placement bonds	2022.07.26	3.34	48,000,000	48,000,000
The 9-1st public placement bonds	2021.04.30	-	-	75,000,000
The 9-2nd public placement bonds	2023.04.30	3.52	66,000,000	66,000,000
The 10-1st private placement bonds	2021.10.30	-	-	10,000,000
The 10-2nd private placement bonds	2022.10.30	3.10	20,000,000	20,000,000
The 11-1st public placement bonds	2022.01.28	2.37	70,000,000	70,000,000
The 11-2nd public placement bonds	2024.01.31	2.91	80,000,000	80,000,000
The 12-1st public placement bonds	2022.10.30	2.17	70,000,000	70,000,000
The 12-2nd public placement bonds	2024.10.30	2.77	75,000,000	75,000,000
Overseas bonds	2023.06.29	US 3M Libor + 1.88	35,565,000	32,640,000
Total			464,565,000	557,640,000
(Deducted: discount on bonds premium)			(637,480)	(1,215,136)
(Deducted: current portion of bonds)			(207,864,113)	(95,944,294)
Deductions			256,063,407	460,480,570

2) Annual repayment plan for borrowings, etc.

The Company manages the risks arising from a lack of funds through the 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 year or less	5 year or less	Over 5 years	Total
Trade and other payables	452,892,821	-	-	-	452,892,821
Short-term borrowings	11,671,373	-	-	-	11,671,373
Current portion of long-term liabilities	208,000,000	-	-	-	208,000,000
Current portion of lease liabilities	2,835,307	-	-	-	2,835,307
Other current liabilities (Note 1)	11,827,891	-	-	-	11,827,891
Debenture (Note 2)	-	101,565,000	155,000,000	-	256,565,000
Lease liabilities	-	2,276,326	3,414,156	5,257,899	10,948,381
Other non-current liabilities (Note 1)	-	2,110,026	-	-	2,110,026
Total	687,227,392	105,951,352	158,414,156	5,257,899	956,850,799

(Note 1) These are deposits taken.

(Note 2) Included are the interest expenses.

<Previous period>

(Unit: KRW one thousand)

Classification	Less than 1 year	2 year or less	5 year or less	Over 5 years	Total
Trade and other payables	231,930,603	-	-	-	231,930,603
Short-term borrowings	107,636,903	-	-	-	107,636,903
Current portion of long-term liabilities	97,003,200	-	-	-	97,003,200
Current portion of lease liabilities	3,104,689	-	-	-	3,104,689
Other current liabilities (Note 1)	20,115,250	-	-	-	20,115,250
Debenture (Note 2)	-	208,000,000	253,640,000	-	461,640,000
Long-term borrowings	-	1,875,000	29,260,000	-	31,135,000
Lease liabilities	-	2,524,550	4,537,220	5,577,133	12,638,903
Other non-current liabilities	-	-	3,617,387	-	3,617,387
Total	459,790,645	212,399,550	291,054,607	5,577,133	968,821,935

(Note 1) These are deposits taken.

(Note 2) Included are the interest expenses.

3) Matters concerning liquidity

As of the end of 2021, the Group' cash and cash equivalents posted KRW 255.6 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	509,316,465	247,009,579
Cash flows from investment activities	-1,566,583,813	40,982,084
Cash flows from financing activities	1,223,951,948	-384,925,327
Net cash flows	166,684,600	-96,933,664

5. Off-balance sheet transactions

For the matters related to the Company's off-balance sheet transactions, refer to "XI. Other Matters Required for the 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 the matters concerning the environment related sanctions and administrative measures, etc., refer to "XI. Other Matters Required for the 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 the details of key regulations related to the Company's business, refer to "XI. Other Matters Required for the Investor Protection - 3. Other matters such as the status of sanctions."

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 Putback 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 5th Period (current period)	Ernst & Young Han Young	Unqualified opinion	None	Time-specific export sales
The 4th Period (previous period)	Ernst & Young Han Young	Unqualified opinion	None	Impairment of cash-generating unit
The 3rd Period (period before previous period)	Ernst & Young Han Young	Unqualified opinion	None	Time-specific export sales

B. Status of the execution of audit services

(Unit: KRW one million, hours)

Business Year	Auditor	Details	Details of audit contract		Details of actual audit performed	
			Remuneration	Hours	Remuneration	Hours
The 5th Period (current period)	Ernst & Young Han Young	Review and audit of the financial statements	440	4,600	440	4,680
The 4th Period (previous period)	Ernst & Young Han Young	Review and audit of the financial statements	422	4,600	422	4,740
The 3rd Period (period before previous period)	Ernst & Young Han Young	Review and audit of the financial statements	281	3,534	281	3,534

(The 5th Audit Period)

Classification	Schedule	
4Q of the 5th Period	Separately reviewed	2022.01.26 to 2022.02.02
	Reviewed on a consolidated basis	2022.02.03 to 2022.02.10
3Q of the 5th Period	Separately reviewed	2021.10.18 to 2021.10.22
	Reviewed on a consolidated basis	2021.10.25 to 2021.10.29
Half year of the 5th Period	Separately reviewed	2021.07.22 to 2021.07.30
	Reviewed on a consolidated basis	2021.08.02 to 2021.08.06
1Q of the 5th Period	Separately reviewed	2021.04.19 to 2021.04.23
	Reviewed on a consolidated basis	2021.04.26 to 2021.04.30

C. Status of the contracts for non-audit services executed with the auditor

Business Year	Contract date	Details of services	Period of service performance	Remuneration for services	Note
The 5th Period (current period)	-	-	-	-	-
	-	-	-	-	-
The 4th Period (previous period)	-	-	-	-	-
	-	-	-	-	-
The 3rd 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	2021.05.24	Audit Committee / Accounting Team and External Audit Team	Video conference	- 2021 audit performance plan
2	2021.08.25	Audit Committee / Accounting Team and External Audit Team	Video conference	- Review results for 1H2021 - Changes in major laws and the accounting environment - Advanced discussion of key matters of audit
3	2021.11.24	Audit Committee / Accounting Team and External Audit Team	Video conference	- Review results for 3Q2021 - Changes in major laws and the accounting environment - Report on the audit status of the internal accounting control system - Decision of key matters of audit
4	2022.02.24	Audit Committee / Accounting Team and External Audit Team	Video conference	- Results of the audit of financial statements and internal audit for the fiscal year of 2021 - Audit results for key matters of audit and major audit related items - Other matters of communication required by the accounting audit standards, etc.

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	Reasons for change
SK Bioscience	2021	Samil PwC	Ernst & Young Han Young	Newly appointed
SK Bioscience	3Q2020	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.

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 5th Period (current 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
The 4th Period (previous period)	[Audit opinion] As of December 31, 2020, 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 3rd Period (period before previous period)	[Review opinion] As a result of our review of the senior management's Status Report on the Operation of the Internal Accounting Control System, the opinion was expressed such that the auditor did not find any matters which caused to determine that the details of the Status Report were not prepared in accordance with the provisions of the internal accounting control system and its best practices from the point of view of materiality.	Not applicable

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 and 4 outside directors. The Board of Directors operates the Audit Committee, Outside Director Candidate Nomination Committee, 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.

The Board of Directors is chaired by Moon Seong hwan, an outside director. As an expert in corporate management, Chairman Moon Seong hwan is expected to make a significant contribution to the Company's continuous growth and development based on his capabilities and wealth of experiences.

(Reference date: December 31, 2021)

Number of personnel	Inside director	Outside director
A total of 6 people	Kim Cheol, Jeon Kwang hyun	Park Jeong su, Moon Seong hwan, Jo Hong hui, An Yang ho (Note 1)

(Note 1) Outside Director An Yang ho was reappointed at the 4th regular meeting of shareholders which was held on March 31, 2021.

(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 personnel)

Number of directors	Number of outside directors	Status of changes in the outside directors		
		Appointment	Dismissal	Interim resignation
6	4	1	-	-

※ These are the results of the 4th regular meeting of shareholders held on March 31, 2021.

5) 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	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 2. Matters of major decision-making for the Company (Board regulations) <ul style="list-style-type: none"> - Matters concerning the general meeting of shareholders - Matters concerning business management - Matters concerning finance - Matters related to the human resources and organizational management - Other important matters of management

B. Matters of important resolutions, etc.

(2021)

Session	Date convened	Details of proposal	Inside director		Outside director			
			Kim Cheol (rate of attendance: 94%)	Jeon Kwang hyun (rate of attendance :100%)	An Yang ho (Note 1) (rate of attendance: 100%)	Park Jeong su Park (rate of attendance: 100%)	Moon Seong hwan (rate of attendance: 100%)	Jo Hong hui (rate of attendance: 100%)
Whether approved or disapproved								
1st	2021.01.27	1. Appointment of compliance officer	Approved	Approved	Not applicable (reappointed on March 31, 2021)	Approved	Approved	Approved
2nd	2021.02.05	1. Partial sale of SK Bioscience's interest	Approved	Approved		Approved	Approved	Approved
		2. Approval of financial statements and business reports	Approved	Approved		Approved	Approved	Approved
3rd round	2021.02.24	※ Reported Matters ① Report on the operational status of the internal accounting control system for 2020	-	-		-	-	-
4th	2021.03.10	1. Convocation of the 4th regular meeting of shareholders and the confirmation of agenda	Approved	Approved		Approved	Approved	Approved
		※ Reported Matters ① Report on the operational status of the internal accounting control system for 2020	-	-	-	-	-	
		② Report on the ESG management's implementation plan	-	-	-	-	-	
		③ Report on the compliance support activities	-	-	-	-	-	
5th	2021.03.31	1. Appointment of the	Approved	Approved	Approved	Approved	Approved	Approved

Session	Date convened	Details of proposal	Inside director		Outside director			
			Kim Cheol (rate of attendance: 94%)	Jeon Kwang-hyun (rate of attendance: 100%)	An Yang-ho (Note 1) (rate of attendance: 100%)	Park Jeong-su Park (rate of attendance: 100%)	Moon Seong-hwan (rate of attendance: 100%)	Jo Hong-hui (rate of attendance: 100%)
			Whether approved or disapproved					
		Chairman of the Board of Directors	Approved	Approved	Approved	Approved	Approved	Approved
		2. Enactment of Corporate Governance Charter	Approved	Approved	Approved	Approved	Approved	Approved
		3. Execution of an agreement on joint operation of smart work center (Note 2)	Approved	Approved	Approved	Approved	Approved	Approved
		4. Change of the lease contract with SK Gas (Note 3)	Approved	Approved	Approved	Approved	Approved	Approved
		5. Decision on how to exercise stock options	-	-	-	-	-	-
		※ Reported Matters	-	-	-	-	-	-
		① Report on the results of the 2020 Board's operational evaluation	-	-	-	-	-	-
6th	2021.04.14	1. Acquisition of interest in the Chinese subsidiary (Company S)	Approved	Approved	Approved	Approved	Approved	Approved
7th	2021.04.28	1. Changes of some of the conditions for acquiring interest in Company S	Approved	Approved	Approved	Approved	Approved	Approved
		※ Reported Matters	-	-	-	-	-	-
		① Report on 1st quarter business performance/2nd quarter management plan	-	-	-	-	-	-
		② Report on MU project promotion (draft)	-	-	-	-	-	-
		③ Report on the improvement of composite material business structure (draft)	-	-	-	-	-	-
		④ Report on Ulsan Plant's Management Building/Welfare facilities' infrastructure	-	-	-	-	-	-

Session	Date convened	Details of proposal	Inside director		Outside director			
			Kim Cheol (rate of attendance: 94%)	Jeon Kwanghyun (rate of attendance:100%)	An Yang ho (Note 1) (rate of attendance: 100%)	Park Jeongsu Park (rate of attendance: 100%)	Moon Seonghwan (rate of attendance: 100%)	Jo Honghui (rate of attendance: 100%)
			Whether approved or disapproved					
		improvement (Proposal)						
8th	2021.05.26	1. The 2021 Safety and Health Plan	Approved	Approved	Approved	Approved	Approved	Approved
		2. Changes of the Discovery Lab's operation related agreement (Note 4)	Approved	Approved	Approved	Approved	Approved	Approved
		3. The 2021 company-level KPI (draft)	Approved	Approved	Approved	Approved	Approved	Approved
		※ Reported Matters						
		① 2021 Cash Flow Estimation and Fund Management Plan	-	-	-	-	-	-
		② Preparation of Net Zero Group's Joint Declaration	-	-	-	-	-	-
		③ Report on Ulsan Plant's visitation plan	-	-	-	-	-	-
9th	2021.06.23	1. Establishment of committees within the Board and the enactment of regulations	Approved	Approved	Approved	Approved	Approved	Approved
		2. Closing of the Management Committee	Approved	Approved	Approved	Approved	Approved	Approved
		3. Appointment of Committee members within the Board	Approved	Approved	Approved	Approved	Approved	Approved
		4. Transfer of business	Approved	Approved	Approved	Approved	Approved	Approved
		※ Reported Matters						
		① Open R&D venture investment (draft)	-	-	-	-	-	-
10th	2021.07.27	1. Subscription to executive liability insurance	Approved	Approved	Approved	Approved	Approved	Approved
		※ Reported Matters						
		① Report on business performance for the first half	-	-	-	-	-	-
		② Report on the progress of investment in the	-	-	-	-	-	-

Session	Date convened	Details of proposal	Inside director		Outside director			
			Kim Cheol (rate of attendance: 94%)	Jeon Kwang hyun (rate of attendance :100%)	An Yang ho (Note 1) (rate of attendance: 100%)	Park Jeong su Park (rate of attendance: 100%)	Moon Seong hwan (rate of attendance: 100%)	Jo Hong hui (rate of attendance: 100%)
			Whether approved or disapproved					
		Chinese Company S ③ Report on the progress of investment in Copolyester #4	-	-	-	-	-	-
11th	2021.08.25	1. Signing of a development service contract with SK Plasma (Note 5) ※ Reported Matters ① Information on the executives' personnel management system ② Report on organizational KPI evaluation for the first half	Approved	Approved	Approved	Approved	Approved	Approved
			-	-	-	-	-	-
			-	-	-	-	-	-
12th	2021.09.13	1. Multi Utility business investment 2. Approval of split-off plan 3. Convocation of extraordinary meeting of shareholders and the confirmation of agenda 4. Setting of the reference date for the convening of the extraordinary meeting of shareholders 5. Approval of transaction with SK Gas (Note 6) ※ Reported Matters ① Management status related update	Absent	Approved	Approved	Approved	Approved	Approved
				Approved	Approved	Approved	Approved	Approved
				Approved	Approved	Approved	Approved	Approved
				Approved	Approved	Approved	Approved	Approved
				-	-	-	-	-
13th	2021.09.24	※ Reported Matters ① Measures to enhance the shareholder value ② Evaluation results for the Group's ESG related key indicators for the first half ③ Management status related update	-	-	-	-	-	-
			-	-	-	-	-	-
			-	-	-	-	-	-

Session	Date convened	Details of proposal	Inside director		Outside director			
			Kim Cheol (rate of attendance: 94%)	Jeon Kwang hyun (rate of attendance :100%)	An Yang ho (Note 1) (rate of attendance: 100%)	Park Jeong su Park (rate of attendance: 100%)	Moon Seong hwan (rate of attendance: 100%)	Jo Hong hui (rate of attendance: 100%)
			Whether approved or disapproved					
14th	2021.10.07	1. Capitalization of reserves (capital increase without consideration) ※ Reported Matters ① Interim dividend policy	Approved	Approved	Approved	Approved	Approved	Approved
			-	-	-	-	-	-
15th	2021.10.27	1. Transfer of business 2. Foundation's contribution ※ Reported Matters ① Business management performance for 3Q	Approved	Approved	Approved	Approved	Approved	Approved
			-	-	-	-	-	-
16th	2021.12.01	1. Adjustment of stock option's quantity and exercise price 2. Report on progress of division and announcement (substitute for general meeting of report) ※ Reported Matters ① Report on the structure of the board of directors of the newly established company ② Report on organizational restructuring and executives' personnel matters in 2022 ③ Report on the results of review by the Human Resources Committee on the evaluation of the CEO and whether he or she stays in office	Approved	Approved	Approved	Approved	Approved	Approved
			Approved	Approved	Approved	Approved	Approved	Approved
			-	-	-	-	-	-
			-	-	-	-	-	-
17th	2021.12.22	1. Appointment of compliance officer 2. Appointment of Fair Trade Voluntary Compliance Manager 3. Amendment of the Board of Directors and	Approved	Approved	Approved	Approved	Approved	Approved
			Approved	Approved	Approved	Approved	Approved	Approved
			Approved	Approved	Approved	Approved	Approved	Approved

Session	Date convened	Details of proposal	Inside director		Outside director			
			Kim Cheol (rate of attendance: 94%)	Jeon Kwang hyun (rate of attendance :100%)	An Yang ho (Note 1) (rate of attendance: 100%)	Park Jeong su Park (rate of attendance: 100%)	Moon Seong hwan (rate of attendance: 100%)	Jo Hong hui (rate of attendance: 100%)
			Whether approved or disapproved					
		Audit Committee Regulations						
		4. Addition of parties to the agreement on operating expenses of the SUPEX Implementation Council	Approved	Approved	Approved	Approved	Approved	Approved
		5. Change of development service contract with SK Plasma	Approved	Approved	Approved	Approved	Approved	Approved
		※ Reported Matters						
		① Report on leader's exemplary inspection	-	-	-	-	-	-
		② Report on compliance support activities for 2021	-	-	-	-	-	-

(Note 1) Outside Director An Yang ho was reappointed on March 31, 2021 and only the rate of attendance after the appointment was calculated.

(Note 2) This is a case related to the approval of transactions on one's account, and thus, please refer to the following for details.

Target company	Major shareholders	Date of resolution	Matter of approval
SK Chemicals Co., Ltd. SK Gas Co., Ltd. SK D&D Co., Ltd. SK Bioscience Co., Ltd. SK Discovery Co., Ltd.	SK Discovery Co., Ltd.	2021.03.31	- Key details: A smart work center formed to promote the achievement of “high-performance organization” via “work method innovation” of SK Discovery’s members Jointly operated with affiliates of SK Discovery and its cost shared accordingly - Expenses: One-time expenses of approximately KRW 23 million and annual operating costs of approximately KRW 770,000, calculated according to the ratio of employees of each company - Contract period: 2021.05.01-2024.04.30 (After the end of the first contract, it can be extended until March 2027 under the same terms and conditions)

(Note 3) This is a case related to the approval of transactions on one's account, and thus, please refer to the following for details.

Target company	Major shareholders	Date of resolution	Matter of approval
SK Gas Co., Ltd.	SK Discovery Co., Ltd.	2021.03.31	<ul style="list-style-type: none"> - Key details: A temporary demand for office space created for the remodeling of ECO Hub, the headquarters building of SK Gas Co., Ltd., and need to improve the operational efficiency of the ECO Lab, the headquarters building of SK Chemicals Co., Ltd. - Contract period: 2021.03.22-2021.07.31 (The contract's termination date may be changed due to the re-spread of COVID-19, and may be extended up to 3 months under the same terms and conditions upon request for extension)

(Note 4) This is a case related to the approval of transactions on one's account, and thus, please refer to the following for details.

Target company	Major shareholders	Date of resolution	Matter of approval
SK Chemicals Co., Ltd. SK Gas Co., Ltd. SK D&D Co., Ltd. SK Bioscience Co., Ltd. SK Discovery Co., Ltd.	SK Discovery Co., Ltd.	2021.03.31	<ul style="list-style-type: none"> - Key details: To promote DT (Digital Transformation) within Discovery, the 'Discovery Lab' have been formed and jointly operated since June 2020, and the existing agreement for operation needs to be renewed. - Expenses: Estimate the sharing ratio according to each company's total asset ratio (SK Discovery: 6%, SK Gas: 49%, SK Chemicals: 19%, SK D&D: 19%, SK Bioscience: 7%) - Contract period: 2021.06.01-2021.12.31

(Note 5) This is a case related to the approval of transactions on one's account, and thus, please refer to the following for details.

Target company	Major shareholders	Date of resolution	Matter of approval
"SK Plasma Co., Ltd."	SK Discovery Co., Ltd.	2021.08.25	<ul style="list-style-type: none"> - Target item: generic product of Revolade tablet (eltrombopag) 25mg/50mg - Received R&D expenses from SK Plasma, and proceeded with product development at SK Chemicals. - Contract period and the expected development cost: Expected to be completed by 12/2024 / KRW 2.35 billion

(Note 6) This is a case related to the approval of transactions on one's account, and thus, please refer to the following for details.

Target company	Major shareholders	Date of resolution	Matter of approval
SK Gas Co., Ltd.	SK Discovery Co., Ltd.	2021.09.13	<ul style="list-style-type: none"> - Key details: In connection with the preparation of the utility supply business, a settlement agreement was executed to pay for the service results performed by SK Gas directly or through a third party, and a service contract was concluded to support the start-up of the new company - Estimated contract amount: KRW 2.94 billion in total (settlement agreement: KRW 2.7 billion, service contract: KRW 240 million)

※ These are the details of the agenda of the Board held from the date of 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 2020 (self-evaluation)>

In March 2021, 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.

- Overall average score: 4.3 points (out of 5 points)

(Unit: points)

Structure of the Board	Role of the Board	Responsibilities of the Board	Operation of the Board	Structure of the Committee	Role and Operation of the Committee
4.3	4.3	4.4	4.3	3.9	4.3

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 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 Jung su
- Structure of the Committee: 1 outside director (Director Jeon Kwang hyun), 2 outside directors (Director Park Jeong su and Director An Yang ho)
- Purpose of establishment & authorities: Conduct advance review of the key ESG related matters across the business management
- Details of activities

(2021)

Name of Committee	Date convened	Details of proposal	Whether approved	Park Jeong su (rate of attendance: 100%)	An Yang ho (rate of attendance: 100%)	Jeon Kwang hyun (rate of attendance: 100%)
				Whether approved or disapproved		
ESG Committee	2021.06.23	1. Appointment of Chair of the ESG Committee	Approved	Approved	Approved	Approved
	2021.08.25	1. Implementation of the Multi Utility business 2. Sale of the PPS business	Reviewed Reviewed	Approved Approved	Approved Approved	Absent
	2021.12.22	1. Report on business management performance for 2021 and management plan for 2022	Reviewed	Approved	Approved	Approved

4) Human Resources Committee

- Chairman: Outside Director Moon Seong hwan
- Structure of the Committee: 1 outside director (Director Kim Cheol), 2 outside directors (Director Moon Seong hwan and Director Jo Hong hui)
- Purpose of establishment & authorities: Conduct advance review of personnel-related matters of the key executives inside directors
- Details of activities

(2021)

Name of Committee	Date convened	Details of proposal	Whether approved	Moon Seong hwan (rate of attendance: 100%)	Jo Hong hui (rate of attendance: 100%)	Kim Cheol (rate of attendance: 94%)
				Whether approved or disapproved		
Human Resources Committee	2021.06.23	1. Appointment of Chair of the Human Resources Committee	Approved	Approved	Approved	Approved
	2021.09.09	※ Reported Matters ① Evaluation of key executives for the first half of the year and report on Pre-EMD (draft) for 2021	-	-	-	-
	2021.11.24	1. The 2021 key executives' evaluation 2. Review of CEO's evaluation for 2021	Reviewed Reviewed	Approved Approved	Approved Approved	Approved Approved
	2021.11.26	1. Review of CEO's evaluation for 2021 2. Review of whether for the CEO to stay in office	Reviewed Reviewed	Approved Approved	Approved Approved	Approved Approved

D. Independence of the 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 for the appointment of directors and recommenders, etc.

Name of position	Name	Recommender	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	CEO	Not applicable	Executive concurrently holding positions	2023.03	Y (1)
	Jeon Gwang-Hyeon	Board of Directors	CEO		Affiliate's executive	2022.03	N
Outside director	Park Jeong su (rate of attendance: 100%)	Outside Director Candidate Nomination Committee	Outside director (member of Audit Committee)		-	-	2022.03

Name of position	Name	Recommender	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)
	Moon Seong hwan	Outside Director Candidate Nomination Committee	Outside director (member of Audit Committee)		-	2023.03	N
	Jo Hong hui	Outside Director Candidate Nomination Committee	Outside director (member of Audit Committee)		-	2023.03	N
	An Yang ho (Note 2)	Outside Director Candidate Nomination Committee	Outside director (member of Audit Committee)		-	2024.03	Y (1)

Name	Background to appointment
Kim Cheol (Note 1)	After joining SK Co., Ltd., Kim Cheol served as the head of SK Innovation's petroleum development division and SK Chemicals' resin business division, and since has served as the CEO of SK Chemicals. To date, he has played a significant role in achieving the business growth of each company, and based on his extensive experience and capabilities, was appointed in the belief that he will be very helpful in implementing the Company's new business.
Jeon Kwang hyun	Jeon Kwang hyun was appointed as he has made a significant contribution to expanding SK Chemicals' Life Science Biz. and strengthening its internal stability. Moving forward, he will contribute to future performance by offering business insight based on his practical experience and outstanding capabilities.
Park Jeong su	Park Jeong su is currently a professor of Economics at Sogang University, and was appointed as he is expected to play an important role in SK Chemicals' decision-making based on his diverse experiences and professional insight, including serving as a policy advisor and evaluation member for government agencies.
Moon Seong hwan	Moon Seong hwan was appointed as based on his knowledge and wealth of experiences as a corporate management expert who has served as the CEO of a listed company for over 10 years, he is expected to enhance the diversity and present new perspectives in making major decisions, and will also be able to contribute to the growth and development of the Company through his professional insight and competencies.
Jo Hong hui	Jo Hong hui has been appointed because in addition to his knowledge and wealth of experience as an expert in the field of taxation (particularly corporate) for more than 30 years at the National Tax Service, he has served as an outside director and audit member of a listed company for many years, and will be able to contribute to the growth and development of the Company through his professional insight and competences.
An Yang ho (Note 2)	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 2 nd 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 has been appointed because at a time when the enhancement of ESG management is required, he is suitable to contribute to business promotion and sustainable growth for SK Chemicals.

(Note 1) Internal Director Kim Cheol was reappointed on March 25, 2020.

(Note 2) Outside Director An Yang ho was reappointed on March 31, 2021.

3) Status of the establishment and structure of the Outside Director Candidate Nomination Committee

(Reference date: December 31, 2021)

Name	Whether an outside director	Note
An Yang ho	O	- Outside directors comprise 100% of the total membership of the Committee - The requirement that the Committee should be composed of 50% or more of outside directors is met (Article 542-8 of the Commercial Act).
Jo Hong hui	O	
Park Jeong su	O	

4) Details of the key activities of the Outside Director Candidate Nomination Committee

(2021)

Name of Committee	Date convened	Details of proposal	Whether approved	Kim Cheol (Note 1)	Park Jeong su (rate of attendance: 100%)	Moon Seong hwan (Note 2) (rate of attendance: 100%)	Jo Hong hui (rate of attendance: 100%)	An Yang ho (Note 3) (rate of attendance: 100%)
				Whether approved or disapproved				
Outside Director Candidate Nomination Committee	2021.02.05	Nomination of outside director candidates	Approved	Approved	Approved	Approved	Approved	-
	2021.06.23	Appointment of the Chair of the Outside Director Candidate Nomination Committee	Approved	-	Approved	-	Approved	Approved

(Note 1) Internal Director Kim Cheol resigned on June 23, 2020.

(Note 2) Outside Director Moon Seong hwan resigned on June 23, 2021.

(Note 3) Outside Director An Yang ho was appointed on June 23, 2021.

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 (10), Manager (4)	Provide assistance for 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 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	Details of key education and training
2021.06.25	Executives and employees of SK Chemicals' Ulsan Plant	Moon Seong hwan, An Yang ho, Jo Hong hui, Park Jeong su	-	Field visit training of major projects within Ulsan Plant, such as UT business, PPS business, Copolyester #4, and PO3G to enhance the extent of understanding of the business site and support decision-makings for major issues.

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 greater of the total Committee members)

(Reference date: December 31, 2021)

Whether established	Method of organization	Note
Established	4 people (All of whom are outside directors)	Perform business audits and accounting audits of the Company

Purpose of the establishment of 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	- Audit the directors' execution of their duties - Require 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 timely report for what is improved and corrective measures for it are advised.

2) Personal information of the members of the Audit Committee and status as outside directors

Name	Status as an outside director	Professional experiences	Accounting and financial experts related		
			Whether applicable	Type of expert	Relevant experiences
Park Jeong su	Yes	<ul style="list-style-type: none"> - Graduated with a bachelor's in Economics, Seoul National University - Master's in Economics, Seoul National University - PhD in Economics, Stanford University, USA - Former Assistant Professor, Department of Economics, State University of New York, Buffalo, USA (1998-2005) - Current) Director of the Korean Finance Association (2019-present) - Current) Professor, Economics, Sogang University (2010-present) 	-	-	-
Moon Seong hwan	Yes	<ul style="list-style-type: none"> - Graduated with a bachelor's in Business Administration, Seoul National University - MBA, Helsinki University of Business and Economics, Finland - Former) Executive Director, Textile Division, Samyang Corporation - Former) Vice President (EVP) of Samyang Corporation, Head of Management Planning Office - Former) Outside Director, Jeonbuk Bank - Former) CEO & President, Huvis - Former) President & CEO, Samyang Corporation (October 2011-March 2019) - Current) Senior Advisor, Samyang Corporation (April 2019-Present) 	-	-	-
Jo Hong hui	Yes	<ul style="list-style-type: none"> - Graduated with a bachelor's in Trade, Sungkyunkwan University - Master's in Taxation, University of Bath, UK - Passed the 24th Civil Service Examination - Former) Director of Corporate Taxation Bureau, Director of Tax Collection Legal Affairs 	Yes	Person of experiences including financial institutions, government, and securities related institutions, etc. (Type	<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 - 2007-2008, Head of Investigation Bureau 3, Central Regional Tax Service (in charge of corporate tax

Name	Status as an outside director	Professional experiences	Accounting and financial experts related		
			Whether applicable	Type of expert	Relevant experiences
		Bureau of National Tax Service - Former) Commissioner, Seoul Regional Tax Office - Former) Outside Director, Daekyo Co., Ltd. and Celltrion Co., Ltd. - Current) Senior Advisor, Bae, Kim & Lee LLC (2011-Present)		4)	investigation) - 2009-2010, Director General, Tax Collection and Legal Affairs Bureau, National Tax Service (in charge of corporate tax litigations and authoritative interpretations) ▶ Equivalent to 5 years or longer in total for the combination of the periods of service
An Yang ho	Yes	- Passed the 22nd Civil Service Examination - Former) Deputy Mayor of Gwangmyeong-si, Gyeonggi-do, Director of Gyeonggi-do Autonomous Administration Bureau - Former) Second Vice Minister of the Ministry of Public Administration and Security - Former) Chairman of the Government Employees Pension Service - Former) Private Member, Committee for International Development Cooperation, Prime Minister's Office - Current) Outside Director of Lutronic Inc. (2018-Present) - Current) Senior Advisor, Economic Regulation and Administrative Consulting (ERAC) (2018-Present) - Current) International Advisory Ambassador, Korea Saemaul Undong Center (2020-Present)	Yes	Experiences at financial institutions, government, and securities related institutions, etc. (Type 4)	- 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 - 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 - 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 - 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 - 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,

Name	Status as an outside director	Professional experiences	Accounting and financial experts related		
			Whether applicable	Type of expert	Relevant experiences
					preparation and evaluation of public institution related management evaluation report and fund management performance report - 2015-2016, Head of Supervision Team for Ministry of Strategy and Finance's 'Public Institution Management Evaluation Unit, and supervision of heads of public institutions such as public enterprises and quasi government agencies for their management performance evaluation ► Equivalent to 5 years or longer in total for the combination of the periods of service

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 of the members or more are outside directors	Satisfied (All of whom are outside directors)	
1 or more members are accounting or finance related experts	Satisfied (Director An Yang ho and Director Jo Hong hui)	Article 542-11 Paragraph 2 of the Commercial Act
Chair of the Audit Committee is an outside director	Satisfied (Director Jo Hong hui)	
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 to appointment

(Reference date: December 31, 2021)

Name	Background to appointment	Recommender	Term of appointment	Whether retained for another term of office (number of reappointments)	Relationship with the largest shareholder or major shareholder
Park Jeong su	Park Jeong su is currently a professor of Economics at Sogang University, and was appointed as he is expected to play an important role in SK Chemicals' decision-making based on his diverse experiences and professional insight, including his history serving as a policy advisor and evaluation member for government agencies.	Outside Director Candidate Nomination Committee	2019.03.25-2022.03.25	-	-
Moon Seong hwan	Moon Seong hwan was appointed as based on his knowledge and wealth of experiences as a corporate management expert who has served as the CEO of a listed company for over 10 years, he is expected to enhance the diversity and present new perspectives in making major decisions, and will actively perform duties of the Committee and contribute to improvement of the transparency and independence of the Committee.	Outside Director Candidate Nomination Committee	2020.03.25-2023.03.25	-	-
Jo Hong hui	Jo Hong hui has been appointed because in addition to his knowledge and wealth of experience as an expert in the field of taxation (particularly corporate) for more than 30 years at the National Tax Service, he has served as an outside director and audit member of a listed company for many years, and will be able to enhance the expertise and transparency of the Committee.	Outside Director Candidate Nomination Committee	2020.03.25-2023.03.25	-	-
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 2 nd 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 has been appointed because at a time when the ESG management's enhancement is required, he is suitable to contribute to business promotion and sustainable growth for SK Chemicals.	Outside Director Candidate Nomination Committee	2021.03.31-2024.03.31	Y (1)	-

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 require data and review them as needed
- Can require subsidiary to report on business as needed

D. Details of key activities of the Audit Committee

(2021)

Date convened	Details of proposal	Whether approved	Name of outside director			
			An Yang ho (Note 1) (rate of attendance: 75%)	Park Jeong su (rate of attendance: 100%)	Moon Seong hwan (rate of attendance: 100%)	Jo Hong hui (rate of attendance: 100%)
			Whether approved or disapproved			
2021.01.02	1. External auditor's selection and compliance related matters, procedures and evaluation criteria related establishment	Approved		Approved	Approved	Approved
2021.02.05	1. External auditor's selection	Approved		Approved	Approved	Approved
2021.02.24	※ Reported Matters					
	① Report on the operational status of the internal accounting control system for 2020	-		-	-	-
	② Report on audit results of externally audited entity for fiscal year 2020	-		-	-	-
	③ Audit plan for fiscal year 2021 of the externally audited entity	-	Not applicable (reappointed)	-	-	-
2021.03.10	1. Confirmation of audit report	Approved	on March 31, 2021)	Approved	Approved	Approved
	2. Confirmation of the Report on the 2020 Internal Accounting Management System's Operational Status Evaluation Results	Approved		Approved	Approved	Approved
	3. Agenda for the regular meeting of shareholders and the confirmation of document investigation results	Approved		Approved	Approved	Approved
	※ Reported Matters					
	① The 2020 audit performance and the 2021 audit plan	-		-	-	-
2021.05.24	※ Reported Matters					
	① Report on audit results by external auditors in 1st quarter	-	Absent	-	-	
2021.07.27	※ Reported Matters					
	① Report on the operational status of the internal accounting control system for 2021	-	-	-	-	-
	② Recent trends in internal accounting and the introduction of the consolidated internal accounting management system	-	-	-	-	-
2021.08.25	※ Reported Matters					
	① Report on the results of review by external auditors in 1st half of 2021	-	-	-	-	-
2021.09.13	1. Agenda for the extraordinary meeting of shareholders and the confirmation of document	Approved	Approved	Approved	Approved	Approved

Date convened	Details of proposal	Whether approved	Name of outside director			
			An Yang ho (Note 1) (rate of attendance: 75%)	Park Jeong su (rate of attendance: 100%)	Moon Seong hwan (rate of attendance: 100%)	Jo Hong hui (rate of attendance: 100%)
			Whether approved or disapproved			
	investigation results					
2021.11.24	※ Reported Matters ① Report on the results of review by external auditors in 3rd quarter of 2021	-	-	-	-	-

(Note 1) Audit Committee Member An Yang ho was reappointed on March 31, 2021.

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 who attended	Reason for absence	Details of key education and training
2020.02.26	Samil PwC	Choi Jeong hwan, Park Jeong su, An Yang ho	-	Changes in the internal accounting control system
2021.07.27	Samil PwC	Jo Hong hui, Moon Seong hwan, Park Jeong su, An Yang ho	-	Recent trends in internal accounting and the consolidated internal accounting management system

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 (1), Head of Team (10), Manager (4)	Operation of the Audit Committee

G. Matters concerning the compliance officer

Name	Date of birth (year and month)	Rank / Position	Professional experiences
Shin Gyeong seob	1969.08	Head of Legal Affairs Team	- Bachelor's in Law, Kyungpook National University - 1995-2011, Served at Legal Affairs Team, SK Eco Plant - 2012-Present, Served at Legal Affairs Team at SK Chemicals (Note 1)

(Note 1) With 10 years or longer of work experiences in the legal affairs department of a listed company, the qualifications as a compliance officer as required under Article 542-13 Paragraph 5 of the Commercial Act and Article 41 of the Enforcement Decree of the Commercial Act are satisfied.

H. Details of key activities of the compliance officer and their handling results

Year and month of activities	Details of key activities
2021.01-2021.12.	Carried out a program for dissemination of ethical management culture (dissemination of ethical management cases, operation of reporting system, etc.)
2021.01-2021.12	Informed all members on the prohibition of the use of undisclosed important information (monthly, emails sent out together with the guide)
2021.01-2021.03.	Check on the implementation of the 2020 Chemical Research Institute's regular audit recommendations
2021.01-2021.03.	Inspected on the chemical substances' licensing and authorization related matters for 1-4Q2020
2021.02	Seminars on the Fair Trade Act
2021.04-2021.12	Conducted review of necessary measures in preparations for the enforcement of the Serious Accident Punishment Act and got advice from relevant departments
2021.12	Amended relevant regulations and established review process to enhance transparency for insider transactions
2021.12	Reported the compliance support activities to the Board

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)	6	Head of Team (10), Managers (1-9)	Compliance education, compliance check, contract review, legal advising
Compliance Team	4	Managers (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: December 31, 2021)

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

※ As of the date of submission of 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 power of attorney 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: December 31, 2021)

(Unit: stocks)

Classification	Type of Stock	Number of shares	Note
Total number of issued shares (A)	Common stocks	17,620,780	-
	Preferred stocks	2,115,429	-
Number of shares without voting rights (B)	Common stocks	30,857	Treasury stocks
	Preferred stocks	2,115,429	Treasury shares included
Number of shares excluded from voting by the Articles of Incorporation (C)	Common stocks	-	-
	Preferred stocks	-	-
Number of shares whose voting exercises have been restricted by other laws (D)	Common stocks	-	-
	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	17,589,923	-
	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> <ol style="list-style-type: none"> 1. Method of giving shareholders the opportunity to subscribe for new shares in order to allocate new shares according to the number of shares they own 2. Method of granting an opportunity to subscribe for new stocks in order to allocate new stocks to any person other than stockholders in a manner other than that of Subparagraph 1 if it is necessary to achieve the Company's management purposes, such as the introduction of new technologies and improvement of the financial structure, within a limit not exceeding 25% of the total number of issued shares 3. Method of granting an opportunity to subscribe for new stocks to an unspecified number of people (including the Company's shareholders) in a manner other than that of Subparagraph 1 within a limit not exceeding 25% of the total number of issued stocks, and allocating new shares to those who have subscribed accordingly <p>② If allocating new stocks in the manner specified under Paragraph 1 Subparagraph 3, the new stocks shall be allocated in any of the following manners by a resolution of the board of directors.</p> <ol style="list-style-type: none"> 1. Method of allocating new stocks to an unspecified number of subscribers without classifying the type of person who is granted an opportunity to subscribe for new stocks 2. Method of allocating new stocks to employees of the treasury stock association in accordance with the relevant laws and giving an opportunity to subscribe for new stocks to an unspecified number of people, including stocks that have not been subscribed 3. Method of granting an opportunity for the shareholders to subscribe for new stocks with priority, and if there are unsubscribed stocks, granting an opportunity to be allocated new stocks to an unspecified number of people 4. Method of granting an opportunity to subscribe for new stocks to a specified type of people in line with reasonable standards provided under relevant laws, such as demand forecast as underwriters or brokers by
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	<p>the investment trading business operator or investment broker</p> <p>③ In the case of allocating new stocks in accordance with Paragraphs 1, 2 and 3, the matters provided under Article 416 Subparagraphs 1, 2, 2-2, 3, and 4 of the Commercial Act shall be reported to the 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, a report on major issues may be disclosed to the Financial Services Commission and the Exchange in lieu of notification and announcement.</p> <p>④ In the event of the issuance of new stocks via any of the methods of any of Subparagraphs of Paragraph 1, the type and number of stocks to be issued and the issuance price, etc., shall be determined by a resolution of the board of directors.</p> <p>⑤ When allocating new stocks, if the Company does not subscribe for new stocks by the due date or if there are stocks for which the value has not been paid, the method of handling such stocks 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
Record 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 Maeil Business Newspaper daily published in the city of Seoul.

F. Summary of the minutes of the general meeting of shareholders

(Reference date: December 31, 2021)

Date of general meeting of shareholders	Agenda	Details of resolution
The 2nd regular meeting of shareholders (2019.03.25)	Agendum No. 1: The 2nd period (2018.01.01.-2018.12.31)	Approved as the original plan
	Approval of financial statements and consolidated financial statements	Approved as the original plan
	Agendum No. 2: Appointment of directors	Approved as the original plan
	- Agendum No. 2-1: Appointment of inside director (Candidate: Jeon Kwang hyun)	Approved as the original plan
	- Agendum No. 2-2: Appointment of outside director (Candidate: Park Jeong su)	Approved as the original plan
	Agendum No. 3: Appointment of Audit Committee member (Candidate: Park Jeong su)	Approved as the original plan
	Agendum No. 4: Partial changes in the Articles of Incorporation	Approved as the original plan
	Agendum No. 5: Approval of the ceiling of remuneration for directors	Approved as the original plan
Agendum No. 6: Approval of the granting of stock options	Approved as the original plan	
- Agendum No. 6-1: Granting of stock option (Eligible: Jeon Kwang hyun)	Approved as the original plan	
- Agendum No. 6-2: Approval of the granting of stock option (Eligible: Ah Dong-Hyeon)	Approved as the original plan	
Agendum No. 7: Reduction of the capital reserve	Approved as the original plan	

Date of general meeting of shareholders	Agenda	Details of resolution
The 1st extraordinary meeting of shareholders in 2020 (2020.03.17)	Agendum No. 1: Transfer of bio-energy business	Approved as the original plan
The 3rd regular meeting of shareholders (2020.03.25)	No. 1: Approval of the financial statements and consolidated financial statements for the 3rd period (2019.1.1 - 2019.12.31) Agendum No. 2: Appointment of directors - Agendum No. 2-1: Appointment of inside director (Candidate: Kim Cheol) - Agendum No. 2-2: Appointment of outside director (Candidate: Moon Seong hwan) - Agendum No. 2-3: Appointment of outside director (Candidate: Jo Hong hui) Agendum No. 3: Appointment of members of the Audit Committee - Agendum No. 3- 1 Appointment of member of the Audit Committee (Candidate: Moon Seong hwan) - Agendum No. 3- 2: Appointment of member of the Audit Committee (Candidate: Jo Hong hui) Agendum No. 4: Change of the Articles of Incorporation Agendum No 5: Approval of the ceiling of remuneration for directors Agendum No. 6: Partial revision of executive severance pay provisions	Approved as the original plan Approved as the original plan Approved as the original plan Approved as the original plan Approved as the original plan Approved as the original plan Approved as the original plan Approved as the original plan Approved as the original plan Approved as the original plan
The 4th regular meeting of shareholders (2021.03.31)	Agendum No. 1: Approval of the financial statements and consolidated financial statements for the 4th period (2020.1.1 - 2020.12.31) Agendum No. 2: Appointment of an outside director who is a member of the Audit Committee (Candidate: An Yang ho) Agendum No. 3: Partial changes in the Articles of Incorporation Agendum No 4: Approval of the ceiling of remuneration for directors	Approved as the original plan Approved as the original plan Approved as the original plan Approved as the original plan
The 1st extraordinary meeting of shareholders in 2021 (2021.10.25)	Agendum No. 1: Approval of spin off plan	Approved as the original plan

VII. Matters Concerning Shareholders

1. Status of the Share Ownership of the Largest Shareholder and Related Parties

(Reference date: December 31, 2021)

(Unit: stocks, %)

Name	Relationship	Type of Stock	Number of shares owned and share-holding ratio				Note
			Beginning of period		End of period		
			Number of shares	Equity interest (%)	Number of shares	Equity interest (%)	
SK Discovery	Largest shareholder	Common stocks	3,930,310	33.47	6,137,781	34.83	(Note 1)
Choi Chang won	Related party	Preferred stocks	6,208	0.43	9,312	0.44	-
Choi Tae won	Related party	Preferred stocks	45,314	3.11	67,971	3.21	-
Choi Jung won	Related party	Common stocks	8,118	0.07	12,177	0.07	-
Choi Jung won	Related party	Preferred stocks	3	0.00	4	0.00	-
Choi Ji won	Related party	Common stocks	24,906	0.21	37,359	0.21	-
Choi Ji won	Related party	Preferred stocks	433	0.03	649	0.03	-
Choi Yae jung	Related party	Common stocks	41,593	0.35	62,389	0.35	-
LeeYoo mi	Related party	Common stocks	602	0.01	903	0.01	-
Lee Charles Hwan	Related party	Common stocks	508	0.00	762	0.00	-
Korea Foundation for Advanced Studies	Related party	Common stocks	124,539	1.06	186,808	1.06	-
Kim Cheol	Executive	Common stocks	2,000	0.02	3,000	0.02	-
Jeon Gwang hyeon	Executive	Common stocks	517	0.00	775	0.00	-
Park Chan jung	Affiliate's executive	Common stocks	776	0.01	1,164	0.01	-
Total		Common stocks	4,133,869	35.21	6,443,118	36.56	-
		Preferred stocks	51,958	3.56	77,936	3.68	-

(Note 1) SK Discovery additionally acquired 161,544 shares of the Company via tender offer on September 1, 2021.

※ Following the exercise of stock options on April 2, 2021, 10,000 shares of common stock increased, and on October 22, 2021, 5,869,384 common stocks and 656,759 preferred stocks increased due to the execution of capital increase

without consideration, causing changes in the share-holding ratio.

- ※ The share-holding ratio at the beginning of period above was calculated based on the total number of outstanding shares of 11,741,396 common stocks and 1,458,670 preferred stocks as of December 31, 2020, while the share-holding ratio at the end of period was calculated based on the total number of issued stocks of 17,620,780 common stocks and 2,115,429 stocks of preferred stock as of December 31, 2021.

2. Key Experiences and Overview of the Largest Shareholder

A. Basic information of the largest shareholder (entity or group)

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.	35,618	Choi Chang won	40.18	-	-	Choi Chang won	40.18
		Kim Cheol	0.03	-	-	-	-
		Park Chan jung	0.00	-	-	-	-

※ The share-holdings ratio of the CEO and the largest shareholder are based on common stocks.

※ The number of investors is entered based on the common stocks based on the list of shareholders as of the end of 2021.

(Changes in the CEO, business executive, and the largest shareholder of an entity 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 (%)
2017.01.25	Kim Cheol	0.04	-	-	-	-
2017.11.30	Choi Chang won	18.47	-	-	Choi Chang won	18.47
2017.11.30	Kim Cheol	0.04	-	-	-	-
2017.12.01	Kim Cheol	-	-	-	-	-
2018.03.27	Kim Cheol	0.02	-	-	-	-
2018.04.19	Choi Chang won	39.92	-	-	Choi Chang won	39.92
2018.05.25	Kim Cheol	0.03	-	-	-	-
2018.07.05	Choi Chang won	40.02	-	-	Choi Chang won	40.02
2018.07.06	Choi Chang won	40.13	-	-	Choi Chang won	40.13
2018.07.09	Choi Chang won	40.18	-	-	Choi Chang won	40.18
2019.12.19	Park Chan jung	0.00	-	-	Choi Chang won	40.18

※ 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 (entity or group) for the latest settlement period

(Unit: KRW one million)

Classification	
Name of entity or group	SK Discovery Co., Ltd.
Total Assets	6,881,873
Total Liabilities	3,812,565
Total equity	3,069,308
Sales amount	6,614,328
Operating income	74,366
Net income	272,295

※ 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 the electronic disclosure system (<http://dart.fss.or.kr>) on March 21, 2022.

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: December 31, 2021)

Name	Position (whether full-time)	Year of birth	Professional background
Choi Chang won	CEO & Vice Chairman (full-time)	1964.08	Psychology, Seoul National University Concurrent) Vice Chairman of SK Gas / Vice Chairman of SK D&D
Kim Cheol	CEO and President (full-time)	1961.05	Master's in Economics, London School of Economics Former) Head of Resources Development Division, SK Innovation Concurrent) President and CEO of SK Chemicals
Park Chan jung	CEO and President (full-time)	1964.10	Bachelor's & Master's in Business Administration, Seoul National University, MBA, University of Michigan, Civil Service Examination (32nd administration), McKinsey & Co. (Seoul) Former) Head of Strategic Planning Office, SK E&C, Former) Head of Strategic Planning Office, SK Chemicals, Head of Highly Functional Materials Business Division Concurrent) Other Non-Standing Executive Director, SK Bioscience Co., Ltd. and SK D&D Co., Ltd. Concurrent) Other Non-Standing Executive Director, Huvis Co., Ltd.

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 founding

Sunkyung Synthetic Fiber Co., Ltd., SK Discovery Co., Ltd.'s former entity, 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 from Sunkyung Fiber Co., Ltd. in 1976, the former's date of founding was based.

The old SK Chemicals Co., Ltd. changed its trade name to SK Discovery Co., Ltd. on December 1, 2017, the date of spin-off, and the spin-off was made towards SK Discovery Co., Ltd., which is engaged in the investment business and the new SK Chemicals Co., Ltd. which is engaged in the Green Chemicals and Life Science business.

3) Address, phone number and website address of the head office

- Address: Pangyo-ro 332, Bundang-gu, Seongnam-si, Gyeonggi-do (Sampyeong-dong)
- Phone: 02-2008-7399
- Website: <http://www.skdiscovery.com>

4) Status as an SME

Whether applicable as an SME	Not applicable
Whether applicable as a venture company	Not applicable
Whether applicable as a mid-sized enterprise	Not applicable

5) 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. The businesses conducted by the Company's major subsidiaries include the eco-friendly materials production and pharmaceutical business (SK Chemicals Co., Ltd.), gas business selling LPG, etc. (SK Gas Co., Ltd.), and blood products business producing and selling blood products (SK Plasma Co., Ltd.), and other than these, include the real estate properties related data solution business (Korea Marketplace Systems Co., Ltd.) and the energy power generation business (Ulsan GPS Co., Ltd.) conducted by the consolidated subsidiaries.

6) Status of registered executives

(Reference date: December 31, 2021)

(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 (shares)		Relationship to 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	Standing	CEO	Psychology, Seoul National University Former) CEO of SK Gas Concurrent) Vice Chairman of SK Gas	7,650,128	5,782	Largest shareholder himself	27 years and 7 months	2024.03.30
Kim Cheol	Male	1961.05	President	Inside director	Standing	CEO	Master's in Economics, London School of Economics Former) Head of Resources Development Division, SK Innovation	5,000	-	Registered executive of issuing company	8 years and 7 months	2024.03.30

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 (shares)		Relationship to the Largest Shareholder	Period of service	Date of expiration for the term of office
								Shares with voting rights	Shares without voting rights			
							Concurrent) President and CEO of SK Chemicals					
Park Chan jung	Male	1964.10	President	Inside director	Standing	CEO	Bachelor's & Master's Business Administration, Seoul National University, MBA, University of Michigan Civil Service Examination (32nd administration), McKinsey & Co. (Seoul Former) Head of Strategic Planning Office, SK E&C, Former) Head of Strategic Planning Office of SK Chemicals, Head of Highly Functional Materials Business Division Concurrent) Non-Standing Executive Director of SK D&D and Huvis	723	-	Registered executive of issuing company	9 years and 11 months	2024.03.30
Oh Young ho	Male	1952.06	Director	Whether outside director	Part-time	Outside director	Chemical Engineering, Seoul National University; Master's in Economics, University of Virginia, PhD in Economics, Kyung Hee University Former) First Vice Minister of Commerce, Industry and Energy Current) Chair Professor, State University of New York Korea	-	-	Registered executive of issuing company	4 years and 9 months	2023.03.26
Park Sang gyu	Male	1961.11	Director	Outside director	Part-time	Outside director	Statistics, Chung-Ang University, PhD in Statistics, State University of New York Former) Non-Standing Registered Executive Director of Korea Student Aid Foundation Current) The 16th President of Chung-Ang University	-	-	Registered executive of issuing company	6 years and 9 months	2022.03.27
Hong Won jun	Male	1970.01	Director	Outside director	Part-time	Outside director	Bachelor's in Business Administration, Seoul National University, Master in Economics, University of Cambridge Master's in Industrial Relations, University of Oxford, MBA, Harvard University Former) Head of Corporate Finance Division, UBS Securities Seoul Branch Office Current) CEO of Stonebridge Capital HK Limited and Vice President and Partner of Stonebridge Capital	-	-	Registered executive of issuing company	4 years and 1 months	2023.03.26
Song Jae-Yong	Male	1964.03	Director	Outside director	Part-time	Outside director	Former) President of Korea Society of Strategic Management Former) Professor, Columbia University Graduate School of Business and Yonsei University Current) Professor Business Administration, Seoul National University Current) Tenured Fellow of International Business Association (AIB) Former) President of International Business Division, US Academy of Management (AOM)	-	-	Registered executive of issuing company	3 years and 9 months	2024.03.30
An Jae hyeon	Male	1966.02	Executive	Non-registered	Standing	Chief Executive President	Applied Statistics, Yonsei University, MBA, University of Pennsylvania Former) CEO and President of SK E&C Former) Chairman of SK Gas New Growth Energy Committee Concurrent) Chairman of SK Discovery New Growth Energy Committee	14,423	-	N/A	1 month	-
Park Cheol	Male	1966.12	Executive	Non-registered	Standing	Assistant to CEO	Private Law, Seoul National University, Master's in Law, Seoul National University Former) Chief Prosecutor, Seoul Central District Prosecutors' Office Former) Head of Ethical Management, SK Discovery Former) Head of Ethical Management Division, SK Gas Concurrent) Assistant to CEO, SK Gas	482	-	N/A	9 years and 11 months	-
Lee Yong seek	Male	1961.11	Chief	Non-registered	Standing	Chief supervisor of ESG	Master's in Business Administration, Seoul National University Former) Head of Business Planning Division and CSO, SK E&C	-	-	N/A	1 years and 1 month	-

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 (shares)		Relationship to the Largest Shareholder	Period of service	Date of expiration for the term of office
								Shares with voting rights	Shares without voting rights			
							Concurrent) PD of SKT Business Economic Research Institute, Head of ESG Group					
Hwang Chun hyun	Male	1957.08	Chief	Non-registered	Standing	Chief of safety and environment	Bachelor's in Business Administration, Pusan National University Former) Head of Corporate Culture Office, SK Chemicals, Manager of Ulsan Plant Concurrent) Chief of Production, SK Chemicals	723	-	N/A	1 year and 1 month	-
Lee Kwang seok	Male	1962.07	Head of Office	Non-registered	Standing	Head of Communications Office	Bachelor's in Business Administration, Pusan National University Concurrent) Assistant to CEO, SK Chemicals Concurrent) Head of Communications Office, SK Gas	-	-	N/A	9 years and 11 months	-
Suh Dong-Rok	Male	1969.01	Head of Office	Non-registered	Standing	Head of BM Innovations Office	Master's in Business Administration, Yale University Former) Head of Economic Promotion Division, City of Seoul and PD of SKT Business Economics Research Institute, Former) Head of Value Growth Division, SK D&D Concurrent) CEO of Korea Marketplace Systems (KMS), Non-Standing Executive Director of The Biz	-	-	N/A	2 years	-
Kim Kee dong	Male	1971.02	Head of Office	Non-registered	Standing	Head of Finance Office	Bachelor's in Economics, Korea University, MBA, Indiana University Former) Head of Finance Team and Head of Project, SK Chemicals Concurrent) Other Non-Standing Executive Director of SK Plasma and SK Advanced Concurrent) Other Non-Standing Executive Director of Korea Marketplace Systems (KMS) and The Biz	-	-	N/A	3 years	-
Kim Nam gyu	Male	1971.03	Head of Office	Non-registered	Standing	Head of Business Development Office	Bachelor's in Chemical Engineering, Yonsei University, PhD in Environmental Business Management, University of Leeds Civil Service Exam for Technology (30th administration) Former) Head of Machinery and Robotics Department, Ministry of Trade, Industry and Energy Former) Senior Administrative Department Manager, Office of the Secretariat of Trade, Industry and Energy, Blue House Former) Head of New Business Promotion Unit, SK Gas Concurrent) CEO of SK Multi-Utility	-	-	N/A	3 years and 8 months	-
Park Young Joo	Male	1970.11	Head of Office	Non-registered	Standing	Head of IR Office	Bachelor's in Political Science and Diplomacy, Yonsei University, MBA. Indiana University Former) Samsung Electronics, NH Investment & Securities, KB Investment & Securities Research Center, Head of New Business Promotion Team, Cowell Concurrent) Head of IR Office, SK Chemicals, SK Gas, and SK Bioscience	-	-	N/A	3 years	-
Nam Gi jung	Male	1973.01	Head of Office	Non-registered	Standing	Head of Management Support Office	Bachelor's in Business Administration, Inha University, Master's in Financial Engineering, KAIST Former) Head of Finance Team, SK E&C	-	-	N/A	1 year	-
Kim Hee na	Female	1974.04	Head of Office	Non-registered	Standing	Head of Corporate Culture Office	MBA, University of Chicago Former) Head of SKMS Practice Team, SK E&C, Head of Management Practice Team, SK Gas Concurrent) Head of Corporate Culture Office, SK Gas	-	-	N/A	9 months	-
Lee	Male	1975.06	Head of	Non-	Standing	Head of Legal	Bachelor's in Law, Seoul National	-	-	N/A	6	-

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 (shares)		Relationship to the Largest Shareholder	Period of service	Date of expiration for the term of office
								Shares with voting rights	Shares without voting rights			
Jeong woo			Office	registered		Affairs Office	University Former) Deputy Chief Prosecutor of Chuncheon District Prosecutor's Office Former) Head of Legal Affairs Office, SK Gas				months	
Hwang Jae seon	Male	1977.12	Executive Manager	Non-registered	Standing	In charge of Discovery Lab	Mechanical Engineering, Korea Maritime & Ocean University, Master's in Software Engineering, Korea University MBA, Alto University Former) Head of Cloud Solution Office, Digital Transformation Technology Center, LG Electronics Concurrent) Head of Digital Innovations Office, SK Bioscience Concurrent) Other Non-Standing Executive Director, Korea Marketplace Systems (KMS)	-	-	N/A	1 years and 6 months	-

※ Among the executives above, Outside Director Won-Joon Hong resigned in the interim due to personal reasons on December 31, 2021.

※ The status of changes in the executives from the end of the reporting period (2021.12.31) until the date of submission is as follows.

Classification	Name	Gender	Date of birth (year and month)	Position	Whether a registered executive	Standing auditor	Task in charge	Note
Newly appointed	Lee Hyeong won	Male	1960.02	Chief	Non-registered executive	Standing	Chief of New Growth Energy	Newly appointed on January 1, 2022
	Choi Jae Young	Male	1973.02	Head of Office	Non-registered executive	Standing	Head of Finance Office	Newly appointed on January 1, 2022
Resigned	Hong Won jun	Male	1970.01	Director	Registered executive	Part-time	Outside director	Resigned in the interim on December 31, 2021
	Kim Kee dong	Male	1971.02	Head of Office	Non-registered executive	Standing	Head of Finance Office	Resigned on December 31, 2021
	Kim Hee na	Female	1974.04	Head of Office	Non-registered executive	Standing	Head of Corporate Culture Office	Resigned on December 31, 2021
	Oh Young ho	Male	1952.06	Director	Registered executive	Part-time	Outside director	Resigned in the interim on March 6, 2022

3. Details of Changes in the Largest Shareholder

(Reference date: December 31, 2021)

(Unit: stocks, %)

Date of change	Name of the largest shareholder	Number of shares owned (shares)	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)	-

- ※ The “number of shares owned” and the “share-holding ratio” 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: December 31, 2021)

(Unit: stocks)

Classification	Name of shareholder	Number of shares owned (shares)	Equity interest (%)	Note
Shareholders owning 5% or more	SK Discovery Co., Ltd.	6,137,781	34.83	-
	National Pension Service	1,414,546	8.03	-
Employee stock ownership association		-	-	-

- ※ The number of shares owned and the share-holding ratio above are based on the common stocks (shares with voting rights).
- ※ This is the share-holding status of the shareholders as of December 31, 2021, the recent date of closing of the list of shareholders.

B. Status of minority shareholders

(Reference date: December 31, 2021)

(Unit: stocks)

Classification	Shareholders			Shares owned			Note
	Number of minority shareholders	Total number of shareholders	Ratio (%) (%)	Number of minority shareholders	Total number of issued shares	Ratio (%)	
Minority shareholders	108,044	108,061	99.98	8,864,927	17,620,780	50.31	-

- ※ 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 for the Company's shares are as follows.

(Unit: KRW, stocks)

Type			July 2021	August 2021	September 2021	October 2021	November 2021	December 2021
Common stocks	Share price	Highest	259,500	303,500	329,500	336,500	181,500	161,000
		Lowest	237,000	251,500	267,000	180,000	139,000	141,500
		Assessed	251,023	277,310	286,158	261,868	156,159	149,614
	Trading volume	Highest (daily)	94,405	4,132,526	790,439	1,152,393	454,731	663,478
		Lowest (daily)	26,148	63,919	94,559	121,362	58,560	48,289
		Monthly	1,139,249	11,405,709	5,533,847	5,973,841	3,922,657	3,081,166
Preferred stocks	Share price	Highest	113,500	168,000	190,000	189,500	108,500	98,700
		Lowest	102,500	111,000	131,500	110,500	77,500	78,200
		Assessed	110,023	138,476	154,342	149,737	89,977	86,759
	Trading volume	Highest (daily)	15,570	8109,820	544,204	307,589	94,623	326,585
		Lowest (daily)	3,878	8,261	22,210	12,488	10,888	6,252
		Monthly	158,850	3,477,443	2,169,328	1,249,595	691,796	737,045

VIII. Matters Concerning Executives and Employees, Etc.

1. Status of Executives and Employees, Etc.

A. Status of executives

(Reference date: December 31, 2021)

(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 (shares)		Relationship to 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	Standing	CEO	Bachelor's in Economics, Seoul National University Master's in Economics, London School of Economics Former) Head of Resources Development Division, SK Innovation Concurrent) CEO of SK Discovery	3,000	0	Executive concurrently holding positions	4 years and 1 month	2023.03.25
Jeon Kwang hyun	Male	1964.12	CEO & President	Inside director	Standing	CEO Concurrent) Head of Pharma Business Division	Bachelor's in Business Administration, Korea University Concurrent) President of SK Plasma Concurrent) President of SK Bioscience	775	0	Affiliate's executive	4 years and 1 month	2022.03.24
Park Jeong su	Male	1966.02	Director	Outside director	Part-time	Outside director (member of the Audit Committee)	Bachelor's and Master's in Economics, Seoul National University, PhD in Economics, Stanford University Current) Professor of Economics, Sogang University Current) Outside Director of National Happiness Fund	0	0	-	2 years and 9 months	2022.03.24
Moon Seong hwan	Male	1954.01	Director	Outside director	Part-time	Outside director (member of the Audit Committee)	Bachelor's in Business Administration, Seoul National University, MBA, Business and Economics, University of Helsinki, Finland, CEO & President of Huvis and Samyang Corporation Current) Non-Standing Senior Advisor for Samyang Corporation	0	0	-	1 year and 9 months	2023.03.25
Jo Hong hui	Male	1959.07	Director	Outside director	Part-time	Outside director (member of the Audit Committee)	Bachelor's in Trade, Sungkyunkwan University, Master's in Taxation, University of Bath, UK, Commissioner of Seoul Regional Tax Service Outside Director of Daekyo Co., Ltd. and Celltrion Co., Ltd. Current) Senior Advisor for Bae, Kim & Lee LLC	0	0	-	1 year and 9 months	2023.03.25
An Yang ho	Male	1957.04	Director	Outside director	Part-time	Outside director (member of the Audit Committee)	Bachelor's in Public Administration, Korea University Master's in Government Studies, London School of Economics, PhD in Public Administration, Korea University Graduate School Former) Second Vice Minister of Public Administration and Security Current) Outside Director of Lutronic Current) Senior Advisor for Economic Regulatory Administrative Consulting (ERAC) Current) International Advisory Ambassador for Korea Saemaul Undong	0	0	-	9 months (Note 1)	2024.03.31

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 (shares)		Relationship to the Largest Shareholder	Period of service	Date of expiration for the term of office
								Shares with voting rights	Shares without voting rights			
							Center					
Hwang Chun hyun	Male	1957.08	Executive	Non-registered	Standing	Chief of production	Bachelor's in Business Administration, Pusan National University (Concurrent) Chief of safety and environment of SK Discovery	1,164	0	-	4 years and 1 months	-
Yang Jeong Il	Male	1970.05	Executive	Non-registered	Standing	Assistant to the President	Bachelor's in Law, Seoul National University (Former) Head of Legal Affairs Office, SK Gas, Head of Ethical Management Division, SK Eco Plant	0	0	-	4 years and 1 month	-
Lee Kwang seok	Male	1962.07	Executive	Non-registered	Standing	Assistant to the President	Bachelor's in Business Administration, Pusan National University (Former) Head of Public Relations Office, SK Eco Plant (Concurrent) Head of Communications Office, SK Discovery (Concurrent) Head of Communications Office, SK Gas	0	0	-	4 years and 1 month	-
Kim Hyun Suk	Male	1966.06	Executive	Non-registered	Standing	Head of GC Business Division	Bachelor's in Biochemistry, Yonsei University MBA, University of North Carolina at Chapel Hill	1,024	0	-	4 years and 1 month	-
Lim Cheol jin	Male	1966.02	Executive	Non-registered	Standing	Head of the Management Support Division	Bachelor's and Master's in Chemical Engineering, Seoul National University (Former) Head of G-CUBE Business Division, SK Gas (Concurrent) Head of SK Advanced	0	0	-	1 month	-
Kim Hyo kyung	Male	1967.07	Executive	Non-registered	Standing	In charge of PPS Business Division	Bachelor's in Biochemistry, Yonsei University, MBA, Syracuse University	0	0	-	4 years and 1 month	-
Jo Kyu Dong	Male	1965.01	Executive	Non-registered	Standing	Head of Engineering Office	Bachelor's in Mechanical Engineering, Korea University	0	0	-	4 years and 1 month	-
Bae Hyuck	Male	1967.07	Executive	Non-registered	Standing	Head of Corporate Culture Office	Bachelor's in Chinese Language and Literature, Yonsei University	0	0	-	4 years and 1 month	-
Yoo Ho seob	Male	1966.01	Executive	Non-registered	Standing	Manager of Ulsan Plant	Bachelor's in Chemical Engineering, Seoul National University	0	0	-	4 years and 1 month	-
Kim Tae Young	Male	1967.06	Executive	Non-registered	Standing	Head of Highly Functional Materials Research Office	Bachelor's in Chemical Engineering, Seoul National University, Master's in Chemical Engineering, POSTECH PhD in Packing Polymer, Toledo University	1,222	0	-	4 years and 1 month	-
Kim Jeong Hoon	Male	1970.11	Executive	Non-registered	Standing	Head of R&D Center, Pharma Business Division (Concurrent) Head of Pharma Planning Office	Bachelor's in Pharmaceutical Science, Seoul National University, Master's in Pharmacy, Seoul National University, MBA, University of Washington	20	0	-	4 years and 1 month	-
Kim Han Seok	Male	1968.02	Executive	Non-registered	Standing	Head of Chemistry Research Center	Bachelor's, Master's & PhD in Chemical Engineering, Sogang University	477	0	-	4 years and 1 month	-
Park Young Joo	Male	1970.11	Executive	Non-registered	Standing	Head of IR Office	Bachelor's in Political Science and Diplomacy, Yonsei University, MBA, Indiana University (Former) Samsung Electronics, NH Investment & Securities, KB Investment	0	0	-	3 years	-

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 (shares)		Relationship to the Largest Shareholder	Period of service	Date of expiration for the term of office
								Shares with voting rights	Shares without voting rights			
							& Securities Research Center, Head of New Business Promotion Team, Cowell Concurrent) Head of IR Office, SK Discovery, Head of IR Office, SK Gas, Head of IR Office, SK Bioscience					
Cho Su Dong	Male	1971.08	Executive	Non-registered	Standing	Head of Marketing Division 1 of Pharma Business Division	Bachelor's in Genetic Engineering, University of Suwon, MBA, Hanyang University	90	0	-	4 years and 1 month	-
Yu Hyung Jun	Male	1970.01	Executive	Non-registered	Standing	Head of Marketing Division 3 of Pharma Business Division	Microbial Engineering, Konkuk University	17	0	-	4 years and 1 month	-
Kim Kwang Jin	Male	1970.03	Executive	Non-registered	Standing	Head of Marketing Division 4 of Pharma Business Division	Bachelor's in Regional Development, Hannam University	0	0	-	4 years and 1 month	-
Kim Tae hwan	Male	1976.03	Executive	Non-registered	Standing	In charge of ER, Management Support Office, Pharma Business Division Concurrent) in Charge of ER, Corporate Culture Office, SK Bioscience	Bachelor's in Business Administration, Sungkyunkwan University	0	0	-	6 months	-
Choi Jae Young	Male	1973.02	Executive	Non-registered	Standing	Head of Financial Support Office	Bachelor's in Economics, Pusan National University, MBA, Thunderbird University	0	0	-	4 years and 1 month	-
Choi Byung Gyu	Male	1964.08	Executive	Non-registered	Standing	Head of Management Support Office	Bachelor's in Chemistry, Kyungpook National University Concurrent) Head of SHE Planning Office	0	0	-	4 years and 1 month	-
Kim Eung soo	Male	1969.08	Executive	Non-registered	Standing	Head of Copolyester Business Department	Bachelor's in Textile Engineering, Sungkyunkwan University	0	0	-	4 years and 1 month	-
Jun Sung Chul	Male	1966.05	Executive	Non-registered	Standing	In charge of communications	Bachelor's in News and Broadcasting, Korea University Master's in NGO, NGO Graduate School, Sungkonghoe University	0	0	-	8 months	-

(Note 1) Outside Director An Yang ho was re-appointed at the 4th regular meeting of shareholders which was held on March 31, 2021.

- ※ 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 shares owned by employees.

(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 (shares)		Relationship to the Largest Shareholder	Period of service	Date of expiration for the term of office
									Shares with voting rights	Shares without voting rights			
Newly appointed	Kim Kee dong	Male	1971.02	Executive	Non-registered	Standing	Head of Financial Support Office	Bachelor's in Economics, Korea University, MBA, Indiana University Concurrent) Head of Finance Office, SK Discovery	317	0	-	0 months	
	Kim Hak Sung	Male	1970.06	Executive	Non-registered	Standing	Head of Functional Materials Business Department	Bachelor's in Industrial Chemistry and Master's in Polymer Composite Materials, Seoul National University Concurrent) CEO of ENTIS, CEO of SK Chemicals Daejung	327	0	-	4 years and 1 month	
	Park Jeong Ho	Male	1969.06	Executive	Non-registered	Standing	Head of Basic Technology Research Office	Bachelor's in Chemistry, Seoul National University, Master's in Organic Chemistry, Seoul National University	0	0	-	4 years and 1 month	
	Jung Jae Joon	Male	1976.10	Executive	Non-registered	Standing	Head of New Business Development Office	Bachelor's in Chemical Engineering, Hanyang University	0	0	-	4 years and 1 month	
	Kim Dong ryul	Male	1969.10	Executive	Non-registered	Standing	Head of Advanced Materials Production Office	Bachelor's in Chemical Engineering, Inha University	0	0	-	4 years and 1 month	
	Lee Hyeong won	Male	1960.02	Executive	Non-registered	Standing	Chief of New Growth Energy	Bachelor's and Master's in Resource Engineering, Seoul National University, PhD in Rock Mechanics, Seoul National University Former) Head of Eco Energy Division, SK Eco Plant Concurrent) Chief of New Growth Energy, SK Discovery and SK D&D Chief of Infra Support, SK Gas	0	0	-	0 months	
	Ahn Jae hoon	Male	1976.05	Executive	Non-registered	Standing	Head of Growth Support Office	Bachelor's in Business Administration, Yonsei University, MBA, Northwestern University Former) Senior Managing Director, Morgan Stanley Concurrent) Head of Growth Support Office, SK Bioscience	0	0	-	0 months	
	An Young Il	Male	1972.11	Executive	Non-registered	Standing	Head of Marketing Division 1, Pharma Business Division	Bachelor's in Environmental Engineering, Daejeon University, MBA, Chungnam National University	0	0	-	4 years and 1 month	
	Yoo Hun seung	Male	1975.12	Executive	Non-registered	Standing	Manager of Cheongju Plant, Pharma Business Division	Bachelor's in Pharmacy, Seoul National University, Master's in Pharmacognosy, Seoul National University PhD in Pharmacognosy, Seoul National University	0	0	-	4 years and 1 month	
	Koo Min	Male	1968.12	Executive	Non-registered	Standing	Head of Management	Bachelor's in Accounting, Sungkyunkwan University	0	0	-	4 years and 1	

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 (shares)		Relationship to the Largest Shareholder	Period of service	Date of expiration for the term of office
									Shares with voting rights	Shares without voting rights			
	Hoe						Support Office, Pharma Business Division Chapter					month	
Resigned	Choi Jae Young	Male	1973.02	Executive	Non-registered	Standing	Head of Financial Support Office	Bachelor's in Economics, Pusan National University, MBA, Thunderbird University	0	0	-	4 years and 1 month	
	Kim Hyo kyung	Male	1967.07	Executive	Non-registered	Standing	In charge of PPS Business Division	Bachelor's in Biochemistry, Yonsei University, MBA, Syracuse University	0	0	-	4 years and 1 month	
	Kim Tae Young	Male	1967.06	Executive	Non-registered	Standing	Head of Highly Functional Materials Research Office	Bachelor's in Chemical Engineering, Seoul National University, Master's in Chemical Engineering, POSTECH PhD in Packing Polymer, Toledo University	0	0	-	4 years and 1 month	
	Jo Kyu Dong	Male	1965.01	Executive	Non-registered	Standing	Head of Engineering Office	Bachelor's in Mechanical Engineering, Korea University	0	0	-	4 years and 1 month	

※ 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 shares owned by employees.

B. Status of candidates for the appointment and dismissal of registered executives

(Reference date: March 3, 2022)

Classification	Name	Gender	Date of birth (year and month)	Whether applicable as a candidate for outside director	Professional background	Scheduled date of appointment or dismissal	Relationship to the Largest Shareholder
Appointed	Jeon Kwang hyun	Male	December 1964	-	Bachelor's in Business Administration, Korea University Current) CEO & President, SK Chemicals Concurrent) President of SK Plasma Concurrent) President of SK Bioscience	March 28, 2022	Affiliate's executive
Appointed	An Jae hyeon	Male	February 1966	-	Applied Statistics, Yonsei University Former) CEO & President of SK Eco Plant Current) Chief President of SK Discovery	March 28, 2022	Executive
Appointed	Park Jeong su	Male	February 1966	Outside director	Bachelor's and Master's in Economics, Seoul National University, PhD in Economics, Stanford University Current) Professor of Economics, Sogang University Current) Dean of College of Economics, Sogang University, Current) Outside	March 28, 2022	-

Classification	Name	Gender	Date of birth (year and month)	Whether applicable as a candidate for outside director	Professional background	Scheduled date of appointment or dismissal	Relationship to the Largest Shareholder
					Director of National Happiness Fund Current) Vice President of the Korea Money and Finance Association		

- ※ The reference date is the date on which the board of directors is held to determine the purpose of the regular meeting of shareholders.
- ※ They are the agenda for the 5th 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.
- ※ Inside Director Jeon Kwang hyun and Outside Director Park Jeong su are re-appointments, and Other Non-Standing Director An Jae hyeon is a new appointment.
- ※ 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.

C. Status of the registered executives' concurrent positions held

(Reference date: December 31, 2021)

Classification		Status of concurrent positions held			
Name	Position	Name of Company	Position	Time of appointment	Standing auditor
Kim Cheol	CEO and President	SK Discovery	CEO	2021.03.31	Standing
Park Jeong su	Outside director	National Happiness Fund	Outside director	2019.03.25	Part-time
Jo Hong hui	Outside director	Daishin Securities Co., Ltd.	Outside director	2020.03.20	Part-time
An Yang ho	Outside director	Lutronic	Outside director	2021.03.31	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: December 31, 2021)

(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	71	-	6	-	77	3.00	10,695	139	184	69	253	-
Management Support Division	Female	35	-	14	1	49	2.75	2,836	58				-
Green Chemicals Biz	Male	527	-	33	-	560	3.35	58,169	104				-
Green Chemicals Biz	Female	78	-	8	-	86	3.67	5,847	68				-
Life Science Biz	Male	497	-	7	-	504	3.33	40,369	80				-

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)								
Life Science Biz	Female	151	-	7	-	158	3.04	9,269	59				-
Genders combined	Male	1,095	-	46	-	1,141	3.32	109,233	96				-
Genders combined	Female	264	-	29	1	293	3.18	17,952	61				-
Total		1,359	-	75	1	1,434	3.29	127,185	89				-

- ※ The “average number of years of continuous service” above is based on the number of years of continued service since the new establishment of the entity dated 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 tax office of jurisdiction.
- ※ 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.

E. Status of the non-registered executives' remuneration

(Reference date: December 31, 2021)

(Unit: KRW one million)

Classification	Number of personnel	Total amount of annual salaries	Amount of salary per person	Note
Non-registered executives	21	11,280	537	-

- ※ The “number of personnel” above is as of December 31, 2021, and the “average salary per person” is the sum of the average monthly salaries.
- ※ 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 tax office of jurisdiction.

2. Remuneration of the Executives, Etc.

A. Status of the remuneration for all directors and auditors

<Status of the remuneration for all directors and auditors>

- 1) Amount approved at and by the general meeting of shareholders

(Unit: KRW one million)

Classification	Number of personnel	Amount approved at and by the general meeting of shareholders	Note
Inside director	2 people	5,000	Inside and outside directors combined
Inside director	4 people		

2) Amount of remuneration paid

(1) For all directors and auditors

(Unit: KRW one million)

Number of personnel	Total amount of remuneration	Average amount of remuneration per person	Note
6	2,860	477	-

- ※ The 'number of personnel' 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 tax office of jurisdiction.
- ※ At the 4th regular meeting of shareholders held on March 31, 2021, a new outside director was appointed.

(2) By type

(Unit: KRW one million)

Classification	Number of personnel	Total amount of remuneration	Average amount of remuneration per person	Note
Registered director (excluding outside directors and members of the Audit Committee)	2	2,566	1,283	-
Outside director (excluding member of the Audit Committee)	-	-	-	-
Member of the Audit Committee member	4	294	74	-
Auditor	-	-	-	-

- ※ The "number of personnel" 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 tax office of jurisdiction.
- ※ At the 4th regular meeting of shareholders held on March 31, 2021, a new outside director was appointed.

3) Criteria for the 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 2021. 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 member of the Audit Committee)	-
Member of the Audit Committee member	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 2021.
Auditor	-

B. Status of the individual remuneration for directors and auditors

<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	915	-
Jeon Kwang hyun	President	1,650	-

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	715	In accordance with the executives' treatment standards, the base salary was decided at KRW 715 million, the same as last year, by comprehensively reflecting the duty responsibility (CEO), position (President), leadership, professionalism, and contribution to the Company, and KRW 59 million, or 1/12 of the total, was paid monthly.
		Bonus	200	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, professionalism, and other contribution to the Company. Considering the aspects of quantitative indicators including the sales of KRW 1.21 trillion and operating income of KRW 106.2 billion (on a consolidated basis) for 2020, and given 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 such as COVID-19, and the fact that the Copolyester business achieved the largest performance ever, KRW 200 million were calculated and paid in the form of a bonus.
		Income from the exercise of stock option	-	-
		Other earned income	-	-
	Retirement income	-	-	
	Other income	-	-	
Jeon Kwang hyun	Earned income	Salary	850	In accordance with the executives' treatment standards, the base salary was decided at KRW 850 million, the same as last year, by comprehensively reflecting the duty responsibility (CEO), position (President), leadership, professionalism, and contribution to the Company, and KRW 70 million, or 1/12 of the total, was paid monthly.
		Bonus	800	Remuneration was paid within 0-200% of the base salary by

Name	Type of remuneration	Total amount	Criteria and method of calculation
			comprehensively evaluating the quantitative indicators consisting of sales, operating income, pre-tax income, and net income, etc. and non-quantitative indicators consisting of leadership, professionalism, and other contribution to the Company. Considering the quantitative indicators such as the sales of KRW 1.21 trillion and the operating income of KRW 106.2 billion (on a consolidated basis), and in connection with the non-quantitative indicators, the Copolyester business achieved the largest performance ever, and the Company successfully improved its business portfolio through maximizing the value of the sale of bio-energy business, enhanced the new product pipelines, carried out successful management improvement activities via O/E, and executed effective cost, etc., thereby contributing to the Company's growth even given the COVID-19 situation, considering which KRW 800 million was calculated and paid in the form of 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) Amount of remuneration paid each individually

(Unit: KRW one million)

Name	Position	Total amount of remuneration	Remuneration not included in the total amount of remuneration
An Dong hyeon	Member of the Advisory Committee	2,030	-
Jeon Kwang hyun	President	1,650	-
Kim Hyo kyung	In charge	1,090	-
Kim Cheol	President	915	-
Kim Tae Young	Head of Office	796	-

2) Criteria and method of calculation

(Unit: KRW one million)

Name	Type of remuneration		Total amount	Criteria and method of calculation
An Dong hyeon	Earned income	Salary	193	Professionalism, contribution to the Company, and the concurrent positions held at other companies, etc., were comprehensively reflected in line with the treatment of senior advisors. Considering the concurrent positions held at other companies from January to March 2021, a total of KRW 127 million were set as the annual fee for the senior advisor, and KRW 10 million, or 1/12 of the total, was paid monthly, and a total of KRW 241 million were decided for the annual fee for the senior advisor following the expiration of his concurrent positions held at other companies and the changes made to the role, and KRW 20 million, or 1/12 of the total, was paid monthly.
		Bonus	-	-
		Income from the exercise of stock options	1,837	Based on the difference obtained from exercising the stock options granted on March 6, 2019, for enhancing the long-term corporate value of the Company while in service, it was calculated by multiplying the exercise price and the stock price at the time by the quantity of exercise (exercise price: KRW 72,824, stock price: KRW 256,500, quantity: 10,000 shares).
		Other earned income	-	-
	Retirement income	-	-	
	Other income	-	-	
Jeon Kwang hyun	Earned income	Salary	850	In accordance with the executives' treatment standards, the standard annual salary was decided at KRW 850 million, the same as last year, by comprehensively reflecting the position (CEO), position (President), leadership, professionalism, and contribution to the Company, and KRW 70 million, or 1/12 of the total, was paid monthly.
		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, professionalism, and other contribution to the Company. Considering quantitative indicators such as the sales of KRW 1.21 trillion and the operating income of KRW 106.2 billion (on a consolidated basis), and in connection with the non-quantitative indicators, the Copolyester business achieving the largest performance ever, the Company's successfully improved business portfolio via maximized value of the sale of bio-energy business, enhanced new product pipelines, successful management improvement activities carried out via O/E, and executed effective cost, etc., thereby contributing to the Company's growth even given the COVID-19 situation, considering which, KRW 800 million was calculated and paid in the form of a bonus.
		Income from the exercise of stock option	-	-
		Other earned	-	-

Name	Type of remuneration		Total amount	Criteria and method of calculation
		income		
	Retirement income		-	-
	Other income		-	-
Kim Hyo kyung	Earned income	Salary	210	In accordance with the executives' treatment standards, the base salary was determined at a total of 210 million by comprehensively considering the position, leadership, professionalism, and the contribution to the Company, and KRW 17 million, or 1/12 of the total, was paid monthly.
		Bonus	343	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, professionalism, and other contribution to the Company. Considering the contribution he made to the expanded sales of functional resin and the improvement of profitability, a bonus of KRW 90 million was calculated and paid. Furthermore, a bonus of KRW 70 million was calculated and paid under the name of executives' and employees' special recognition to encourage the achievement of achievements such as the strong Copolyester sales and the successful IPO of SK Bioscience in the first half of the year, and considering his contribution to discovering and commercializing new engineering plastic businesses such as PPS during his service, a bonus of KRW 182 million was calculated and paid in the name of special recognition.
		Income from the exercise of stock option	-	-
		Other earned income	-	-
	Retirement income		527	In accordance with the Regulations on the Payment of Executives' Retirement Benefits, KRW 365 million was calculated and paid by multiplying the monthly salary at the time of retirement with 8 years of service and the average rate of payment. Furthermore, in accordance with the Regulations on the Payment of Executives' Retirement Benefits, KRW 161 million was calculated and paid in the name of retirement consolidation considering the contributions he made for the Company's development during his service.
	Other income		11	Approximately KRW 10 million were paid as the remainder of the use of Benefit Points as part of the executives' welfare benefits.
Kim Cheol	Earned income	Salary	715	In accordance with the executives' treatment standards, the base salary was decided at KRW 715 million, the same as last year, by comprehensively reflecting the duty responsibility (CEO), position (President), leadership, professionalism, and contribution to the Company, and KRW 59 million, or 1/12 of the total, were paid monthly.
		Bonus	200	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, professionalism, and other contribution to the Company. Considering the aspects of quantitative indicators such as the sales

Name	Type of remuneration		Total amount	Criteria and method of calculation
				of KRW 1.21 trillion and operating income of KRW 106.2 billion (on a consolidated basis) for 2020, and given 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 such as COVID-19 and the fact that the Copolyester business achieved the largest performance ever, KRW 200 million was calculated and paid in the form of a bonus.
		Income from the exercise of stock option	-	-
		Other earned income	-	-
	Retirement income		-	-
	Other income		-	-
Kim Tae Young	Earned income	Salary	206	In accordance with the executives' treatment standards, the base salary was determined at a total of 210 million by comprehensively considering the position, leadership, professionalism, and the contribution to the Company, and KRW 17 million, or 1/12 of the total, were paid monthly.
		Bonus	320	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, professionalism, and other contribution to the Company. Considering the contribution he made to the expanded sales of functional resin through the development of new uses and technical support, a bonus of KRW 70 million was calculated and paid. Furthermore, KRW 70 million was calculated and paid in the name of special recognition for executives and employees to commend the strong Copolyester sales, and the successful IPO of SK Bioscience, and for the contribution he made to the Company's growth through the promotion of R&D of highly functional materials during his service, KRW 180 million was calculated and paid in the form of a bonus.
		Income from the exercise of stock option	-	-
		Other earned income	-	-
	Retirement income		260	In accordance with the Regulations on the Payment of Executives' Retirement Benefits, KRW 185 million was calculated and paid by multiplying KRW 17 million, the monthly salary at the time of retirement, by 4 years of service and the average rate of payment. Furthermore, in accordance with the Regulations on the Payment of Executives' Retirement Benefits, KRW 74 million was calculated and paid in the name of retirement consolidation considering the contributions he made to the Company's development during his service.
	Other income		10	Approximately KRW 9 million was paid as the remainder of the use of Benefit Points as part of the executives' welfare benefits.

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 personnel	Total fair value of stock options	Note
Registered director	2	93,252	-
Outside director	-	-	-
Member of the Audit Committee or auditor	-	-	-
Total	2	93,252	-

※ As for the fair value of stock options, only the total amount is entered for those of the registered directors among the portions calculated as the expenses related to the stock options in the income statement (statement of comprehensive income) for the current business year.

2) Calculation method of fair value, etc.

The details of the stock options' fair value calculation as of the end of the current period are as follows.

(Reference date: December 31, 2021)

(Unit: shares, 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)
2018.03.06	29,988	2020.3.7 - 2025.3.6	71,785	15,864
2018.03.26 (1st)	22,491	2021.3.27 - 2025.3.26	72,009	16,226
2018.03.26 (2nd)	44,984	2022.3.27 - 2025.3.26	77,724	13,717
2019.03.25 (1st)	22,491	2021.3.26 - 2026.3.25	47,749	9,184
2019.03.25 (2nd)	22,492	2022.3.26 - 2026.3.25	51,517	7,856

(Note 1) Following the capital increase without consideration during the current 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 entered.

(Note 2) As of December 31, 2021, the weighted average residual maturity of the unexercised stock options is 3.54 years.

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	2018.3.6 Granted portion	2018.3.26 Granted portion (1st)	2018.3.26 Granted portion (2nd)	2019.3.25 Granted portion (1st)	2019.3.25 Granted portion (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 during the current period, the exercise price has been adjusted, and the share price on the date of grant has been adjusted and entered.

3) Status of the stock options granted and exercised

(Reference date: December 31, 2021)

(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
						Exercised	Revoked	Exercised	Revoked			
Hwang Chun hyun	Non-registered executives	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 to 2025.03.06	71,785
Kim Hyun Suk	Non-registered executives	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 to 2025.03.06	71,785
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 to 2025.03.26	72,009
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 to 2025.03.26	77,724
OOO (Note 1)	-	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 to 2025.03.26	77,724
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 to 2026.03.25	47,749
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 to 2026.03.25	51,517

(Note 1) This is the heir to Park Man-Hun, deceased, who was initially granted the stock options.

※ The “Quantity initially granted” above reflects the increase following the capital increase without consideration executed on October 22, 2021.

※ The closing price for common share as of the end of December 2021 is KRW 149,000.

IX. Matters Concerning Affiliates, Etc.

1. Status of the Affiliates

A. Name of the corporate group and the number of affiliates

- Status of the affiliates (summarized)

(Reference date: December 31, 2021)

(Unit: number of companies)

Name of corporate group	Number of affiliates		
	Listed	Unlisted	Total
SK	20	616	636

※ For the detailed status, refer to “Detailed Table-2. Status of Affiliates (Details).”

※ These are based on the inclusion of the overseas affiliates, and the overseas affiliates are classified as unlisted.

※ SK Materials Holdings Co., Ltd. (formerly, SK Materials Co., Ltd.) was merged and dissolved with SK Co., Ltd. on December 9, 2021, and was delisted (classified as unlisted in the table above).

※ Busan City Gas Co., Ltd. was delisted on the January 18, 2022 (classified as listed in the table above).

B. Name of the affiliated companies

- Name of 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	Standing auditor
Kim Cheol	CEO and President	SK Discovery	CEO	2021.03.31	Standing

※ The date of appointment above is the latest date of appointment.

2. Status of Investments in Other Entities

- Status of investments in other entities (summarized)

(Reference date: December 31, 2021)

(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	13	14	253,297	129,189	-	382,486
General investment	-	-	-	-	-	-	-
Simple investment	-	7	7	24,492	8,946	1,144	34,581
Total	1	20	21	277,789	138,135	1,144	417,067

※ For the detailed status, refer to “Detailed Table-3. Status of Investment in Other Entities (Details).”

X. Details of Transactions with the Largest Shareholder, Etc.

1. Credit Exposure for the Largest Shareholder, Etc.

A. Credit exposure for the largest shareholder, etc.

- Not applicable

B. Credit exposure for those other than the largest shareholder, etc.

The details of the payment guarantees provided for the related parties for the period running from the date of commencement of the business year in which the date of preparation of disclosure documents belongs until the reference date of preparation of disclosure documents are as follows.

(Reference date: December 31, 2021)

(Unit: USD)

Name of related parties	Relationship of special interest	Creditor	Amount of debt guaranteed		Period of debt guarantee	Details of transaction (balance)		
	Classified		Currency	Amount		Beginning of period	Change	End of period
ST Green Energy Pte, Ltd	Subsidiary	HSBC	USD	5,000,000	2020.05.23 to 2021.05.22	5,000,000	-5,000,000	-
		DBS Co., Ltd.	USD	4,000,000	2021.03.18 to 2022.03.17	4,000,000	-	4,000,000
		Hana Bank	USD	7,200,000	2021.04.23 to 2022.04.22	-	7,200,000	7,200,000
	Subtotal		USD	16,200,000	-	9,000,000	2,200,000	11,200,000
SK Chemicals America	Subsidiary	Irvine Branch of Shinhan Bank	USD	3,000,000	2020.02.22 to 2021.02.22	3,000,000	-3,000,000	-
	Subtotal		USD	3,000,000	-	3,000,000	-3,000,000	-

2. Transfer of Assets with the Largest Shareholder, Etc.

- Not applicable

3. Business Transactions with the Largest Shareholder

- Not applicable

4. Transactions with Parties of Interest other than the Largest Shareholder

A. Details of key transactions with the related parties

The details of major transactions conducted with related parties for the current periods are as follows.

<Current period>

(Unit: KRW one thousand)

Classification	Name of related parties	Sales (Note 1)	Other income and asset sales, etc. (Note 1)	Purchase (Note 1)	Other expenses and capital expenditures, etc. (Note 1)
Companies exercising a significant influence	SK Discovery Co., Ltd.	63,636	110,508	-	1,327,143

Classification	Name of related parties	Sales (Note 1)	Other income and asset sales, etc. (Note 1)	Purchase (Note 1)	Other expenses and capital expenditures, etc. (Note 1)
Affiliates and joint ventures	Entis Co., Ltd.	1,268,092	3,779,346	3,492,735	538
	JSI Co., Ltd.	64,060	109,716	93,510	-
	ST Green Energy	-	589,952	-	213,882,734
Others	SK Gas Co., Ltd.	541,806	-	6,211,366	4,199,736
	SK Plasma Co., Ltd.	1,720,195	1,236,564	353,017	13,512
	SK Advanced Co., Ltd.	3,903,094	1,129,639	7,279,652	274,293
	Huvis Co., Ltd.	12,481,991	135	22,414,559	17,450
	SK Eco Plant Co., Ltd. (Notes 2, 3)	-	-	-	10,378,517
	SK Networks Co., Ltd.	8,666,193	-	11,310,417	437,929
	SK NETWORKS HONGKONG	-	-	24,191,033	-
	SKC Co., Ltd.	4,267,324	4,529	298,425	180,396
	SK Energy Co., Ltd.	14,661,175	-	265,271	1,386,994
	SK Geo Centric Co., Ltd. (Note 4)	-	-	38,278,079	-
	SK Co., Ltd.	-	-	-	7,468,194
	SK Hynix Co., Ltd.	1,279,091	-	-	-
	Happynarae Co., Ltd.	-	-	2,575,144	11,117,424
Others	4,047,899	-	389,640	8,701,138	
Total		52,964,556	6,960,389	117,152,848	259,385,998

(Note 1) Included are the amounts of transactions conducted with related parties replaced by the profit or loss from discontinued operations.

(Note 2) The corporate name of SK E&C Co., Ltd. was changed to SK Eco Plant Co., Ltd. during the current period.

(Note 3) The consolidated companies have acquired the tangible assets of KRW 10,269,702,000 from SK Eco Plant Co., Ltd. during the current period.

(Note 4) The corporate name of SK Chemicals Co., Ltd. was changed to SK Geo Centric Co., Ltd. during the previous period.

<Previous period>

(Unit: KRW one thousand)

Classification	Name of related parties	Sales (Note 1)	Other income and asset sales, etc. (Note 1)	Purchase (Note 1)	Other expenses and capital expenditures, etc. (Note 1)
Companies exercising a significant influence	SK Discovery Co., Ltd.	63,636	70,500	-	247,397
Affiliates and joint ventures	JSI Co., Ltd.	21,000	28,241	50,577	-
	Entis Co., Ltd.	1,148,954	2,107,965	1,178,111	716
	ST Green Energy	-	732,590	67,899,861	96,452,407
Other related parties	SK Gas Co., Ltd.	260,450	-	5,477,198	876,279
	SK Plasma Co., Ltd.	2,213,741	738,211	7,936,713	23,420
	SK Advanced Co., Ltd.	3,800,806	641,550	6,801,326	266,933
	Huvis Co., Ltd.	6,528,398	-	13,208,780	37,202
	SK E&C Co., Ltd. (Note 2)	-	-	-	11,062,810
	SK Networks Co., Ltd.	1,693,994	-	8,859,453	237,173
	SK NETWORKS HONGKONG	-	-	15,992,056	32,330
	SK Incheon Petrochem Co., Ltd.	2,943,128	-	-	-
	SKC Co., Ltd.	2,334,459	50,281	51,272	878
	SK Energy Co., Ltd.	54,046,317	-	28,453	1,166,459
	SK Petrochem Co., Ltd.	-	-	46,117,502	-
	SK Co., Ltd.	-	-	-	8,568,470
	SK Hynix Co., Ltd.	1,544,198	-	-	-
	Happynarae Co., Ltd.	-	-	1,925,311	9,976,754
	Others	408,231	197,525	180,200	6,628,403
Total		77,007,312	4,566,863	175,706,813	135,577,631

(Note 1) Included are the amounts of transactions conducted with related parties replaced by the profit or loss from discontinued operations.

(Note 2) The consolidated companies have acquired the tangible assets of KRW 11,062,810,000 from SK E&C 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 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
Companies exercising a significant influence	SK Discovery Co., Ltd.	35,000	10,130	-	296,082
Affiliates and joint ventures	Entis Co., Ltd.	148,675	508,511	240,062	-
	JSI Co., Ltd. (Note 1)	15,488	3,750,000	-	-
	HDC Polyol Co., Ltd.	-	1,161,028	-	-
	ST Green Energy	-	22,002	-	104,850,770
Others	SK Gas Co., Ltd.	25,488	480,972	880,110	2,632,712
	SK Plasma Co., Ltd.	87,777	5,476	-	-
	SK Advanced Co., Ltd.	499,893	324,728	639,037	3,076,508
	Huvis Co., Ltd.	-	-	3,423,392	-
	SK Eco Plant Co., Ltd. (Note 2)	-	164,426	-	65,994
	SK Networks Co., Ltd.	-	-	1,393,244	26,800
	SK NETWORKS HONGKONG	-	968,739	13,714,225	325,133
	SKC Co., Ltd.	357,808	-	15,802	-
	SK Energy Co., Ltd.	2,298,473	-	-	235,672
	SK Geo Centric Co., Ltd. (Note 3)	-	-	3,490,860	-
	SK Co., Ltd.	-	-	-	846,887
	SK Hynix Co., Ltd.	95,225	-	-	-
	Happynarae Co., Ltd.	-	-	189,005	1,245,508
	Others	591,149	40,373	138,996	829,975
Total		4,154,976	7,436,385	24,124,733	114,432,041

(Note 1) The consolidated companies have placed an allowance for bad debts for the loan of KRW 3,750 million for JSI Co., Ltd. in full.

(Note 2) The corporate name of SK E&C Co., Ltd. was changed to SK Eco Plant Co., Ltd. during the current period.

(Note 3) The corporate name of SK Chemicals Co., Ltd. was changed to SK Geo Centric Co., Ltd. during the current period.

<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 exercising a significant influence	SK Discovery Co., Ltd.	35,000	-	-	198,443
Affiliates and joint ventures	JSI Co., Ltd. (Note 1)	60,544	4,050,000	31,833	-
	Entis Co., Ltd.	146,038	324,898	133,056	7,059
	ST Green Energy	-	11,750	-	76,971,937
Other related parties	SK Gas Co., Ltd.	23,875	215,832	442,194	2,776,747
		114,907	64,086	1,283,097	2,310
	SK Advanced Co., Ltd.	343,549	39,844	499,592	3,178,359
	Huvis Co., Ltd.	367,360	-	3,853,602	-
	SK Networks Co., Ltd.	-	-	662,953	-
	SK NETWORKS HONGKONG	-	275,451	8,728,819	-
	SKC Co., Ltd.	486,268	-	28,200	-
	SK Energy Co., Ltd.	1,502,422	-	-	87,126
	SK Petrochem Co., Ltd.	-	-	2,494,270	-
	SK Co., Ltd.	-	-	-	712,348
	SK Hynix Co., Ltd.	115,292	-	-	2,797
	Happynarae Co., Ltd.	-	-	134,935	1,096,316
	Others	17,560	-	-	679,246
Total		3,212,815	4,981,861	18,292,551	85,712,688

(Note 1) The consolidated companies have placed an allowance for bad debts for the loan of KRW 4,050 million for JSI Co., Ltd. in full.

C. Key fund transactions with the related parties

The details of fund transactions with related parties during the current period are as follows.

① Investments

<Current period>

(Unit: KRW one thousand)

Classification	Name of related parties	Investments
Affiliates and joint ventures	HDC Polyol Co., Ltd.	7,699,750
	ST Green Energy	385,515

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)	4,050,000	(300,000)	3,750,000

(Note 1) The consolidated companies have placed an allowance for bad debts for the loan of KRW 3,750 million for JSI Co., Ltd. in full.

<Previous period>

(Unit: KRW one thousand)

Classification	Target companies	Beginning of period	Placement (Note 1)	End of period
SK Chemicals Co., Ltd.	JSI Co., Ltd.	-	4,050,000	4,050,000

(Note 1) The consolidated companies have placed an allowance for bad debts for the loan of KRW 4,050 million for JSI Co., Ltd. in full.

XI. Other Matters Required for the 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
2021.09.13	"Investment in new facilities, etc."	Multi-Utility business investment	In progress 1) Investment of KRW 428.1 billion to promote the specialization of industrial electric power and steam supply business (investment period: May 2022 - 2nd half of 2024) 2) The relevant investment will be carried out by 'SK Multi-Utility Co., Ltd.', which was divided and newly established on December 1, 2021.

2. Matters Concerning Contingent Liabilities, Etc.

A. Important litigations [SK Chemicals]

(Reference date: December 31, 2021)

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 No. 2014GAHAP588147)	2014.12.01	Plaintiff: Korea Environmental Industry and Technology Institute Defendant: SK Chemicals and 2 others	The government subsidizes 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
Indemnity claims (Seoul Central District Court Case No. 2016GAHAP574210)	2016.12.01	Plaintiff: National Health Insurance Corporation Defendant: SK Chemicals and 12 others	Claims made for the compensation for insurance benefits paid by the National Health Insurance Corporation for the victims of health damages caused by the humidifier disinfectants	69.7	1st trial in progress	Date estimated
Petition for cancellation of corrective order, etc. (Supreme Court Case No. 2019DU58407)	2019.11.18	Plaintiff: SK Chemicals and 1 other Defendant: Fair Trade Commission	Petitioned for the cancellation of 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	3rd trial in progress	-
Claim for damages (Seoul Central District Court Case No. 2016.05.16)	2016.05.16	Plaintiff: Kang Chan-Ho and 345 others Defendant: SK	Claims for damages of the victims of health damages caused by the humidifier disinfectants	112.0	1st trial in progress	Date estimated

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
2016GAHAP527467)		Chemicals and 19 others				
Claim for damages (Seoul District Court Case No. 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.	7.1	1st trial in progress	Date estimated
Patent infringement related suit (Seoul Central District Court Case No. 2021NA1787)	2016.03.02	Plaintiff: Novartis AG Defendant: SK Chemicals	The Plaintiff's 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	Submission of reasons for appeal on 2021.12.09.
Patent infringement related suit (Seoul District Court Case No. 2021NA1459)	2021.06.09	Plaintiff: SK Chemicals Defendant: Korea Prime Pharmaceutical	Filed a suit against infringements of the patents related to Promac products	1.0	Loss in 2nd trial confirmed	Loss of suit judgment rendered on 2021.11.25.
Cancellation of disposition to adjust the upper limit of drugs (Seoul Administrative Court Case No. 2019GUHAP91107)	2019.12.26.	Plaintiff: SK Chemicals and 1 other Defendant: Minister of Health and Welfare	Suit of cancellation concerning the disposition of lowering medical care benefits for the Company's original drug	0.5	Loss in 1st trial confirmed	Loss of trial judgment rendered on 2021.11.04.

- ※ 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 the Case No. Seoul Central District Court 2014GAHAP588147 on the indemnity claim case and the Case No. Seoul Central District Court 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 division of the Company.

[SK Bioscience]

(Reference date: December 31, 2021)

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
Prohibition of patent infringement related lawsuit (2020GAHAP591823)	2020.10.27	Plaintiff: Wyeth LLC, Pfizer Korea Defendant: SK Bioscience	Petitioned for the prohibition of patent infringements related to pneumococcal vaccines	KRW 300 million	1st trial in progress	Pleading on 2022.01.20

- ※ 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 accordingly, the Company plans to minimize its losses by efficiently responding to the lawsuits.

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 Statements - 24. Contingencies and Agreements" and "X. Transactions with the Largest Shareholder, Etc. - 1. Credit Extension for the Largest Shareholder, Etc. - A. Credit extension for the largest shareholder, etc."

D. Other contingent liabilities, etc.

1) Details of the agreement

[SK Chemicals]

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.	An agreement on a limit of KRW 75,000 million and another on the foreign currency borrowings of USD 23.2 million
	An agreement on the opening of a letter of credit of USD 137.8 million and EUR 22 million, etc.
	An agreement on the limit with the exemption of security deposit for derivatives of KRW 41.5 million, etc.
Seoul Guarantee Insurance, etc.	A contractual performance payment guarantee with a limit of KRW 11,004 million, 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	Foreign currency payment guarantee - contractual performance	USD 30,000,000	USD 30,000,000
	Loans secured by accounts receivable	KRW 4,000 million	-
	Agreement on exemption of security deposit for derivatives	USD 73,000,000	USD 15,584,830
Shinhan Bank	Loans secured by accounts receivable	KRW 3,000 million	-
	Derivatives (revolving transaction)	KRW 13,040 million	KRW 5,319 million
Woori Bank	General corporate loan for working capital	KRW 5,000 million	-
Suhyup Bank	Derivatives (revolving transaction)	KRW 11,000 million	KRW 6,615 million
JP Morgan Chase Bank	Derivatives (revolving transaction)	USD 100,000,000	USD 41,000,000

2) Status of the provision of security and others

[SK Bioscience]

The status of the provision of security by SK Bioscience as of the date of preparation of disclosure documents are as follows.

Classification	Details
Amount set for security	Total of KRW 21,110 million - Korea Securities Finance: KRW 15,300 million - Hana Bank: KRW 3,960 million - NH Nonghyup Bank: KRW 1,850 million
Assets provided for security	Securities finance deposits and term deposits
Period of collateral provision	- Korea Securities Finance: 2021.03.08 - 2023.03.09 - Hana Bank: 2021.03.08 - 2022.04.08 - NH Nonghyup Bank: 2021.03.08 - 2022.04.08
Others	The provision of security above is related to the personal loans following the payment of the subscription payment for the acquisition of employee stocks, which are allocated with priority for the employee stock ownership association for the paid-in capital increase via the general public offering on March 9, 2021, for the Company's executives and employees.

3) Status of future trade receivables' securitization

- Not applicable

3. Matters Related to Sanctions, Etc.

Date	Institution of sanction	Target of sanction	Details of punishment or measure taken	Amount of monetary sanction	Reason	Applicable laws and regulations	Status of performance	Countermeasure
2019.08.01	Nam-gu Office, Ulsan	SK Chemicals	Fines imposed	KRW 400,000	Failed to report on the changes made to the facilities subject to specific soil pollution management (follow-up measures were inadequate after the closure of hazardous material tanks)	Article 32 of the Soil Environment Conservation Act	Fines paid	Efforts made to prevent against recurrence
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 against recurrence

A. Sanctions by the Korea Exchange, etc.

- Not applicable

B. Matters concerning the occurrence and return of gains from trading

- Not applicable

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

- Not applicable

B. Post merger information

1) New establishment the Company via spin off

Following the extraordinary meeting of shareholders held on October 27, 2017, the Company was spun off on December 1, 2017, the date of spin-off. The details related to the Company's spin-off are as follows.

Classification	Name of Company	Business Division
Surviving company via spin off	SK Discovery Co., Ltd.	Subsidiaries' management and new business investments
Divided and newly established company	SK Chemicals Co., Ltd.	Green Chemicals business and the Life Science business

2) Merger with SK Petrochemical

In accordance with the resolution of the board of directors substituting for the extraordinary meeting of shareholders held on March 26, 2018, the Company merged with SK Petrochemical on May 1, 2018, date of merger. The purpose of this merger is to enhance such corporate values as business synergies and management efficiency via the internalization of petrochemical business value.

[Related disclosure: Report on the matters of importance (merger decision of the Company), February 12, 2018]	
1. Method of merger	SK Chemicals Co., Ltd. merged with SK Petrochemical Co., Ltd. - Surviving company: SK Chemicals Co., Ltd. - Extinct company: SK Petrochemical Co., Ltd.
- Form of merger	Small-scale merger
2. Purpose of merger	Enhance the corporate value via the internalization of petrochemical business value
3. Important impact and effect of the merger	1. Impact on the Company's business management As of the date of submission of this report, SK Chemicals Co., Ltd. owns 100% of interest in SK Petrochemical Co., Ltd. Upon the completion of the merger, SK Chemicals Co., Ltd. will remain as a surviving company, and SK Petrochemical Co., Ltd., the merged entity, will be dissolved after the merger. The merged entity of SK Chemicals Co., Ltd. does not issue new shares in executing the merger, and there is no change in the largest shareholder of SK Chemicals Co., Ltd. after the merger's completion. 2. Impact and effect on the Company's finance and operations The merger is expected to have a positive impact on the Company's finance and operations by enhancing business synergies and management efficiency.

4. Merger ratio Merger ratio		SK chemicals Co., Ltd.: SK Petrochemical Co., Ltd. = 1.0000000: 0.0000000			
5. Calculation basis for merger ratio		The merger entity of SK Chemicals Co., Ltd. owns 100% of shares of the merged entity of SK Petrochemical Co., Ltd., and at the time of the merger, the merger ratio is calculated as 1.0000000:0.0000000 since the merger entity does not issue new shares for the shares of the merged entity.			
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 stock	-		
		Different classes of stocks	-		
8. Merger targeted company	Name of Company	SK Petrochemical Co., Ltd.			
	Main Business	Basic chemical manufacturing business			
	Relationship with the Company	Affiliated company			
	Financial details for the latest business year (KRW)	Total Assets	63,603,812,554	Capital	60,000,000,000
		Total Liabilities	21,333,503,640	Sales amount	106,425,708,136
Total equity		42,270,308,914	Net income	9,255,412,235	
- Whether external audit is conducted	Name of institution	Ernst & Young Han Young	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	N/A	
10. Schedule of merger	Date of merger contract	2018.02.13	
	Reference date of shareholders' confirmation	2018.02.27	
	Period of the closure of register of shareholders	From	2018.02.28
		To	2018.03.02
	Period for the receipt of notice of objection to merger	From	2018.02.27
		To	2018.03.13
	Scheduled date of shareholders' meeting	-	
	Period of the exercise of the appraisal right	From	-
		To	-
	Period for submission of old share certificates	From	-
		To	-
	Expected period of trading suspension	From	-
		To	-
	Filing period for statement of objections by creditors	From	2018.03.26
		To	2018.04.26
	Record date of merger	2018.05.01	
	Date of general meeting for closing report	-	
	Scheduled date of merger registration	2018.05.02	
	Scheduled delivery date of new share certificates	-	
	Scheduled listing date of new shares	-	
11. Whether it is a back-door listing	N/A		
12. Whether requirements for back-door listing for another entity are satisfied	N/A		

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	-
	Place of meeting	-
	Payment scheduled date, method	-
	Details related to the restrictions on the appraisal right	-
	Effects on contract	-
14. Capitalization of reserves (capital increase without consideration) Date of board resolution (decision date)		2018.02.12
- 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 proceeded as a capital increase without consideration and with the issuance new shares, there is no recruitment or sales of securities requiring the submission of a securities registration statement during 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 replaced 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 2016.
- (4) The general meeting of closing report of the merger schedule above will be replaced by the announcement

procedure according to the resolution of the board of directors pursuant to the provisions of Article 526-3 of the Commercial Act.

(5) Key merger schedule

Classification	Date	Note
Date of board resolution on the merger	2018.02.12	-
Submission of the report on important matters	2018.02.12	-
Announcement of the designation of the date of shareholders' confirmation and the closing of the list of shareholders	2018.02.12	-
Date of merger contract	2018.02.13	-
Reference date of shareholders' confirmation	2018.02.27	-
Announcement of small-scale merger	2018.02.27	-
Period of the closure of register of shareholders	2018.02.28 to 2018.03.02	-
Period for the receipt of notification of the intent to oppose the merger	2018.02.27-2018.03.13	-
Date of board resolution on the merger	2018.03.26	Substituted by the general meeting of shareholders
Announcement of the creditors' submission of objection	2018.03.26	-
Period for filing statement of objections by creditors	2018.03.26-2018.04.26	-
Record date of merger	2018.05.01	-
General meeting of closing report for the merger	2018.05.02	Reported to the board
Announcement of closing report for the merger	2018.05.02	-
Merger registration (scheduled)	2018.05.02	-

(6) The merger schedule above is estimated as of the point of disclosure, and is subject to change via consultations and the approval process with related organizations, etc.

[Related disclosure: Report on the closing of merger, etc. (merger), May 2, 2018]

I. Schedule

Classification	SK Chemicals Co., Ltd. (surviving company)	SK Petrochemical Co., Ltd. (extinct company) Extinct company
Date of board resolution on the merger	2018.02.12	2018.02.12
Announcement of the reference date of shareholders' confirmation and the closure of the list of shareholders	2018.02.12	-
Date of merger contract	2018.02.13	2018.02.13
Reference date of shareholders' confirmation	2018.02.27	-

Date of announcement of small-scale merger (simple merger)		2018.02.27	-
Period of the closure of register of shareholders	From	2018.02.28	-
	To	2018.03.02	-
Period of the receipt of notice of the intent to oppose the merger	From	2018.02.27	-
	To	2018.03.13	-
Board approval substituting for the general meeting of shareholders for the merger approval		2018.03.26	2018.03.26
Date of announcement for the creditors' submission of objection		2018.03.26	2018.03.26
Period for filing statement of objections by creditors	From	2018.03.26	2018.03.26
	To	2018.04.26	2018.04.26
Record date of merger		2018.05.01	2018.05.01
Date of board resolution substituting for the general meeting of shareholders of closing report for the merger		2018.05.02	-
Date of announcement of the closing report for the merger		2018.05.02	-
Scheduled date of the merger registration (dissolution registration)		2018.05.02	2018.05.02

- 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 replaced by a board resolution.
- Note 2) The requirement of closing report for the merger via the general meeting of shareholders is replaced by an announcement via the 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 the shares of SK Petrochemical Co., Ltd., and these companies of the merger decided to merge per a 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

In the case of SK Chemicals Co., Ltd., the surviving company, since it is a small-scale merger pursuant to the provisions of Article 527-3 of the Commercial Act, the appraisal right is not granted.

Since the extinct company of SK Petrochemical Co., Ltd., is also a 100% subsidiary of SK Chemicals Co., Ltd., there

is no appraisal right.

IV. Matters concerning the creditor protection

The surviving company of SK Chemicals Co., Ltd. and the extinct company of SK Petrochemical Co., Ltd. each announced and issued a notice of the creditors' submission of objection on March 26, 2018, and no creditor submitted an objection by the deadline for such submission, which was April 26, 2018. Furthermore, there is no decision made to repay the debt or provide equivalent security with 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 one executed without new shares issued for the 100% subsidiaries (at the merger ratio of 1.0000000:0.0000000), no new shares are issued, and there is no separate money delivered due to amalgamation following the merger.

VII. Summary of the financial information before and after the [merger, etc.]

(Unit: KRW million)

Classification	Before the merger		After the merger
	SK Chemicals Co., Ltd.	SK Petrochemical Co., Ltd.	SK Chemicals Co., Ltd.
Current assets	539,577	72,907	595,378
Non-current assets	1,120,578	11,846	1,099,991
Total Assets	1,660,155	84,753	1,695,369
Current liabilities	582,069	22,603	587,867
Non-current liabilities	358,151	325	358,476
Total Liabilities	940,220	22,928	946,343
Capital	65,193	60,000	65,193
Capital surplus	657,862	9,424	686,953
Retained earnings (losses)	(3,120)	(7,599)	(3,120)
Total equity	719,935	61,825	749,026
Total liabilities and shareholders' equity	1,660,155	84,753	1,695,369

Note 1) The statement of financial position above is based on the separate statements of financial position as of December 31, 2017 of SK Chemicals Co., Ltd. and SK Petrochemical Co., Ltd., which may vary from the statement of financial position to be prepared based on the actual date of the merger (May 1, 2018).

Note 2) The statement of financial position of SK Chemicals Co., Ltd. after the merger above has not been audited by an external auditor.

3) Establishment of SK Bioscience via split-off

At the board of directors meeting held on May 2, 2018, a decision was reached to split off the Vax. business division as of July 1, 2018, the date of split-off, and the split-off was completed on this date of split-off. The purpose of this split-off is to enhance the management efficiency and professionalism and lay the foundation for a responsible management system by further specializing the expertise of the VAX business division and performing mobility enhanced management

activities consistent with such purpose. Furthermore, by reinvesting the profits generated from the VAX business in the relevant business, it was sought to enhance the focus and competitiveness of the business, and lay the foundation for growth thereby, and also to maximize the shareholder value through profit generation over the long term. This split-off was carried out such that, as provided under Articles 530-2 through 530-12 of the Commercial Act, the business division subject to split-off was split off to establish a new company, and it was carried out in the manner of a simple split-off by which 100% of the issued shares of the company newly established via split-off are allocated while the company split off survives. The general meeting of split-off report has been replaced by a resolution and announcement of the board of directors.

[Related disclosure: Report on the matters of importance (decision of the Company's split-off), May 02, 2018]

<p>1. Method of split-off</p>	<p>(1) As provided under Articles 530-2 through 530-12 of the Commercial Act, a business division subject to split-off is divided to establish the split-off company, and 100% of the shares issued by the split-off company are allocated while the split-off company survives, and the company is split through a simple split-off, and the company that is split after split-off (hereinafter, "the company surviving through a split-off") remains as a listed company on the stock market, and the company established through a split-off becomes an unlisted company.</p> <p>(2) The date of split-off is July 1, 2018 (00:00) (planned). However, such date may be changed by a resolution of the board of directors of the company to be divided.</p> <p>(3) In accordance with the provisions of Article 530-3 Paragraphs 1 and 2 of the Commercial Act, division is made by a special resolution of the general meeting of shareholders. In accordance with the provisions of Article 530-3 Paragraphs 1 and 2 of the Commercial Act, the company surviving through a split-off and the newly established company shall be jointly responsible for repayment of all debts (including liabilities; hereinafter the same shall apply in this paragraph).</p> <p>(4) Given the fact that the company surviving through a split-off and the company established through division bear joint liabilities for the debts of the company to be divided in accordance with Paragraph 3 of this Article, and when the surviving company repays the debts succeeded to by the company established through division according to the plan for division or jointly indemnifies through other contributions from the company surviving through division, the company surviving division may exercise the right to indemnity against the company established through division, and when the company established through division repays the debts attributed to the company surviving through division according to the plan for division, or when the company established through division is jointly exempted from other contributions by the company established through division, the company established through division may exercise the right to indemnity against the company surviving through division.</p> <p>(5) The assets to be transferred due to the division shall be governed by the provisions of 'B. Assets of the company to be divided and their value to be transferred to the company established through division' of '4. Details of split-off,' and even in compliance with these provisions, if it is not clear whether the assets are subject to split-off, a decision shall be made according to the provisions of</p>
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Paragraphs 6 through 10 of this Article.

(6) Unless otherwise specified in the split-off plan, all active/passive properties of the company to be divided, other rights/duties including rights/duties under the public law, and the factual relationships with the asset value (including licenses and authorizations, labor relations, contractual relations, lawsuits and intellectual property rights, etc.) shall belong to the newly established company through division if they relate to a business division subject to split-off, and to the company surviving through a split-off if they relate to a business division other than the business division subject to split-off.

(7) In connection with the business of the company spun off, if due to any acts or facts before the date of split-off, the debts arising/confirmed after the date of split-off or those which did arise yet were not reflected in the provisions of 'B. Assets of the company to be divided and their value to be transferred to the newly established company through division' of '4. Details of split-off' entered in the split-off plan due to certain circumstances such failure to recognize them (including contingent debts under the public and private law and any and all other liabilities), and if the act or fact causatively relates to the business division subject to spin off, in the case of business divisions other than the business division subject to split-off in the newly established company, the division shall each belong to the company surviving through a split-off. However, if it is difficult to confirm whether the act or fact causing the business division relates to the division target, the division shall belong to the newly established company and the surviving company, respectively, at the ratio of the net asset value to be divided by the division.

(8) In connection with the business of the company spun off, if due to any acts or facts before the date of split-off, debts that arose or were confirmed after the date of split-off were not reflected in the provisions of 'B. Assets of the company to be divided and their value to be transferred to the newly established company through division' of '4. Details of spin off' entered in the split-off plan due to certain circumstances such as failure to recognize them (including contingent debts under the public and private law and any and all other liabilities), and if the act or fact causatively relates to the business division subject to spin off, in the case of business divisions other than the business division subject to split-off in the newly established company, the division shall each belong to the company surviving through a spin-off, and the reversion of such shall be handled as in the previous paragraph.

(9) The assets, liabilities, and the equity which will be reverted to the company surviving division and the company established through division shall in principle be allocated for the newly established company through division, while the assets and liabilities, etc., which belong to or are directly or indirectly related to the divisions subject to split-off are allocated to the division to be established, and those that do not belong to the divisions subject to split-off shall be distributed to the surviving company through the split-off, and the amount of the assets, liabilities, and the equity of the newly established company shall be determined by comprehensively considering the operational and investment plans

	<p>of the company to be established after the split-off, as well as the requirements of the relevant laws and regulations.</p> <p>(10) Lawsuits against the company to be divided before the date of split-off as a party shall belong to the newly established company for division, and if they relate to a division other than the business division subject to split-off, they shall belong to the company surviving through a split-off.</p>
2. Purpose of spin off	<p>(1) By separating and managing the division target business as an independent entity, we seek to specialize the division target's expertise and perform mobile management activities suitable for the specificity, thereby enhancing management efficiency and professionalism, and laying the foundation for a responsible management system.</p> <p>(2) By reinvesting the revenues generated by the division to be split into the relevant business, we seek to enhance the focus and competitiveness of the business and lay the foundation for growth through this division, thereby maximizing the shareholder value through the profit generation over the long term.</p>
3. Material impact and effect of the spin off	<p>The split-off of this case is carried out in a simple split-off method as provided under Articles 530-2 to 530-12 of the Commercial Act. Accordingly, there is no change in the number of shares owned by the largest shareholder of the company to be divided before and after the split-off of this case.</p> <p>Furthermore, since the split-off is carried out through a simple/physical split-off method, the split-off itself has no effect on the consolidated financial statements.</p>
4. Merger ratio	<p>The split ratio is not calculated as it is a simple/physical split-off method in which the company to be spun off is allocated 100% of the shares issued by the new company to be spun off.</p>
5. Details of the business and assets to be transferred via spin off	<p>(1) The company to be divided by the split-off of this case shall have all active and passive assets and other rights and obligations belonging to the division subject to split-off as provided in the split-off plan, as well as the factual relationship of asset value (including all licenses and authorizations, labor relations, contractual relations, and litigation, etc.) (hereinafter, "assets subject to transfer") transferred to the newly established company through division.</p> <p>(2) The assets subject to transfer shall be governed by what is entered in [Attachment 1] Spin Off Statement of Financial Position and [Attachment 2] List of Assets Subject to Succession prepared as of December 31, 2017, and in the event of an increase or decrease in the assets subject to transfer due to reasons such as an increase or decrease in assets (including passive assets such as active assets and commercial debts) occurring due to the business or financial activities of the division to be divided before the date of spin off, or an asset that is missing or incorrectly listed in the list of assets to be succeeded is discovered, such change shall be added or subtracted from the split-off statement of financial position and the list of assets subject to succession.</p> <p>(3) The final value for each specific item of the assets subject to transfer shall be the book amount as of December 31, 2017, which will be confirmed as of the date of split-off after undergoing a</p>

		review by a CPA.			
		<p>(4) Among the rights or obligations belonging to the assets subject to transfer, those that are prohibited by law or nature from being transferred by division shall be deemed to remain with the surviving company, and if it is necessary to transfer them to the company established through a split-off, they shall be handled in accordance with the agreement between the surviving company surviving through a split-off and the company established through a split-off. The same shall be applied where transfer due to split-off cannot be obtained because the necessary approval/licensing/permissions/receipt of reports from government agencies, etc., have not been obtained.</p>			
		<p>(5) All industrial property rights such as patents, utility models, designs, trademarks, and designs (including the rights and obligations for the patents, trademarks and designs) owned by the company spun off, domestically and abroad, before the date of split-off are subject to [Attachment 2] List of Assets Subject to Succession, and if any industrial property right is found that is omitted or incorrectly listed in the list, it belongs to the newly established company for division if it relates to the business division subject to split-off, and to the company to be divided if it is related to a division other than the division subject to split-off.</p>			
		<p>(6) Among the real estate owned by the company to be spun off before the division (including the rights such as surface rights, easements, cheonsei rights, lease rights, and mortgage set in the real estates; the same shall apply hereinafter in this subparagraph), the real estate belonging to the company newly established through division shall be entered in [Attachment 2] List of Assets Subject to Succession, and the lawsuits belonging to the newly established company through division among those involving the company to be divided before the division as a party shall be entered in [Attachment 3] List of Lawsuits Subject to Succession, and if any real estate or lawsuit is found to be missing or incorrectly entered in any of the lists above, it shall belong to the newly established company after division if it relates to the division subject to split-off, and to the surviving company if it is related to a division other than the division subject to split-off.</p>			
6. Details of the business and assets to be transferred via spin off	Name of Company	SK Chemicals Co., Ltd.			
	Financial details after split-off (KRW)	Total Assets	1,476,855,155,197	Total Liabilities	756,919,869,039
		Total equity	719,935,286,158	Capital	65,192,610,000
		2017.12.31		As of the present	
	Surviving business division's sales for the latest business year (KRW)	76,988,642,069			
	Main Business	Manufacture and sales of synthetic resins and related products, etc.			
Whether maintained as listed after spin off	Yes				
7. Company	Name of Company	SK Bioscience Co., Ltd. ("tentative")			

established via spin off	Financial details upon establishment (KRW)		Total Assets	368,449,681,147	Total Liabilities	183,299,872,041
			Total equity	185,149,809,106	Capital	10,000,000,000
				2017.12.31	As of the present	
	New business division's sales for the latest business year (KRW)		4,702,109,909			
	Main Business		Research, development, manufacturing, processing, commercialization, distribution, import and export and sales of vaccines and pharmaceuticals, etc.			
Whether re-listing has been petitioned for		No				
8. Matters concerning capital reduction	Capital reduction ratio		-			
	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		2018.06.15				
10. Period for filing statement of objections by creditors	From	-				
	To	-				
11. Date of division		2018.07.01				
12. Capitalization of reserves (capital increase without consideration)		2018.07.02				
13. Date of board resolution (decision date)		2018.05.02				
- Whether outside directors attended	Attended (people)		3			
	Absent (people)		0			

- Attendance of auditors (members of 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	No
- Reasons for exemption from filing securities registration statement, if exempted	Physical division

- ※ As of December 1, 2017, the date of spin-off, the Company is a new entity established by spin off the Green Chemicals and Life Science business divisions of SK Discovery (formerly, SK Chemicals), and the 'Sales of the latest year for the surviving company through a spin-off and the company established through a spin-off are the figures corresponding to '1 month' of December 2017.
- ※ For reference, the annual sales for 2017, which were prepared before the spin-off, are KRW 1,070,565 million for the surviving company through a spin-off and KRW 120,864 million for the company established through a split-off.

16. Other matters to be factored into investment decisions

A. Revision and change of the split-off plan

Given the business situation, financial status, business plan, and circumstances of the company to be split off, the process of consultation with related organizations or related laws and significant external influences, split-off plan may be partially modified or changed by the board of directors or the chief executive officer before the general meeting of shareholders for the approval of the split-off plan, and it may also be changed during the approval process of the general meeting of shareholders. If the split-off plan is approved by the extraordinary meeting of shareholders for approval of the split-off plan scheduled to be held on June 15, 2018, then from the date of the general meeting of shareholders until the day before the date of registration of division, and without any additional approval from the general meeting of shareholders, (i) If the revision or change is reasonably necessary, there will be no disadvantage to the shareholders of the surviving company or the newly established company due to the revision or change, and (ii) the split-off plan can be revised or changed by a resolution of the board of directors of the company to be divided within the scope that does not impair its homogeneity, and such revision and change will enter into force when it is announced or disclosed in accordance with the relevant laws and regulations.

- ① Tradenames of the surviving company through a split-off and the company established through a split-off
- ② Spin off schedule
- ③ Financial structure before and after the split-off
- ④ Assets to be transferred due to split-off and their value (assets to be transferred to the newly established company through a split-off and their value)
- ⑤ Total number of stocks issued by the company established through a split-off at the time of split-off
- ⑥ Matters concerning directors and members of the Audit Committee of the company established through a split-off
- ⑦ Articles of incorporation of the surviving company through a split-off and the company established through a split-off
- ⑧ Amount of equity of the company to be spun off and reserve

B. Matters requiring acquisition and transfer between companies

The matters required for the takeover and handover by and between the company to be spun off and the company established through a split-off in relation to the implementation of the split-off plan (including the documents and 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 spun off and the company established through a split-off.

C. Succession of employment contract relationship and retirement benefits

The company established through a split-off succeeds to the employment of all employees and related legal relations (including retirement benefits and loans, etc.) of those working in the business division subject to split off from the company to be split off as of the date of split-off (at 00:00 on July 1, 2018).

D. Creditor protection procedures

Since the Surviving Company and the Newly Incorporated Company bear joint liability for the debts of the Split-off Company before the split-off, they do not undergo creditor protection procedures.

【Attachment 1】 Spin off statement of financial position (as of December 31, 2017)

(Unit: KRW million)

Classification	Before split-off	After split-off	
		Company to be spun off	Company established through a split-off
Assets			
I. Current assets	539,577	377,949	161,628
Cash and cash equivalents	109,874	6,151	103,723
Short-term investment assets	298	298	-
Trade and other receivables	211,933	174,676	37,257
Inventories	212,444	192,601	19,843
Other current assets	5,028	4,223	805
II. Non-current assets	1,120,578	1,098,907	206,821
Investment assets	256,195	441,259	86
Tangible assets	800,669	625,939	174,730
Intangible assets	46,915	15,262	31,653
Other non-current assets	4,406	4,172	234
Deferred income tax assets	12,393	12,275	118
Total Assets	1,660,155	1,476,856	368,449
Liabilities			
I. Current liabilities	582,069	531,487	50,582
Trade and other payables	218,367	195,389	22,978
Short-term borrowings	103,985	103,985	-
Current portion of bonds payable	220,846	220,846	-
Current portion of long-term	21,988	1,829	20,159

liabilities			
Current portion of derivatives	1,907	1,907	-
Other current liabilities	14,901	7,531	7,370
Current portion of provisioning liabilities	75	-	75
II. Non-current liabilities	358,151	225,434	132,717
Debenture	254,346	149,626	104,720
Non-current portion of long-term liabilities	83,816	60,450	23,366
Defined benefit liabilities	10,267	8,562	1,705
Provisioning liabilities	3,610	684	2,926
Other non-current liabilities	6,112	6,112	-
Total Liabilities	940,220	756,921	183,299
Equity			
I. Capital	65,193	65,193	10,000
II. Capital surplus	657,863	657,863	175,150
III. Other capital items	-	-	-
IV. Accumulated other comprehensive income	-	-	-
V. Retained earnings	(3,121)	(3,121)	-
Total equity	719,935	719,935	185,150
Total liabilities & stockholders' equity	1,660,155	1,476,856	368,449

【Attachment 2】 List of Assets Subject to Succession (as of December 31, 2017)

(Unit: KRW one million)

Classification	Details	Amount
Assets		
I. Current assets		161,628
Cash and cash equivalents	Vaccine business division related deposits, etc.	103,723
Trade and other receivables	Vaccine business division related receivables, accounts receivable, etc.	37,257
Inventories	Vaccine business division related inventories	19,843
Other current assets	Vaccine business division related prepayments and prepaid expenses	805
II. Non-current assets		206,821
Investment assets	Vaccine business division related other investment assets (Eco Hub's artworks)	86
Tangible assets	Vaccine business division related tangible assets	174,730
Intangible assets	Vaccine business division related intangible assets	31,653

Other non-current assets	Vaccine business division related other non-current assets (deposits for corporate housing, etc.)	234
Deferred income tax assets	Vaccine business division related deferred income tax assets	118
Total Assets		368,449
Liabilities		
I. Current liabilities		50,582
Trade and other payables	Vaccine business division related trade payables, accounts payable and accrued expenses	22,978
Current portion of long-term liabilities	Vaccine business division related current portion of long-term borrowings and financial lease liabilities	20,159
Other current liabilities	Vaccine business division related unearned revenue, deposits, and security deposits, etc.	7,370
Other current portion of provisioning liabilities	Vaccine business division related current portion of returned goods provisioning liabilities	75
II. Non-current liabilities		132,717
Debenture	Vaccine business division related bonds	104,720
Non-current portion of long-term liabilities	Vaccine business division related current portion of long-term borrowings and financial lease liabilities	23,366
Defined benefit liabilities	Vaccine business division related defined benefit liabilities	1,705
Provisioning liabilities	Vaccine business division related returned goods provisioning liabilities	2,926
Total Liabilities		183,299

Note 1) The assets and liabilities subject to succession are the data based on a separate statement of financial position as of December 31, 2017, and based on which, the price to be reverted to the newly established company after split-off is calculated, and this value may change on the date of split-off.

[Related disclosure: Report on the closing of merger, etc. (split-off), July 2, 2018]

I. Schedule

Classification	Date	
Date of board resolution	May 02, 2018	
Date of preparation of split-off plan	May 02, 2018	
Date of submission of the report on important matters	May 02, 2018	
Record date for confirmation of shareholders	May 17, 2018	
Period of the closure of register of shareholders	From	May 18, 2018
	To	May 22, 2018
Date of shareholders' meeting for approval of split-off plan	June 15, 2018	
Date of spin off	July 01, 2018	
General meeting of split-off report and the date of general meeting of incorporation	July 02, 2018	
Date of split-off registration	July 02, 2018	

(Note) Among the details above, the general meeting of split-off report was substituted by a board resolution and

announcement.

II. Changes in the equity interest such as the largest shareholder

- Not applicable as it is a simple split-off.

III. Exercise of the appraisal right (right to claim purchase of shares)

- Not applicable since it is a simple split-off.

IV. Matters concerning the creditor protection

- In accordance with the provisions of Article 530-9 Paragraph 1 of the Commercial Act, SK Chemicals Co., Ltd. (hereinafter, "the company to be spun off") and SK Bioscience Co., Ltd. (hereinafter, "the company established through a split-off") are jointly and severally liable for repaying the debts of the company to be spun off before the spin off.

V. Status of related lawsuits

- As of the date of submission of this report, no lawsuit has been filed in connection with this spin off, which may affect the effectiveness of the spin off.

VI. Matters concerning the allocation of new shares, etc.

- This split-off is a simple split-off, and 100% of the total number of stocks issued by the company established through a split-off are allocated for the company to be spun off.

VII. Summary of the financial information before and after the [merger, etc.]

(Unit: KRW)

Classification	Before spin-off	After spin-off	
		Company to be spun off	Company established through a split-off
I. Total Assets	1,660,155,027,238	1,476,855,155,197	368,449,681,147
1. Current assets	539,576,646,702	377,948,919,132	161,627,727,570
2. Current assets Non-current assets	1,120,578,380,536	1,098,906,236,065	206,821,953,577
II. Total Liabilities	940,219,741,080	756,919,869,039	183,299,872,041
1. Current liabilities	582,069,035,762	531,486,139,186	50,582,896,576
2. Non-current liabilities	358,150,705,318	225,433,729,853	132,716,975,465
III. Total equity	719,935,286,158	719,935,286,158	185,149,809,106
1. Capital	65,192,610,000	65,192,610,000	10,000,000,000
2. Capital surplus	657,862,525,577	657,862,525,577	175,149,809,106
3. Retained earnings	(3,119,849,419)	(3,119,849,419)	-

※ The summary of financial statements above were prepared as of December 31, 2017, and there may be differences from the split-off financial statements to be prepared as of the actual date of spin off.

4) 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 the matters of importance (merger decision of the Company), September 03, 2019]		
1. Method of merger	SK Chemicals Co., Ltd. merged with Initz Co., Ltd. - Surviving company: SK Chemicals Co., Ltd. - Extinct company: Initz 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. Material impact and effect of the merger	(1) Impact and effect on the Company's management - Upon the completion of this merger, SK chemicals will remain as the surviving company, and the merged entity of Initz Co., Ltd., will be dissolved after the merger. - 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. - The merger entity of SK Chemicals Co., Ltd. does not issue new shares in executing this merger. (2) Impact and effect on the Company's finance - 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 entities and focusing the capabilities through the efficient resource allocation. - The surviving company succeeds to all assets, liabilities, rights, and obligations of the extinct company on the date of merger. (3) Impact and effect on the Company's business - It is expected that the operating entities that were separated between the entities 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.	
4. Merger ratio	SK Chemicals Co., Ltd.: Initz Co., Ltd. = 1.0000000: 0.0000000	
5. Basis for the merger ratio calculation	The merger entity of SK Chemicals Co., Ltd. owns 100% of the shares of the merged entity of Initz Co., Ltd., and at the time of a merger, the merger ratio was calculated at 1.0000000:0.0000000 since the merger entity does not issue new shares for the shares of the merged entity.	
6. Matters concerning 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	Common stocks	-			
	Class shares	-			
8. Company targeted for merger	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 merged company	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	N/A				
10. Date of merger	Date of merger contract	2019.09.04			
	Reference date of shareholders' confirmation	2019.09.18			
	List of shareholders	From	2019.09.19		
		To	2019.09.25		
	Period for	From	2019.09.18		

	the receipt of notice of objection to merger	To	2019.10.02
	Scheduled date of shareholders' meeting		-
	Period of the exercise of the appraisal right	From	-
		To	-
	Period of 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 applicable as a back door listing			N/A
12. Requirements for back door listing are satisfied?			N/A
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		-
	Requirement proceedings, method, period, location		-
	Scheduled period of payment and payment 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
- Attendance of auditors (members of 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 be factored into investment decisions

- (1) Since this merger is a small-scale merger in accordance with Article 527-3 of the Commercial Act, the appraisal right is not acknowledged, and the approval of the merger is substituted by 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 notifies of its intent to oppose the merger in writing within 2 weeks from 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 closing report of the merger schedule above will be substituted by the announcement procedure according to the resolution of the board of directors pursuant to the provisions of Article 526-3 of the Commercial Act.
- (5) Key merger schedule

Classification	Date	Note
Date of board resolution on the merger	2019.09.03	-
Submission of the report on important matters	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 to 2019.09.25	-
Period for the receipt of notification of the intent to oppose the merger	2019.09.18 to 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 to 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 point 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 Corp.
	Location	310, Pangyo-ro, Bundang-gu, Seongnam-si, Gyeonggi-do
	CEO	Cheol Kim, Gwanghyeon Jeon
	Corporate classification	Corporate entity whose share certificates are listed

Extinct company after the merger (merged company)	Tradename	Initz Co., Ltd.
	Location	119, Cheoyong-ro 616-beongil, Hwangseong-dong, Nam-gu, Ulsan-si
	CEO	Kim Hyo kyung
	Corporate classification	Corporate entity 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) Material 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 structural restructuring

- There are no final decisions made concerning the Company's structural 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, and 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 which event, 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 Initz Co., Ltd., a major subsidiary in which SK Chemicals holds a 100% stake, and 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 Initz, 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 rights

- 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 Initz 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 the 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 kyung	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 (shares)		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 corporate entity which was established on December 1, 2017 after a spin-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	SK Chemicals	Initz	336,729	1,504,449	-

in terms of business					
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 corporate entity 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 corporate entity 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 to 2019.09.25	-
Period for the receipt of notification of the intent to oppose the merger	2019.09.18 to 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 to 2019.11.24	2019.10.24 to 2019.11.24
Period of submission for the old share certificates	-	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	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 an 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.
Year of establishment	2013.08.28
Details of main business	Manufacture of synthetic resins and other plastic materials
Number of executives and employees	66 people
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 the end of 2018	End of the end of 2017	End of the end of 2016
Assets			
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 plan	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
Equity			
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	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, general 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 share	-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 the 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 the 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	-
List of shareholders	From	2019.09.19	-
Period of closing	To	2019.09.25	-
Intention to object to the merger	From	2019.09.18	-
Period for the receipt of notice	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) As for SK Chemicals Co., Ltd., the surviving company, this merger is a small-scale merger according to Article 527-3 of the Commercial Act, and thus the appraisal right is not acknowledged, and the general meeting of shareholders for the approval of the merger is substituted by a resolution of the board of directors.

Note 2) The general meeting of shareholders on closing report for the merger is substituted by an announcement via the resolution of the board of directors.

Note 3) The scheduled date of merger registration (dissolution registration) above may be changed via consultations

with 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 the extinct company of SK Petrochemical Co., Ltd. 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 SK Petrochemical Co., Ltd. each announced and issued a notice of the creditors' submission of objection on March 26, 2018, and no creditor submitted an objection until the deadline for the relevant submission, November 24, 2019. Furthermore, there is no decision made to repay the debt or provide equivalent security with this case.

V. Status of related lawsuits

No lawsuit was filed to cause any effect on the validity of this merger.

VI. Matters concerning the allocation of new shares, etc.

Since this merger is one executed without new shares issued for the 100% subsidiaries (at the merger ratio of 1.0000000:0.0000000), no new shares are issued, and there is no separate money delivered due to amalgamation following the merger.

VII. Summary of financial information before and after [merger, etc.]

(Unit: KRW one million)

Classification	Before the merger		After the merger
	Chemicals	Initz	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
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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 SK Petrochemical 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.

5) 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 and a report on the completion of the merger, etc. as follows.

[Related disclosure: [Correct] 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)		Target of transfer's business division (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. Expected transfer date	Contract date	2020.02.05		
	Base date of transfer	2020.05.29		
7. Counterparty to the transaction	Name of company (name)	SK Eco Prime Co., Ltd.		
	Capital stock (KRW)	7,750,500,000		
	Main Business	Bio-energy business		
	Location of head office (address)	46Dong (Hwangseong-dong), 718, Cheoyong-ro, Nam-gu, Ulsan		
	Relationship with the Company	-		
8. Payment of transfer price		(1) Form of payment The Company received KRW 382.5 billion in cash from the		

		<p>transferee under the contract.</p> <p>(2) Period of payment The entire transfer proceeds are paid to the Company on the date of closing of the transaction, and 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 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. Details concerning external evaluation	Whether external evaluation is required	Yes
	- Basis and reasons	Evaluation of adequacy in accordance with Article 165-4 (1) 2 and Article 165-4 (2) of the Financial Investment Services and Capital Markets Act, and Article 176-6 (3) of the Enforcement Decree of the same Act. Evaluation of adequacy
	Name of external evaluation institution	Samil PWC Accountings
	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	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

		<p>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 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 corporate entity 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>
	<p>Scheduled purchase price</p>	<p>63,068</p>
	<p>Requirement proceedings, method, period, location</p>	<p>(1) Method of expressing the intention to object</p> <p>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.</p> <p>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</p> <p>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</p>

		<p>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</p> <p>① Receipt of the expression of the intention to oppose the business transfer: March 2, 2020 to March 16, 2020</p> <p>② Period of the exercise of the appraisal right: March 17, 2020 to April 06, 2020</p> <p>(4) Place of receipt</p> <p>① Registered shareholder: SK Chemicals (ECO Lab), 310, Pangyo-ro, Bundang-gu, Seongnam-si, Gyeonggi-do IR Office (02-2008-2726)</p> <p>② Beneficial shareholder who has consigned securities to the securities company: the relevant securities company</p>
	Payment scheduled date, 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 entity 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>
	Validity of 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 all of the shares for which the appraisal right is exercised in excess of KRW 70 billion.</p>
11. Date of board resolution (decision)		2020.02.05

date)		
- Whether outside directors attended	Attended (people)	3
	Absent (people)	-
- Attendance of auditors (members of Audit Committee who are not outside directors)		-
12. Whether reporting to Fair Trade Commission is required		Not applicable
13. Whether contracts such as put options 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 shares.

1) Common stocks

(Unit: KRW, shares)

Date	Closing price	Trading volume	Closing price x Trading volume
February 4, 2020	59,800	173,956	10,402,568,800
February 3, 2020	58,000	201,037	11,660,146,000
January 31, 2020	57,900	211,945	12,271,615,500
January 30, 2020	60,600	220,656	13,371,753,600
January 29, 2020	62,700	178,531	11,193,893,700
January 28, 2020	64,100	209,174	13,408,053,400
January 23, 2020	66,200	136,342	9,025,840,400
January 22, 2020	66,300	116,713	7,738,071,900
January 21, 2020	66,200	204,569	13,542,467,800
January 20, 2020	67,500	306,994	20,722,095,000
January 17, 2020	66,200	120,827	7,998,747,400
January 16, 2020	66,100	111,298	7,356,797,800
January 15, 2020	66,200	123,516	8,176,759,200
January 14, 2020	67,000	203,912	13,662,104,000
January 13, 2020	66,500	364,387	24,231,735,500
January 10, 2020	69,000	1,292,254	89,165,526,000
January 9, 2020	65,100	191,189	12,446,403,900
January 08, 2020	63,100	312,351	19,709,348,100
January 07, 2020	65,800	209,726	13,799,970,800
January 06, 2020	66,400	261,860	17,387,504,000
January 03, 2020	67,000	213,770	14,322,590,000

January 02, 2020	66,700	450,033	30,017,201,100
December 30, 2019	64,000	186,188	11,916,032,000
December 27, 2019	63,000	164,722	10,377,486,000
December 26, 2019	62,200	162,680	10,118,696,000
December 24, 2019	63,100	343,835	21,695,988,500
December 23, 2019	61,100	224,835	13,737,418,500
December 20, 2019	60,500	134,781	8,154,250,500
December 19, 2019	60,600	135,278	8,197,846,800
December 18, 2019	60,500	135,718	8,210,939,000
December 17, 2019	60,900	222,787	13,567,728,300
December 16, 2019	62,000	165,194	10,242,028,000
December 13, 2019	62,300	251,002	15,637,424,600
December 12, 2019	62,200	467,190	29,059,218,000
December 11, 2019	61,600	245,179	15,103,026,400
December 10, 2019	61,400	426,739	26,201,774,600
December 09, 2019	61,200	463,148	28,344,657,600
December 06, 2019	62,700	318,627	19,977,912,900
December 05, 2019	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, shares)

Date	Closing price	Trading volume	Closing price x Trading volume
February 04, 2020	27,800	114,609	3,186,130,200
February 03, 2020	26,550	31,995	849,467,250
January 31, 2020	26,200	33,666	882,049,200
January 30, 2020	27,200	32,952	896,294,400
January 29, 2020	28,250	26,641	752,608,250
January 28, 2020	28,350	60,402	1,712,396,700
January 23, 2020	29,500	94,340	2,783,030,000
January 22, 2020	29,500	29,316	864,822,000
January 21, 2020	29,550	57,162	1,689,137,100
January 20, 2020	30,450	92,368	2,812,605,600
January 17, 2020	30,150	41,821	1,260,903,150

January 16, 2020	30,700	55,817	1,713,581,900
January 15, 2020	30,650	126,370	3,873,240,500
January 14, 2020	31,200	146,303	4,564,653,600
January 13, 2020	31,400	395,787	12,427,711,800
January 10, 2020	35,200	2,036,103	71,670,825,600
January 09, 2020	28,000	46,202	1,293,656,000
January 08, 2020	27,200	103,109	2,804,564,800
January 07, 2020	29,350	81,793	2,400,624,550
January 06, 2020	29,850	141,548	4,225,207,800
January 03, 2020	30,300	137,130	4,155,039,000
January 02, 2020	31,000	425,014	13,175,434,000
December 30, 2019	28,800	29,191	840,700,800
December 27, 2019	28,650	46,820	1,341,393,000
December 26, 2019	28,550	46,764	1,335,112,200
December 24, 2019	28,900	126,158	3,645,966,200
December 23, 2019	28,200	80,655	2,274,471,000
December 20, 2019	28,000	56,819	1,590,932,000
December 19, 2019	28,650	55,107	1,578,815,550
December 18, 2019	28,900	70,090	2,025,601,000
December 17, 2019	29,200	85,888	2,507,929,600
December 16, 2019	29,950	120,789	3,617,630,550
December 13, 2019	30,400	130,165	3,957,016,000
December 12, 2019	30,100	580,463	17,471,936,300
December 11, 2019	28,900	265,597	7,675,753,300
December 10, 2019	28,750	695,696	20,001,260,000
December 09, 2019	27,800	151,961	4,224,515,800
December 06, 2019	29,800	168,655	5,025,919,000
December 05, 2019	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.
- (5) 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 corporate entity before and after the change of trade name is the same entity.
 - 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)

[Relevant disclosure: Report on the closing of merger, etc. (business transfer), 2020.05.29]

I. Schedule

This report concerns the matters regarding the report on important matters 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 05, 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 02, 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 06, 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 corporate entity before and after the change of trade name is the same entity.

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, shares)

Date	Closing price	Trading volume	Closing price x Trading volume
February 04, 2020	59,800	173,956	10,402,568,800
February 03, 2020	58,000	201,037	11,660,146,000
January 31, 2020	57,900	211,945	12,271,615,500
January 30, 2020	60,600	220,656	13,371,753,600
January 29, 2020	62,700	178,531	11,193,893,700
January 28, 2020	64,100	209,174	13,408,053,400
January 23, 2020	66,200	136,342	9,025,840,400
January 22, 2020	66,300	116,713	7,738,071,900
January 21, 2020	66,200	204,569	13,542,467,800
January 20, 2020	67,500	306,994	20,722,095,000
January 17, 2020	66,200	120,827	7,998,747,400
January 16, 2020	66,100	111,298	7,356,797,800
January 15, 2020	66,200	123,516	8,176,759,200
January 14, 2020	67,000	203,912	13,662,104,000

January 13, 2020	66,500	364,387	24,231,735,500
January 10, 2020	69,000	1,292,254	89,165,526,000
January 09, 2020	65,100	191,189	12,446,403,900
January 08, 2020	63,100	312,351	19,709,348,100
January 07, 2020	65,800	209,726	13,799,970,800
January 06, 2020	66,400	261,860	17,387,504,000
January 03, 2020	67,000	213,770	14,322,590,000
January 02, 2020	66,700	450,033	30,017,201,100
December 30, 2019	64,000	186,188	11,916,032,000
December 27, 2019	63,000	164,722	10,377,486,000
December 26, 2019	62,200	162,680	10,118,696,000
December 24, 2019	63,100	343,835	21,695,988,500
December 23, 2019	61,100	224,835	13,737,418,500
December 20, 2019	60,500	134,781	8,154,250,500
December 19, 2019	60,600	135,278	8,197,846,800
December 18, 2019	60,500	135,718	8,210,939,000
December 17, 2019	60,900	222,787	13,567,728,300
December 16, 2019	62,000	165,194	10,242,028,000
December 13, 2019	62,300	251,002	15,637,424,600
December 12, 2019	62,200	467,190	29,059,218,000
December 11, 2019	61,600	245,179	15,103,026,400
December 10, 2019	61,400	426,739	26,201,774,600
December 09, 2019	61,200	463,148	28,344,657,600
December 06, 2019	62,700	318,627	19,977,912,900
December 05, 2019	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, shares)

Date	Closing price	Trading volume	Closing price x Trading volume
February 04, 2020	27,800	114,609	3,186,130,200
February 03, 2020	26,550	31,995	849,467,250
January 31, 2020	26,200	33,666	882,049,200
January 30, 2020	27,200	32,952	896,294,400

January 29, 2020	28,250	26,641	752,608,250
January 28, 2020	28,350	60,402	1,712,396,700
January 23, 2020	29,500	94,340	2,783,030,000
January 22, 2020	29,500	29,316	864,822,000
January 21, 2020	29,550	57,162	1,689,137,100
January 20, 2020	30,450	92,368	2,812,605,600
January 17, 2020	30,150	41,821	1,260,903,150
January 16, 2020	30,700	55,817	1,713,581,900
January 15, 2020	30,650	126,370	3,873,240,500
January 14, 2020	31,200	146,303	4,564,653,600
January 13, 2020	31,400	395,787	12,427,711,800
January 10, 2020	35,200	2,036,103	71,670,825,600
January 09, 2020	28,000	46,202	1,293,656,000
January 08, 2020	27,200	103,109	2,804,564,800
January 07, 2020	29,350	81,793	2,400,624,550
January 06, 2020	29,850	141,548	4,225,207,800
January 03, 2020	30,300	137,130	4,155,039,000
January 02, 2020	31,000	425,014	13,175,434,000
December 30, 2019	28,800	29,191	840,700,800
December 27, 2019	28,650	46,820	1,341,393,000
December 26, 2019	28,550	46,764	1,335,112,200
December 24, 2019	28,900	126,158	3,645,966,200
December 23, 2019	28,200	80,655	2,274,471,000
December 20, 2019	28,000	56,819	1,590,932,000
December 19, 2019	28,650	55,107	1,578,815,550
December 18, 2019	28,900	70,090	2,025,601,000
December 17, 2019	29,200	85,888	2,507,929,600
December 16, 2019	29,950	120,789	3,617,630,550
December 13, 2019	30,400	130,165	3,957,016,000
December 12, 2019	30,100	580,463	17,471,936,300
December 11, 2019	28,900	265,597	7,675,753,300
December 10, 2019	28,750	695,696	20,001,260,000
December 09, 2019	27,800	151,961	4,224,515,800
December 06, 2019	29,800	168,655	5,025,919,000
December 05, 2019	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
- Break downs

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) Other

- 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 shares 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: Funds held on its own
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 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 financial information before and after [merger, etc.]

(Unit: KRW one million)

Item	Before transfer	After transfer	Increase
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	SK Chemicals	Bio-energy business division subject to transfer		(decrease)
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 parent 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 & stockholders' equity	2,086,475	134,649	2,273,077	186,602

- ※ The summary of financial information above is the amount in the Company's consolidated quarterly report as of March 31, 2020, and does not include the purchase of treasury shares following the exercise of the appraisal right in line with this business transfer.
- ※ The summary of financial information above may differ from the statement of financial position prepared as of the actual date of business transfer.
- ※ The proceeds from the sale of the bioenergy business division are reflected for the current assets and retained earnings, each respectively.

6) 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 important matters (Decision of split-off), 2021.9.13 (Corrected: 2021.12.1)]

1. Method of split-off

(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 entity, and the newly established company shall be an unlisted entity.

- Company to be spun off: SK Chemicals Co., Ltd.

Business divisions of the Company to be spun 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

(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.

(3) The company to be split off in accordance with the provisions of Article 530-3 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, bear only the debts transferred to the newly established company due to the split-off (including 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 liabilities 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 divided shall proceed with creditor protection procedures in accordance with the provisions of Articles 530-9 and 527-5 of the Commercial Act.

(4) Unless otherwise specified in the split-off plan, any and all active and passive assets belonging to the company to be divided, 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 divided is a party related to both the business subject to division 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.

(5) Unless otherwise agreed upon between the company to be divided 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 divided, 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 spin 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 divided, 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.

(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.

(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.

(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.

<p>2. Purpose of split-off</p>	<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>
<p>3. Important impact and effect of the split-off</p>	<p>The division or split-off of this case is carried out through a simple 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 of this matter and the ratio of equity interest. Furthermore, since the split-off of this case proceeds in the manner of a simple division and split-off, the split-off itself has no effect on the consolidated financial statements.</p>
<p>4. Split-off ratio</p>	<p>The split-off ratio is not calculated since the company to be split off is being split off through a simple division and split-off method by which 100% of the issued shares of the new company are allocated.</p>
<p>5. Details of the business and assets to be transferred by split-off</p>	<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 divided due to the business or financial activities of the division to be divided, 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 of 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,</p>

		<p>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 or obligations belonging to the business division subject to split-off, those whose transfer is prohibited by law or by their nature due to split-off shall be deemed to remain with the company to be split off, and if transfer to a new company is necessary, it shall be handled according to the agreement between the company to be split off and the newly established company. The same shall apply where (i) approval/authorization/acceptance of reports from government agencies, etc. is required prior to division, but it is not possible to receive such, or where (ii) it is impossible to split off the portion related to the business division subject to split-off from the portion related to the other business division of the contract even while the contract to which the company to be divided is related to both the business division subject to split off and the other business divisions.</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 to by the newly established company.</p> <p>(7) Upon the 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 (%)		-			
	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 the 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 01, 2021				
12. Scheduled registration date of split-off		December 02, 2021				
13. Date of board resolution (decision date)		September 13, 2021				
- Whether outside directors attended	Attending (people)		4			
	Absent (people)		0			
- Attendance of auditors (members of Audit Committee who are not outside directors)		-				

14. Whether contracts such as put options 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 division and split-off

16. Other matters to consider for investment determinations

(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 Tradenames 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 division.

(3) Matters requiring takeover and handover between companies

The matters required for the takeover and handover by and 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 division 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
Debtenture	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 & 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)

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

- N/A.

[Relevant 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 01, 2021
Date of general meeting of split-off report or the date of general meeting of incorporation (Note 1)	December 01, 2021
Date of split-off registration	December 02, 2021

(Note 1) Among the details above, the general meeting of split-off report was substituted by an announcement by 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 division or 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 the 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 division is of simple division and 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 financial information before and after [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
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. 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	157,202,997,33
Total liabilities & stockholders' equity	2,048,318,472,87	2,034,064,466,73	171,457,003,47

※ 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 spin-off, SK Chemicals was a management company pursuant to Article 42 Paragraph 6 of the Framework Act on Low Carbon, Green Growth (designated in September 2010), and the matters on the greenhouse gas emissions and energy consumption are reported to the government in accordance with Article 44 of the same Act. The Company's greenhouse gas emissions and energy consumption for the past 3 years are as follows.

(2021)

[SK Chemicals]

Name of workplace	Annual greenhouse gas emissions (tCO ₂ e)			Annual energy consumption (TJ)			
	Direct emissions (Scope 1)	Indirect emissions (Scope 2)	Total emissions	Fuel consumption	Electricity consumption	Steam consumption	Total emissions
SK Petrochemical	26,685	90,355	117,040	452	360	1,132	1,943
Ulsan	35,869	131,419	167,288	637	938	1,333	2,909
Cheongju	1,610	5,168	6,778	31	106	0	138
Eco Lab 1	439	3,802	4,241	7	75	22	105
LS regional office	0	39	39	0	1	0	1
Initz	10,899	25,941	36,840	203	166	278	647
Dongtan Forming Processing Lab	0	243	243	0	5	0	5
Total	75,502	256,967	332,469	1,331	1,651	2,765	5,747

※ This is an internal calculation conducted for estimating the emissions after the discontinuation and split-off business adjustments, and some of the details may change until the final decision is made by the Ministry of Environment in June 2022.

[SK Multi-Utility]

Name of workplace	Annual greenhouse gas emissions (tCO ₂ e)			Annual energy consumption (TJ)			
	Direct emissions (Scope 1)	Indirect emissions (Scope 2)	Total emissions	Fuel consumption	Electricity consumption	Steam consumption	Total emissions
Ulsan	341,167	30,804	371,971	7	634	0	641

※ This is an internal calculation conducted for estimating the emissions after the discontinuation and split-off of business adjustments, and some of the details may change until the final decision is made by the Ministry of Environment in June 2022.

(2020)

Name of workplace	Annual greenhouse gas emissions (tCO ₂ e)			Annual energy consumption (TJ)			
	Direct emissions (Scope 1)	Indirect emissions (Scope 2)	Total emissions	Fuel consumption	Electricity consumption	Steam consumption	Total emissions
SK Petrochemical	25,633	25,720	51,353	411	529	-	940
Ulsan	370,194	56,390	426,584	4,828	1,161	76	6,065
Cheongju	1,611	5,154	6,765	31	106	-	137
Eco Lab 1	473	4,375	4,848	9	75	20	104
LS regional office	-	37	37	-	-	-	-
Initz	3,695	4,152	7,847	69	85	-	154
Dongtan Forming Processing Lab	-	250	250	-	5	-	5
Total	401,606	96,078	497,684	5,348	1,961	96	7,405

(2019)

Name of workplace	Annual greenhouse gas emissions (tCO ₂ e)			Annual energy consumption (TJ)			
	Direct emissions (Scope 1)	Indirect emissions (Scope 2)	Total emissions	Fuel consumption	Electricity consumption	Steam consumption	Total emissions
Ulsan (Petrochemical)	25,833	27,033	52,865	401	557	-	957
Ulsan	367,169	65,231	432,400	4,870	1,343	86	6,298
Cheongju	1,582	5,465	7,046	31	113	-	143
Eco Lab 1	395	4,594	4,988	7	81	19	106
LS' local office	-	19	18	-	-	-	-
Initz	8,159	7,059	15,218	153	145	-	298
Dongtan Forming Processing Lab	-	250	250	-	5	-	5
Total	403,138	109,650	512,785	5,461	2,244	105	7,807

D. Status of lock-up [SK Bioscience]

(Reference date: December 31, 2021)

(Unit: stocks)

Type of Stock	Number of shares deposited	Date of deposit	Scheduled date of return	Period of lock-up	Reason for lock-up	Total number of shares issued
Common stocks	2,288,008	2021.03.18	2022.03.18	1 year	Deposit of treasury shares	76,500,000

XII. Detailed Tables

1. Status of Consolidated Subsidiaries (Details)

(Unit: KRW one million)

Tradename	Date of incorporation	Address	Main Business	Total assets at the end of latest business year Total assets	Grounds for controlling relationship	Whether a major subsidiary
SK Bioscience Co., Ltd.	2018.07.01	310, Pangyo-ro (Sampyeong-dong), Bundang-gu, Seongnam-si, Gyeonggi-do	Pharmaceutical manufacturing	2,110,123	68% of equity interest	O
SK Multi-Utility Co., Ltd. (Note 1)	2021.12.01	718, Cheoyong-ro (Hwangseong-dong), Nam-gu, Ulsan	Manufacturing	182,621	100% of equity interest	X
SK Chemicals GmbH	2008.06.20	TOPAS 2. MERGENTHALERALLEE 79~81, 65760 ESCHBORN, GERMANY	Wholesale	53,335	100% of equity interest	X
SK Chemicals America	2002.07.19	3 Park Plaza Suite 430, Irvine CA 92614	Wholesale	39,381	100% of equity interest	X
SK Chemicals (Suzhou) Co., Ltd.	2006.11.16	#188, Jiangxingdonglu, Wujiang Economic Development Zone,	Resin manufacturing	25,466	100% of equity interest	X
SK Environmental Materials (Yantai) Co., Ltd. (Note 2)	2020.06.15	C-35, Chemical Industry Park, Economic and Technological Development District, Yantai city, Shandong province	Resin manufacturing	24,247	100% of equity interest	X
SK Chemicals Daejung Co., Ltd. (Note 2.3)	2020.04.01	310, Pangyo-ro (Sampyeong-dong), Bundang-gu, Seongnam-si, Gyeonggi-do	Organic solvent manufacturing	17,210	50% of equity interest	X
SK Chemicals (Shanghai) Co., Ltd.	2018.11.02	Shanghai Mart 2407-2408, Yanan West Rd. 2299, Shanghai, China	Management consulting	2,175	100% of equity interest	X
SK Chemicals Malaysia (Note 2)	2020.08.25	C23A, TTDI PLAZA, JALAN WAN KADIR 3 TAMAN TUN DR ISMAIL 60000 KUALA LUMPUR W.P. KUALA LUMPUR MALAYSIA	Management consulting	342	100% of equity interest	X

(Note 1) During the current period, it was incorporated as a subsidiary after being split off from the parent company.

(Note 2) During the previous period, it was newly invested by the parent company and was incorporated as a subsidiary.

(Note 3) During the current period, the parent company sold 50% of the shares of its subsidiary of SK Chemicals Daejung Co., Ltd. to Daejung Chemicals & Metals Co., Ltd. The parent company determined that it has control over SK Chemicals Daejung Co., Ltd. on the grounds that the chief executive officer of the parent company serves in the position of the chief executive officer even after the sale of the equity interest, and the chief executive officer retains the decision-making right under a deadlock situation.

※ The "Total assets at the end of latest business year" above was prepared as of the end of 2021, and is based on the

financial statements adjusted for consistency with the accounting policies of consolidated subsidiaries to those of the parent company.

- ※ The ratio of interest owned of the "Grounds for the controlling relationship" above is prepared based on the effective equity holding ratio of the parent company.
- ※ The standard for determining as to whether it is a major subsidiary is a subsidiary whose total assets at the end of the most recent business year are 10% or more of the total assets of the parent company.

2. Status of Affiliates (Detailed)

(Reference date: December 31, 2021)

(Unit: companies)

Whether listed	Number of companies	Name of company	Corporate registration number
Listed	20	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 IE Technology Co., Ltd.	110111-7064217
		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
		Nano & Tech Co., Ltd.	110111-0550502
		Dreamus Company	110111-1637383
		Busan City Gas Co., Ltd.	180111-0039495
SM Core Co., Ltd.	110111-0128680		
Unlisted	616	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
		SKC Solmix Co., Ltd.	134711-0014631
		SKC Hi-Tech & Marketing Co., Ltd.	161511-0225312
		SK Networks Service Co., Ltd.	135811-0141788
		SK Nexilis Co., Ltd.	110111-6480232
		SK Rent a Car Service Co., Ltd.	160111-0306525
SK Lubricants Co., Ltd.	110111-4191815		

Whether listed	Number of companies	Name of company	Corporate registration number
		SK REITs Management Co., Ltd.	110111-7832127
		SK Magic Service Co., Ltd.	134811-0039752
		SK Magic Co., Ltd.	110111-5125962
		SK Materials Holdings Co., Ltd. (formerly SK Materials Co., Ltd.)	190111-0006971
		SK Materials Renew Tech Co., Ltd.	110111-2559792
		SK Materials Air Plus Co., Ltd.	230111-0134111
		SK Materials J&C Co., Ltd.	134811-0595837
		SK Materials Performance Co., Ltd.	164711-0095338
		SK Mobile Energy Co., Ltd.	161511-0076070
		SK Bio Tech Co., Ltd.	160111-0395453
		SK Broadband Co., Ltd.	110111-1466659
		SK Showa Denko Co., Ltd.	175611-0018553
		SK Store Co., Ltd.	110111-6585884
		SK Siltron Co., Ltd.	175311-0001348
		SK Advanced Co., Ltd.	230111-0227982
		SK Energy Co., Ltd.	110111-4505967
		SK Eco Plant Co., Ltd. (formerly, SK E&C Co., Ltd.)	110111-0038805
		SK M&Service Co., Ltd.	110111-1873432
		SK O&S Co., Ltd.	110111-4370708
		SK Incheon Petrochemical Co., Ltd.	120111-0666464
		SK Forestry Co., Ltd.	134811-0174045
		SK Geocentric Co., Ltd. (formerly, SK Global Chemical Co., Ltd.)	110111-4505975
		SK Communications Co., Ltd.	110111-1322885
		SK Chemicals Daejeong Co., Ltd.	131111-0587675
		SK Telesis Co., Ltd.	110111-1405897
		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 Plasma Co., Ltd.	131111-0401875
		SK Planet Co., Ltd.	110111-4699794
		SK PIC Global Co., Ltd.	230111-0324803
		SK Pinx Co., Ltd.	224111-0003760
		SK Hynix System Co., Ltd.	150111-0235586
		SK Hystec Co., Ltd.	134411-0037746
		SK High ENG Co., Ltd.	134411-0017540
		Gangwon City Gas Co., Ltd.	140111-0002010

Whether listed	Number of companies	Name of company	Corporate registration number
		Gyeonggi Environmental Energy Co., Ltd.	134211-0058473
		Gyeongbuk Environment 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
		Kumho Mitsui Chemicals Co., Ltd.	110111-0612980
		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
		D&D Investment Co., Ltd.	110111-6618263
		D&D Property Management Co., Ltd.	110111-5848712
		DECO PLATFORM CO., LTD.	110111-7672028
		Mind Knock Co., Ltd.	110111-6638873
		Landfill Management Co., Ltd.	134111-0481056
		Media S Co., Ltd.	110111-7739191
		Mitsui Chemicals & SK Polyurethane Co., Ltd.	230111-0233880
		Mintit Co., Ltd.	124411-0057457
		Boryeong LNG Terminal Co., Ltd.	164511-0021527
		Busan Jeongkwan Energy Co., Ltd.	180111-0484898
		Broadband Nowon Broadcasting Co., Ltd.	110111-2261909
		Seonam Environmental Energy Co., Ltd.	184611-0017968
		Service Ace Co., Ltd.	110111-4368688
		Service Top Co., Ltd.	160111-0281090
		Sungju Tech Co., Ltd.	284411-0087386
		Studio Wave Co., Ltd.	110111-7891785
		Ariul Happy Solar Co., Ltd.	110111-7725041
		ID Quantique Co., Ltd.	131114-0009566
		IGE Co., Ltd.	120111-1134494
		FSK L&S 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

Whether listed	Number of companies	Name of company	Corporate registration number
		Ulsan Aromatics Co., Ltd.	110111-4499954
		One Store Co., Ltd.	131111-0439131
		U-Base Manufacturing Asia Co., Ltd.	230111-0168673
		Yubins Co., Ltd.	135111-0077367
		Infra Communications Co., Ltd.	110111-6478873
		Jeonnam City Gas Co., Ltd.	201311-0000503
		Jeonnam Offshore Wind Power Co., Ltd.	110111-7400817
		Jeonbuk Energy Service Co., Ltd.	214911-0004699
		Jeju United FC Co., Ltd.	224111-0015012
		SK Shielders Co., Ltd. (formerly, ADT Caps Co., Ltd.)	110111-2007858
		DDISC49 Consigned Management Real Estate Investment Company Co., Ltd.	110111-7725653
		DDIYS832 Consigned Management Real Estate Investment Company Co., Ltd.	110111-7280425
		Korea Oil Pipeline Corporation	110111-0671522
		The Biz Co., Ltd.	110111-4070358
		DDS Co., Ltd.	170111-0422999
		Lock Media Co., Ltd.	110111-2741216
		Samwon E&T Co., Ltd.	170111-0804791
		Studio Dolphin Co., Ltd.	110111-7604170
		Shinan Jeungdo Solar Co., Ltd.	201111-0052938
		Sollis Co., Ltd.	205711-0024452
		A&TS Co., Ltd.	110111-3066861
		YS Tech Co., Ltd.	170111-0397522
		YLP Co., Ltd.	110111-5969229
		JSI Co., Ltd.	124611-0261880
		Caps Tech Co., Ltd.	110111-3141663
		Korea Exchange Systems Co., Ltd.	110111-2493601
		Hwichan Co., Ltd.	110111-1225831
		G-Energy Co., Ltd.	110111-7788750
		Chungcheong Energy Service Co., Ltd.	150111-0006200
		Chungcheong Environmental Energy Co., Ltd.	165011-0013078
		Cowon Energy Service Co., Ltd.	110111-0235617
		Contents Wave Co., Ltd.	110111-4869173
		Clean Energy Consigned Management Real Estate Investment Company Co., Ltd.	110111-7815602
		T Map Mobility Co., Ltd.	110111-7733812
		Paju Energy Service Co., Ltd.	110111-4629501

Whether listed	Number of companies	Name of company	Corporate registration number
		P&S Marketing Co., Ltd.	110111-4072338
		Korea Nexlen Co., Ltd.	230114-0003328
		Haetssal Solar Power Co., Ltd.	161411-0049376
		Happy Narae Co., Ltd.	110111-2016940
		Happy Companion Co., Ltd.	175611-0021671
		Happy Didim Co., Ltd.	110111-6984325
		Happy Moa Co., Ltd.	150111-0226204
		Happy Moum Co., Ltd.	230111-0318187
		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 Facilities Management Co., Ltd.	134111-0486452
		Environmental Energy Co., Ltd.	134111-0465331
		Saehan Environment Co., Ltd.	161511-0073563
		Katini Co., Ltd.	110111-7983392
		Jeonnam 2 Offshore Wind Power Co., Ltd.	110111-7985661
		Jeonnam 3 Offshore Wind Power Co., Ltd.	110111-7985934
		Daewon Green Energy Co., Ltd.	161511-0134795
		Daewon Hi-Tech Co., Ltd.	161511-0197397
		Dangjin Happiness Solar Co., Ltd.	110111-8022925
		SK TVM Geo Stone Co., Ltd.	154311-0056421
		SK On Co., Ltd.	110111-8042379
		SK Earth On Co., Ltd.	110111-8042361
		SK Materials Group Fourteen Co., Ltd.	171411-0032197
		SK Eco Engineering Co., Ltd. (formerly, BLH Engineering Co., Ltd.)	110111-8061337
		Haesola Energy Co., Ltd.	201111-0050106
		ESSENCORE Limited	-
		Essencore Microelectronics (ShenZhen) Limited	-
		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.	-

Whether listed	Number of companies	Name of company	Corporate registration number
		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 Biotek USA, Inc.	-
		SK Pharmteco Inc. (formerly, Alchemy Acquisition Corp.)	-
		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	-

Whether listed	Number of companies	Name of company	Corporate registration number
		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.	-
		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 V 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 Bio Energy Hong Kong Co., Limited	-
		SK China Company, Ltd.	-
		SK China Investment Management Company Limited	-
		SK China Real Estate Co., Limited	-
		SK China(Beijing) Co., Ltd.	-
		Zhuhai XinZhi	-
		SK Financial Leasing 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 Investment Co., Ltd	-
		SKY Property Mgmt. Ltd.	-
		Skyline Auto Financial Leasing Co, Ltd.	-
		Beijing LIZHIWEIXIN Technology Company Limited	-

Whether listed	Number of companies	Name of company	Corporate registration number
		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	-
		Plutus Capital NY II, Inc	-
		Grove Energy Capital II, LLC	-
		PLUTUS CAPITAL NY III, INC.	-
		Grove Energy Capital III, LLC	-
		Atlas NY, LLC	-
		Plutus Fashion NY, Inc	-
		Wonderland 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 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	-
		SK GROWTH OPPORTUNITIES CORPORATION	-
		TELLUS (HONG KONG) INVESTMENT CO.,LIMITED	-
		Saturn Agriculture Investment Co., Limited	-
		Leiya Dahe (Tianjin) Equity Investment Limited Partnership	-
		Nanoentek America Inc.	-
		Nanoentek Bio-Technology (Beijing) Ltd.	-
		Dongguan Iriver Electronics Co., Ltd.	-
		Iriver China Co., Ltd.	-
		Iriver Enterprise Ltd.	-
		LIFE DESIGN COMPANY INC.	-
		SK E&S Hong Kong Co., Ltd.	-

Whether listed	Number of companies	Name of company	Corporate registration number
		SMC US, INC	-
		SMCORE INDIA PRIVATE LIMITED	-
		Infosec Information technology(Wuxi) Co., Ltd.	-
		SK shieldus America, Inc.	-
		Beijing Mitsui Chemicals & SKC Polyurethanes Co., Ltd.	-
		MCNS Polyurethanes Europe Sp. zo.o	-
		MCNS Polyurethanes India Pvt. Ltd.	-
		MCNS Polyurethanes Mexico, S. de R.L. de C.V	-
		MCNS Polyurethanes RUS LLC.	-
		MCNS Polyurethanes USA Inc.	-
		Mitsui Chemicals & SKC Polyurethanes Inc.	-
		SK Gas International Pte. Ltd.	-
		SK Gas Petrochemical Pte. Ltd.	-
		SK Gas Trading LLC	-
		SK Gas USA Inc.	-
		Avrasya Tuneli Isletme Insaat Ve Yatirim A.S.	-
		BAKAD International B.V	-
		BAKAD Investment and Operation LLP	-
		BT RE Investments, LLC	-
		BT FC, LLC	-
		Hi Vico Construction Company Limited	-
		Jurong Aromatics Corporation Pte. Ltd.	-
		SKEC Anadolu LLC	-
		SKEC(Thai) Limited	-
		Sunlake Co., Ltd.	-
		Thai Woo Ree Engineering Co., Ltd	-
		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	-
		SK International Investment Singapore Pte. Ltd.	-
		KS Investment B.V.	-
		Mesa Verde RE Ventures, LLC	-
		SBC GENERAL TRADING & CONTRACTING CO. W.L.L.	-
		Silvertown Investco Ltd.	-
		SK E&C BETEK Corp.	-

Whether listed	Number of companies	Name of company	Corporate registration number
		SK E&C Consultores Ecuador S.A.	-
		Changzhou SKY New Energy Co., Ltd.	-
		Networks Tejarat Pars	-
		P.T. SK Networks Indonesia	-
		POSK (Pinghu) Steel Processing Center Co., Ltd.	-
		Shenyang SK Bus Terminal Co., Ltd.	-
		SK Networks Trading Malaysia Sdn Bhd	-
		SK Networks(Dandong) Energy Co., Ltd.	-
		SK Networks(Shanghai) Co., Ltd.	-
		SKN (China) Holdings Co., Ltd.	-
		Springvale SK Kores Pty Ltd.	-
		TenX Capital	-
		SK NETWORKS BRASIL INTERMEDIACAO DE NEGOCIOS LTDA.	-
		SK Networks Deutschland GmbH	-
		SK Networks HongKong Ltd.	-
		SK Networks Japan Co., Ltd.	-
		SK Networks Resources Australia (Wyong) Pty Ltd.	-
		SK Networks Resources Pty Ltd.	-
		SK BRASIL LTDA	-
		SK Networks (Xiamen) Steel Processing Center	-
		SK NETWORKS AMERICA, Inc.	-
		MINTIT VINA (formerly, SK Telink Vietnam Co.,Ltd)	-
		SK Nexilis Malaysia SDN. BHD.	-
		SK Nexilis Poland sp. z o.o	-
		NEXILIS MANAGEMENT MALAYSIA SDN. BHD.	-
		Iberian Lube Base Oils Company, S.A.	-
		PT. Patra SK	-
		SK Energy Lubricants (Tianjin) Co., Ltd.	-
		SK Lubricants & Oils India Pvt. Ltd.	-
		SK Lubricants Americas, Inc.	-
		SK Lubricants Europe B.V.	-
		SK Lubricants Japan Co., Ltd.	-
		SK Lubricants Rus Limited Liability Company	-
		SK MAGIC VIETNAM CO.,LTD	-
		SK Networks Retails Malaysia Sdn. Bhd.	-
		SK Materials JNC Japan Co., Ltd	-
		SK Materials Japan Co., Ltd	-

Whether listed	Number of companies	Name of company	Corporate registration number
		SK Materials Jiangsu Co., Ltd.	-
		SK Materials Shanghai Co.,Ltd	-
		SK Materials Taiwan Co., Ltd.	-
		SK Materials Xian Co., Ltd	-
		SK Japan Investment Inc.	-
		Mobile Energy Battery America, LLC	-
		Yancheng Yandu District M Energy Consulting Limited Company	-
		SK Life Science, Inc	-
		SK Bio Pharmaceutical Technology (Shanghai) Co., Ltd.	-
		Ignis Therapeutics	-
		SK Siltron America, Inc.	-
		SK Siltron CSS, LLC	-
		SK Siltron Japan, Inc.	-
		SK Siltron Shanghai Co., Ltd.	-
		SK Siltron USA, Inc.	-
		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.	-
		SOLMICS SHANGHAI INTERNATIONAL TRADING CO., LTD.	-
		SOLMICS TAIWAN CO., LTD.	-
		SKC (Jiangsu) High Tech Plastics	-
		SKC (Nantong) PU Specialty Co., Ltd.	-
		SKC Europe GmbH	-
		SKC International Shanghai Trading Co., Ltd.	-
		SKC PU Specialty Co., Ltd.	-
		SKC PVB Film Co., Limited	-
		SKC, Inc.	-
		ZA Advanced PVB Film(Nantong) Co., Ltd.	-
		SKC hi-tech&marketing Polska SP.Z.O.O	-
		SKC hi-tech&marketing USA LLC	-
		SKC hi-tech&marketing VINA Co., Ltd.	-
		SKC hi-tech&marketing(Suzhou) Co., Ltd.	-
		SK hi-tech battery materials (Jiangsu) Co., Ltd.	-
		SK hi-tech battery materials Poland sp.z o.o.	-
		Asia Bitumen Trading Pte, Ltd.	-

Whether listed	Number of companies	Name of company	Corporate registration number
		GREEN & CO. ASIA LIMITED	-
		Netruck Franz Co., Ltd.	-
		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.	-
		Blue Dragon Energy Co., Limited	-
		Jiangsu SK Battery Certification Center	-
		SK USA, Inc.	-
		SK E&P Company (formerly, SK Innovation Americas Inc.)	-
		SK Future Energy(Shanghai) Co., Ltd	-
		SK Innovation Insurance (Bermuda), Ltd.	-
		SK On Hungary Kft.	-
		SK Battery America, Inc.	-
		SK Battery Manufacturing kft.	-
		SK On (Jiangsu) Co., Ltd.	-
		SK On Yancheng Co., Ltd.	-
		NEW&COMPANY ONE PTE. LTD.	-
		BU12 Australia Pty.	-
		BU13 Australia Pty. Ltd.	-
		CAES, LLC	-
		CAILIP Gas Marketing, LLC	-
		China Gas-SK E&S LNG Trading Ltd.	-
		SK E&S Dominicana S.R.L.	-
		SK E&S LNG, LLC	-
		PT Prism Nusantara International	-
		PT. Regas Energitama Infrastruktur	-
		RNES Holdings, LLC	-
		Shandong Order-PRISM China Investment Co., Ltd.	-
		SK E&S Americas, Inc.	-
		SK E&S Australia Pty Ltd.	-
		PNES Investments, LLC	-
		Prism DLNG Pte. Ltd.	-
		Prism Energy International China Limited	-
		Prism Energy International Hong Kong Limited	-
		Prism Energy International Pte., Ltd.	-

Whether listed	Number of companies	Name of company	Corporate registration number
		Prism Energy International Zhoushan Limited	-
		DewBlaine Energy, LLC	-
		Electrodes Holdings, LLC	-
		ENERGY SOLUTION HOLDINGS INC.	-
		Fajar Energy International Pte. Ltd.	-
		LUNAR ENERGY, INC.	-
		NEW&COMPANY TWO PTE. LTD.	-
		Moixa Energy Holdings Limited	-
		Moixa Technology Limited	-
		Moixa Energy Limited	-
		GRID SOLUTION LLC	-
		Grid Solution II, LLC	-
		PRISM DARWIN PIPELINE PTY LTD	-
		PASSKEY, INC.	-
		LNG AMERICAS, INC.	-
		Key Capture Energy, LLC	-
		KCE GLOBAL HOLDINGS, LLC	-
		KCE PF HOLDINGS 2021, LLC	-
		KCE LAND HOLDINGS, LLC	-
		KCE NY 1, LLC	-
		KCE NY 2, LLC	-
		KCE NY 3, LLC	-
		KCE NY 5, LLC	-
		KCE NY 6, LLC	-
		KCE NY 8, LLC	-
		KCE NY 10, LLC	-
		KCE NY 11, LLC	-
		KCE NY 12, LLC	-
		KCE NY 14, LLC	-
		KCE NY 18, LLC	-
		KCE NY 19, LLC	-
		KCE NY 21, LLC	-
		KCE NY 22, LLC	-
		KCE NY 25, LLC	-
		KCE NY 26, LLC	-
		KCE IL 1, LLC	-
		KCE BRUSHY CREEK HOLDINGS, LLC	-

Whether listed	Number of companies	Name of company	Corporate registration number
		KCE ME 1, LLC	-
		KCE NY 33, LLC	-
		KCE NY 28, LLC	-
		KCE TX 15, LLC	-
		KCE NY 27, LLC	-
		KCE NY 29, LLC	-
		KCE NY 32, LLC	-
		KCE TX 9, LLC	-
		KCE TX 10, LLC	-
		KCE TX 13, LLC	-
		KCE TX 14, LLC	-
		KCE TX 16, LLC	-
		KCE TX 17, LLC	-
		KCE TX 19, LLC	-
		KCE TX 20, 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 CT 1, LLC	-
		KCE CT 2, LLC	-
		KCE CT 4, LLC	-
		KCE MD 1, LLC	-
		KCE MI 1, LLC	-
		KCE MI 2, LLC	-
		KCE MI 3, LLC	-
		KCE IL 2, LLC	-
		KCE IN 1, LLC	-
		KCE IN 2, LLC	-
		KCE IN 3, LLC	-
		KCE OK 1, LLC	-
		KCE OK 2, LLC	-
		KCE OK 3, LLC	-
		KCE OK 4, LLC	-

Whether listed	Number of companies	Name of company	Corporate registration number
		KCE TEXAS HOLDINGS 2020, LLC	-
		KCE TX 2, LLC	-
		KCE TX 7, LLC	-
		KCE TX 8, LLC	-
		KCE TX 11, LLC	-
		KCE TX 12, LLC	-
		ROUGHNECK STORAGE LLC D/B/A KCE TX 23, LLC	-
		WAGNER BATTERY STORAGE,LLC	-
		Ningbo SK Performance Rubber Co., Ltd.	-
		SABIC SK Nexlene Company Pte.Ltd.	-
		SK Functional Polymer, S.A.S	-
		SK GC Americas, Inc.	-
		SK Geo Centric (Beijing) Holding Co., Ltd.	-
		SK Primacor Americas LLC	-
		SK Primacor Europe, S.L.U.	-
		SK Saran Americas LLC	-
		SK Geo Centric China Ltd.	-
		SK Global Chemical International Trading (Guangzhou) Co., Ltd.	-
		SK Global Chemical International Trading (Shanghai) Co., Ltd.	-
		SK Geo Centric Investment Hong Kong Ltd.	-
		SK Geo Centric Japan Co., Ltd.	-
		SK Geo Centric Singapore Pte. Ltd.	-
		Sino-Korea Green New Material (JiangSu) Limited.	-
		Green & Connect Capital, Inc.	-
		SK Geo Centric Brazil LTDA	-
		SK Chemicals (Shanghai) Co., Ltd	-
		SK Chemicals (Suzhou) Co., Ltd	-
		SK Chemicals (Yantai) Co., Ltd.	-
		SK Chemicals America	-
		SK Chemicals GmbH	-
		SK Chemicals Malaysia	-
		ST Green Energy Pte, Ltd	-
		SK Telesys Corp.	-
		TechDream Co. Limited	-
		T1 esports US, Inc.	-
		AI ALLIANCE, LLC	-
		Atlas Investment Ltd.	-

Whether listed	Number of companies	Name of company	Corporate registration number
		Axess II Holdings	-
		CYWORLD China Holdings	-
		Deutsche Telekom Capital Partners Venture Fund II Parallel GmbH & Co. KG	-
		Digital Games International PTE, Ltd.	-
		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	-
		TECHMAKER GMBH	-
		SK Square America	-
		NextGen Broadcast Service	-
		ID Quantique Ltd.	-
		ID Quantique S.A.	-
		NextGen Broadcast Orchestration	-
		SK Energy Americas Inc.	-
		SK Energy Europe, Ltd.	-
		SK Energy International Pte, Ltd.	-
		SK Terminal B.V.	-
		Dogus Planet Inc.	-
		SK Planet Global Holdings Pte, Ltd.	-
		SK Planet, Inc.	-
		SKP America, LLC	-
		SkyHigh Memory Limited Japan	-
		Hystars Semiconductor (Wuxi) Co. Ltd	-
		SK hynix system IC (Wuxi) Co. Ltd.	-

Whether listed	Number of companies	Name of company	Corporate registration number
		SkyHigh Memory China Limited	-
		SkyHigh Memory Limited	-
		Gauss Labs Inc.	-
		HITECH Semiconductor (Wuxi) Co., Ltd. (HITECH)	-
		SK APTECH Ltd.	-
		SK hynix (Wuxi) Education Technology Co., Ltd.	-
		SK hynix (Wuxi) Industry Development Ltd.	-
		SK hynix (Wuxi) Investment Ltd.	-
		SK hynix U.K. Ltd.	-
		SK hynix Ventures Hong Kong Limited	-
		SK hynix Semiconductor (China) Ltd.	-
		SK hynix Semiconductor (Chongqing) 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 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 Corp.	-
		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 NAND Product Solutions Taiwan Co., Ltd.	-
		SK hynix NAND Product Solutions Canada Ltd.	-
		SK hynix NAND Product Solutions Mexico, S. DE R.L. DE C.V.	-
		SK hynix Semiconductor (Dalian) Co., Ltd.	-
		SK hynix NAND Product Solutions UK Limited	-
		SK hynix NAND Product Solutions Israel Ltd.	-
		SK hynix NAND Product Solutions Japan G.K.	-
		SK hynix NAND Product Solutions International LLC	-
		SK hynix NAND Product Solutions Asia Pacific LLC	-

Whether listed	Number of companies	Name of company	Corporate registration number
		SK hynix NAND Product Solutions Singapore Pte. Ltd.	-
		SK hynix NAND Product Solutions Malaysia Sdn. Bhd.	-
		SK hynix Happiness (Wuxi) Hospital Management Ltd.	-
		SK hynix (Wuxi) Education Technology Co., Ltd.	-
		SK hynix Ventures America LLC	-
		SK HYNIX NAND PRODUCT SOLUTIONS POLAND sp. z o.o.	-
		SK hynix NAND Product Solutions (Beijing) Co., Ltd.	-
		SK Hynix NAND Product Solutions (Shanghai) Co., Ltd.	-
		FSK L&S Hungary Kft.	-
		FSK L&S VIETNAM COMPANY LIMITED	-
		FSK L&S (Shanghai) Co., Ltd.	-
		FSK L&S (Jiangsu) Co., Ltd.	-
		PHILKO UBINS LTD. CORP.	-
		CHONGQING HAPPYNARAE Co., Ltd.	-
		SUZHOU HAPPYNARAE Co., Ltd.	-
		HAPPYNARAE HUNGARY KFT.	-
		HAPPYNARAE AMERICA LLC.	-

Note 1) As of December 9, 2021, SK Materials Holdings Co., Ltd. (formerly SK Materials Co., Ltd.) merged with SK Co., Ltd. and was dissolved, and then was delisted.

Note 2) As of January 1, 2022, E-Medi One Co., Ltd., E-Medi One Logis Co., Ltd., Urban Environment Co., Ltd., Green Environment Technology Co., Ltd., SK Square Co., Ltd., Happy Miteum Co., Ltd., DDIOS108 Consigned Management Real Estate Investment Company Co., Ltd., EcoVance Co., Ltd., SK Multi-Utility Co., Ltd. were incorporated among the affiliates.

Note 3) As of January 6, 2022, SK Materials Holdings Co., Ltd. (formerly, SK Materials Co., Ltd.), D Eco Platform Co., Ltd., Landfill Management Co., Ltd. and Environmental Energy Co., Ltd. were excluded from among the affiliates.

Note 4) As of January 18, 2022, Busan City Gas Co., Ltd. was delisted.

Note 5) As of February 1, 2022, (new) SK Materials Co., Ltd., All New One Co., Ltd., Parking Cloud Co., Ltd., and iParking Co., Ltd. were incorporated among the affiliates. Note 6) Overseas affiliates are classified as unlisted companies.

(*) Tradename were changed: SK Co., Ltd. (formerly, SK C&C Co., Ltd.), Entis Co., Ltd. (formerly, SK Cytec Co., Ltd.), Mitsui Chemicals & SK Polyurethane Co., Ltd. (formerly, SMPC 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.), SKC Hi-Tech & Marketing Co., Ltd. (formerly, SKC Hi-Tech & Marketing 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 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 Reals Air Plus Co., Ltd. (formerly, SK Air Gas Co., Ltd.), SK Materials Renew Tech Co., Ltd. (formerly, Hanyu Chemical Co., Ltd.), SK Eco Plant Co., Ltd. (formerly, SK E&C Co., Ltd.), SK Geocentric Co., Ltd. (formerly, SK Global Chemicals Co., Ltd.), SK Shielders (formerly, ADT Caps Co., Ltd.), SK Eco Engineering Co., Ltd. (formerly, BLH Engineering Co., Ltd.), and SK Materials Holdings Co., Ltd. (formerly, SK Materials Co., Ltd.)

[Status of investments between the affiliates]

As of December 31, 2021

(based on common shares)

Investee \ Investor	SK Innovation Co., Ltd.	Korea Oil Pipeline Corporation	Happy Kiwoom Co., Ltd.	SK Energy Co., Ltd.	Nae Truck Co., Ltd.	Jeju United FC	Happy Didim Co., Ltd.	SK Geocentric Co., Ltd.	Ulsan Aromatics Co., Ltd.	Haengbok Moeum Co., Ltd.
SK Co., Ltd.	33.4%									
SK Innovation Co., Ltd.		41.0%	100.0%	100.0%				100.0%		
SK Energy Co., Ltd.					100.0%	100.0%	100.0%			
SK Geocentric Co., Ltd.									50.0%	100.0%
SK Lubricants Co., Ltd.										
SK On Co., Ltd.										
SK Telecom Co., Ltd.										
SK Broadband Co., Ltd.										
SK Square Co., Ltd.										
Dreamus Company										
One Store Co., Ltd.										
Incross Co., Ltd.										
Contents Wave Co., Ltd.										
T Map Mobility Co., Ltd.										
SK Shielders Co., Ltd.										
SK Planet Co., Ltd.										
SK hynix Co., Ltd.										
SK E&S Co., Ltd.										
SKC Co., Ltd.										
SKCFT Holdings Co., Ltd.										
SK Networks Co., Ltd.										
SK Rent a Car Co., Ltd.										
SK Magic Co., Ltd.										
SK Eco Plant Co., Ltd.										
Environmental Facilities Management Co., Ltd.										
Daewon Green Energy Co., Ltd.										
SK Discovery Co., Ltd.										
SK Gas Co., Ltd.										

Investee \ Investor	SK Innovation Co., Ltd.	Korea Oil Pipeline Corporation	Happy Kiwoom Co., Ltd.	SK Energy Co., Ltd.	Nae Truck Co., Ltd.	Jeju United FC	Happy Didim Co., Ltd.	SK Geocentric Co., Ltd.	Ulsan Aromatics Co., Ltd.	Haengbok Moeum Co., Ltd.
SK D&D Co., Ltd.										
Korea Exchange Systems										
SK Chemicals Co., Ltd.										
Hwichan										
SK Consigned Management Real Estate Investment Company Co., Ltd.										
SK Siltron Co., Ltd.										
A&TS Co., Ltd.										
Total affiliates	33.4%	41.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	50.0%	100.0%

Investee \ Investor	SK Lubricants Co., Ltd.	U Base Manufacturing Asia Co., Ltd.	SK on Co., Ltd.	SK Mobile Energy Co., Ltd.	SK earthon Co., Ltd.	SK Incheon Petrochemicals Co., Ltd.	SK Trading International Co., Ltd.	SK IEE Technology Co., Ltd.	SK Telecom Co., Ltd.	SK Communications Co., Ltd.
SK Co., Ltd.									30.0%	
SK Innovation Co., Ltd.	60.0%		100.0%		100.0%	100.0%	100.0%	61.2%		
SK Energy Co., Ltd.										
SK Geocentric Co., Ltd.										
SK Lubricants Co., Ltd.		70.0%								
SK On Co., Ltd.				100.0%						
SK Telecom Co., Ltd.										100.0%
SK Broadband Co., Ltd.										
SK Square Co., Ltd.										
Dreamus Company										
One Store Co., Ltd.										
Incross Co., Ltd.										
Contents Wave Co., Ltd.										
T Map Mobility Co., Ltd.										
SK Shielders Co., Ltd.										
SK Planet Co., Ltd.										
SK Hynix Co., Ltd.										
SK E&S Co., Ltd.										
SKC Co., Ltd.										
SKCFT Holdings Co., Ltd.										

Investee \ Investor	SK Lubricants Co., Ltd.	U Base Manufacturing Asia Co., Ltd.	SK on Co., Ltd.	SK Mobile Energy Co., Ltd.	SK earthon Co., Ltd.	SK Incheon Petrochemicals Co., Ltd.	SK Trading International Co., Ltd.	SK IEE Technology Co., Ltd.	SK Telecom Co., Ltd.	SK Communications Co., Ltd.
SK Networks Co., Ltd.										
SK Rent a Car Co., Ltd.										
SK Magic Co., Ltd.										
SK Eco Plant Co., Ltd.										
Environmental Facilities Management Co., Ltd.										
Daewon Green Energy Co., Ltd.										
SK Discovery Co., Ltd.										
SK Gas Co., Ltd.										
SK D&D Co., Ltd.										
Korea Exchange Systems										
SK Chemicals Co., Ltd.										
Hwichan										
SK Consigned Management Real Estate Investment Company Co., Ltd.										
SK Siltron Co., Ltd.										
A&TS Co., Ltd.										
Total affiliates	60.0%	70.0%	100.0%	100.0%	100.0%	100.0%	100.0%	61.2%	30.0%	100.0%

Investee \ Investor	F&U Credit Information Co., Ltd.	PS & Marketing Co., Ltd.	SK O&S Co., Ltd.	Service Ace Co., Ltd.	Service Top Co., Ltd.	SK Telink Co., Ltd.	Happy Hanwool Co., Ltd.	SK Store Co., Ltd.	Broadband Nowon Broadcasting Co., Ltd.	SK Broadband Co., Ltd.
SK Co., Ltd.										
SK Innovation Co., Ltd.										
SK Energy Co., Ltd.										
SK Geocentric Co., Ltd.										
SK Lubricants Co., Ltd.										
SK On Co., Ltd.										
SK Telecom Co., Ltd.	50.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	74.3%
SK Broadband Co., Ltd.										
SK Square Co., Ltd.										
Dreamus Company										

Investee \ Investor	F&U Credit Information Co., Ltd.	PS & Marketing Co., Ltd.	SK O&S Co., Ltd.	Service Ace Co., Ltd.	Service Top Co., Ltd.	SK Telink Co., Ltd.	Happy Hanwool Co., Ltd.	SK Store Co., Ltd.	Broadband Nowon Broadcasting Co., Ltd.	SK Broadband Co., Ltd.
One Store Co., Ltd.										
Incross Co., Ltd.										
Contents Wave Co., Ltd.										
T Map Mobility Co., Ltd.										
SK Shielders Co., Ltd.										
SK Planet Co., Ltd.										
SK hynix Co., Ltd.										
SK E&S Co., Ltd.										
SKC Co., Ltd.										
SKCFT Holdings Co., Ltd.										
SK Networks Co., Ltd.										
SK Rent a Car Co., Ltd.										
SK Magic Co., Ltd.										
SK Eco Plant Co., Ltd.										
Environmental Facilities Management Co., Ltd.										
Daewon Green Energy Co., Ltd.										
SK Discovery Co., Ltd.										
SK Gas Co., Ltd.										
SK D&D Co., Ltd.										
Korea Exchange Systems										
SK Chemicals Co., Ltd.										
Hwichan										
SK Consigned Management Real Estate Investment Company Co., Ltd.										
SK Siltron Co., Ltd.										
A&TS Co., Ltd.										
Total affiliates	50.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	74.3%

Investee \ Investor	Home & Service Co., Ltd.	Media S Co., Ltd.	SK Square Co., Ltd.	Dreamus Company	Studio Dolphin Co., Ltd.	Nano & Tech Co., Ltd.	FSK L&S Co., Ltd.	11st Co., Ltd.	Incross Co., Ltd.	Infra Communications Co., Ltd.
SK Co., Ltd.			30.0%							
SK Innovation Co., Ltd.										
SK Energy Co., Ltd.										
SK Geocentric Co., Ltd.										
SK Lubricants Co., Ltd.										
SK on Co., Ltd.										
SK Telecom Co., Ltd.			0.5%							
SK Broadband Co., Ltd.	100.0%	100.0%								
SK Square Co., Ltd.				51.4%		28.4%	60.0%	98.1%	34.6%	
Dreamus Company					100.0%					
One Store Co., Ltd.										
Incross Co., Ltd.										100.0%
Contents Wave Co., Ltd.										
T Map Mobility Co., Ltd.										
SK Shielders Co., Ltd.										
SK Planet Co., Ltd.										
SK hynix Co., Ltd.										
SK E&S Co., Ltd.										
SKC Co., Ltd.										
SKCFT Holdings Co., Ltd.										
SK Networks Co., Ltd.										
SK Rent a Car Co., Ltd.										
SK Magic Co., Ltd.										
SK Eco Plant Co., Ltd.										
Environmental Facilities Management Co., Ltd.										
Daewon Green Energy Co., Ltd.										
SK Discovery Co., Ltd.										
SK Gas Co., Ltd.										
SK D&D Co., Ltd.										
Korea Exchange Systems										
SK Chemicals Co., Ltd.										

Investee \ Investor	Home & Service Co., Ltd.	Media S Co., Ltd.	SK Square Co., Ltd.	Dreamus Company	Studio Dolphin Co., Ltd.	Nano & Tech Co., Ltd.	FSK L&S Co., Ltd.	11st Co., Ltd.	Incross Co., Ltd.	Infra Communications Co., Ltd.
Hwichan										
SK Consigned Management Real Estate Investment Company Co., Ltd.										
SK Siltron Co., Ltd.										
A&TS Co., Ltd.										
Total affiliates	100.0%	100.0%	30.5%	51.4%	100.0%	28.4%	60.0%	98.1%	34.6%	100.0%

Investee \ Investor	Mind Knock Co., Ltd.	SK Telecom CSTI Co., Ltd.	Contents Wave Co., Ltd.	Studio Wave Co., Ltd.	SK Shielders Co., Ltd.	Caps Tech Co., Ltd.	SK Planet Co., Ltd.	SK M & Service Co., Ltd.	T Map Mobility Co., Ltd.	YLP Co., Ltd.
SK Co., Ltd.										
SK Innovation Co., Ltd.										
SK Energy Co., Ltd.										
SK Geocentric Co., Ltd.										
SK Lubricants Co., Ltd.										
SK On Co., Ltd.										
SK Telecom Co., Ltd.										
SK Broadband Co., Ltd.										
SK Square Co., Ltd.		55.0%	36.4%		63.1%		98.7%		66.3%	
Dreamus Company										
One Store Co., Ltd.										
Incross Co., Ltd.	100.0%									
Contents Wave Co., Ltd.				100.0%						
T Map Mobility Co., Ltd.										100.0%
SK Shielders Co., Ltd.						100.0%				
SK Planet Co., Ltd.								100.0%		
SK hynix Co., Ltd.										
SK E&S Co., Ltd.										
SKC Co., Ltd.										
SKCFT Holdings Co., Ltd.										
SK Networks Co., Ltd.										
SK Rent a Car Co., Ltd.										
SK Magic Co., Ltd.										
SK Eco Plant Co., Ltd.										
Environmental Facilities										

Investee \ Investor	Mind Knock Co., Ltd.	SK Telecom CST1 Co., Ltd.	Contents Wave Co., Ltd.	Studio Wave Co., Ltd.	SK Shielders Co., Ltd.	Caps Tech Co., Ltd.	SK Planet Co., Ltd.	SK M & Service Co., Ltd.	T Map Mobility Co., Ltd.	YLP Co., Ltd.
Management Co., Ltd.										
Daewon Green Energy Co., Ltd.										
SK Discovery Co., Ltd.										
SK Gas Co., Ltd.										
SK D&D Co., Ltd.										
Korea Exchange Systems										
SK Chemicals Co., Ltd.										
Hwichan										
SK Consigned Management Real Estate Investment Company Co., Ltd.										
SK Siltron Co., Ltd.										
A&TS Co., Ltd.										
Total affiliates	100.0%	55.0%	36.4%	100.0%	63.1%	100.0%	98.7%	100.0%	66.3%	100.0%

Investee \ Investor	Good Service Co., Ltd.	One Store Co., Ltd.	Lock Media Co., Ltd.	SK Hynix Co., Ltd.	SK Hystec Co., Ltd.	SK High ENG Co., Ltd.	Happy Moa Co., Ltd.	SK Hynix System IC Co., Ltd.	Happy Narae Co., Ltd.	SK E&S Co., Ltd.
SK Co., Ltd.										90.0%
SK Innovation Co., Ltd.										
SK Energy Co., Ltd.										
SK Geocentric Co., Ltd.										
SK Lubricants Co., Ltd.										
SK On Co., Ltd.										
SK Telecom Co., Ltd.										
SK Broadband Co., Ltd.										
SK Square Co., Ltd.		59.0%		20.1%						
Dreamus Company										
One Store Co., Ltd.			100.0%							
Incross Co., Ltd.										
Contents Wave Co., Ltd.										
T Map Mobility Co., Ltd.	100.0%									
SK Shielders Co., Ltd.										
SK Planet Co., Ltd.										
SK hynix Co., Ltd.					100.0%	100.0%	100.0%	100.0%	100.0%	
SK E&S Co., Ltd.										
SKC Co., Ltd.										

Investee \ Investor	Good Service Co., Ltd.	One Store Co., Ltd.	Lock Media Co., Ltd.	SK Hynix Co., Ltd.	SK Hystec Co., Ltd.	SK High ENG Co., Ltd.	Happy Moa Co., Ltd.	SK Hynix System IC Co., Ltd.	Happy Narae Co., Ltd.	SK E&S Co., Ltd.
SKCFT Holdings Co., Ltd.										
SK Networks Co., Ltd.										
SK Rent a Car Co., Ltd.										
SK Magic Co., Ltd.										
SK Eco Plant Co., Ltd.										
Environmental Facilities Management Co., Ltd.										
Daewon Green Energy Co., Ltd.										
SK Discovery Co., Ltd.										
SK Gas Co., Ltd.										
SK D&D Co., Ltd.										
Korea Exchange Systems										
SK Chemicals Co., Ltd.										
Hwichan										
SK Consigned Management Real Estate Investment Company Co., Ltd.										
SK Siltron Co., Ltd.										
A&TS Co., Ltd.										
Total affiliates	100.0%	59.0%	100.0%	20.1%	100.0%	100.0%	100.0%	100.0%	100.0%	90.0%

Investee \ Investor	Cowon Energy Service Co., Ltd.	Busan City Gas Co., Ltd.	Chungcheong Energy Service Co., Ltd.	Youngnam Energy Service Co., Ltd.	Jeonnam City Gas Co., Ltd.	Gangwon City Gas Co., Ltd.	Jeonbuk Energy Service Co., Ltd.	Paju Energy Service Co., Ltd.	Narae Energy Service Co., Ltd.	Yeoju Energy Service Co., Ltd.
SK Co., Ltd.										
SK Innovation Co., Ltd.										
SK Energy Co., Ltd.										
SK Geocentric Co., Ltd.										
SK Lubricants Co., Ltd.										
SK on Co., Ltd.										
SK Telecom Co., Ltd.										
SK Broadband Co., Ltd.										
SK Square Co., Ltd.										
Dreamus Company										

Investee \ Investor	Cowon Energy Service Co., Ltd.	Busan City Gas Co., Ltd.	Chungcheong Energy Service Co., Ltd.	Youngnam Energy Service Co., Ltd.	Jeonnam City Gas Co., Ltd.	Gangwon City Gas Co., Ltd.	Jeonbuk Energy Service Co., Ltd.	Paju Energy Service Co., Ltd.	Narae Energy Service Co., Ltd.	Yeoju Energy Service Co., Ltd.
One Store Co., Ltd.										
Incross Co., Ltd.										
Contents Wave Co., Ltd.										
T Map Mobility Co., Ltd.										
SK Shielders Co., Ltd.										
SK Planet Co., Ltd.										
SK hynix Co., Ltd.										
SK E&S Co., Ltd.	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	51.0%	100.0%	100.0%
SKC Co., Ltd.										
SKCFT Holdings Co., Ltd.										
SK Networks Co., Ltd.										
SK Rent a Car Co., Ltd.										
SK Magic Co., Ltd.										
SK Eco Plant Co., Ltd.										
Environmental Facilities Management Co., Ltd.										
Daewon Green Energy Co., Ltd.										
SK Discovery Co., Ltd.										
SK Gas Co., Ltd.										
SK D&D Co., Ltd.										
Korea Exchange Systems										
SK Chemicals Co., Ltd.										
Hwicheon										
SK Consigned Management Real Estate Investment Company Co., Ltd.										
SK Siltron Co., Ltd.										
A&TS Co., Ltd.										
Total affiliates	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	51.0%	100.0%	100.0%

Investee \ Investor	Boryeong LNG Terminal Co., Ltd.	Jeonnam Offshore Wind Power Co., Ltd.	Shinan Jeungdo Solar Power Co., Ltd.	Haetsal Solar Power Co., Ltd.	Solis Co., Ltd.	Ariwool Happy Solar Co., Ltd.	Busan Jeongkwon Energy Co., Ltd.	IGE Co., Ltd.	Jeonnam 2 Offshore Wind Power Co., Ltd.	Jeonnam 3 Offshore Wind Power Co., Ltd.
SK Co., Ltd.										
SK Innovation Co., Ltd.										
SK Energy Co., Ltd.										
SK Geocentric Co., Ltd.										
SK Lubricants Co., Ltd.										
SK on Co., Ltd.										
SK Telecom Co., Ltd.										
SK Broadband Co., Ltd.										
SK Square Co., Ltd.										
Dreamus Company										
One Store Co., Ltd.										
Incross Co., Ltd.										
Contents Wave Co., Ltd.										
T Map Mobility Co., Ltd.										
SK Shielders Co., Ltd.										
SK Planet Co., Ltd.										
SK hynix Co., Ltd.										
SK E&S Co., Ltd.	50.0%	51.0%	100.0%	100.0%	90.4%	100.0%	100.0%	100.0%	55.0%	55.0%
SKC Co., Ltd.										
SKCFT Holdings Co., Ltd.										
SK Networks Co., Ltd.										
SK Rent a Car Co., Ltd.										
SK Magic Co., Ltd.										
SK Eco Plant Co., Ltd.										
Environmental Facilities Management Co., Ltd.										
Daewon Green Energy Co., Ltd.										
SK Discovery Co., Ltd.										
SK Gas Co., Ltd.										
SK D&D Co., Ltd.										

Investee \ Investor	Boryeong LNG Terminal Co., Ltd.	Jeonnam Offshore Wind Power Co., Ltd.	Shinan Jeungdo Solar Power Co., Ltd.	Haetsal Solar Power Co., Ltd.	Solis Co., Ltd.	Ariwool Happy Solar Co., Ltd.	Busan Jeongkwan Energy Co., Ltd.	IGE Co., Ltd.	Jeonnam 2 Offshore Wind Power Co., Ltd.	Jeonnam 3 Offshore Wind Power Co., Ltd.
Korea Exchange Systems										
SK Chemicals Co., Ltd.										
Hwicheon										
SK Consigned Management Real Estate Investment Company Co., Ltd.										
SK Siltron Co., Ltd.										
A&TS Co., Ltd.										
Total affiliates	50.0%	51.0%	100.0%	100.0%	90.4%	100.0%	100.0%	100.0%	55.0%	55.0%

Investee \ Investor	Dangjin Happiness Solar Co., Ltd.	Haesola Energy Co., Ltd.	SKC Co., Ltd.	SKC Solmix Co., Ltd.	SKC Hi Tech & Marketing Co., Ltd.	SKCFT Holdings Co., Ltd.	SK Nexilis Co., Ltd.	SK PIC Global Co., Ltd.	SK TVM Geo Stone Co., Ltd.	SK Telesis Co., Ltd.
SK Co., Ltd.			40.6%							
SK Innovation Co., Ltd.										
SK Energy Co., Ltd.										
SK Geocentric Co., Ltd.										
SK Lubricants Co., Ltd.										
SK on Co., Ltd.										
SK Telecom Co., Ltd.										
SK Broadband Co., Ltd.										
SK Square Co., Ltd.										
Dreamus Company										
One Store Co., Ltd.										
Incross Co., Ltd.										
Contents Wave Co., Ltd.										
T Map Mobility Co., Ltd.										
SK Shielders Co., Ltd.										
SK Planet Co., Ltd.										
SK hynix Co., Ltd.										
SK E&S Co., Ltd.	100.0%	50.0%								
SKC Co., Ltd.				100.0%	100.0%	100.0%		51.0%	51.0%	81.4%
SKCFT Holdings Co., Ltd.							100.0%			
SK Networks Co., Ltd.										

Investee \ Investor	Dangjin Happiness Solar Co., Ltd.	Haesola Energy Co., Ltd.	SKC Co., Ltd.	SKC Solmix Co., Ltd.	SKC Hi Tech & Marketing Co., Ltd.	SKCFT Holdings Co., Ltd.	SK Nexilis Co., Ltd.	SK PIC Global Co., Ltd.	SK TVM Geo Stone Co., Ltd.	SK Telesis Co., Ltd.
SK Rent a Car Co., Ltd.										
SK Magic Co., Ltd.										
SK Eco Plant Co., Ltd.										
Environmental Facilities Management Co., Ltd.										
Daewon Green Energy Co., Ltd.										
SK Discovery Co., Ltd.										
SK Gas Co., Ltd.										
SK D&D Co., Ltd.										
Korea Exchange Systems										
SK Chemicals Co., Ltd.										
Hwichan										
SK Consigned Management Real Estate Investment Company Co., Ltd.										
SK Siltron Co., Ltd.										
A&TS Co., Ltd.										
Total affiliates	100.0%	50.0%	40.6%	100.0%	100.0%	100.0%	100.0%	51.0%	51.0%	81.4%

Investee \ Investor	Mitsui Chemicals and SKC Polyurethane Co., Ltd.	SK Networks Co., Ltd.	SK Networks Service Co., Ltd.	SK Rent a Car Co., Ltd.	SK Rent a Car Service Co., Ltd.	Mintit Co., Ltd.	Katini Co., Ltd.	SK Magic Co., Ltd.	SK Magic Service Co., Ltd.	SK Eco Plant Co., Ltd.
SK Co., Ltd.		39.1%								44.5%
SK Innovation Co., Ltd.										
SK Energy Co., Ltd.										
SK Geocentric Co., Ltd.										
SK Lubricants Co., Ltd.										
SK On Co., Ltd.										
SK Telecom Co., Ltd.										
SK Broadband Co., Ltd.										
SK Square Co., Ltd.										
Dreamus Company										
One Store Co., Ltd.										
Incross Co., Ltd.										
Contents Wave										

Investee \ Investor	Mitsui Chemicals and SKC Polyurethane Co., Ltd.	SK Networks Co., Ltd.	SK Networks Service Co., Ltd.	SK Rent a Car Co., Ltd.	SK Rent a Car Service Co., Ltd.	Mintit Co., Ltd.	Katini Co., Ltd.	SK Magic Co., Ltd.	SK Magic Service Co., Ltd.	SK Eco Plant Co., Ltd.
Co., Ltd.										
T Map Mobility Co., Ltd.										
SK Shielders Co., Ltd.										
SK Planet Co., Ltd.										
SK hynix Co., Ltd.										
SK E&S Co., Ltd.										
SKC Co., Ltd.	50.0%									
SKCFT Holdings Co., Ltd.										
SK Networks Co., Ltd.			86.5%	72.9%		100.0%	100.0%	100.0%		
SK Rent a Car Co., Ltd.					100.0%					
SK Magic Co., Ltd.									100.0%	
SK Eco Plant Co., Ltd.										
Environmental Facilities Management Co., Ltd.										
Daewon Green Energy Co., Ltd.										
SK Discovery Co., Ltd.										
SK Gas Co., Ltd.										
SK D&D Co., Ltd.										
Korea Exchange Systems										
SK Chemicals Co., Ltd.										
Hwichan										
SK Consigned Management Real Estate Investment Company Co., Ltd.										
SK Siltron Co., Ltd.										
A&TS Co., Ltd.										
Total affiliates	50.0%	39.1%	86.5%	72.9%	100.0%	100.0%	100.0%	100.0%	100.0%	44.5%

Investee \ Investor	Environmental Facilities Management Co., Ltd.	YS Tech Co., Ltd.	Chungcheong Environmental Energy Co., Ltd.	Gyeonggi Environmental Energy Co., Ltd.	Gyeongin Environmental Energy Co., Ltd.	Gyeongbuk Environmental Energy Co., Ltd.	Seonam Environmental Energy Co., Ltd.	Honam Environmental Energy Co., Ltd.	Green Soonchang Co., Ltd.	Green Hwasoon Co., Ltd.
SK Co., Ltd.										
SK Innovation Co., Ltd.										
SK Energy Co., Ltd.										
SK Geocentric										

Investee \ Investor	Environmental Facilities Management Co., Ltd.	YS Tech Co., Ltd.	Chungcheong Environmental Energy Co., Ltd.	Gyeonggi Environmental Energy Co., Ltd.	Gyeongin Environmental Energy Co., Ltd.	Gyeongbuk Environmental Energy Co., Ltd.	Seonam Environmental Energy Co., Ltd.	Honam Environmental Energy Co., Ltd.	Green Soonchang Co., Ltd.	Green Hwasoon Co., Ltd.
Co., Ltd.										
SK Lubricants Co., Ltd.										
SK on Co., Ltd.										
SK Telecom Co., Ltd.										
SK Broadband Co., Ltd.										
SK Square Co., Ltd.										
Dreamus Company										
One Store Co., Ltd.										
Incross Co., Ltd.										
Contents Wave Co., Ltd.										
T Map Mobility Co., Ltd.										
SK Shields Co., Ltd.										
SK Planet Co., Ltd.										
SK hynix Co., Ltd.										
SK E&S Co., Ltd.										
SKC Co., Ltd.										
SKCFT Holdings Co., Ltd.										
SK Networks Co., Ltd.										
SK Rent a Car Co., Ltd.										
SK Magic Co., Ltd.										
SK Eco Plant Co., Ltd.	100.0%									
Environmental Facilities Management Co., Ltd.		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Daewon Green Energy Co., Ltd.										
SK Discovery Co., Ltd.										
SK Gas Co., Ltd.										
SK D&D Co., Ltd.										
Korea Exchange Systems										
SK Chemicals Co., Ltd.										
Hwicheon										

Investee \ Investor	Environmental Facilities Management Co., Ltd.	YS Tech Co., Ltd.	Chungcheong Environmental Energy Co., Ltd.	Gyeonggi Environmental Energy Co., Ltd.	Gyeongin Environmental Energy Co., Ltd.	Gyeongbuk Environmental Energy Co., Ltd.	Seonam Environmental Energy Co., Ltd.	Honam Environmental Energy Co., Ltd.	Green Soonchang Co., Ltd.	Green Hwasoon Co., Ltd.
SK Consigned Management Real Estate Investment Company Co., Ltd.										
SK Siltron Co., Ltd.										
A&TS Co., Ltd.										
Total affiliates	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Investee \ Investor	Gokseong Environment Co., Ltd.	Dalseong Clear Water Co., Ltd.	Gyeongsan Clear Water Co., Ltd.	Daewon Green Energy Co., Ltd.	Daewon Hi- Tech Co., Ltd.	Sungju Tech Co., Ltd.	DDS Co., Ltd.	Samwon E&T Co., Ltd.	Sachan Environment Co., Ltd.	SK Eco Engineering Co., Ltd.
SK Co., Ltd.										
SK Innovation Co., Ltd.										
SK Energy Co., Ltd.										
SK Geocentric Co., Ltd.										
SK Lubricants Co., Ltd.										
SK On Co., Ltd.										
SK Telecom Co., Ltd.										
SK Broadband Co., Ltd.										
SK Square Co., Ltd.										
Dreamus Company										
One Store Co., Ltd.										
Incross Co., Ltd.										
Contents Wave Co., Ltd.										
T Map Mobility Co., Ltd.										
SK Shielders Co., Ltd.										
SK Planet Co., Ltd.										
SK hynix Co., Ltd.										
SK E&S Co., Ltd.										
SKC Co., Ltd.										
SKCFT Holdings Co., Ltd.										
SK Networks Co., Ltd.										
SK Rent a Car Co., Ltd.										
SK Magic Co., Ltd.										
SK Eco Plant Co., Ltd.				100.0%		100.0%	100.0%	100.0%	100.0%	100.0%

Investee \ Investor	Gokseong Environment Co., Ltd.	Dalseong Clear Water Co., Ltd.	Gyeongsan Clear Water Co., Ltd.	Daewon Green Energy Co., Ltd.	Daewon Hi- Tech Co., Ltd.	Sungju Tech Co., Ltd.	DDS Co., Ltd.	Samwon E&T Co., Ltd.	Sachan Environment Co., Ltd.	SK Eco Engineering Co., Ltd.
Environmental Facilities Management Co., Ltd.	100.0%	100.0%	100.0%							
Daewon Green Energy Co., Ltd.					100.0%					
SK Discovery Co., Ltd.										
SK Gas Co., Ltd.										
SK D&D Co., Ltd.										
Korea Exchange Systems										
SK Chemicals Co., Ltd.										
Hwicheon										
SK Consigned Management Real Estate Investment Company Co., Ltd.										
SK Siltron Co., Ltd.										
A&TS Co., Ltd.										
Total affiliates	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Investee \ Investor	SK Plasma Co., Ltd.	SK Gas Co., Ltd.	SK Advanced Co., Ltd.	Ulsan GPS Co., Ltd.	Dangjin Eco Power Co., Ltd.	G-Energy Co., Ltd.	SK D&D Co., Ltd.	D&D Property Management Co., Ltd.	D&D Investment Co., Ltd.	DDISC49 Co., Ltd.
SK Co., Ltd.										
SK Innovation Co., Ltd.										
SK Energy Co., Ltd.										
SK Geocentric Co., Ltd.										
SK Lubricants Co., Ltd.										
SK on Co., Ltd.										
SK Telecom Co., Ltd.										
SK Broadband Co., Ltd.										
SK Square Co., Ltd.										
Dreamus Company										
One Store Co., Ltd.										
Incross Co., Ltd.										
Contents Wave Co., Ltd.										
T Map Mobility Co., Ltd.										
SK Shielders Co., Ltd.										
SK Planet Co., Ltd.										

Investee \ Investor	SK Plasma Co., Ltd.	SK Gas Co., Ltd.	SK Advanced Co., Ltd.	Ulsan GPS Co., Ltd.	Dangjin Eco Power Co., Ltd.	G-Energy Co., Ltd.	SK D&D Co., Ltd.	D&D Property Management Co., Ltd.	D&D Investment Co., Ltd.	DDISC49 Co., Ltd.
SK hynix Co., Ltd.										
SK E&S Co., Ltd.										
SKC Co., Ltd.										
SKCFT Holdings Co., Ltd.										
SK Networks Co., Ltd.										
SK Rent a Car Co., Ltd.										
SK Magic Co., Ltd.										
SK Eco Plant Co., Ltd.										
Environmental Facilities Management Co., Ltd.										
Daewon Green Energy Co., Ltd.										
SK Discovery Co., Ltd.	88.5%	72.2%					34.1%			
SK Gas Co., Ltd.			45.0%	99.3%	54.9%	50.0%				
SK D&D Co., Ltd.								100.0%	100.0%	100.0%
Korea Exchange Systems										
SK Chemicals Co., Ltd.										
Hwicheon										
SK Consigned Management Real Estate Investment Company Co., Ltd.										
SK Siltron Co., Ltd.										
A&TS Co., Ltd.										
Total affiliates	88.5%	72.2%	45.0%	99.3%	54.9%	50.0%	34.1%	100.0%	100.0%	100.0%

Investee \ Investor	DDIYS832 Co., Ltd.	Korea Exchange Systems Co., Ltd.	The Biz Co., Ltd.	SK Chemicals Co., Ltd.	Defendant: SK Bioscience	Entis Co., Ltd.	JSI Co., Ltd.	SK Chemicals Daejung Co., Ltd.	SK Biopharmaceuticals Co., Ltd.	SK Forestry Co., Ltd.
SK Co., Ltd.									64.0%	100.0%
SK Innovation Co., Ltd.										
SK Energy Co., Ltd.										
SK Geocentric Co., Ltd.										
SK Lubricants Co., Ltd.										
SK on Co., Ltd.										
SK Telecom Co., Ltd.										
SK Broadband										

Investee \ Investor	DDIYS832 Co., Ltd.	Korea Exchange Systems Co., Ltd.	The Biz Co., Ltd.	SK Chemicals Co., Ltd.	Defendant: SK Bioscience	Entis Co., Ltd.	JSI Co., Ltd.	SK Chemicals Daejung Co., Ltd.	SK Biopharmaceuticals Co., Ltd.	SK Forestry Co., Ltd.
Co., Ltd.										
SK Square Co., Ltd.										
Dreamus Company										
One Store Co., Ltd.										
Incross Co., Ltd.										
Contents Wave Co., Ltd.										
T Map Mobility Co., Ltd.										
SK Shielders Co., Ltd.										
SK Planet Co., Ltd.										
SK hynix Co., Ltd.										
SK E&S Co., Ltd.										
SKC Co., Ltd.										
SKCFT Holdings Co., Ltd.										
SK Networks Co., Ltd.										
SK Rent a Car Co., Ltd.										
SK Magic Co., Ltd.										
SK Eco Plant Co., Ltd.										
Environmental Facilities Management Co., Ltd.										
Daewon Green Energy Co., Ltd.										
SK Discovery Co., Ltd.		84.3%		34.8%						
SK Gas Co., Ltd.										
SK D&D Co., Ltd.	100.0%									
Korea Exchange Systems			100.0%							
SK Chemicals Co., Ltd.					68.4%	50.0%	40.0%	50.0%		
Hwicheon										
SK Consigned Management Real Estate Investment Company Co., Ltd.										
SK Siltron Co., Ltd.										
A&TS Co., Ltd.										
Total affiliates	100.0%	84.3%	100.0%	34.8%	68.4%	50.0%	40.0%	50.0%	64.0%	100.0%

Investee \ Investor	Hwihan	SK Pinx Co., Ltd.	SK REITs Management Co., Ltd.	Happy Donghaeng Co., Ltd.	SK Materials Air Plus Co., Ltd.	SK Trichem Co., Ltd.	SK Showa Denko Co., Ltd.	SK Materials Renew Tech Co., Ltd.	SK Materials Performance Co., Ltd.	SK Materials J&C Co., Ltd.
SK Co., Ltd.	100.0%		100.0%	100.0%	100.0%	65.0%	51.0%	80.0%	100.0%	51.0%
SK Innovation Co., Ltd.										
SK Energy Co., Ltd.										
SK Geocentric Co., Ltd.										
SK Lubricants Co., Ltd.										
SK on Co., Ltd.										
SK Telecom Co., Ltd.										
SK Broadband Co., Ltd.										
SK Square Co., Ltd.										
Dreamus Company										
One Store Co., Ltd.										
Incross Co., Ltd.										
Contents Wave Co., Ltd.										
T Map Mobility Co., Ltd.										
SK Shielders Co., Ltd.										
SK Planet Co., Ltd.										
SK hynix Co., Ltd.										
SK E&S Co., Ltd.										
SKC Co., Ltd.										
SKCFT Holdings Co., Ltd.										
SK Networks Co., Ltd.										
SK Rent a Car Co., Ltd.										
SK Magic Co., Ltd.										
SK Eco Plant Co., Ltd.										
Environmental Facilities Management Co., Ltd.										
Daewon Green Energy Co., Ltd.										
SK Discovery Co., Ltd.										
SK Gas Co., Ltd.										
SK D&D Co., Ltd.										
Korea Exchange Systems										

Investee \ Investor	Hwichan	SK Pinx Co., Ltd.	SK REITs Management Co., Ltd.	Happy Donghaeng Co., Ltd.	SK Materials Air Plus Co., Ltd.	SK Trichem Co., Ltd.	SK Showa Denko Co., Ltd.	SK Materials Renew Tech Co., Ltd.	SK Materials Performance Co., Ltd.	SK Materials J&C Co., Ltd.
SK Chemicals Co., Ltd.										
Hwichan		100.0%								
SK Consigned Management Real Estate Investment Company Co., Ltd.										
SK Siltron Co., Ltd.										
A&TS Co., Ltd.										
Total affiliates	100.0%	100.0%	100.0%	100.0%	100.0%	65.0%	51.0%	80.0%	100.0%	51.0%

Investee \ Investor	SK Materials Group Fourteen Co., Ltd.	SK Consigned Management Real Estate Investment Company Co., Ltd.	Clean Energy Consigned Management Real Estate Investment Company Co., Ltd.	New SK Materials Co., Ltd.	SK Siltron Co., Ltd.	Happy Chaewoom Co., Ltd.	SM Core Co., Ltd.	U Vince Co., Ltd.
SK Co., Ltd.	75.0%	50.0%		100.0%	51.0%		26.6%	
SK Innovation Co., Ltd.								
SK Energy Co., Ltd.								
SK Geocentric Co., Ltd.								
SK Lubricants Co., Ltd.								
SK On Co., Ltd.								
SK Telecom Co., Ltd.								
SK Broadband Co., Ltd.								
SK Square Co., Ltd.								
Dreamus Company								
One Store Co., Ltd.								
Incross Co., Ltd.								
Contents Wave Co., Ltd.								
T Map Mobility Co., Ltd.								
SK Shielders Co., Ltd.								
SK Planet Co., Ltd.								
SK hynix Co., Ltd.								
SK E&S Co., Ltd.								
SKC Co., Ltd.								
SKCFT Holdings Co., Ltd.								
SK Networks Co., Ltd.								
SK Rent a Car Co., Ltd.								
SK Magic Co., Ltd.								
SK Eco Plant Co., Ltd.								

Investee \ Investor	SK Materials Group Fourteen Co., Ltd.	SK Consigned Management Real Estate Investment Company Co., Ltd.	Clean Energy Consigned Management Real Estate Investment Company Co., Ltd.	New SK Materials Co., Ltd.	SK Siltron Co., Ltd.	Happy Chaewoom Co., Ltd.	SM Core Co., Ltd.	U Vince Co., Ltd.
Environmental Facilities Management Co., Ltd.								
Daewon Green Energy Co., Ltd.								
SK Discovery Co., Ltd.								
SK Gas Co., Ltd.								
SK D&D Co., Ltd.								
Korea Exchange Systems								
SK Chemicals Co., Ltd.								
Hwicheon								
SK Consigned Management Real Estate Investment Company Co., Ltd.			100.0%					
SK Siltron Co., Ltd.						100.0%		
A&TS Co., Ltd.								98.1%
Total affiliates	75.0%	50.0%	100.0%	100.0%	51.0%	100.0%	26.6%	98.1%

Note 1) SK Square was established after SK Telecom split off on November 2, 2021, and the date of incorporation among the affiliates under the Fair Trade Act was January 1, 2022.

Note 2) New SK Materials was established after SK Materials Holdings (formerly, SK Materials) split off on December 1, 2021, and the date of incorporation among the affiliates under the Fair Trade Act was January 1, 2022.

3. Status of Investments in Other Entities (Details)

(Reference date: December 31, 2021)

(Unit: KRW one million, stocks, %)

Name of corporate entity	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)		Valuation gains and losses	Quantity	Equity interest (%)	Book amount	Total assets	Net income
								Quantity	Amount						
SK Bioscience Co., Ltd.	Listed	2018.07.01	Management participation	193,664	60,000,000	98.04	193,664	-	-24,692	0	52,350,000	68.43	168,972	2,110,123	355,139
SK Chemicals Daejung Co., Ltd.	Unlisted	2020.04.17	Management participation	3	1,754,606	100.00	12,281	-877,303	-6,141	0	877,303	50.00	6,141	17,210	2,165
SK Multi-Utility Co., Ltd.	Unlisted	2021.12.01	Management participation	160,012	-	-	-	1,000,000	160,012	0	1,000,000	100.00	160,012	182,621	352
SK Chemicals (Qingdao) Co., Ltd.	Unlisted	2001.12.31	Management participation	2,537	-	100.00	17,214	0	-17,214	0	-	-	-	21,161	1,347
SK Chemicals (Suzhou) Co., Ltd.	Unlisted	2005.12.13	Management participation	1,241	-	100.00	11,420	0	0	0	-	100.00	11,420	25,466	2,461
SK Environmental Materials (Yantai) Co., Ltd.	Unlisted	2020.07.13	Management participation	505	-	100.00	11,272	0	9,138	0	-	100.00	20,410	24,247	0
SK Chemicals (Shanghai) Co., Ltd.	Unlisted	2019.02.28	Management participation	102	-	100.00	102	0	0	0	-	100.00	102	2,175	486
SK Chemicals America	Unlisted	2002.07.26	Management participation	1,058	-	100.00	1,448	0	0	0	-	100.00	1,448	39,381	1,290
SK Chemicals GmbH	Unlisted	2008.06.20	Management participation	40	-	100.00	433	0	0	0	-	100.00	433	53,335	2,198
SK Chemicals Malaysia	Unlisted	2020.12.28	Management participation	373	-	100.00	373	1,347,316	0	0	1,347,316	100.00	373	342	-45
Entis (formerly, SK Cytech)	Unlisted	1987.08.10	Management participation	1,250	250,000	50.00	4,892	0	0	0	250,000	50.00	4,892	22,601	2,688
ST Green Energy Pte, Ltd	Unlisted	2009.04.08	Management participation	199	150,000	50.00	199	325,000	386	0	475,000	50.00	585	8,427	357
JSI Co., Ltd.	Unlisted	2015.04.29	Management participation	6,078	160,000	40.00	-	0	0	0	160,000	40.00	-	11,169	198
HDC Polyol	Unlisted	2021.12.31	Management participation	7,700	-	-	-	0	7,700	0	-	20.00	7,700	43,218	0
Eastman Fiber Korea Co., Ltd.(EFKL) (preferred stocks)	Unlisted	2019.08.28	Simple investment	24,053	14,000,000	20.00	21,573	0	0	1,933	14,000,000	20.00	23,506	180,420	15,698
Korea Investment Bio Global Fund	Unlisted	2020.11.18	Simple investment	2,500	-	1.46	2,500	0	2,475	-789	-	1.43	4,186	379,929	25,904
Standigm Inc. (preferred shares)	Unlisted	2021.05.27	Simple investment	3,000	-	-	-	194,301	3,000	0	194,301	1.40	3,000	56,686	-46,434
J2HBIOTECH Inc.	Unlisted	2021.08.06	Simple investment	1,500	-	-	-	24,136	1,500	0	24,136	0.88	1,500	49,837	-18,644
Oncobix Co., Ltd.	Unlisted	2021.11.18	Simple investment	1,000	-	-	-	27,066	1,000	0	27,066	2.34	1,000	3,988	-2,269
Sante Health Ventures IV, LP	Unlisted	2021.11.04	Simple investment	971	-	-	-	0	971	0	-	5.30	971	15,618	-2,936
Yongyeon Industrial District 4 Industrial Water Management Association	Unlisted	2006.12.29	Simple investment	128	-	71.70	419	0	0	0	-	71.70	419	609	-12
Total					-	-	277,789	-	138,135	1,144	-	-	417,067	-	-

- ※ The shares of Eastman Fiber Korea (EFKL) are the preferred shares with voting rights, and the equity holding ratio is based on the total number of shares issued, and the shares of Standigm Inc. are the convertible redeemable preferred shares with voting rights, and the equity holding ratio is based on the total number of shares issued.
- ※ During the current 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 parent company.
- ※ The corporate entities without a separation marking are based on the common shares.

4. Major Contracts in Terms of Management (Details)

A. License-out contracts

[SK Bioscience]

(1) Product: A high-efficiency influenza vaccine production technology of the cell culture method

① Counterparty to contract	Sanofi Pasteur (USA)
② Contractual details	Granting of an exclusive license for the cell culture-based, high-efficiency influenza vaccine production technology limited for the target territories
③ Target territories	USA, Europe
④ Contractual period	From February 12, 2018 until the Royalty Term's expiration
⑤ Total contract value	US\$ 155 M
⑥ Amount received	US\$ 35 M (with no obligation to return) (down payment of US\$ 15 M, milestone of US\$ 20 M for technology transfer upon completion)
⑦ Contractual terms and conditions	Enter into clinical trials, receive up to US\$ 120 M for milestones according to approval after down payment of US\$ 15 M, milestone of US\$ 20 M for technology transfer upon completion
⑧ Accounting method	Recognized as sales
⑨ Target technology	A high efficiency influenza vaccine production technology of the cell culture method
⑩ Progress of the development	Contract terminated
⑪ Other matters	-

(2) Product: Recombinant Factor VIII (hemophilia treatment)

① Counterparty to contract	CSL (Australia)
② Contractual details	Granting of an exclusive license for target territories for recombinant factor VIII (hemophilia treatment)
③ Target territories	The entire world except the Republic of Korea
④ Contractual period	From May 2009 until the Royalty Term's expiration
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	Genetic Recombination Factor VIII (Hemophilia Treatment)
⑩ Progress of the development	On sale after securing permission for each territory after obtaining the license in the US and release in 2016
⑪ Other matters	-

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

B. License-in contracts

[SK Chemicals]

1) Product: 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 Contractual 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	Authorization in progress
⑪ Other matters	-

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

2) Product: SKP205

① Counterparty to contract	Miravo Healthcare
② Contractual details	Secure domestic sales rights for SKP204, and use original developer's permitted data and trademark rights
③ Target territories	Korea
④ Contractual 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	Authorization in progress
⑪ Other matters	-

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

[SK Bioscience]

(1) Introduction of Novavax's COVID-19 vaccine technology

① Counterparty to contract	Novavax (USA)
② Contractual details	Granting of the right to develop, produce and market the COVID-19 vaccine developed by Novavax exclusively for the target territories
③ Target territories	Republic of Korea
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 for 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	In accordance with the purchase contract between the Company and the Korea Centers for Disease Control and Prevention, the date of expiration of the contract to supply a total of 40 million doses is the latest out of the dates below. 1) February 12, 2023; 2) the date the contractual obligations between the two companies and the Korean government are completed; and 3) the date on which the WHO declares the end of the pandemic

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

C. Joint development contract

[SK Bioscience]

(1) Product: Next-generation pneumococcal vaccine

① Counterparty to contract	Sanofi Pasteur (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	US\$ 45 M
⑥ Amount received	US\$ 45 M (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	Phase 2 clinical trial in the US
⑪ Other matters	-

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

(2) Product: 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)
⑦ Contractual terms and conditions	Process development and commercial production supply for the typhoid conjugate vaccine developed by IVI
⑧ Accounting method	(Note)
⑨ Target technology	Application of conjugation technology of antigen and carrier protein
⑩ Progress of the development	Product license for export in progress
⑪ Other matters	Introduced the typhoid polysaccharide conjugate vaccine production technology from the International Vaccine Research Institute (IVI) and conducted clinical research via funds from Bill & Melinda Gates Foundation (BMGF)

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

(3) Product: 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	Phase 3 clinical trial completed
⑪ Other matters	Joint development contract with the international non-profit organization of PATH

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

D. CDMO/CMO contract

[SK Bioscience]

(1) AstraZeneca CMO contract for COVID-19 vaccine

① Counterparty to contract	AstraZeneca (UK)
② Contractual details	Consigned production of COVID-19 vaccine AZD1222
③ Date of contract execution	July 3, 2020
④ Contractual period	July 3, 2020 - December 31, 2021 (contract expired)
⑤ Contract value	(Note)

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

(2) Novavax CDMO contract for COVID-19 vaccine

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 Contractual period	(Note)
⑤ Contract value	(Note)

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

E. Other contracts

[SK Chemicals]

As of the date of preparation of the disclosure documents, the status of other pharmaceutical and bio-related contracts the Company has executed is as follows.

Product (under contract)	Contractual counterparty	Target area	Contract date	Date of contract expiration	Total contract amount	Amount received	Phase of progress
Transfer of assets	TiumBio Co., Ltd.	(Note 1)	2017.02.23	(Note 1)	(Note 1)	(Note 1)	Different phase in progress for each task
Joint research	Standigm Co., Ltd.	Worldwide	2019.07.19	(Note 1)	(Note 1)	(Note 1)	Joint research in progress

Product (under contract)	Contractual counterparty	Target area	Contract date	Date of contract expiration	Total contract amount	Amount received	Phase of progress
Joint research	Deargen Inc.	Worldwide	2020.10.20	(Note 1)	(Note 1)	(Note 1)	Joint research in progress
Fund investment	Korea Investment Partners Co., Ltd.	N/A	2020.11.18	(Note 1)	(Note 1)	(Note 1)	Fund investment in progress
Joint research	Dr. Noah Biotech Co., Ltd.	Worldwide	2020.11.24	(Note 1)	(Note 1)	(Note 1)	Joint research in progress
Equity investment	Standigm Co., Ltd.	N/A	2021.05.14	(Note 1)	(Note 1)	(Note 1)	Pre-IPO phase
Equity investment	J2H Bio Tech Co., Ltd.	N/A	2021.07.29	(Note 1)	(Note 1)	(Note 1)	Pre-IPO phase
Fund investment	Sante Ventures	N/A	2021.09.14	(Note 1)	(Note 1)	(Note 1)	Fund investment in progress
Equity investment	Oncobix Co., Ltd.	N/A	2021.11.18	(Note 1)	(Note 1)	(Note 1)	Series A Bridge phase

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

1) Contract: Asset transfer contract

① Counterparty to contract	TiumBio Co., Ltd.
② Contractual details	Asset transfer contract (patent rights and other tangible and intangible assets for 5 research projects)
③ Target territories	(Note 1)
④ Contractual period	Date of contract execution: February 23, 2017
⑤ Total contract value	(Note 1)
⑥ Amount of payment	(Note 1)
⑦ Contractual terms and conditions	(Note 1)
⑧ Accounting method	(Note 1)
⑨ Target technology	5 research projects: NCE401, NCE403, NCE406, NBP604, NBP611
⑩ Progress of the development	NCE401 (preclinical), NCE403 (Europe, clinical phase 2a), NCE406 (preclinical), NBP604 (preclinical), NBP611 (Discovery)
⑪ Other matters	-

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

2) Contract: Joint research

① Counterparty to contract	Standigm Co., Ltd.
② Contractual details	Joint research of the candidate substance related discovery and the new drug development using Standigm's AI technology
③ Target territories	Worldwide
④ Contractual 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 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.

3) Contract: Joint research

① Counterparty to contract	Deargen Inc.
② Contractual details	Joint research of the candidate substance related discovery and the new drug development using Deargen's AI technology
③ Target territories	Worldwide
④ Contractual 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 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.

4) 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 Contractual 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 investment in progress
⑪ Other matters	-

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

5) Contract: Joint research

① Counterparty to contract	DR. NOAH Biotech Co., Ltd.
② Contractual details	Joint research of the candidate substance related discovery and the new drug development using DR. NOAH Biotech's AI technology
③ Target territories	Worldwide
④ Contractual 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 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.

6) Contract: Equity investment

① Counterparty to contract	Standigm Co., Ltd.
② Contractual details	Participation as a strategic investor and the equity investment
③ Target territories	N/A
④ Contractual 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.

7) Contract: Equity investment

① Counterparty to contract	J2H Biotech Co., Ltd.
② Contractual details	Participation as a strategic investor and the equity investment
③ Target territories	N/A
④ Contractual 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.

8) 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 Contractual 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.

9) Contract: Equity investment

① Counterparty to contract	Oncobix Co., Ltd.
② Contractual details	Participation as a strategic investor and the equity investment
③ Target territories	N/A
④ Contractual 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 A Bridge phase
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 facility use contract under which the CEPI-designated vaccine developer to use specific facilities and competencies of the Company for developing and producing COVID-19 vaccines.
③ Date of contract execution	June 2020 October 2021 (extension contract executed)
④ Contractual period	(Note)
⑤ Contract value	(Note)

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

(2) Next-generation COVID-19 vaccine research funding contract

① Counterparty to contract	Bill & Melinda Gates Foundation
② Contractual details	Derivation of clinical candidates for the COVID-19 vaccine
③ Target territories	-
④ Date of contract execution	May 2020
⑤ Total contract value	US\$ 3.6 M
⑥ Amount received	US\$ 3.6 M (with no obligation to return)
⑦ Contractual terms and conditions	BMGF to fund the Company to develop a COVID-19 vaccine which may be supplied in large quantities at low cost for emerging economies
⑧ Accounting method	R&D expenses are deducted
⑨ Target technology	Vaccine for prevention against the SARS-CoV-2 virus antigen
⑩ Progress of the development	Phase 3 clinical trial
⑪ Other matters	-

(3) Next-generation COVID-19 vaccine research funding contract

① Counterparty to contract	Coalition for Epidemic Preparedness Innovations (CEPI)
② Contractual details	Selection of the funding target for the next-generation COVID-19 vaccine development project (Wave2)
③ Target territories	-
④ Date of contract execution	December 2020 and March 2021 (process development and response to variants), May 2021 (additional funding contract)
⑤ Total contract value	US\$ 210.1 M
⑥ Amount received	(Note)
⑦ Contractual terms and conditions	In charge of the vaccine development and Phase 1/2 clinical trial, sharing results with CEPI, and supplying vaccines through COVAX after their commercialization
⑧ Accounting method	R&D expenses are deducted
⑨ Target technology	Vaccine for prevention against the SARS-CoV-2 virus antigen
⑩ Progress of the development	Phase 3 clinical trial
⑪ Other matters	-

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

(4) R&D funding contract for the sarbecovirus universal vaccine development project

① Counterparty to contract	Coalition for Epidemic Preparedness Innovations (CEPI)
② Contractual details	Utilization of the synthetic antigen platform of GBP510, and provision of funds for the development of a universal vaccine targeting the sarbecovirus which will prevent SARS, COVID-19, and variants in all directions
③ Target territories	-
④ Date of contract execution	December 2021
⑤ Total contract value	US\$ 50.0 M
⑥ Amount received	(Note)
⑦ Contractual terms and conditions	(Note)
⑧ Accounting method	R&D expenses are deducted
⑨ Target technology	Universal vaccine for prevention against sarbecovirus
⑩ Progress of the development	-
⑪ Other matters	-

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

5. Performance in Research & Development (Details) - <Life Science Biz.>

[Pharma Business Division]

1) Product: SID710

① Classification	Generic
② Indications	Dementia
③ Action mechanism	AchE inhibitor
④ Product characteristics	1st generic in Europe
⑤ Progress	Released in the US and approved in Brazil during commercialization in Europe, South America, Middle East, etc.
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) Product: SID1806

① Classification	Newly improved drug
② Indications	Arthritis
③ Action mechanism	-
④ Product characteristics	Newly improved drug
⑤ Progress	Phase 3 clinical trial
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) Product: SID1806

① Classification	Generic
② Indications	High blood pressure
③ Action mechanism	Calcium channel blocker
④ Product characteristics	Salt changed generics
⑤ Progress	Phase 1 clinical trial commenced
⑥ Future plan	Authorized
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Approximately KRW 100 billion in the Korean market
⑩ Other matters	-

4) Product: SID1903

① Classification	Newly improved drug
② Indications	Diabetes
③ Action mechanism	-
④ Product characteristics	Newly improved drug
⑤ Progress	Phase 1 clinical trial commenced
⑥ Future plan	Authorized
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Approximately KRW 500 billion in the Korean market
⑩ Other matters	-

5) Product: SID2001

① Classification	Generic
② Indications	High blood pressure
③ Action mechanism	Angiotensin II receptor blocker
④ Product characteristics	Generic
⑤ Progress	Released
⑥ Future plan	Expand marketing in Korea
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Approximately KRW 100 billion in the Korean market
⑩ Other matters	-

6) Product: SID2003

① Classification	Newly improved drug
② Indications	Gout
③ Action mechanism	-
④ Product characteristics	Newly improved drug
⑤ Progress	Non-clinical
⑥ Future plan	Clinical commenced
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Approximately KRW 34 billion in the Korean market
⑩ Other matters	-

7) Product: SKR201, SKR202

① Classification	New drug
② Indications	Rheumatoid arthritis
③ Action mechanism	-
④ Product characteristics	-
⑤ Progress	Non-clinical
⑥ Future plan	Clinical and release in Korea
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	The entire global market for rheumatoid arthritis is worth approximately KRW 19 trillion.
⑩ Other matters	-

8) Product: SKR203

① Classification	New drug
② Indications	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	The expected market size for 7 major countries in 2027 is approximately KRW 26 trillion.
⑩ Other matters	-

9) Product: SKR204

① Classification	New drug
② Indications	Non-alcoholic steatohepatitis
③ Action mechanism	-
④ Product characteristics	-
⑤ Progress	Discovery
⑥ Future plan	Non-clinical
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	The expected market size for 7 major countries in 2027 is approximately KRW 26 trillion.
⑩ Other matters	-

10) Product: NCE201, NCE202, NCE204

① Classification	New drug
② Indications	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	The expected market size for 7 major countries in 2027 is approximately KRW 26 trillion.
⑩ Other matters	-

11) Product: NCE203

① Classification	New drug
② Indications	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	The expected market size for 7 major countries in 2025 is approximately KRW 3.8 trillion.
⑩ Other matters	-

12) Product: SKR205, NCE205

① Classification	New drug
② Indications	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	The expected market size for 7 major countries in 2025 is approximately KRW 3.8 trillion.
⑩ Other matters	-

13) Product: SKR204

① Classification	New drug
② Indications	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	The expected market size for 7 major countries in 2027 is approximately KRW 26 trillion.
⑩ Other matters	-

14) Product: SKR207

① Classification	New drug
② Indications	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	The expected market size for 7 major countries in 2025 is approximately KRW 3.8 trillion.
⑩ Other matters	-

15) Product: SKP201

① Classification	Generic
② Indications	RA
③ Action mechanism	JAK inhibitor
④ Product characteristics	1st generic of the same ingredient
⑤ Progress	Authorized
⑥ Future plan	Release in Korea
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	The market for the same ingredient in Korea is estimated at approximately KRW 12 billion.
⑩ Other matters	-

16) Product: SKP203

① Classification	Generic
② Indications	Hyperlipidemia treatment
③ Action mechanism	HMG CoA reductase inhibitor, interference with the cholesterol absorption
④ Product characteristics	1st generic of the same ingredient
⑤ Progress	Approval has been petitioned for
⑥ Future plan	Release in Korea (April 1, 2021)
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	The market in Korea is estimated at approximately KRW 400 billion.
⑩ Other matters	-

17) Product: SKP204

① Classification	Newly improved drug
② Indications	Lou Gehrig's disease (amyotrophic lateral sclerosis: ALS)
③ Action mechanism	Riluzole's ingredient
④ Product characteristics	Improves the convenience of taking the existing treatments
⑤ Progress	Approval has been petitioned for
⑥ Future plan	Release in Korea
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	Global market is estimated at approximately KRW 1.5 trillion in 2026, and the Korean market is estimated at approximately KRW 10 billion.
⑩ Other matters	-

18) Product: SKP205

① Classification	Newly improved drug
② Indications	Migraine
③ Action mechanism	Serotonin receptor + Inhibition for COX enzymes
④ Product characteristics	Complex drug improved drug
⑤ Progress	Approval has been petitioned for
⑥ Future plan	Release in Korea
⑦ Competing products	-
⑧ Related papers	-
⑨ Market size	The market in Korea is estimated at approximately KRW 22 billion.
⑩ Other matters	-

[SK Bioscience]

(1) Product: NBP613

① Classification	Vaccine medicine
② Indications	Prevention of pediatric enteritis
③ Action mechanism	Prophylactic vaccine against rotavirus antigen
④ Product characteristics	Live vaccine attenuated rotavirus vaccine
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	The global market is approximately USD 1.6 billion (Source: Datamonitor Healthcare, 2019)
⑩ Other matters	-

(2) Product: NBP615

① Classification	Vaccine medicine
② Indications	Prevention of cervical cancer and genital warts
③ Action mechanism	Vaccines for prophylaxis against human papillomavirus antigens
④ Product characteristics	Utilization of virus-like particles
⑤ Progress	Phase 1/2 clinical trial completed (2019)
⑥ Future plan	Verify the results of phase 1/2 clinical trial and decide on the future development strategies
⑦ Competing products	Gardasil (MSD), Cervarix (GSK)
⑧ Related papers	-
⑨ Market size	The global market is approximately USD 3.8 billion (2019; source: Datamonitor Healthcare) The Korean market is approximately KRW 65.4 billion. (Source: IQVIA, 2019)
⑩ Other matters	-

(3) Product: NBP618

① Classification	Vaccine medicine
② Indications	Prevention of typhoid
③ Action mechanism	Vaccine for prophylaxis against typhoid antigen
④ Product characteristics	Application of conjugation technology of antigen and carrier protein
⑤ Progress	Product license for export in progress
⑥ Future plan	Complete product licensing for export
⑦ Competing products	Typhim VI (Sanofi Pasteur), 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. <i>Vaccine</i> . 2018 Jun 18;36(26):3794-3801. doi: 10.1016/j.vaccine.2018.05.038.
⑨ Market size	The global market is approximately USD 2.3 billion (2018; source: Market Watch)
⑩ Other matters	Introduced the typhoid polysaccharide conjugate vaccine production technology from the International Vaccine Research Institute (IVI) and conducted clinical research via funds from Bill & Melinda Gates Foundation (BMGF)

(4) Product: GBP410

① Classification	Vaccine medicine
② Indications	Prevention of invasive diseases and otitis media caused by pneumococci
③ Action mechanism	Vaccines for prevention against pneumococcal antigens
④ Product characteristics	Combination of polysaccharide antigens and conjugate proteins
⑤ Progress	Phase 2 clinical trial in the US in progress (since 2020; targeting children and adults)
⑥ Future plan	Phase 2 clinical trial in the US in progress
⑦ Competing products	Prevena 13 (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. <i>Medicine (Baltimore)</i> . 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. <i>Hum Vaccin Immunother</i> . 2017 May 4; 13. (5):1169-1176. doi: 10.1080/21645515.2016.1261772. Epub 2016 Dec 14.
⑨ Market size	The global market is approximately USD 6.4 billion (2019; source: Datamonitor Healthcare)
⑩ Other matters	Joint research with Sanofi Pasteur

(5) Product: GBP430

① Classification	Vaccine medicine
② Indications	Prevention of gastroenteritis caused by serotype rotavirus
③ Action mechanism	Vaccines for prevention against rotavirus infections
④ Product characteristics	Applied with recombinant protein manufacturing technology
⑤ Progress	Phase 3 clinical trial in progress (since 2019)
⑥ Future plan	Global phase 3 clinical trial in progress
⑦ Competing products	Rotarix (GSK), Rotatech (MSD)
⑧ Related papers	-
⑨ Market size	The global market is approximately USD 6.4 billion (2019; source: Datamonitor Healthcare)
⑩ Other matters	Technology introduced from the IPD developer of Washington University. Development in progress through the fund of Bill & Melinda Gates Foundation.

(6) Product: NBP2001

① Classification	Vaccine medicine
② Indications	Prevention of severe acute respiratory syndrome caused by SARS-CoV-2 virus
③ Action mechanism	Vaccine for prevention against the SARS-CoV-2 virus antigen
④ Product characteristics	Recombinant protein vaccines
⑤ Progress	Phase 1 clinical trial in progress (Ministry of Food and Drug Safety approved of the clinical trial plan in November 2020)
⑥ Future plan	Proceed with clinical trial
⑦ Competing products	8 products based on the WHO's emergency approval (2021; 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	Self developed protein vaccine (baculo expression system) is funded as a government project (Ministry of Commerce, Industry and Energy).

(7) Product: GBP510

① Classification	Vaccine medicine
② Indications	Prevention of severe acute respiratory syndrome caused by SARS-CoV-2 virus
③ Action mechanism	Vaccine for prevention against the SARS-CoV-2 virus antigen
④ Product characteristics	Recombinant protein vaccines
⑤ Progress	Phase 3 clinical trial in progress
⑥ Future plan	Complete Phase 3 clinical trial and implement commercialization
⑦ Competing products	8 products based on the WHO's emergency approval (2021; 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. Development in progress through the funds of Bill & Melinda Gates Foundation.

[Confirmation of Experts]

1. Confirmation of Experts

- Not applicable

2. Interest with Experts

- Not applicable