THIS CIRCULAR IS IMPORTANT AND REQUIRES YOUR IMMEDIATE ATTENTION

If you are in any doubt as to any aspect of this circular or as to the action to be taken, you should consult a stockbroker or other registered dealer in securities, a bank manager, solicitor, professional accountant or other professional adviser.

If you have sold or transferred all your shares in **Global New Material International Holdings Limited**, you should at once hand this circular, together with the enclosed form of proxy, to the purchaser or transferee or to the bank, stockbroker or other agent through whom the sale or transfer was effected for transmission to the purchaser or transferee.

This circular appears for information purpose only and does not constitute an invitation or offer to acquire, purchase or subscribe for the securities of the Company.

CHESIR

GLOBAL NEW MATERIAL INTERNATIONAL HOLDINGS LIMITED
环球新材国际控股有限公司

(Incorporated in the Cayman Islands with limited liability)

(Stock code: 06616)

MAJOR TRANSACTION

ACQUISITION OF CERTAIN CQV SHARES AND ALL CQV TREASURY SHARES FOR CASH CONSIDERATION AND CONSIDERATION SHARES AND NOTICE OF THE EGM

Unless the context requires otherwise, the capitalised terms used in this cover page shall have the same meanings as defined in the section headed “Definitions” in this circular.

A letter from the Board is set forth on pages 6 to 38 of this circular.

A notice of the EGM to be held at 10:30 a.m. on Friday, 30 June 2023 at 6th Floor, Guangxi Chesir Pearl Material Co., Ltd., Pearlescent Industrial Park, No. 380, Feilu Road, Luzhai Town, Luzhai County, Liuzhou City, Guangxi, China, or any adjournment thereof is set forth on pages EGM-1 to EGM-2 of this circular. A form of proxy for use at the EGM is also enclosed. Such form of proxy is also published on the websites of the Stock Exchange (www.hkexnews.hk) and the Company at (www.chesir.net).

Whether or not you are able to attend the EGM, please complete and sign the enclosed form of proxy in accordance with the instructions printed thereon and return it to the Company’s branch share registrar in Hong Kong, Tricor Investor Services Limited, at 17/F, Far East Finance Centre, 16 Harcourt Road, Hong Kong as soon as possible but in any event not less than 48 hours before the time appointed for the holding of the EGM, i.e. before 10:30 a.m. on Wednesday, 28 June 2023, or any adjournment thereof. Completion and return of the form of proxy will not preclude you from attending and voting in person at the EGM or any adjournment thereof (as the case may be) if you so wish.

References to time and dates in this circular are to Hong Kong time and dates.

13 June 2023

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Unless the context requires otherwise, the capitalised terms used in the following timetable shall have the same meanings as defined in the circular of Global New Material International Holdings Limited dated 13 June 2023.

Despatch of this circular and the notice of the EGM	Tuesday, 13 June 2023
Latest time for lodging transfer forms of Shares to qualify for entitlements to attend and vote at the EGM	4:30 p.m. on Monday, 26 June 2023
Closure of register of members of the Company for purpose of EGM (both days inclusive)	from Tuesday, 27 June 2023 to Friday, 30 June 2023
Latest time for lodging forms of proxy for the EGM (in any event not less than 48 hours before the time appointed for holding the EGM or any adjournment thereof)	before 10:30 a.m. on Wednesday, 28 June 2023
Date and time of the EGM	10:30 a.m. on Friday, 30 June 2023

Notes:

(1) If there is a tropical cyclone warning signal number 8 or above, or a black rainstorm warning, or "extreme conditions" caused by super typhoons:

(a) in force in Hong Kong at any local time before 12:00 noon but no longer in force after 12:00 noon, the latest time for lodging transfer documents will remain at 4:30 p.m. on the same Business Day;

(b) in force in Hong Kong at any local time between 12:00 noon and 4:30 p.m., the latest time for lodging transfer documents will be rescheduled to 4:30 p.m. on the following Business Day which does not have either of those warnings in force at any time between 9:00 a.m. and 4:30 p.m.

(2) All dates and time set forth in this circular refer to Hong Kong dates and time.

(3) Dates or time specified in this circular are indicative only and may be changed by the Company. Any subsequent changes to the expected timetable will be published or notified to the Shareholders as and when appropriate and in accordance with the Listing Rules.

DEFINITIONS

Unless the context otherwise requires, the capitalised terms used in this circular shall have the following meanings:

"**Acquisition**"	the acquisition of the CQV Sale Shares A, CQV Sale Shares B and the CQV Treasury Shares from CQV Vendor A, CQV Vendor B and CQV pursuant to the terms and conditions of the CQV Sale Shares A Agreement, CQV Sale Shares B Agreement and CQV Treasury Shares Agreement, respectively;
"**Announcement**"	the announcement of the Company dated 27 January 2023 in relation to, among others, the Acquisition;
"**Articles**"	the articles of association of the Company, as amended from time to time;
"**Board**"	the board of Directors;
"**Business Day**"	any day other than (a) any Saturday or Sunday or (b) any other day on which banks located in Seoul, the Republic of Korea, Hong Kong or Cayman Islands are required or authorised by law to be closed for business;
"**BVI**"	British Virgin Islands;
"**CQV**"	CQV Co. Ltd., a company incorporated in the Republic of Korea with limited liability on 20 October 2000 with its common shares listed on KOSDAQ (KOSDAQ: 101240);
"**CQV Fundamental Representations**"	certain fundamental representations and warranties given by CQV on authorisation, absence of conflicts and consents, ownership of the CQV Treasury Shares, absence of litigation, absence of brokers, solvency, organization and existence, absence of conflicts, capitalisation and no subsidiaries or interest in other persons in relation to CQV under the CQV Treasury Shares Agreement;
"**CQV Plant 3**"	the factory owned by CQV which is located at 4-ro 68, Sincheonsandan, Deoksan-eup, Jincheon-gun, Chungcheongbuk-do, Republic of Korea, with a total site area of 14,787 m^2 and floor area of 5,854 m^2, and is mainly used to produce colour aluminum paste, aluminum paste, cosmetic pearl and industrial pearl products, with a production capacity of 1,200 tonnes per annum;
"**CQV Sale Shares**"	the CQV Sale Shares A and the CQV Sale Shares B;

"**CQV Sale Shares A**"	2,255,189 issued shares of CQV, representing 22.24% of the issued shares of CQV;
"**CQV Sale Shares A Agreement**"	the share purchase agreement dated 27 January 2023 and entered into between, inter alia, the Purchaser and CQV Vendor A in relation to the acquisition of the CQV Sale Shares A;
"**CQV Sale Shares Agreement(s)**"	each of or collectively, the CQV Sale Shares A Agreement and the CQV Sales Shares B Agreement;
"**CQV Sale Shares B**"	873,163 issued shares of CQV, representing 8.61% of the issued shares of CQV;
"**CQV Sale Shares B Agreement**"	the share purchase agreement dated 27 January 2023 and entered into between, inter alia, the Purchaser and CQV Vendor B in relation to the acquisition of the CQV Sale Shares B;
"**CQV Treasury Shares**"	1,175,576 treasury shares currently held by CQV, representing 11.60% of the issued shares of CQV, which will be purchased by the Company pursuant to the CQV Treasury Shares Agreement;
"**CQV Treasury Shares Agreement**"	the share purchase agreement dated 27 January 2023 and entered into between the Company and CQV in relation to the acquisition of the CQV Treasury Shares;
"**CQV Vendor(s)**"	collectively, CQV Vendor A and CQV Vendor B, and each of CQV Vendor A and CQV Vendor B;
"**CQV Vendor A**"	Mr. CHANG Kil Wan (張吉玩), an Independent Third Party prior to the Closing and independent from CQV Vendor B;
"**CQV Vendor B**"	Mr. LIN Kwang Su (林光水), an Independent Third Party prior to the Closing and independent from CQV Vendor A;
"**CQV Vendor Fundamental Representations**"	certain fundamental representations and warranties given by the relevant CQV Vendors on authorisation, absence of conflicts and consents, ownership of the CQV Sale Shares, absence of litigation, absence of brokers and solvency in relation to the relevant CQV Vendor and/or the relevant CQV Sale Shares, and organisation and existence, absence of conflicts, capitalisation, no subsidiaries or interest in other persons, and solvency in relation to CQV under the relevant CQV Sale Shares Agreements;

"**Chesir International**"	Chesir International Holdings Limited (七色國際控股有限公司), a company incorporated in the BVI with limited liability and a wholly-owned subsidiary of the Company;
"**Company**"	Global New Material International Holdings Limited (环球新材国际控股有限公司), a company incorporated in the Cayman Islands with limited liability, the Shares of which are listed on the Stock Exchange (stock code: 06616);
"**Closing**"	closing of any of the transactions under the Acquisition;
"**Closing Date**"	the date that is the fifth Business Day upon the fulfilment (or waiver, if applicable) of the conditions precedent to the relevant CQV Sale Shares Agreements or the CQV Treasury Shares Agreement or such later date as the parties to the relevant CQV Sale Shares Agreements and the parties to the CQV Treasury Shares Agreement may agree;
"**connected person(s)**"	has the same meaning ascribed to it under the Listing Rules;
"**Consideration Shares**"	an aggregate of 47,106,546 new Shares to be allotted and issued by the Company at the Issue Price pursuant to the terms and conditions of the relevant CQV Sale Shares Agreements and the CQV Treasury Shares Agreement upon the Closing;
"**Convertible Bond Issue**"	the issue of the 3.50% coupon convertible bonds in the aggregate principal amount of not more than CNH500.0 million by the Company (of which an aggregate principal amount of CNH300.0 million has been issued) as disclosed in the Company's announcements dated 28 and 30 December 2022 and 31 March 2023;
"**Director(s)**"	director(s) of the Company;
"**EGM**"	the extraordinary general meeting of the Company to be convened for the purpose of considering, and if though fit, approving, among others, the CQV Sale Shares Agreements, CQV Treasury Shares Agreement and the transactions contemplated thereunder;
"**Enlarged Group**"	the Group and CQV and their respective subsidiaries following the closing of the transactions under the CQV Sales Shares Agreements and the CQV Treasury Shares Agreement;

"**Group**"	the Company and its subsidiaries;
"**HK$**"	Hong Kong dollars, the lawful currency of Hong Kong;
"**HKICPA**"	Hong Kong Institute of Certified Public Accountants;
"**Hong Kong**"	The Hong Kong Special Administrative Region of the People's Republic of China;
"**IFRS**"	International Financial Reporting Standards;
"**Independent Third Party(ies)**"	third party(ies) independent of and not connected with the Company and its connected person(s);
"**Induk**"	Induk Accounting Corporation;
"**Issue Price**"	HK$8.0 for each Consideration Share, which is determined after arm's length negotiations between the Company, CQV Vendor A, CQV Vendor B and CQV with reference to the then prevailing market prices of the Shares, business prospects of the Group in the medium term and the conversion price under the Convertible Bond Issue;
"**Korean IFRS**"	Korean International Financial Reporting Standards as adopted in the Republic of Korea;
"**KOSDAQ**"	The Korea Securities Dealers Automated Quotations, a trading board of The Korea Exchange;
"**KRW**" or "**₩**"	Korean Won, the lawful currency of the Republic of Korea;
"**Latest Practicable Date**"	9 June 2023, being the latest practicable date prior to the printing of this circular for ascertaining certain information contained in this circular;
"**Listing Rules**"	The Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited;
"**Long-Stop Date**"	31 July 2023;
"**m^2**"	square meters;
"**PRC**"	The People's Republic of China which, for the purpose of this announcement, does not include Hong Kong, The Macau Special Administrative Region of the People's Republic of China and Taiwan;

"**Proposed General Mandate**"	the general mandate proposed to be granted to the Directors by a resolution of the Shareholders at the annual general meeting of the Company to be held at 10:00 a.m. on Tuesday, 27 June 2023 to allot and issue up to 20% of the total number of the Shares in issue as of the date of the meeting, i.e. 238,352,717 Shares;
"**Purchaser**"	Star Cheer Corporation Limited (至星有限公司), a company incorporated in Hong Kong with limited liability and a wholly-owned subsidiary of Chesir International;
"**Purchaser Parties**"	collectively, the Company, Chesir International and the Purchaser;
"**RMB**"	Renminbi yuan, the lawful currency of The People's Republic of China;
"**RSM HK**"	RSM Hong Kong;
"**SFO**"	the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong), as amended from time to time;
"**Share(s)**"	ordinary share(s) of HK$0.10 each in the Company;
"**Share Pledge Loans**"	certain loans to CQV Vendor A and CQV Vendor B under which their respective CQV Sale Shares have been pledged in favour of Daishin Securities Co., Ltd. and Shinhan Investment Corp., both are Independent Third Parties, as security respectively;
"**Shareholder(s)**"	holder(s) of the Shares;
"**Stock Exchange**"	The Stock Exchange of Hong Kong Limited; and
"**%**"	per cent.

For the purpose of this circular, the translations of KRW into RMB and HK$ or vice versa have been calculated by using the exchange rates of RMB1.00 equal to KRW184.46 and HK$1.00 equal to KRW161.55, respectively. Such exchange rates have been used, where applicable, for the purpose of illustration only and do not constitute any representation that any amounts were, may have been or will be exchanged at such rate or any other rates or at all.

GLOBAL NEW MATERIAL INTERNATIONAL HOLDINGS LIMITED
环球新材国际控股有限公司

(Incorporated in the Cayman Islands with limited liability)

(Stock code: 06616)

Executive Directors:
Mr. SU Ertian *(Chairman and Chief Executive Officer)*
Mr. JIN Zengqin
Mr. ZHOU Fangchao
Mr. BAI Zhihuan (*Vice President)*
Ms. ZENG Zhu

Non-executive Director:
Mr. HU Yongxiang

Independent Non-executive Directors:
Mr. HUI Chi Fung
Professor HAN Gaorong
Mr. LEUNG Kwai Wah Alex

Registered office:
Cricket Square, Hutchins Drive
PO Box 2681
Grand Cayman KY1-1111
Cayman Islands

Principal place of business in the PRC:
Pearlescent Industrial Park
No. 380, Feilu Road
Luzhai Town, Luzhai County
Liuzhou City
Guangxi Zhuang Autonomous Region
PRC

Principal place of business in Hong Kong:
Unit A, 10th Floor, Neich Tower
128 Gloucester Road, Wanchai
Hong Kong

13 June 2023

To the Shareholders

Dear Sir or Madam

MAJOR TRANSACTION

ACQUISITION OF CERTAIN CQV SHARES AND ALL CQV TREASURY SHARES FOR CASH CONSIDERATION AND CONSIDERATION SHARES

INTRODUCTION

The Board refers to the Announcement. On 27 January 2023 (after trading hours of the Stock Exchange), (a) the Purchaser entered into the CQV Sale Shares A Agreement and the CQV Sale Shares B Agreement and (b) the Company entered into the CQV Treasury Shares Agreement for the Acquisition.

Pursuant to these three agreements, the Purchaser has conditionally agreed to purchase, and each of CQV Vendor A and CQV Vendor B has conditionally agreed to sell, the CQV Sale Shares A and the CQV Sale Shares B, respectively, and the Company has conditionally agreed to purchase, and CQV has conditionally agreed to sell, the CQV Treasury Shares.

The aggregate consideration for the Acquisition is KRW85.9 billion (equivalent to RMB465.7 million or HK$531.6 million) which will be settled upon the Closing by way of (a) cash payment of KRW25.0 billion (equivalent to RMB135.5 million or HK$154.8 million) out of the internal financial resources of the Group and (b) allotment and issue of 47,106,546 Consideration Shares at the Issue Price under the Proposed General Mandate. The Directors confirm that the cash consideration payable under the Acquisition would be funded by the financial resources generated from the business operations of the Group. The Directors further confirm that the proposed usage of the net proceeds received from the initial public offering of the Company in July 2021 and/or the Convertible Bond Issue in December 2022 will not be affected by the Acquisition. As of the Latest Practicable Date, the issue of 3.50% coupon convertible bond in the aggregate principal amount of not more than CNH200.0 million, which forms part of the Convertible Bond Issue, has not been completed. The Directors expect that, subject to further confirmation from the investor of the Convertible Bond Issue, the issuance of such tranche B of the Convertible Bond Issue would be completed on or before 30 June 2023, as set forth in the announcement of the Company dated 31 March 2023.

THE CQV SALE SHARES AGREEMENTS

Each of the CQV Sale Shares Agreements contains similar terms and conditions except for the CQV Vendors named therein, number of the CQV Sale Shares involved and the payment and the amount of the consideration made by the Purchaser. The following sets forth the principal terms and conditions of the CQV Sale Shares Agreements:

Date:	27 January 2023 (after trading hours of the Stock Exchange)
Parties:	(i) The Purchaser;
	(ii) CQV Vendor A (under the CQV Sale Shares A Agreement) and CQV Vendor B (under the CQV Sale Shares B Agreement);
	(iii) the Company; and
	(iv) Chesir International.
Subject matter:	An aggregate of 3,128,352 CQV Sale Shares, representing 30.85% of the issued shares of CQV as of the Latest Practicable Date.

The number of the CQV Sale Shares sold by each of the CQV Vendors is set forth below:

CQV Vendors	CQV Sale Shares	Shareholding (%)
CQV Vendor A	2,255,189 (CQV Sale Shares A)	22.24
CQV Vendor B	873,163 (CQV Sale Shares B)	8.61
Total	3,128,352	30.85

Following Closing, the CQV Vendors will cease to hold any issued shares of CQV.

Cash Consideration payable by the Company and Consideration Shares:

The amount of cash consideration payable by the Company and the number of the Consideration Shares to be issued to each of the CQV Vendors are set forth below:

CQV Vendors	Cash consideration	Consideration Shares
CQV Vendor A	KRW25.0 billion (equivalent to RMB135.5 million or HK$154.8 million)	15,475,085 (equivalent to HK$123.8 million at the Issue Price)
CQV Vendor B	0	13,481,181 (equivalent to HK$107.8 million at the Issue Price)
Total	KRW25.0 billion (equivalent to RMB135.5 million or HK$154.8 million)	28,956,266 (equivalent to HK$231.6 million at the Issue Price)

The consideration for the CQV Sale Shares in the form of cash consideration payable by the Company and the Consideration Shares has been negotiated and agreed between the Company, CQV Vendor A and CQV Vendor B on an arm's length basis upon normal commercial terms, having regard to, among others, to the net assets value of CQV, the prevailing market prices of the shares of CQV quoted on the KOSDAQ and the liquidity of the shares of CQV.

Cash consideration: The cash consideration will be funded by the internal financial resources of the Group.

Consideration Shares: The 28,956,266 Consideration Shares will be allotted and issued to the CQV Vendors, representing 2.43% of the Shares in issue as of the Latest Practicable Date and 2.37% of the Shares in issue as enlarged by the Consideration Shares (assuming that there is no change in the issued share capital of the Company between the Latest Practicable Date and the Closing Date save for the issue of the Consideration Shares), at the Issue Price, which represents:

(i) a premium of 59.4% of the closing price for each Share of HK$5.020 as quoted on the Stock Exchange on the date of the CQV Sale Shares Agreements;

(ii) a premium of 68.0% of the average of the closing price for each Share of HK$4.762 as quoted on the Stock Exchange for the period of five (5) consecutive trading days ending on the trading day immediately preceding the date of the CQV Sale Shares Agreements;

(iii) a premium of 88.9% of the average of the closing price for each Share of HK$4.235 as quoted on the Stock Exchange for the period of twenty (20) consecutive trading days ending on the trading day immediately preceding the date of the CQV Sale Shares Agreements; and

(iv) a premium of 260.36% of the net asset value for each Share as of 31 December 2022.

The 28,956,266 Consideration Shares will be allotted and issued pursuant to the Proposed General Mandate, credited as fully paid, and shall rank *pari passu* in all respects among themselves and with the Shares in issue on the date of such allotment and issue.

Payment terms: The consideration for the CQV Sale Shares will be payable in the following manner:

(a) in cash in the amount of KRW25.0 billion (equivalent to RMB135.5 million or HK$154.8 million) to CQV Vendor A on the Closing Date and

(b) by in-kind consideration in the form of allotment and issue of 15,475,085 Consideration Shares and 13,481,181 Consideration Shares to CQV Vendor A and CQV Vendor B, respectively, on the Closing Date.

Conditions precedent: The Closing is conditional upon the fulfilment (or waiver, if applicable) of the following conditions:

(a) the representations and warranties given by the Purchaser Parties to be true and correct in all material respects as of the date of each of the CQV Sale Shares Agreements and as of the Closing Date;

(b) the Purchaser Parties having performed, satisfied and complied with all obligations in all material respects under the relevant CQV Sale Shares Agreements on or before the Closing Date;

(c) the representations and warranties given by the relevant CQV Vendors to be true and correct in all material respects as of the date of each of the CQV Sale Shares Agreements and as of the Closing Date, provided that (i) other than for the CQV Vendor Fundamental Representations, if the amount of losses incurred by CQV prior to the Closing Date due to any such breach in the aggregate does not exceed KRW4.0 billion (which has been determined after arm's length negotiations between the Company, CQV Vendor A, CQV Vendor B and CQV with reference to the net income of CQV as of 31 December 2021 in the amount of KRW3.5 billion (rounded up to the nearest KRW billion) which was the then latest audited amount of net income of CQV available at the time of signing of the CQV Sale Shares Agreements upon which the Directors consider that it would be fair and reasonable and in the interests of the Company and the Shareholders as a whole to be used as the threshold for the breach), the relevant CQV Vendors shall be deemed to have satisfied this condition and (ii) the Purchaser shall not be entitled to claim any breach of representations and warranties against the relevant CQV Vendors or CQV in relation to obtaining the required consents from the relevant third party counterparties to the material contracts of CQV for the consummation of the relevant CQV Sale Shares Agreements and the transactions contemplated thereunder;

(d) the relevant CQV Vendors having performed, satisfied and complied with all its obligations in all material respects under the relevant CQV Sale Shares Agreements on or before the Closing Date;

(e) there being no material adverse effect on the general affairs, business, operations, rights, assets, liabilities, condition (financial or otherwise), or results of operations of CQV or any circumstance that prevents the ability of the relevant CQV Vendors or the Purchaser, as applicable, to consummate the relevant CQV Sale Shares Agreements or any of their respective obligations contemplated thereunder;

(f) the relevant CQV Vendors shall have caused CQV to convene a general meeting of the shareholders of CQV to appoint the respective persons designated by the Purchaser as the directors of CQV effective from the Closing Date;

(g) in respect of the CQV Sale Shares Agreement A only, CQV Vendor A shall have delivered a confirmation letter to the Purchaser, which shall state that CQV Vendor A will not claim any compensation based on the golden parachute clause by resigning from his office as the representative director of CQV under the articles of incorporation of CQV;

(h) CQV shall have amended its articles of incorporation to the effect that CQV may have six (6) directors;

(i) no law or order shall have been enacted, entered, promulgated, issued or enforced by any governmental authority of competent jurisdiction that prohibits the consummation of the relevant CQV Sale Shares Agreements and the transactions contemplated thereunder;

(j) all requisite approval from any government authority (including by not limited to the Securities & Futures Commission of Hong Kong, the Stock Exchange and The Korea Exchange) for the consummation of the relevant CQV Sale Shares Agreements and the transactions contemplated thereunder shall have been obtained;

(k) each of the Company and CQV having obtained all necessary consents from and provided all notices to, its respective shareholders as may be required under the applicable laws, constitutional documents or otherwise in connection with the relevant CQV Sale Shares Agreements and the transactions contemplated thereunder, including but not limited to the Shareholders having approved the CQV Sale Shares Agreements and the transactions contemplated thereunder at the EGM;

(l) each of the Company and CQV having obtained all necessary approvals from and provided all notices to, the Stock Exchange and The Korea Exchange, respectively, as may be required under the applicable laws and regulations in connection with the consummation of the CQV Sale Shares Agreements and the transactions contemplated thereunder, including but not limited to the approval for the listing of, and permission to deal in the Consideration Shares by the Stock Exchange having been obtained by the Company, and such approval not having been revoked or withdrawn prior to the Closing Date; and

(m) all requisite approval from any government authority required with respect to the delivery by each of the Purchaser Parties, and the acquisition by the respective CQV Vendors of the relevant Consideration Shares, including, but not limited to, the filing or reporting requirements with the Bank of Korea, shall have been obtained.

The conditions precedent set forth in (a) to (b) above may be waived by the relevant CQV Vendors and the conditions precedent set forth in (c) to (h) above may be waived by the Purchaser. The conditions precedent set forth in (i) to (m) above may be waived by the parties to the relevant CQV Sale Shares Agreements to the extent permitted by law and/or government authority. The Directors confirm that the Company will not agree to waive conditions (i) to (m) above.

As of the Latest Practicable Date, none of the above conditions precedent have been satisfied or waived.

Closing: Upon the fulfilment (or waiver, if applicable) of the conditions precedent, completion of the transactions under the relevant CQV Sale Shares Agreements shall take place on the Closing Date, which is expected to be on or before the Long-Stop Date.

The Closing under the CQV Sale Shares A Agreement and the CQV Sale Shares B Agreement is not inter-conditional and is not conditional upon the Closing under the CQV Treasury Shares Agreement.

Termination: The relevant CQV Sale Shares Agreements may be terminated at any time prior to the Closing:

(a) by mutual written agreement of the parties thereto;

(b) by either the relevant CQV Vendor or the Purchaser, if the Closing has not occurred on or before the Long-Stop Date by reason of failure of satisfaction (or waiver, if applicable) of any conditions precedent if for any reason other than the fault of such terminating party; or

(c) by any party thereto, upon written notice to the other parties, in case of a material breach of, any of its representations, warranties, agreements, covenants or obligations under the relevant CQV Sale Shares Agreement and the defaulting party has failed to cure such breach within thirty (30) days following the receipt of written notice from the terminating party, provided that the terminating party is not otherwise in material breach of the relevant CQV Sale Shares Agreement.

	Upon termination of the relevant CQV Sale Shares Agreement pursuant to the above, no party thereto shall have any further obligation or liabilities thereunder, save in respect of any antecedent breaches and claims.
Share Pledge Loans:	Immediately following the Closing but no later than by the end of the Closing Date, the relevant CQV Vendors shall cause the Share Pledge Loans to be repaid with written evidence satisfactory to the Purchaser. The CQV Vendors are under an obligation to repay the Share Pledge Loans and transfer the CQV Sale Shares free of encumbrances by the end of the Closing Date pursuant to the CQV Sale Shares Agreements, failing which the relevant CQV Sale Shares Agreement may be terminated by the Purchaser Parties by written notice if such breach subsists for thirty (30) days following the receipt of notice. The Directors do not expect that there will be any unexpected situation where the CQV Vendors would not release the Share Pledge Loans in accordance with the CQV Sale Shares Agreements.
Non-competition and non-solicitation:	For three (3) years from the Closing Date, the relevant CQV Vendor shall not, directly or indirectly through its affiliates, without the prior written consent of the Purchaser: (a)(i) engage in the businesses operated by CQV (the "**Competing Business**") in any geographic area in which the business of CQV is carried on, (ii) own any equity interest, or operate, control or participate (including as a joint venture partner, agent, representative, consultant or lender) in any entity that engages directly or indirectly in the Competing Business, (iii) solicit any customers of CQV or (iv) intentionally interfere with the business relationships between CQV and any of its key business relations including customers and suppliers; and (b)(i) hire or solicit for employment any officer or employee of CQV, the Purchaser and their respective affiliates or (ii) induce or encourage any such officer or employee to no longer be employed by CQV, the Purchaser and their respective affiliates.
Joint and several liability:	Each of the Purchaser Parties shall be liable to the relevant CQV Vendors on a joint and several basis for the obligations of one another under the relevant CQV Sale Shares Agreements.
Governing law:	The relevant CQV Sale Share Agreements are governed by, construed and enforceable in accordance with the laws of the Republic of Korea.

CQV TREASURY SHARES AGREEMENT

The following sets forth the principal terms and conditions of the CQV Treasury Shares Agreement:

Date:	27 January 2023 (after trading hours of the Stock Exchange)
Parties:	(i) The Company and (ii) CQV.
Subject matter:	All 1,175,576 CQV Treasury Shares held by CQV, representing 11.60% of the issued shares of CQV as of the Latest Practicable Date. Following the Closing, CQV will have no treasury shares held by it.
Consideration Shares:	The basis of the consideration for the purchase of the CQV Treasury Shares in the form of the Consideration Shares is the same as the Acquisition and has been negotiated and agreed between the Company and CQV on an arm's length basis, having regard to, among others, to the net assets value of CQV, the prevailing market prices of the shares of CQV quoted on the KOSDAQ and the liquidity of the shares of CQV. The 18,150,280 Consideration Shares (equivalent to HK$145.2 million at the Issue Price) will be allotted and issued to CQV for the purchase of the CQV Treasury Shares, representing 1.52% of the Shares in issue as of the Latest Practicable Date and 1.50% of the Shares in issue as enlarged by the Consideration Shares (assuming that there is no change in the issued share capital of the Company between the Latest Practicable Date and the Closing Date save for the issue of the Consideration Shares), at the Issue Price, which represents: (i) a premium of 59.4% of the closing price for each Share of HK$5.020 as quoted on the Stock Exchange on the date of the CQV Treasury Shares Agreement; (ii) a premium of 68.0% of the average of the closing price for each Share of HK$4.762 as quoted on the Stock Exchange for the period of five (5) consecutive trading days ending on the trading day immediately preceding the date of the CQV Treasury Shares Agreement; (iii) a premium of 88.9% of the average of the closing price for each Share of HK$4.235 as quoted on the Stock Exchange for the period of twenty (20) consecutive trading days ending on the trading day immediately preceding the date of the CQV Treasury Shares Agreement; and (iv) a premium of 260.36% of the net asset value for each Share as of 31 December 2022.

The 18,150,280 Consideration Shares will be allotted and issued pursuant to the Proposed General Mandate, credited as fully paid, and shall rank *pari passu* in all respects among themselves and with the Shares in issue on the date of such allotment and issue.

Payment terms: The consideration for the CQV Treasury Shares will be payable by the allotment and issue of 18,150,280 Consideration Shares to CQV on the Closing Date.

Conditions precedents: The Closing is conditional on the fulfilment (or waiver, if applicable) of the following conditions:

(a) the representations and warranties given by the Company to be true and correct in all material respects as of the date of the CQV Treasury Shares Agreement and as of the Closing Date;

(b) the Company having performed, satisfied and complied with all obligations in all material respects under the CQV Treasury Shares Agreement on or before the Closing Date;

(c) the representations and warranties given by CQV to be true and correct in all material respects as of the date of the CQV Treasury Shares Agreement and as of the Closing Date, provided that (i) other than for the CQV Fundamental Representations, if the amount of losses incurred by CQV prior to the Closing Date due to any such breach in the aggregate does not exceed KRW4.0 billion (which has been determined after arm's length negotiations between the Company and CQV with reference to the net income of CQV as of 31 December 2021 in the amount of KRW3.5 billion (rounded up to the nearest KRW billion) which was the then latest audited amount of net income of CQV available at the time of signing of the CQV Treasury Shares Agreement upon which the Directors consider that it would be fair and reasonable and in the interests of the Company and the Shareholders as a whole to be used as the threshold for the breach), CQV shall be deemed to have satisfied this condition and (ii) the Company shall not be entitled to claim any breach of representations and warranties against CQV in relation to obtaining the required consents from the relevant third party counterparties to the material contracts of CQV for the consummation of the CQV Treasury Shares Agreement and the transactions contemplated thereunder;

(d) CQV having performed, satisfied and complied with all its obligations in all material respects under the CQV Treasury Shares Agreement on or before the Closing Date;

(e) there being no material adverse effect on the general affairs, business, operations, rights, assets, liabilities, condition (financial or otherwise), or results of operations of CQV or any circumstance that prevents the ability of CQV or the Company, as applicable, to consummate the CQV Treasury Shares Agreement or any of their respective obligations contemplated thereunder;

(f) CQV shall have convened a general meeting of the shareholders of CQV to appoint the respective persons designated by the Company as the directors of CQV effective from the Closing Date;

(g) CQV shall have amended its articles of incorporation to the effect that CQV may have six (6) directors;

(h) no law or order shall have been enacted, entered, promulgated, issued or enforced by any governmental authority of competent jurisdiction that prohibits the consummation of the CQV Treasury Shares Agreement and the transactions contemplated thereunder;

(i) all requisite approval from any government authority (including by not limited to the Securities & Futures Commission of Hong Kong, the Stock Exchange and The Korea Exchange) for the consummation of the CQV Treasury Shares Agreement and the transactions contemplated thereunder shall have been obtained;

(j) each of the Company and CQV having obtained all necessary consents from and provided all notices to, its respective shareholders as may be required under the applicable laws, constitutional documents or otherwise in connection with the CQV Treasury Shares Agreement and the transactions contemplated thereunder, including but not limited to the Shareholders having approved the CQV Treasury Shares Agreement and the transactions contemplated thereunder at the EGM;

(k) each of the Company and CQV having obtained all necessary approvals from and provided all notices to, the Stock Exchange and The Korea Exchange, respectively, as may be required under the applicable laws and regulations in connection with the consummation of the CQV Treasury Shares Agreement and the transactions contemplated thereunder, including but not limited to the approval for the listing of, and permission to deal in the Consideration Shares by the Stock Exchange having been obtained by the Company, and such approval not having been revoked or withdrawn prior to the Closing Date; and

(l) all requisite approval from any government authority required with respect to the delivery by the Company, and the acquisition by CQV of the relevant Consideration Shares, including, but not limited to, the filing or reporting requirements with the Bank of Korea, shall have been obtained.

The conditions precedent set forth in (a) and (b) above may be waived by CQV and the conditions precedent set forth in (c) to (g) above may be waived by the Company. The conditions precedent set forth in (h) to (l) above may be waived by the parties to the CQV Treasury Shares Agreement to the extent permitted by law and/or government authority. The Directors confirm that the Company will not agree to waive conditions (h) to (l) above.

As of the Latest Practicable Date, none of the above conditions precedent have been satisfied or waived.

Closing: Upon the fulfilment (or waiver, if applicable) of the conditions precedent, completion of the transactions under the CQV Treasury Shares Agreement shall take place on the Closing Date, which is expected to be on or before the Long-Stop Date.

The Closing under the CQV Treasury Shares Agreement is not conditional on the Closing of any of the CQV Sale Shares Agreements.

Termination: The CQV Treasury Shares Agreement may be terminated at any time prior to the Closing:

(i) by mutual written agreement of the parties thereto;

(ii) by either CQV or the Company, if the Closing has not occurred on or before the Long-Stop Date by reason of failure of satisfaction (or waiver, if applicable) of any conditions precedent if for any reason other than the fault of such terminating party; or

(iii) by any party thereto, upon written notice to the other parties, in case of a material breach of, any of its representations, warranties, agreements, covenants or obligations under the CQV Treasury Shares Agreement and the defaulting party has failed to cure such breach within thirty (30) days following the receipt of written notice from the terminating party, provided that the terminating party is not otherwise in material breach of the CQV Treasury Shares Agreement.

Upon termination of the CQV Treasury Shares Agreement pursuant to the above, no party thereto shall have any further obligation or liabilities thereunder, save in respect of any antecedent breaches and claims.

Governing law: The CQV Treasury Shares Agreement is governed by construed and enforceable in accordance with the laws of the Republic of Korea.

DETERMINATION OF THE PURCHASE PRICE FOR THE CQV SALE SHARES AND THE CQV TREASURY SHARES

In determining the purchase price for the CQV Sale Shares and the CQV Treasury Shares, the Directors, in the course of discharge their directors' duties to the Company, have considered and weighted a number of quantitative and qualitative factors. The Directors have also considered the synergy that CQV may contribute to the Enlarged Group following completion of the Acquisition. Detailed explanations of the quantitative and qualitative factors are set forth below, and further information on the synergy of CQV and the benefits it may be generated from the Acquisition is set forth in the paragraphs under "Reasons for and benefits of the Acquisition" below".

Quantitative factors

The Directors confirm that the amount of purchase price agreed to be paid by the Company for the Acquisition, both by way of cash and the allotment of the Consideration Shares, has been negotiated with the counterparties on an arm's length basis upon normal commercial terms. The Directors have considered and negotiated on the amount of consideration with reference to the following quantitative factors:

(a) Issue Price

The Issue Price is above the conversion price of the Convertible Bond Issue of HK$7.6, as required by the terms and conditions thereof. The Issue Price is also above the trading prices of each Share. The table below sets forth the amount of the total consideration based on (i) the Issue Price; (ii) the closing price for each Share of HK$5.020 as quoted on the Stock Exchange on the date of the CQV Sale Shares Agreements; and (iii) the average closing price for each Share of HK$4.762 as quoted on the Stock Exchange for the period of five (5) consecutive trading days ending on the trading day immediately preceding the date of the CQV Sale Shares Agreements.

	Number of the Consideration Shares	At the Issue Price	At the closing price for each Share of HK$5.020 as quoted on the Stock Exchange on the date of the CQV Sale Shares Agreements	At the average of the closing price for each Share of HK$4.762 as quoted on the Stock Exchange for the period of five (5) consecutive trading days ending on the trading day immediately preceding the date of the CQV Sale Shares Agreements
		HK$	*HK$*	*HK$*
Cash consideration	N/A	154,750,851	154,750,851	154,750,851
Consideration Shares				
- CQV Vendor A	15,475,085	123,800,680	77,684,927	73,692,355
- CQV Vendor B	13,481,181	107,849,448	67,675,529	64,197,384
- CQV	18,150,280	145,202,240	91,114,406	86,431,633
Total	47,106,546	531,603,219	391,225,713	379,072,223

The Issue Price represents (a) a premium of 59.4% of the closing price for each Share of HK$5.020 as quoted on the Stock Exchange on the date of the CQV Sale Shares Agreements and (b) a premium of 68.0% of the average of the closing price for each Share of HK$4.762 as quoted on the Stock Exchange for the period of five (5) consecutive trading days ending on the trading day immediately preceding the date of the CQV Sale Shares Agreements. The high level of the Issue Price, which has been accepted by the CQV Vendor A, CQV Vendor B and CQV, is to the advantage of the Company.

(b) Net assets value of CQV

The Directors submit that following completion of the Acquisition, the entire amount of the assets and liabilities of CQV would be consolidated into the statement of financial position of the Enlarged Group with a deduction of the non-controlling interest from the profit or loss account, albeit that the Group only acquires 42.45% of the equity interest of CQV. Hence, the Directors consider that the entire amount of the net asset value of CQV of KWR64,852.0 million (equivalent to HK$401.4 million) as of 31 December 2022 (the "**2022-Year End CQV NAV**"), should be used and submit that:

(i) the total consideration for the Acquisition represents a premium of 32.43% of the 2022-Year End CQV NAV;

(ii) the total consideration based the closing price for each Share of HK$5.020 as quoted on the Stock Exchange on the date of the CQV Sale Shares Agreements represents a discount of 2.54% of the 2022-Year End CQV NAV; and

(iii) the total consideration based on the average of the closing price for each Share of HK$4.762 as quoted on the Stock Exchange for the period of five (5) consecutive trading days ending on the trading day immediately preceding the date of the CQV Sale Shares Agreements represents a discount of 5.57% of the 2022-Year End CQV NAV.

(c) Market capitalisation of CQV

Based on the market capitalisation of CQV of KWR78,570.9 million (equivalent to HK$486.4 million) as of the date of the CQV Sale Shares Agreements, the market capitalisation of 42.45% of the equity interest of CQV to be acquired under the Acquisition would be HK$206.5 million (the "**Proportional Market Capitalisation**"). As compared with the total amount of consideration for the Acquisition,

(i) at the Issue Price, represents a premium of 257.49% of the Proportional Market Capitalisation and

(ii) based on the average of the closing price for each Share of HK$4.762 as quoted on the Stock Exchange for the period of five (5) consecutive trading days ending on the trading day immediately preceding the date of the CQV Sale Shares Agreements, represents a premium of 189.49% of the Proportional Market Capitalisation.

The Directors are of the view that the level of premium of the net asset value of CQV and the market capitalisation of CQV for the Acquisition represented by the cash consideration and the allotment and issue of the Consideration Shares (at the Issue Price) is commercially acceptable as the value of CQV to the Group is not only on the tangible assets it owns, but also on the business network, product portfolios, international brand recognitions and the readily-available production facilities and production know-how that would support the Group to explore the overseas markets. If the Acquisition is successfully completed, the Directors believe that the business activities of CQV and more importantly, its international business, will generate commercial benefits to the Group. The Directors have also thoroughly evaluated the stock performance/liquidity of CQV and are of view that, as the Group and the CQV are in the same industry, most of the commercial benefits that can be derived from the Acquisition to the Group may not be fully affected in the stock market benchmarks and parameters. Further information of these commercial benefits is set forth in the paragraphs under "Reasons for and benefits of the Acquisition" below. In light of these, the Directors consider that the cash consideration and the allotment and issue of the Consideration Shares (at the Issue Price) are fair and reasonable and in the interests of the Company and the Shareholders as a whole.

In addition, the level of premium also reflects that the Company would be able to control CQV following completion of the Acquisition and will become the single largest shareholder of CQV. Such control is considered by the Directors important in the formulation of the Enlarged Group's overseas business expansion plans.

(d) Comparable companies

The Directors have also considered the valuation of the following comparable companies:

	Comparable companies	**Nature of business**	**Listing venue and stock code**	**Price/earnings multiples as of 26 January 2023**
1	Anshan Hifichem Co., Ltd	Green, environmentally friendly, high-performance organic pigments, dyes, new materials	SZSE:300758	94.7
2	Fujian Kuncai Material Technology Corporation Co., Ltd	Production and sale of pearlescent materials and mica	SHSE:603826	257.7
3	Kronos Worldwide, Inc.	Manufacturer of titanium dioxide pigments for paints, plastics, paper and consumer products	NYSE:KRO	8.4
4	Sudarshan Chemical Industrial Limited	Manufacturer of functional pigments, including organic, inorganic and pearlescent pigments as well as pigment pre-dispersion flakes and colour pastes	NSE:506655	29.1

Based on the mean price earnings multiples (the "**Mean PE**") for the above listed comparable companies of 61.90 (computed by excluding the outliers, i.e. Fujian Kuncai Material Technology Corporation Co., Ltd and Kronos Worldwide, Inc., because of the wide range of the price earnings multiples of the comparable companies) as of one day before the signing of the CQV Sale Shares Agreements, CQV's valuation would be KWR333,255.9 million (equivalent to HK$2,062.9 million) and the value of 42.45% of the equity interests owned by the Company following completion of Acquisition would be KWR141,476.1 million (equivalent to HK$875.7 million) (the "**Proportional Valuation**"). Hence, the amount of the total consideration:

(i) at the Issue Price, represents a discount of 39.31% to the Proportional Valuation;

(ii) based on closing price for each Share of HK$5.020 as quoted on the Stock Exchange on the date of the CQV Sale Shares Agreements, represents a discount of 55.33% to the Proportional Valuation; and

(iii) based on the average of the closing price for each Share of HK$4.762 as quoted on the Stock Exchange for the period of five (5) consecutive trading days ending on the trading day immediately preceding the date of the CQV Sale Shares Agreements, represents a discount of 56.72% to the Proportional Valuation.

The Directors have considered the price-to-sales ("**P/S**"), price-to-earnings ("**P/E**") and price-to-book ("**P/B**") multiples. The P/E ratio is one of the most commonly used multiples. The P/S ratio is considered not appropriate because it cannot fully capture the cost structure and profitability of CQV. The P/B ratio is also not adopted as it fails to capture some important factors that drive a company's value, such as management competencies and workforce uniqueness. The Directors believe that it is fair and reasonable to use the P/E ratio for assessing the value of CQV because (a) CQV has made stable net income over the past three years and (b) net income is a more direct economic measurement of earning attributable to CQV's equity value. Hence, the P/E ratio is chosen as an appropriate matric. The Directors confirm that the use of Mean PE is appropriate in determining the fairness and reasonableness of the consideration for the Acquisition given the wide range of the P/E multiples involved.

The selection of the comparable companies was based on the comparability of the overall industry sector. The comparable public companies were selected with reference to the following selection criteria:

— The companies are primarily engaged in the chemical manufacturing industry.

— The companies are mainly engaged in the pigment-related business that is comparable to CQV.

— The financial information of the companies is in public domain.

A list of four comparable companies that engaged in similar business as CQV has been considered, in which these companies are considered to be representative. The Directors confirm that the list of four comparable companies is the most relevant and exhaustive having considered their business activities, geographical locations, operation scale, profitability and operating history.

Although no two companies will be exactly the same there are certain business attributes, such as required capital investment and overall perceived risks and uncertainties, that guide the market in reaching the expected returns for companies with certain similar attributes.

Given the limited number of the comparable companies being identified, it is considered that the business nature will be the most relevant and important factor in determining the comparable companies. With the four comparable companies identified with similar business nature with CQV, an average of such data, i.e. the Mean PE, is used. The mean is a commonly used statistical measure as it provides a good representation of the central tendency of a dataset. It is useful because it is sensitive to changes in the dataset and is affected by every value in the dataset. The mean is often used as the preferred measure of the central tendency.

The above analyses indicate that the total consideration for the Acquisition is at a discount to the Proportional Valuation at the Mean PE.

(e) Liquidity of the CQV shares

	Six months ended 31 December 2022	**Three months ended 31 December 2022**	**From 1 January 2023 to the date of the CQV Sale Shares Agreements**
Average number of the daily CQV shares traded	25,878	31,978	47,573
Total number of issued shares of CQV	10,138,184	10,138,184	10,138,184
Average number of the daily trade volume as a percentage of total issued shares of CQV	0.26%	0.32%	0.47%

The table above indicates that the average daily trade volume of CQV shares was in the range between 0.26% and 0.47% of the total number of issued shares of CQV. Given the low liquidity of the CQV shares, the Board considers that it would not be possible to acquire the CQV shares from the market.

As part of the Group's the strategic objective of "Endogenous Development and Outward Expansion (內源式發展及外延式擴張)", the acquisition of CQV is part and the first step of the Group's strategic development by focusing on the three main objectives of expanding the production capacity of pearlescent pigment products, strengthening the product research and development capability and integrating with sales channels, production technology and production base for the purpose of enhancing the core competitiveness through acquisitions.

(f) Issue Price representing a premium of the net asset value for each Share

Based on the net asset value for each Share as of 31 December 2022, the Issue Price represents a premium of 260.36%. As the Issue Price is at a premium to the net asset value for each Share and such level of premium is higher than/comparable to the premium of the (a) 2022-Year End CQV NAV and (b) Proportional Market Capitalisation, the Directors consider that the Issue Price has been negotiated and determined to the advantage of the Company and the Shareholders as a whole.

Note to the Shareholders: **The Directors understand that the purchase price for the Acquisition, in the form of the cash consideration and the allotment and issue of the Consideration Shares at the Issue Price, represents a premium of 32.43% of the net asset value of CQV as of 31 December 2022, a premium of 109.29% of the market capitalisation of CQV as of the date of the CQV Sale Shares Agreements and a premium of 257.49% of the proportional market capitalisation of 42.45% of the equity interest of CQV as of the same date. The Directors believe that the amount of premium paid for the Acquisition is justified because of the above quantitative factors, the qualitative factors below as well as the commercial benefits of the Acquisition set forth in the paragraphs under "Reasons for and benefits of the Acquisitions" below. The Directors confirm the purchase price has been negotiated on an arm's length basis upon normal commercial terms and are aware of their duties to act in the best interests of the Company and the Shareholders as a whole. The Directors recommend the Shareholders to read the whole circular carefully and, in particular, the paragraphs under "Determination of the purchase price for the CQV Sale Shares and the CQV Treasury Shares" and "Reasons for and benefits of the Acquisition" before voting at the EGM.**

Qualitative factors

In addition to the above quantitative consideration of the purchase price for the Acquisition, the Directors have also considered a number of business-related and qualitative factors as follows:

(i) Diverse range of products developed by CQV

After more than 20 years of experience since its establishment in 2000, CQV has developed a wide range of products, including synthetic mica substrate, natural mica substrate, alumina substrate, glass flake substrate, silicon oxide substrate and hollow titanium oxide series pearlescent pigment product system and aluminum silver paste, colour aluminum and other metal pigments, including automotive grade, cosmetic grade and industrial grades. Such product portfolio is difficult to replicate and remains unique and competitive.

(ii) Strong product research and development capability

Each of CQV's core technicians has more than 35 years of experience in the development and commercialisation of pearlescent and metal surface performance materials. The Acquisition will create immediate benefit to the Group by strengthening the Group's product research and development capability.

(iii) Leading proprietary technologies

CQV has renowned synthetic mica-based pearlescent pigment product system and alumina-based pearlescent pigment production technology.

(iv) Unique competitiveness in high-end downstream applications

CQV has renowned production process and production know-how in the application of high-end pearlescent materials, such as automobile-grade and cosmetics-grade pearlescent pigment products, and has an unique competitiveness in the automobile industry in the Republic of Korea and the high-end cosmetics markets in other Asian countries and territories.

(v) International sales network and sales channels

CQV's products are currently sold to more than 100 countries and territories in the world. Sales of CQV outside the Republic of Korea accounted for more than two-third of its total sales in 2022.

(vi) Advanced production capacity

CQV has renowned advanced production system in the industry, which can improve the production efficiency and the quality of products of the Group.

Based on the above, the Directors are of the view that the amount of consideration (the number of Consideration Shares and the amount of cash consideration thereunder) are fair and reasonable and in the interests of the Company and the Shareholders as a whole.

REASONS FOR AND BENEFITS OF THE ACQUISITION

It has been a business strategy of the Group to seek overseas investment opportunities by engaging in merger and acquisition activities which provide growth potential and enhance the value for the Shareholders. The Directors believe that the Acquisition offer a good opportunity for the Group to tap on opportunities and expand its international business presence. The Directors also believe that the business network, product portfolio, international brand recognition and the readily available production facilities and production know-how, as outlined below, would be beneficial to the Group to implement its business strategy.

Commercial justifications for the premium paid for the Acquisition

CQV is an international pearlescent pigment manufacturer and has been listed on the KOSDAQ since 20 October 2000. Through the Acquisition and the control of CQV, the Group can leverage the experience, know-how and the market presence of CQV, increase its market share, enhance its product offerings and thereby increase the overall competitiveness of the Group and the Directors believe that cash consideration and the allotment and issue of the Consideration Shares, at the Issue Price, is commercially acceptable and justifiable in light of CQV's net asset value and market capitalisation as of 31 December 2022 in the following commercial aspects:

(a) *Business network* — As of 31 December 2022, CQV had 59 international outposts and distributors which support the sales of its products to customers in more than 45 countries and territories. Based on the due diligence conducted by the Directors, this business network is stable and would continue following completion of the Acquisition. The Group would be able to leverage this business network for continuous business expansion.

(b) *Product portfolio* — As of 31 December 2022, CQV had offered to its customers 95 pearlescent pigment products, and most of the which are alumina oxide-based and glass flake-based pearlescent pigment products. The Directors believe that CQV has the capability to further develop and expand its product portfolio which is complementary to the Group's product portfolio of mica-based, glass flake-based and silicon oxide-based pearlescent pigment products. Following completion of the Acquisition, the Enlarged Group would be able to offer its customers a wide range of pearlescent pigment products for different industrial applications to different customers.

(c) *International brand recognition* — Based on the due diligence conducted by the Directors, CQV has been identified as one of the leading brands for specific types of pearlescent pigment products. Such ranking by international renowned industry leaders, will facilitate the Enlarged Group's exploration of the international markets. The Group currently is focusing on the PRC market and does not have such international brand recognitions currently obtained by CQV. The Group has no current intention to re-brand or relinquish the brand of CQV.

(d) *Readily-available production facilities and production know-how* — Because of its existing product offerings, CQV is able to further develop and produce new alumina oxide-based pearlescent pigment products. The product research and development capability is one of the strengths of CQV, and it has been proven that it can develop the existing product portfolio. Such production know-how and facilities could provide readily-available support to the Group in overseas expansion.

In light of the foregoing, as well as the Group's business strategy mentioned below, the Directors consider that the Acquisition is in the interest of the Company and the Shareholders as a whole. It is also important to note that the Group can acquire the control of CQV by acquiring 42.54% equity interest of CQV.

Synergy with the Group's business strategy

The Acquisition will form an important part of the Group's business strategy, which is of great significance to the business development of the Group in the following aspects:

Complementary business structure to expand the product matrix

CQV has produced alumina oxide-based and glass flake-based pearlescent pigments, while the Group's products include glass flake-based and silicon oxide-based products. These products are expected to create synergy for the production of high-end pearlescent pigment products.

Expanded coverage of product applications

CQV specialises in pearlescent pigment products for specialised markets, and has unique competitiveness in the automotive industry in the Republic of Korean and the cosmetics industry in other Asian market. After the Acquisition, the Group will expand its business to the production of high-end pearlescent pigment products, such as automotive-grade and cosmetic-grade products, and rapidly increase the market share of the relevant high-end applications.

Sharing global marketing and sales channels

The Acquisition will integrate the marketing and sales networks in the domestic and overseas markets, differentiate product mix, achieve cross-selling and full coverage of different needs of domestic and overseas customers. The Group's the mid-range products can be sold to overseas markets through CQV's sales channels, increasing the Group's share of international sales revenue, while the rapid growth of China's cosmetics and automotive markets can also expand the market share of CQV's high-end products in the PRC.

Strengthening synthetic mica supply chain

Both the Group and CQV have established synthetic mica-based product systems. The Acquisition will further enhance the supply chain of raw materials and facilitate the Group to grow and strengthen its synthetic mica business, enhance the supply chain advantage and increase the Group's market share in the synthetic mica market.

Strong combination of research and development technology

The Group has a leading edge in synthetic mica technology, whilst CQV has research and development advantages in synthetic mica-based materials and alumina oxide-based pearlescent pigments products. The combination of these two technological advancements will enhance the overall competitiveness of the Enlarged Group.

The acquisition of the CQV Treasury Shares is intended to purchase all issued equity of CQV held by CQV. Hence, following the Closing, CQV will be owned directly and indirectly as to 42.45% by the Company and the remaining 57.55% is primarily held by the public investors of CQV. The Company's Korean legal advisor has confirmed to the Company that there is no mandatory offer requirement in the Republic of Korea to require the Company or the Purchaser to acquire all the remaining issued shares of CQV. As of the Latest Practicable Date, the Company has no intention to acquire all the remaining issued shares of CQV from the public investors.

The Directors confirm that the CQV Sale Shares Agreements and the CQV Treasury Shares Agreement are entered into on normal commercial terms following arm's length negotiations with the counterparties and that the terms of each of the CQV Sale Shares Agreements and the CQV Treasury Shares Agreement (including the amount of consideration (the number of Consideration Shares and the amount of cash consideration thereunder)) are fair and reasonable and in the interests of the Company and the Shareholders as a whole.

INFORMATION ON THE GROUP AND THE PURCHASER

The Company is an investment holding company and has been listed on the Stock Exchange since 16 July 2021 (stock code: 6616). The Group is principally engaged in the business of production and sales of pearlescent pigment products and functional mica filler and related products.

The Purchaser is a company incorporated in Hong Kong with limited liability and a wholly-owned subsidiary of Chesir International which is in turn wholly-owned by the Company. Both Chesir International and the Purchaser are investment holding companies.

INFORMATION ON CQV

CQV is a company incorporated in the Republic of Korea with limited liability on 20 October 2000 with its common shares listed on KOSDAQ (KOSDAQ: 101240). CQV is principally engaged in the production and sales of pearlescent pigments in the Republic of Korea.

Financial information of CQV

The table below sets forth a summary of certain audited financial information of CQV extracted from the published audited financial statements of CQV prepared in accordance with Korean IFRS for the two years ended 31 December 2022 and as of 31 December 2021 and 2022:

	Year ended 31 December	
	2021	**2022**
	KRW' million	*KRW' million*
Revenue	40,002.3	46,284.8
Net profit before tax	4,279.8	6,429.8
Net profit after tax	3,514.1	5,383.8
Net asset value (as of 31 December)	59,611.5	64,852.0

There has been no material change in the financial performance and position of CQV since 31 December 2022 to the Latest Practicable Date.

Other information

To the best knowledge, information and belief of the Directors, having made all reasonable enquiries, before entering into the CQV Sale Shares Agreements and the CQV Treasury Shares Agreement and as of the Latest Practicable Date, CQV is an Independent Third Party.

Upon the Closing, the Company will hold directly and indirectly 42.45% of the issued shares of CQV and will be the single largest shareholder of CQV. CQV will then become a non-wholly owned subsidiary of the Company with the financial performance and position to be consolidated into the accounts of the Group by reason of the Company having gained control over CQV and the composition of the board of directors of CQV.

Upon Closing, the board of directors of CQV is proposed to consist of six (6) directors, of whom four (4) will be appointed by the Company. Mr. SU Ertian, who is currently the Chairman and the Chief Executive Officer of the Company and an executive Director, will be appointed as an executive director of CQV; Mr. BAI Zhihuan, who is currently a Vice President of the Company and an executive Director, will be appointed as an executive director of CQV; Mr. MAK Hing Keung, Thomas, who is currently the Chief Financial Officer of the Company, will be appointed as an executive director of CQV; and Mr. KIM Sang Bae who is currently a Vice President and the Chief Strategy Officer of the Company, will also be appointed as an executive director of CQV.

The Directors plan to retain the service of CQV Vendor B who will continue to serve as the vice president and an executive director of CQV and Mr. JUNG Sunggi who will continue to serve as an executive director and production director of CQV. CQV Vendor B and Mr. JUNG Sunggi has joined CQV since 2000 and 2007, respectively. Prior to joining CQV, Mr. JUNG Sunggi had worked in the chemical research and development industry in the Republic of Korea for more than 25 years. Mr. JUNG Sunggi graduated from the Inha University of Technology.

INFORMATION ON THE CQV VENDORS

CQV Vendor A, aged 67, is the CEO of CQV and is responsible for the general management of CQV. CQV Vendor A joined CQV (formerly known as Engelhard Korea) in 1998. Prior to joining CQV, CQV Vendor A had worked in the chemical research and development industry in the Republic of Korea for more than 12 years. CQV Vendor A graduated from Yeosu High School. CQV Vendor A is an individual residing in the Republic of Korea and an Independent Third Party. Before entering into the CQV Sale Shares A Agreement, CQV Vendor A is the single largest shareholder of CQV. As of the Latest Practicable Date, CQV Vendor A was a representative director of CQV but would resign and retire from his office on or prior to the Closing Date.

CQV Vendor B, aged 60, is a director of CQV and the head of business management of CQV. CQV Vendor B joined CQV (formerly known as Engelhard Korea) in 1998. Prior to joining CQV, CQV Vendor B had worked in the chemical research and development industry in the Republic of Korea for more than 11 years. CQV Vendor B graduated from Hongik University of Technology. CQV Vendor B is an individual residing in the Republic of Korea and an Independent Third Party. As of the Latest Practicable Date, CQV Vendor B was a director of CQV and would be appointed as the new representative director of CQV following Closing.

To the best knowledge, information and belief of the Directors, having made all reasonable enquiries, (a) as of the Latest Practicable Date, each of the CQV Vendors is an Independent Third Party and (b) before entering into the CQV Sale Shares Agreements and the CQV Treasury Shares Agreement, except as disclosed above, none of the CQV Vendors and CQV has any other interests in the Shares or any business dealings with the Group.

The Directors confirm that, to the best of their knowledge, information and belief having made all reasonable enquiries, as of the Latest Practicable Date there is, and in the past 12 months, there has been, no material loan arrangement between (a) the CQV Vendors and (b) the Company, any connected person at the Company's level and/or any connected person of the Company at the subsidiary level (to the extent that such subsidiary/ subsidiaries is/are involved in the Acquisition).

INFORMATION ON THE SHAREHOLDING OF CQV VENDORS

CQV Vendor A is the chief executive officer of CQV and will resign from his office from Closing. As CQV Vendor A is close to his retirement age, he planned to realise his investments in CQV, and the Company was one of the companies he contacted with in 2022. As CQV and the Group are in the same industry, CQV Vendor A has heard of the name of the Company since July 2021 when the Company was engaged in publicity activities (such as participating in exhibitions and engaging in brand promotion programmes) following its initial public offering. After further understanding of the shareholding structure of CQV, CQV Vendor B, who is the second largest shareholder and the vice president of CQV, was introduced to the Company by CQV Vendor A in 2022. CQV Vendor A plans to retire following completion of the Acquisition.

The table below sets forth information on the CQV shareholding of CQV Vendor A and CQV Vendor B:

CQV Vendor A

Date	**Nature of transaction**	**Issue price for each CQV share**	**Number of CQV shares involved**	**Consideration**
		(KRW)		*(KRW)*
2000.10.20	Original acquisition	500	812,120	406,060,000
2005.07.14	Bonus issue	—	501,724	—
2014.11.21	Bond with warrant	3,520	173,295	609,998,400
2016.11.22	Market purchase	8,364	5,950	49,765,800
2016.11.23	Market purchase	8,297	5,990	49,699,030
2017.12.27	Bond with warrant	4,243	235,682	999,998,726
2019.8.13	Bonus issue	—	520,428	—
	Total		2,255,189	2,115,521,956

CQV Vendor B

Date	**Nature of transaction**	**Issue price for each CQV share**	**Number of CQV shares involved**	**Consideration**
		(KRW)		*(KRW)*
2000.10.20	Original acquisition	500	180,000	90,000,000
2005.07.14	Bonus issue	—	111,203	—
2014.11.21	Bond with warrant	3,520	142,045	499,998,400
2015.04.16	Bond with warrant	4,243	235,682	999,998,726
2015.08.26	Market purchase	6,917	2,654	18,357,718
2015.08.27	Market purchase	7,148	80	571,840
2019.8.13	Bonus issue	—	201,499	—
	Total		873,163	1,608,926,684

EFFECT ON SHAREHOLDING STRUCTURE OF THE COMPANY

The table below sets forth the shareholding structure of the Company (a) as of the Latest Practicable Date and (b) immediately upon the allotment and issue of the Consideration Shares (assuming that there is no other change to the share capital and in the shareholding structure of the Company between the Latest Practicable Date and the Closing Date):

Shareholders		As of the Latest Practicable Date		Immediately upon the allotment and issue of the Consideration Shares	
		No. of Shares	*% of the Shares in issue*	*No. of Shares*	*% of the Shares in issue*
Directors					
Mr. SU Ertian *(Note 1)*		419,605,948	35.21	419,605,948	33.87
Mr. BAI Zhihuan *(Note 2)*		694,000	0.06	694,000	0.06
Mr. HU Yongxiang *(Note 3)*		19,285,200	1.62	19,285,200	1.55
	(a)	439,585,148	36.89	439,585,148	35.48
Substantial Shareholder					
Guangxi Investment Group Co., Ltd. *(Note 4)*	(b)	166,656,344	13.98	166,656,344	13.45
Public Shareholders *(Note 5)*	(c)	585,522,094	49.13	585,522,094	47.26
CQV Vendor A *(Note 5)*		—	—	15,475,085	1.25
CQV Vendor B *(Note 6)*		—	—	13,481,181	1.09
CQV *(Note 6)*		—	—	18,150,280	1.47
	(d)	—	—	47,106,546	3.81
Total	(a)+(b)+(c)+(d)	1,191,763,586	100.0	1,238,870,132	100.0

Notes:

(1) Mr. SU Ertian is the Chairman and the Chief Executive Officer of the Group and an executive Director. As of the Latest Practicable Date, Mr. SU Ertian is deemed to be interested in 419,605,948 Shares through certain corporations. Mr. JIN Zengqin, an executive Director, is deemed to be interested in 44,774,148 Shares through two corporations controlled by Mr. SU Ertian and him as of the Latest Practicable Date.

(2) Mr. BAI Zhihuan is an executive Director. As of the Latest Practicable Date, Mr. BAI Zhihuan owns 694,000 Shares.

(3) Mr. HU Yongxiang is a non-executive Director. As of the Latest Practicable Date, Mr. HU Yongxiang is deemed to be interested in 19,285,200 Shares through a corporation.

(4) As of the Latest Practicable Date, Guangxi Investment Group Co., Ltd. is deemed to be interested in 166,656,344 Shares through certain corporations.

(5) CQV Vendor A will be a public Shareholder as he would cease to be the chief executive officer of CQV on or prior to the Closing Date.

(6) The Shareholding of CQV Vendor B and CQV will not form part of the public float of the Company.

FINANCIAL EFFECTS OF THE ACQUISITION

The table below sets forth the financial effects of the Acquisition identified in the unaudited pro forma financial information (the "**Unaudited Pro Forma Financial Information**") of the Enlarged Group as set forth in Appendix IV to this circular, assuming that the Closing had taken place on 31 December 2022, as compared to the financial position of the Group as of 31 December 2022:

	As of 31 December 2022				
	The Group	**CQV (under the Group's accounting policies)**	**Total pro forma adjustment**	**Upon the Closing (pro forma Enlarged Group)**	**Change %**
	(Audited)	*(Unaudited)*	*(Unaudited)*	*(Unaudited)*	
	RMB'000	*RMB'000*	*RMB'000*	*RMB'000*	
Net assets	2,543,326	348,618	31,806	2,923,750	15.0%
Total assets	3,156,870	478,466	51,717	3,687,053	16.8%
Total liabilities	613,544	129,848	19,911	763,303	24.4%

Assets and liabilities

Based on the Unaudited Pro Forma Financial Information, the unaudited pro forma consolidated total assets of the Enlarged Group as of 31 December 2022 would increase by RMB530.2 million to RMB3,687.1 million and the unaudited pro forma consolidated total liabilities of the Enlarged Group as of 31 December 2022 would increase by RMB149.8 million to RMB763.3 million. The unaudited pro forma consolidated net assets of the Enlarged Group as of 31 December 2022 would increase by RMB380.4 million to RMB2,923.8 million. As disclosed in the paragraphs under "Working capital sufficiency" in Appendix I to this circular, the Directors are of the opinion that, after taking into account the Closing and the financial resources available to the Enlarged Group, the Enlarged Group has sufficient working capital for its requirement for at least the next 12 months from the date of this circular.

The net assets, the total assets and the total liabilities of the Enlarged Group which are referred to in this subsection were extracted from the Unaudited Pro Forma Financial Information, which was based on, among other things, the assumption that the completion of the Acquisition had occurred on 31 December 2022 and the Group would be able to control 42.45% equity interest in CQV and the composition of the board of directors of CQV.

Earnings

Upon the Closing, CQV will become a non-wholly owned subsidiary of the Company.

According to the annual report of the Company for the year ended 31 December 2022, the audited consolidated profit and profit attributable to owners of the Company for the year ended 31 December 2022 were amounted to RMB236.5 million and RMB223.8 million, respectively.

Based on the consolidated statements of comprehensive income of CQV as set forth in Appendix II to this circular, the Acquisition is expected to make a positive contribution to the profit of the Group and the Directors expect that the earnings of the Enlarged Group will increase as a result of the Acquisition.

IMPLICATIONS UNDER THE LISTING RULES

Major transaction for the Company and Proposed General Mandate

As one of the applicable percentage ratios under Rule 14.07 of the Listing Rules in respect of the CQV Sale Shares Agreements and the CQV Treasury Shares Agreement in aggregate is more than 25% and less than 100%, the CQV Sale Shares Agreements and the CQV Treasury Shares Agreement in aggregate constitute a major transaction (as such term is defined under the Listing Rules) for the Company under Rule 14.06 of the Listing Rules and are subject to the reporting, announcement, circular and shareholders' approval requirements under Chapter 14 of the Listing Rules.

The issue of the Consideration Shares is not subject to any additional specific approval by the Shareholders. No portion of the Proposed General Mandate or the general mandate granted to the Directors on 22 June 2022 has been used. Having taking into consideration the Shares that may be issued in the future under the Convertible Bond Issue, the Proposed General Mandate is still sufficient for the allotment and issuance of the Consideration Shares. In the event that the Proposed General Mandate is not granted by the Shareholders, the Company will seek a specific mandate from the Shareholders for the allotment and issuance of the Consideration Shares.

Application for listing

An application will be made by the Company to the Stock Exchange for the listing of, and permission to deal in, the Consideration Shares.

WAIVER FROM STRICT COMPLIANCE WITH THE REQUIREMENTS UNDER THE LISTING RULES

Pursuant to Rule 14.67(6)(a)(i) of the Listing Rules, this circular must contain, among others, an accountants' report on CQV in accordance with Chapter 4 of the Listing Rules.

Waivers sought

The Company has applied to the Stock Exchange and the Stock Exchange has granted waiver from strict compliance with Rule 14.67(6)(a)(i) of the Listing Rules on the following grounds:

(1) CQV has its financial year ended on 31 December. CQV has published its annual audited financial statements under the Korean IFRS in full compliance with the requirements of KOSDAQ (reference: Article 159(1) of Financial Investment Services And Capital Markets Acts). The Directors understand that the disclosure of the financial information by CQV is subject to the supervision by The Korea Exchange and other regulatory authorities in the Republic of Korea and is open to the supervision by The Korea Exchange and other regulatory authorities in the Republic of Korea and is open to investment public through the link of https://dart.fss.or.kr.

(2) The auditors of CQV during the five years ended 31 December 2022 were Induk. Induk has been established since 1997 and is registered with the Korea Institute of Certified Public Accountants (KICPA) subject to the oversight of Financial Services Commission ("**FSC**")/Financial Supervisory Service ("**FSS**") in the Republic of Korea. Both FSC and FSS are full signatory to IOSCO MMOU.

(3) According to the information provided by Induk and CQV, Induk is the only member firm in the Republic of Korea being accepted as a member firm of PrimeGlobal, which is a global alliance of more than 300 advisory and accounting firms in over 100 countries and one of the largest global associations of independent accounting firms. Induk has been a member firm of PrimeGlobal for more than two decades since August 2000 for which the Directors believe is a clear indication that Induk has the expertise, reputation, professional standard and recognition well-regarded to be accepted as a member firm of PrimeGlobal.

(4) As of 31 December 2022, according to the information provided by Induk, Induk has 172 professional accountants based in the Republic of Korea and has provided auditing services for 415 companies, including 51 listed company clients, in the Republic of Korea. According to Induk, it is also registered under the Public Company Accounting Oversight Board (PCAOB) in the United States. In addition to the provision of auditing services, Induk also provides tax advisory and business and transactional consulting services. The Directors have also been confirmed that as of 31 December 2022, Induk has four offices and one branch office in the Republic of Korea. Although Induk does not have offices outside the Republic of Korea, it has a diverse and international clientele, which includes 51 publicly listed companies in the Republic of Korea, among which 31 companies have overseas business operations/offices and subsidiaries. Such international capability was one of the principal factors considered by the directors of CQV in choosing Induk as the auditors of CQV for the last five years. The audit reports issued by Induk in respect of the financial statements of CQV have never been questioned by banks and financial institutions in the Republic of Korea throughout the years.

(5) The Directors also understand that FSS has prepared rankings on all 209 accounting firms in the Republic of Korea, of which Induk is one of the top 20 firms (respectively ranked 16th and 12th as of 30 June 2022 (the "**2021 Ranking**") in terms of the number of certified public accountants and audit clientele for the year ended 30 June 2022) and one of the top 40 firms in the country which are eligible to provide auditing services to listed companies in the Republic of Korea. As a matter of fact, the audit procedures performed by Induk must be conducted in strict compliance with the Korean Standards on Auditing ("**KSA**") under the supervision of FSS. The fact that neither Induk nor PrimeGlobal is one of the "big four" firms of accountants would have no impact on the quality of auditing works performed on CQV. All in all, the Directors, having conducted their due diligence and taking into consideration the above background information of Induk, consider that Induk has the "international name and reputation" and sufficient resources and supports from itself and as a member firm of PrimeGlobal for the scale of business operations of CQV and are satisfied that Induk is a firm of certified public accountants in the Republic of Korea with an international name and reputation.

(6) Induk has been the auditors of CQV since 2018, before which Samil PricewaterhouseCoopers was appointed by CQV as its auditors for the three years ended 31 December 2017. According to the advice provided by the Korean legal advisers to the Company, (a) pursuant to article 10(3) of Act on External Audit of Stock Companies (the "**External Audit Act**"), auditors of listed companies on The Korea Exchange shall not be changed for a three-year period and (b) pursuant to article 11(2) of the External Audit Act, the Korean Securities and Futures Commission ("**KSFC**") may request a listed company to appoint or substitute the auditors where the company has appointed its own auditors for six consecutive years.

Hence, the Directors understand that Induk has ceased to act as the auditors of CQV from 1 January 2023 (because of article 11(2) of the External Audit Act) and Shinhan Accounting Corporation ("**RSM Korea**") is designated by FSS on 11 November 2022 as the auditors of CQV for a period of three years commenced from 1 January 2023.

(7) During the period of tenure as the auditors of CQV, Induk has never issued any qualified audit opinion on the consolidated results of CQV. Nor has Induk indicated in its audit report any matter that need to be brought to the attention of the shareholders of CQV and the regulators in the Republic of Korea.

(8) The Directors are confirmed by Induk that it has consistently applied the KSA which are developed in line with the latest International Standards on Auditing ("**ISA**") issued by the International Auditing and Assurance Standards Board in the auditing the of financial statements of CQV. The financial statements of CQV for the year ended 31 December 2022 will continue to be audited by Induk in accordance with the KSA. Such audited financial statements of CQV has been published by CQV on 20 March 2023. The Directors are confirmed by its auditors RSM HK that there is no material difference between the KSA and the Hong Kong Standards on Auditing ("**HKSA**"), the auditing standards adopted for auditing the consolidated financial statements of the Company. A clean audit opinion on the financial statements of CQV for the year ended 31 December 2022 was issued by Induk on 20 March 2023.

(9) The Directors are confirmed that RSM Korea was established in 1970 and is a member of The Korea Institute of Certified Public Accountants. RSM Korea has joined RSM International as a member firm since 1992. RSM Korea is subject to the independent oversight by FSC which is a full signatory to the IOSCO MMOU. RSM Korea has confirmed that there is no matter relating to CQV or otherwise as of the date of this waiver application which would affect their appointment as the auditors of CQV in the Republic of Korea. RSM Korea has confirmed that it will continue to perform the audit on CQV's financial statements for the year ending 31 December 2023 in accordance with the KSA.

(10) The Company and its auditors RSM HK (which is also part of RSM International) are of the view that there is no material difference between the accounting standards adopted by the Company and CQV as the accounting standards adopted by CQV is Korean IFRS which is completely identical to the IFRSs adopted by the Company except for the timing differences for newly published IFRSs and some additional disclosure requirements.

(11) The Directors consider that it is unduly burdensome and practically difficult for the Company to engage internal and external resources to prepare an accountants' report on CQV under Rule 14.67(6)(a)(i) of the Listing Rules because of the following reasons:

(a) as the Company currently has no shareholding in, and does not exercise any degree of control over CQV, prior to the Closing, the Company is not able to gain access to confidential non-public information, including the accounting records books or other supporting information of CQV to facilitate its auditors, RSM HK, in the preparation of the financial statements in accordance with the accounting standards, i.e. IFRSs, adopted by the Company;

(b) if a full-blown audit of the financial statements of CQV were required to be performed by the auditors of the Company in accordance with the requirements of the Listing Rules, it would have involved a significant number of repeating audit procedures, such as sending out bank confirmations and attending stock-taking procedures, the completion time of which would be outside the control of the Company and CQV and it would be very like that the Acquisition could not be completed within any reasonable period of time for completion of transactions of similar nature. CQV has production and sales facilities/outposts in the Republic of Korea and overseas and its inventory of finished products consists of more than 800 types of pigment products;

(c) CQV has been listed on KOSDAQ since 2011 and its audited financial statements for 18 years since 2005 are publicly available on the website at https://dart.fss.or.kr. As part of its financial due diligence, the Company has performed review of these financial statements with no access to the underlying financial records;

(d) as a preliminary estimate, the Directors, having discussed with RSM HK, confirm that the likely time involved would not be less than three months and the likely cost would not be less than RMB3.0 million for the preparation of the accountants' report of CQV for the three years ended 31 December 2022. This preliminary estimate has not included the additional costs that would be incurred on the internal resources (such as additional manpower, record retrieval and translation) that would be required to be committed by the Group (and CQV, if it permits the Group to do so) for the purpose of preparing the accountants' report of CQV in accordance with the Listing Rules; and

(e) given that the financial information of CQV, which is material in assessing its performance and financial position, has already been provided in the published annual reports of CQV and will be included in this circular, together with other alternative disclosure (as set forth below) in this circular, taking together with the related management discussion and analysis of CQV will provide the Shareholders with the material information necessary to assess the financial performance of the CQV throughout the periods presented, the grant of the waiver sought is unlikely to result in any undue risks to the Shareholders and the investment public.

Alternative disclosures

In replacement of an accountants' report of the CQV prepared in accordance with the IFRS, the Company therefore proposes to include the following disclosure in this circular:

(a) the English translation of the audited consolidated financial statements of CQV for the three years ended 31 December 2022 prepared in accordance with the Korean IFRS, extracted from the published annual reports of CQV;

(b) a line-by-line reconciliation of the financial statements of CQV for the three years ended 31 December 2022 to address the differences in CQV's financial statements had they been prepared in accordance with the IFRS, with explanations of the differences (the "**Reconciliation**"), which will be reviewed by RSM HK, the auditors of the Company in accordance with the Hong Kong Standard of Assurance Engagement 3000 (Revised) issued by the Hong Kong Institute of Certified Public Accountants. The Reconciliation will demonstrate the differences and financial impact of each line items of CQV's financial results and assets and liabilities between its accounting policies under the Korean IFRS and the accounting policies of the Group under the IFRS, with an explanation of the differences and financial impact of each line items in accompanying notes, which will include, as confirmed by RSM HK, reclassification and presentation adjustments of the line items for the purpose of conforming with the presentation of the consolidated financial statements of the Company. As such, the Reconciliation will provide CQV's financial information under the IFRS to facilitate the Shareholders' assessment of its historical performance and financial position of CQV during the three years ended 31 December 2022;

(c) unaudited pro forma consolidated assets and liabilities of the Enlarged Group as of 31 December 2022 as if the Acquisition had been completed on 31 December 2022 which RSM HK has performed relevant procedures in accordance with paragraph 4.29 of the Listing Rules and with reference to Accounting Guideline 7 "Preparation of Pro Forma Financial Information for Inclusion in Investment Circulars" issued by the HKICPA; and

(d) additional financial information which would be required to be disclosed in an accountants' report under Chapter 4 of the Listing Rules but not disclosed in the published financial statements of CQV as mentioned above. Such addition financial information includes, but without limitation to, aging analysis of trade receivables and payables, and will be disclosed in this circular.

Based on the information provided by the Company and the alternative disclosure above, the Stock Exchange has granted the waiver from strict compliance with Rule 14.67(6)(a)(i) of the Listing Rules.

EGM

The notice of the EGM is set forth on pages EGM-1 to EGM-2 of this circular

The EGM will be convened at 6th Floor, Guangxi Chesir Pearl Material Co., Ltd., Pearlescent Industrial Park, No. 380, Feilu Road, Luzhai Town, Luzhai County, Liuzhou City, Guangxi, China at 10:30 a.m. on Friday, 30 June 2023 for the Shareholders to consider and if thought fit, to pass the resolution(s) to approve the CQV Sale Shares Agreements, CQV Treasury Shares Agreement and the transactions contemplated thereunder.

To the best of the knowledge, information and belief of the Directors having made all reasonable enquiries, no Shareholder has any material interest in the CQV Sale Shares Agreements, CQV Treasury Shares Agreement and the transactions contemplated thereunder. Hence, no Shareholder is required to abstain from voting at the EGM in respect of the resolution approving the CQV Sale Shares Agreements, CQV Treasury Shares Agreement and the transactions contemplated thereunder.

PROXY ARRANGEMENT

Pursuant to the Listing Rules and the Articles, any vote of Shareholders at a general meeting must be taken by poll except where the chairman of the meeting may in good faith, decides to allow a resolution relating to a procedural or administrative matter to be voted on by a show of hands. Therefore, poll voting for the proposed resolution(s) of the Company will be proceeded with at the EGM. An announcement on the poll results will be published by the Company after the EGM in the manner prescribed under the Listing Rules.

A form of proxy for the EGM is accompanied with this circular and such form of proxy is also published on the websites of Hong Kong Exchanges and Clearing Limited (www.hkexnews.hk) and the Company (www.chesir.net). Whether or not you are able to attend the EGM, you are requested to complete the accompanying form of proxy in accordance with the instructions printed thereon and return the same to the office of the Company's branch share registrar in Hong Kong, Tricor Investor Services Limited, at 17/F, Far East Finance Centre, 16 Harcourt Road, Hong Kong, as soon as possible and in any event not less than 48 hours before the appointed time for holding the EGM, i.e. before 10:30 a.m. on Wednesday, 28 June 2023, or any adjournment thereof (as the case may be). Completion and return of the form of proxy will not preclude you from attending and voting in person at the EGM or any adjournment thereof (as the case may be) if you so wish.

CLOSURE OF REGISTER OF MEMBERS

In order to determine the entitlement to attend and vote at the EGM, the register of members of the Company will be closed from Tuesday, 27 June 2023 to Friday, 30 June 2023 (both days inclusive), during which period no transfer of Shares will be registered. The record date for entitlement to attend and vote at the EGM is Friday, 30 June 2023. In order to qualify to attend and vote at the EGM, all Share transfer documents accompanied by relevant Share certificates must be lodged with the Company's branch share registrar in Hong Kong, Tricor Investor Services Limited, at 17/F, Far East Finance Centre, 16 Harcourt Road, Hong Kong no later than 4:30 p.m. on Monday, 26 June 2023.

GENERAL

Shareholders and potential investors of the Company should note that the Closing is subject to the satisfaction and/or, where applicable, waiver of the conditions set forth in the CQV Sale Shares Agreements and CQV Treasury Shares Agreement and may or may not proceed. Hence, Shareholders and potential investors of the Company are reminded to exercise caution when dealing in the securities of the Company.

RECOMMENDATION

For the reasons set forth above, the Directors are of the opinion that the terms of each of the CQV Sale Shares Agreements and the CQV Treasury Shares Agreement are fair and reasonable, on normal commercial terms or better and in the interests of the Company and the Shareholders as a whole. Accordingly, the Directors would recommend the Shareholders to vote in favour of the resolution(s) to be proposed at the EGM.

FURTHER INFORMATION

Your attention is also drawn to the additional information set forth in the appendices to this circular.

Yours faithfully
For and on behalf of the Board
Global New Material International Holdings Limited
SU Ertian
Chairman and Chief Executive Officer

1. FINANCIAL INFORMATION OF THE GROUP

Financial information of the Group for the three years ended 31 December 2020, 2021 and 2022 is disclosed in the following documents which have been published on the websites of the Stock Exchange (http://www.hkexnews.hk) and the Company (www.chesir.net). Web links to the prospectus and the annual reports of the Company are set forth below:

Prospectus (with financial information for the year ended 31 December 2020):

https://www1.hkexnews.hk/listedco/listconews/sehk/2021/0630/2021063000059.pdf

Annual report of the Company for the year ended 31 December 2021:

https://www1.hkexnews.hk/listedco/listconews/sehk/2022/0427/2022042700812.pdf

Annual report of the Company for the year ended 31 December 2022:

https://www1.hkexnews.hk/listedco/listconews/sehk/2023/0427/2023042701738.pdf

2. INDEBTEDNESS STATEMENT OF THE ENLARGED GROUP

As of the close of business on 30 April 2023, being the latest practicable date for the purpose of this statement of indebtedness prior to the printing of this circular, the indebtedness of the Group and CQV was as follows:

Borrowings

	As of 30 April 2023		
	The Group	**CQV**	**The Enlarged Group**
	RMB' 000	*RMB' 000*	*RMB' 000*
Bank loans and other borrowings (Note (i))	247,781	93,339	341,120
Convertible loan (Note (ii))	303,920	—	303,920
Lease liabilities (Note (iii))	191	1,080	1,271
Total	551,892	94,419	646,311

Notes:

(i) As of 30 April 2023, the Group's bank loans and borrowings comprised of:

(a) secured bank loans of approximately RMB133,440,000 which are secured by the Group's property, plant and equipment and right-of-use assets and also secured by land and buildings owned by a substantial shareholder (who also is an executive director of the Company) of the Company and the close family members of this substantial shareholder of the Company, the corporate guarantees from a corporate substantial shareholder of the Company, together with personal guarantees of this substantial shareholder and an executive director of the Company and the close family members of this substantial shareholder of the Company;

(b) secured other borrowings of approximately RMB44,468,000 which are secured by the Group's property, plant and equipment; and

(c) unsecured other borrowings of approximately RMB69,873,000.

As of 30 April 2023, CQV had secured bank borrowings amounted to approximately KRW16,900,000,000 (equivalent to approximately RMB93,339,000) which are secured by CQV's property, plant and equipment, fire insurance contract and joint guarantee from the representative director of CQV.

(ii) On 28 December 2022, the Company entered into a subscription agreement with an independent third party in relation to subscribe for 3.5% coupon convertible bonds in the aggregate principal amount up to RMB500,000,000 in two tranches. The unlisted, guaranteed and unsecured convertible bond ("**Tranche A Convertible Bond**") was issued by the Company on 30 December 2022 with a nominal value of RMB300,000,000. The loan is convertible at the option of the holder into fully paid ordinary shares with HK$0.10 each of the Company on or after the later of (i) the first day of the fortieth month from the date of issue; and (ii) the date on which the listing of, and permission to deal in, the conversion shares falling to be issued upon exercise of the conversion rights attached to the convertible loan having been granted by the Listing Committee of the Stock Exchange up to and including ending on the date immediately before the maturity date at an initial conversion price of HK$7.6 per share and guaranteed by a substantial shareholder of the Company and a subsidiary of the Company.

If the Tranche A Convertible Bond is not converted, it will be redeemed at par on 30 December 2026. It has coupon rate of 3.5% per annum on the principal amount outstanding and interest will be paid annually in arrears until that settlement date.

As of the Latest Practicable Date, the issue of 3.50% coupon convertible bond in the aggregate principal amount of not more than CNH200.0 million ("**Tranche B Convertible Bond**") has not been completed. The Directors expect that, subject to further confirmation from the investor of the Convertible Bond Issue, the issuance of the Tranche B Convertible Bond would be completed on or before 30 June 2023.

(iii) As of 30 April 2023, the Enlarged Group had lease liabilities of approximately RMB1,271,000 for the lease of plant, machinery and equipment, motor vehicles, and other properties leased for own use, which were unsecured and unguaranteed.

CQV

Information on a pending litigation against CQV as of 30 April 2023 is as follows (in thousands of Korean won):

Description	Plaintiff	Defendant	Litigation value	Progress
Lawsuit for injunction of patent infringement, etc. (2022 Ga-hap 560632)	Merck Patent GmbH	CQV Co., Ltd.	KRW200,000	Process of 1st trial

CQV anticipates that the impact of the pending litigation on CQV's financial statements will not be material, since it is impossible to reasonably predict the result of the lawsuit and the amount and the timing of outflow of resources are uncertain.

Save as aforesaid or otherwise disclosed herein and apart from intra-group liabilities, at the close of business on 30 April 2023, none of the members of the Enlarged Group had (a) any debt securities issued and outstanding, and authorised or otherwise created but unissued; (b) any term loans; (c) any borrowings or indebtedness in the nature of borrowing including bank overdrafts and liabilities under acceptances (other than normal trade bills) or acceptances credits or hire purchase commitments; (d) any debentures, mortgages or charges; or (e) any guarantee or other material contingent liabilities.

3. MATERIAL ADVERSE CHANGE

As of the Latest Practicable Date, the Directors were not aware of any material adverse change in the financial or trading position of the Group since 31 December 2022, being the date to which the latest published audited consolidated financial statements of the Group were made up.

4. WORKING CAPITAL SUFFICIENCY

After due and careful consideration, the Directors are of the opinion that, taking into account the expected Closing of the Acquisition, the financial resources available to the Enlarged Group including cash flows to be generated from the operating activities and the available credit facilities, the Enlarged Group will have sufficient working capital for its requirements for at least 12 months from the date of this circular, in the absence of unforeseen circumstances.

As of the Latest Practicable Date, the Company has obtained the confirmation as required under Rule 14.66(12) of the Listing Rules from the auditors of the Company.

5. FINANCIAL AND TRADING PROSPECTS OF THE ENLARGED GROUP

In 2022, the Group's revenue reached RMB916.8 million, representing a year-on-year increase of 36.9%, and the net profit reached RMB236.5 million, representing a year-on-year increase of 39.9%. The Group continues to be the largest pearlescent pigment manufacturer in the China market and the fourth largest pearlescent pigment manufacturer in the global market. The Directors expect that the penetration of the pearlescent pigment products in various industrial applications will increase and are optimistic about the long-term prospects of business.

Looking ahead, the Group will continue to follow the strategic objective of "Endogenous Development and Outward Expansion (內源式發展及外延式擴張)" and accelerate the Group's strategic layout by focusing on the three main priorities of expanding the production capacity of pearlescent pigment products, strengthening the research and development capability and integrating with CQV, continuing to seek better cooperation bases and channels for advanced technologies. The acquisition of CQV, a world-renowned pearlescent pigment company in Korea would be a solid step forward in the Group's internationalisation. The complementary strengths of the Group and CQV will allow for growth and profitability as well as a broadening of the product offering to customers and market expansion.

AUDITED FINANCIAL INFORMATION OF CQV

The following is an extract of the audited financial statements of the CQV for the three years ended 31 December 2020, 2021 and 2022, which were prepared in accordance with Korean IFRS, as extracted from the respective annual reports and financial statements of CQV for the years ended 31 December 2020, 2021 and 2022. These financial statements were issued in Korean and the English translated version is provided for information purposes only. In case of discrepancies between the two versions, the Korean version shall prevail.

The annual business reports and financial statements of CQV for the three years ended 31 December 2020, 2021 and 2022 are available at the website of Data Analysis, Retrieval and Transfer System under Financial Supervisory Services in Korea (https://dart.fss.or.kr).

The Directors wish to emphasise that the extracts reproduced below are not prepared for incorporation into this circular and the Company has not participated in their preparation. As such, the Directors do not express any view as to their truth, accuracy or completeness, and the shareholders and investors should exercise caution and should not place undue reliance on such information.

CQV CO., LTD.

FINANCIAL STATEMENTS
AS OF AND FOR THE YEARS ENDED
DECEMBER 31, 2020 AND 2019
with INDEPENDENT AUDITORS' REPORT

Induk Accounting Corp.

INDEPENDENT AUDITORS' REPORT

English Translation of Independent Auditors' Report Originally Issued in Korean on March 17, 2021.

To the Shareholders and the Board of Directors of CQV Co., Ltd.:

Audit Opinion

We have audited the financial statements of CQV Co., Ltd. (the "Company"), which comprise the statements of financial position as of December 31, 2020 and 2019, respectively, and the statements of comprehensive income, statements of changes in shareholders' equity and statements of cash flows for the years then ended, and notes to the financial statements, including a summary of significant accounting policies

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2020 and 2019, respectively, and its financial performance and its cash flows for the years then ended in accordance with Korean International Financial Reporting Standards ("K-IFRSs").

Basis for Audit Opinion

We conducted our audits in accordance with the Korean Standards on Auditing ("KSAs"). Our responsibilities under those standards are further described in Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Company in accordance with the ethical requirements that are relevant to our audits of the financial statements in the Republic of Korea, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Key Audit Matters

The key audit matters are those matters that, in our professional judgment, are of most significance in our audit of the financial statements of the current year. These matters are addressed in the context of our audits of the financial statements as a whole and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

(1) Appropriateness of the inventory valuation

There are inventories amounting to ₩24,448 million which are, as described in Note 2, valued at the lower of acquisition cost and net realizable value. Related carrying amount of the allowance for inventory valuation is ₩3,454 million, and the loss on the valuation of inventories for the year ended December 31, 2020 is ₩690 million, as described in Note 11.

We determined such inventory valuation as a key audit matter under following considerations:

i) The ratio of carrying amount of inventories to total assets of the Company is significant at 28.8% as of December 31, 2020.

ii) Significant judgment of management is involved in estimating the net realizable value expected to be realized at the time of sale.

Our audit procedures on the key audit matter are as follows:

a) Understanding the accounting policies used to calculate the allowance for inventory valuation and reviewing internal control related to inventory valuation

b) Verify the appropriateness of the calculation by re-calculating allowance for inventory valuation

c) Review of accuracy and completeness of basic information used to recognize the allowance for inventory valuation

d) Confirm whether the selling price used in calculating net realizable value matches the latest selling price through sampling test

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation of the accompanying financial statements in accordance with K-IFRSs, and for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management of the Company is responsible for assessing the Company's ability to continue as a going concern; disclosing, as applicable, matters related to going concern; and using the going-concern basis of accounting, unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Company's financial reporting process.

Auditors' Responsibilities for the Audits of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with KSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with KSAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error; design and perform audit procedures responsive to those risks; and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

- Conclude on the appropriateness of the management's use of the going-concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Company to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audits and significant audit findings, including any significant deficiencies in internal control that we identify during our audits.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the financial statements of the current year and are, therefore, the key audit matters. We describe these matters in our auditors' report, unless law or regulation precludes public disclosure about a matter or when, in extremely rare circumstances, we determine that the matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in this independent auditors' report is Yoon, Tae Ho.

March 17, 2021

Induk Accounting Corporation

Notice to Readers

This report is effective as of March 17, 2021, the auditors' report date. Certain subsequent events or circumstances may have occurred between the auditors' report date and the time the auditors' report is read. Such events or circumstances could significantly affect the financial statements and may result in modifications to the auditors' report.

CQV CO., LTD. (the "Company")

FINANCIAL STATEMENTS
AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2020 AND 2019

The accompanying financial statements, including all footnote disclosures, were prepared by, and are the responsibility of, CQV Co., Ltd.

Jang, Gil Wan
CHIEF EXECUTIVE OFFICER
CQV CO., LTD.

CQV CO., LTD.
STATEMENTS OF FINANCIAL POSITION
AS OF DECEMBER 31, 2020 AND 2019

	Notes	**2020**	**2019**
		(In Korean won)	
ASSETS			
Current assets:			
Cash and cash equivalents	4,6,7,30	₩ 6,652,979,901	₩ 5,309,043,352
Trade receivables	4,6,8,30	8,409,795,104	9,276,474,766
Other financial assets	4,6,7,9,30	96,295,667	161,538,871
Other current assets	10	582,026,713	727,560,281
Current tax assets		48,056,870	—
Inventories	11,12	24,447,938,267	22,043,524,865
Total current assets		40,237,092,522	37,518,142,135
Non-current assets:			
Property, plant and equipment	12,17	37,734,332,611	38,042,667,923
Right-of-use assets	2,13	240,254,886	222,631,298
Intangible assets	14,17	3,933,930,920	3,798,576,423
Other financial assets	4,6,7,9	377,171,790	272,236,842
Other non-current assets	10	82,273,592	227,233,860
Deferred tax assets	29	2,448,281,008	2,096,275,672
Total non-current assets		44,816,244,807	44,659,622,018
Total assets		₩ 85,053,337,329	₩ 82,177,764,153

(Continued)

CQV CO., LTD.
STATEMENTS OF FINANCIAL POSITION (CONTINUED)
AS OF DECEMBER 31, 2020 AND 2019

	Notes	**2020**	**2019**
		(In Korean won)	
LIABILITIES AND SHAREHOLDERS' EQUITY			
Current liabilities:			
Trade payables	4,6,15,30	₩ 353,093,274	₩ 1,390,848,698
Short-term borrowings	4,6,18	17,600,000,000	15,000,000,000
Other financial liabilities	4,6,15,17,19,30	1,688,359,949	1,577,058,527
Other current liabilities	16	282,411,638	193,537,385
Current tax liabilities		92,451,745	1,087,794,814
Total current liabilities		20,016,316,606	19,249,239,424
Non-current liabilities:			
Long-term borrowings	4,6,18	5,400,000,000	6,000,000,000
Defined benefit liabilities, net	20	1,535,961,918	1,867,417,250
Other financial liabilities	4,6,15,17,19	1,019,130,637	965,309,666
Total non-current liabilities		7,955,092,555	8,832,726,916
Total liabilities	4	27,971,409,161	28,081,966,340
Equity attributable to the owners of the parent company:			
Capital stock	1,21	5,069,092,000	5,069,092,000
Capital surplus	21	16,496,720,838	16,496,720,838
Other capital items	22	(7,599,655,018)	(7,599,655,018)
Retained earnings	22	43,115,770,348	40,129,639,993
Total shareholders' equity	4	57,081,928,168	54,095,797,813
Total liabilities and shareholders' equity		₩ 85,053,337,329	₩ 82,177,764,153

(Concluded)

See accompanying notes to financial statements.

CQV CO., LTD.
STATEMENTS OF COMPREHENSIVE INCOME
FOR THE YEARS ENDED DECEMBER 31, 2020 AND 2019

	Notes	**2020**	**2019**
		(In Korean won)	
SALES	5	₩ 36,971,668,671	₩ 44,746,669,519
COST OF SALES	11,26	22,491,108,392	25,757,511,595
GROSS PROFIT		14,480,560,279	18,989,157,924
Selling and administrative expenses	24,26	10,342,529,533	11,240,823,872
Bad debt expenses	8,26	(1,771,105)	1,007,349
OPERATING INCOME		4,139,801,851	7,747,326,703
Non-operating income	25	553,725,953	680,931,572
Non-operating expenses	25	710,908,144	1,185,435,194
Financial income	28	107,845,751	146,148,115
Financial expenses	28	825,779,665	414,607,657
PRE-TAX INCOME		3,264,685,746	6,974,363,539
INCOME TAX EXPENSE (REVENUE)	29	(383,401,628)	1,029,242,856
NET INCOME		3,648,087,374	5,945,120,683
OTHER COMPREHENSIVE INCOME (LOSS):			
Items that are not subsequently reclassified to profit or loss:			
Actuarial gain (loss) on defined benefit obligations, net	20,29	861,686,341	(371,869,106)
TOTAL COMPREHENSIVE INCOME		₩ 4,509,773,715	₩ 5,573,251,577
EARNINGS PER SHARE:			
Basic earnings per share	31	₩ 407	₩ 659
Diluted earnings per share	31	407	659

See accompanying notes to financial statements.

CQV CO., LTD.
STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY
FOR THE YEARS ENDED DECEMBER 31, 2020 AND 2019

(In Korean Won)

	Notes	Capital stock	Capital surplus	Other capital items	Retained earnings	Total
I. Balance as of January 1, 2019		₩ 4,025,220,500	₩ 17,550,794,688	₩ (7,002,856,923)	₩ 35,600,259,716	₩ 50,173,417,981
II. Total comprehensive income:						
Net income		—	—	—	5,945,120,683	5,945,120,683
Other comprehensive income (loss):						
Actuarial loss on defined benefit obligation	20	—	—	—	(371,869,106)	(371,869,106)
Total other comprehensive income (loss)		—	—	—	(371,869,106)	(371,869,106)
Total comprehensive income		—	—	—	5,573,251,577	5,573,251,577
III. Transactions with shareholders						
Increase in capital without considerations	21	1,043,871,500	(1,043,871,500)	—	—	—
Issuance fees from increase in capital without considerations		—	(10,202,350)	—	—	(10,202,350)
Dividends	22	—	—	—	(1,043,871,300)	(1,043,871,300)
Acquisition of treasury stocks	22	—	—	(662,643,111)	—	(662,643,111)
Stock options	23	—	—	65,845,016	—	65,845,016
Total transactions with shareholders		1,043,871,500	(1,054,073,850)	(596,798,095)	(1,043,871,300)	(1,650,871,745)
IV. Balance as of December 31, 2019		₩ 5,069,092,000	₩ 16,496,720,838	₩ (7,599,655,018)	₩ 40,129,639,993	₩ 54,095,797,813

(Continued)

CQV CO., LTD.
STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY (CONTINUED)
FOR THE YEARS ENDED DECEMBER 31, 2020 AND 2019

(In Korean Won)	*Notes*	**Capital stock**	**Capital surplus**	**Other capital items**	**Retained earnings**	**Total**
I. Balance as of January 1, 2020		₩ 5,069,092,000	₩ 16,496,720,838	₩ (7,599,655,018)	₩ 40,129,639,993	₩ 54,095,797,813
II. Total comprehensive income:						
Net income		—	—	—	3,648,087,374	3,648,087,374
Other comprehensive income:						
Actuarial gain on defined benefit obligation	20	—	—	—	861,686,341	861,686,341
Total other comprehensive income		—	—	—	861,686,341	861,686,341
Total comprehensive income		—	—	—	4,509,773,715	4,509,773,715
III. Transactions with shareholders						
Dividends	22	—	—	—	(1,523,643,360)	(1,523,643,360)
Total transactions with shareholders		—	—	—	(1,523,643,360)	(1,523,643,360)
IV. Balance as of December 31, 2020		₩ 5,069,092,000	₩ 16,496,720,838	₩ (7,599,655,018)	₩ 43,115,770,348	₩ 57,081,928,168

(Concluded)

See accompanying notes to financial statements.

CQV CO., LTD.
STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, 2020 AND 2019

	Notes	2020	2019
		(In Korean won)	
I. CASH FLOWS FROM OPERATING ACTIVITIES:			
Cash generated from operations	32	₩ 5,438,136,566	₩ 6,803,244,764
Interest expense paid		(451,658,928)	(341,420,148)
Income tax paid		(1,255,043,384)	(706,285,499)
Net cash provided by operating activities		3,731,434,254	5,755,539,117
II. CASH FLOWS FROM INVESTING ACTIVITIES:			
Decrease in short-term financial instruments		120,000,000	788,216,882
Decrease in leasehold deposits		—	40,000,000
Receipt of interest income		12,695,684	26,500,407
Receipt of government grant	17	628,209,581	662,602,167
Increase in short-term financial instruments		(60,000,000)	(120,000,000)
Increase in long-term financial instruments		(97,012,706)	—
Acquisition of PP&E	12	(2,296,046,072)	(7,812,004,433)
Acquisition of intangible assets	14	(910,853,043)	(1,263,629,960)
Increase in leasehold deposits		(4,189,040)	(10,330,000)
Net cash used in investing activities		(2,607,195,596)	(7,688,644,937)
III. CASH FLOWS FROM FINANCING ACTIVITIES:			
Increase in borrowings	18,32	10,000,000,000	11,424,000,000
Repayment of borrowings	18,32	(8,000,000,000)	(7,000,000,000)
Repayment of lease liabilities	19	(156,898,814)	(153,722,968)
Acquisition of treasury stocks	22	—	(662,643,111)
Issuance fee from increase in capital without considerations		—	(10,202,350)
Dividend payment		(1,523,643,360)	(1,043,871,300)
Net cash provided by financing activities		319,457,826	2,553,560,271
IV. NET INCREASE IN CASH AND CASH EQUIVALENTS (I+II+III)		1,443,696,484	620,454,451
V. CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR		5,309,043,352	4,713,362,743
VI. CHANGES IN CASH AND CASH EQUIVALENTS DUE TO FOREIGN CURRENCY TRANSLATION		(99,759,935)	(24,773,842)
VII. CASH AND CASH EQUIVALENTS, END OF YEAR		₩ 6,652,979,901	₩ 5,309,043,352

See accompanying notes to financial statements.

CQV CO., LTD.
NOTES TO FINANCIAL STATEMENTS
AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2020 AND 2019

1. GENERAL:

CQV Co., Ltd. (the "Company"), was incorporated on October 20, 2000, for the purpose of manufacturing and a sale of pearlescent pigments and mica products. On November 15, 2020, the Company was re-designated as a venture company by the Korea Technology Finance Corporation in accordance with Article 25 of the Act on Special Measures for the Promotion of Venture Businesses, and on November 8, 2011, the Company was listed on the Korean KOSDAQ market. The Company's total capital stock was ₩500 million at the time of establishment, and after a number of capital increases etc. the total capital stock of the Company is ₩5,069 million as of December 31, 2020.

The Company's major shareholders are as follows (in shares):

	Number of shares	Ownership ratio (%)
CEO of the Company	2,255,189	22.24
Related parties of CEO	936,913	9.24
Association of employee stock ownership	22,422	0.22
Treasury stock	1,175,576	11.60
Others	5,748,084	56.70
Total	10,138,184	100.00

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

The principal accounting policies are set out below. These policies are applied continuously for the period presented unless otherwise stated.

(1) Basis of Preparation

The Company has prepared the financial statements in accordance with the Korean International Financial Reporting Standards ("K-IFRSs"). K-IFRS refers to the contents adopted by Korea among the standards and interpretations published by the International Accounting Standards Board ("IASB").

K-IFRS allow the use of significant accounting estimates when preparing financial statements, and require management's judgment in applying accounting policies. Note 3 explains the parts that require more complex and high-level judgment or important assumptions and estimations.

(2) Changes in Accounting Policies and Disclosures

1) New and Amended K-IFRSs and new interpretations that are effective for the current year

- K-IFRS 1001 and K-IFRS 1008 Definition of material (Amendment)

The amendments make the definition of material in K-IFRS 1001 easier to understand and are not intended to alter the underlying concept of materiality in K-IFRS Standards. The concept of 'obscuring' material information with immaterial information has been included as part of the new definition. The threshold for materiality influencing users has been changed from 'could influence' to 'could reasonably be expected to influence'. The definition of material in K-IFRS 1008 has been replaced by a reference to the definition of material in K-IFRS 1001. In addition, the IASB amended other Standards and the Conceptual Framework that contain a definition of 'material' or refer to the term 'material' to ensure consistency.

There is no material impact on the Company's financial statements with respect to these amendments.

- K-IFRS 1103 Definition of a business (Amendment)

The amendments clarify that while businesses usually have outputs, outputs are not required for an integrated set of activities and assets to qualify as a business. To be considered a business an acquired set of activities and assets must include, at a minimum, an input and a substantive process that together significantly contribute to the ability to create outputs. The amendments remove the assessment of whether market participants are capable of replacing any missing inputs or processes and continuing to produce outputs. The amendments also introduce additional guidance that helps to determine whether a substantive process has been acquired. The amendments introduce an optional concentration test that permits a simplified assessment of whether an acquired set of activities and assets is not a business. Under the optional concentration test, the acquired set of activities and assets is not a business if substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or group of similar assets. There is no material impact on the Company's financial statements with respect to these amendments.

- K-IFRS 1109, K-IFRS 1039 and K-IFRS 1107 — Interest Rate Benchmark Reform (Amendments)

The amendments introduce an exception rule to the application of hedge accounting while uncertainties exist due to interest rate benchmark reform. In the exception rule, when evaluating whether the probability of occurrence of the expected cash flow is very high, whether there is an economic relationship between the hedged item and the hedging instrument, and whether there is a high risk aversion effect between the hedged item and the hedging instrument, it is assumed that the interest rate benchmark under consideration does not change as a result of interest rate benchmark reform. There is no material impact on the Company's financial statements with respect to these amendments.

2) New and revised K-IFRSs in issue, but not yet effective

- K-IFRS 1116 Leases - 'Covid-19-Related Rent Exemptions, Concession and Suspensions' (Amendment)

The amendments provide practical relief to lessees in accounting for rent concessions occurring as a direct consequence of COVID-19, by introducing a practical expedient to K-IFRS 1116. The practical expedient permits a lessee to elect not to assess whether a COVID-19-related rent concession is a lease modification. And the lessee should disclose the amount recognized in profit or loss for this reason. The amendments are effective for annual periods beginning on or after June 1, 2020, with early application permitted. The Company does not anticipate that the application of the enactment and amendments will have a significant impact on the Company's financial statements.

- K-IFRS 1109 Financial Instruments, K-IFRS 1039 Financial Instruments: Recognition and Measurement, K-IFRS 1107 Financial Instruments: Disclosures, K-IFRS 1104 Insurance Contracts and K-IFRS 1116 Leases - 'Interest rate benchmark Reform' (Amendment)

The amendments provide exceptions as followings:

① The effective interest rate, not the carrying amount, is adjusted when an interest rate benchmark is replaced on a financial instrument measured at amortized cost.

② Hedge accounting shall be continued without interruption even when interest rate benchmark is replaced in a hedging relationship.

These amendments are effective for annual periods beginning on or after January 1, 2021, with early application permitted. The Company does not anticipate that the application of the enactment and amendments will have a significant impact on the Company's financial statements.

- K-IFRS 1103 Reference to the Conceptual Framework (Amendment)

The amendments update K-IFRS 1103 so that it refers to the Conceptual Framework (2018) instead of the Framework (2007). They also add to K-IFRS 1103 a requirement that, for obligations within the scope of K-IFRS 1037, an acquirer applies K-IFRS 1037 to determine whether at the acquisition date a present obligation exists as a result of past events. For a levy that would be within the scope of K-IFRS 2121 Levies, the acquirer applies K-IFRS 2121 to determine whether the obligating event that gives rise to a liability to pay the levy has occurred by the acquisition date. Finally, the amendments add an explicit statement that an acquirer does not recognize contingent assets acquired in a business combination. The amendments are effective for business combinations for which the date of acquisition is on or after the beginning of the first annual period beginning on or after 1 January 2022, with early application permitted. The Company does not anticipate that the application of the enactment and amendments will have a significant impact on the Company's financial statements.

- K-IFRS 1016 Property, Plant and Equipment (Amendment)

The amendments prohibit deducting from the cost of an item of property, plant and equipment any proceeds from selling items produced before that asset is available for use, i.e. proceeds while bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management. Consequently, an entity recognizes such sales proceeds and related costs in profit or loss. The amendments are effective for annual periods beginning on or after 1 January 2022, with early application permitted. The Company is reviewing the impact of the amendment on its financial statements.

- K-IFRS 1037 Onerous Contracts—Cost of Fulfilling a Contract (Amendment)

The amendments specify that the 'cost of fulfilling' a contract comprises the 'costs that relate directly to the contract'. Costs that relate directly to a contract consist of both the incremental costs of fulfilling that contract (examples would be direct labor or materials) and an allocation of other costs that relate directly to fulfilling contracts (an example would be the allocation of the depreciation charge for an item of property, plant and equipment used in fulfilling the contract). The amendments are effective for annual periods beginning on or after 1 January 2022, with early application permitted. The Company does not anticipate that the application of the enactment and amendments will have a significant impact on the Company's financial statements.

- Annual Improvements to K-IFRS Standards 2018—2020

The annual improvements to K-IFRS Standards 2018-2020 are effective for annual periods beginning on or after 1 January 2022, with early application permitted. The Company does not anticipate that the application of the enactment and amendments will have a significant impact on the Company's financial statements.

① K-IFRS 1101 First-time Adoption of K-IFRS — A subsidiary which becomes a first-time adopter (Amendment)

② K-IFRS 1109 Financial Instruments — Fees relating to the'10 per cent' test to assess whether to derecognize a financial liability (Amendment)

③ K-IFRS 1116 Leases — Lease Incentives (Amendment)

④ K-IFRS 1041 Agriculture — Measuring Fair Value (Amendment)

- K-IFRS 1001 Classification of Liabilities as Current or Non-current (Amendment)

The amendments to K-IFRS 1001 affect only the presentation of liabilities as current or non-current in the statement of financial position and not the amount or timing of recognition of any asset, liability, income or expenses, or the information disclosed about those items. The amendments clarify that the classification of liabilities as current or non-current is based on rights that are in existence at the end of the reporting period, specify that classification is unaffected by expectations about whether an entity will exercise its right to defer settlement of a liability, explain that rights are in existence if covenants are complied with at the end of the reporting period, and introduce a definition of 'settlement' to make clear that settlement refers to the transfer to the counterparty of cash, equity instruments, other assets or services. The amendments are applied retrospectively for annual periods beginning on or after 1 January 2023, with early application permitted. The Company is reviewing the impact of the amendment on its financial statements.

(3) Operating Divisions

Management who makes strategic decisions determines the Company's operating divisions. Management reviews the divisions' operating profits to make decision for the allocation of resources to divisions and review of performance of divisions. The company has a sole operating division.

(4) Foreign Currency Translations

1) Functional currency and presentation currency

The individual items included in the Company's financial statements are measured in the currency of the primary economic environment in which the Company operates (its functional currency). For the purpose of the financial statements, the results and financial position of the Company are expressed in Korean won, which is the functional currency and the presentation currency of the Company for the financial statements.

2) Foreign currency transactions and translations at the end of the reporting period

In preparing the Company's financial statements, transactions in currencies other than the Company's functional currency (foreign currencies) are recognized at the rates of exchange prevailing at the dates of the transactions. At the end of each reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at that date. Exchange differences arising from the non-monetary items are regarded as part of the profit or loss from the change of the fair value. And then, foreign exchange differences arising from the equity instruments measured at a fair value are recognized as profit or loss, and foreign exchange differences arising from the available-for-sale equity instruments are recognized as other comprehensive income.

(5) Financial assets

All regular-way purchases or sales of financial assets are recognized and derecognized on a trade-date basis. Regular-way purchases or sales are purchases or sales of financial assets that require delivery of assets within the time frame established by regulation or convention in the marketplace.

All recognized financial assets are measured subsequently in their entirety at either amortized cost or fair value, depending on the classification of the financial assets.

1) Classification of financial assets

Debt instruments that meet the following conditions are measured subsequently at amortized cost:

- The financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows.
- The contractual terms of the financial asset give rise on specified dates to cash flows that are SPPI on the principal amount outstanding.

Debt instruments that meet the following conditions are measured subsequently at fair value through other comprehensive income ("FVTOCI"):

- The financial asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling the financial assets.
- The contractual terms of the financial asset give rise on specified dates to cash flows that are SPPI on the principal amount outstanding.

By default, all other financial assets are measured subsequently at FVTPL.

Despite the foregoing, the Company may make the following irrevocable election/designation at initial recognition of a financial asset:

- The Company may irrevocably elect to present subsequent changes in fair value of an equity investment in other comprehensive income if certain criteria are met.
- The Company may irrevocably designate a debt investment that meets the amortized cost or FVTOCI criteria as measured at FVTPL if doing so eliminates or significantly reduces an accounting mismatch.

1-1) Amortized cost and effective interest method

The effective interest method is a method of calculating the amortized cost of a debt instrument and allocating interest income over the relevant period. For financial assets other than purchased or originated credit-impaired financial assets (i.e., assets that are credit impaired on initial recognition), the effective interest rate is the rate that exactly discounts estimated future cash receipts (including all fees and points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) excluding expected credit losses ("ECLs"), through the expected life of the debt instrument, or, where appropriate, a shorter period, to the gross carrying amount of the debt instrument on initial recognition. For purchased or originated credit-impaired financial assets, a credit-adjusted effective interest rate is calculated by discounting the estimated future cash flows, including ECLs, to the amortized cost of the debt instrument on initial recognition.

The amortized cost of a financial asset is the amount at which the financial asset is measured at initial recognition minus the principal repayments, plus the cumulative amortization using the effective interest method of any difference between that initial amount and the maturity amount, adjusted for any loss allowance. The gross carrying amount of a financial asset is the amortized cost of the financial asset before adjusting for any loss allowance.

Interest income is recognized using the effective interest method for debt instruments measured subsequently at amortized cost and at FVTOCI. For financial assets other than purchased or originated credit-impaired financial assets, interest income is calculated by applying the effective interest rate to the gross carrying amount of a financial asset, except for financial assets that have subsequently become credit impaired. For financial assets that have subsequently become credit impaired, interest income is recognized by applying the effective interest rate to the amortized cost of the financial asset. If, in subsequent reporting periods, the credit risk on the credit-impaired financial instrument improves so that the financial asset is no longer credit impaired, interest income is recognized by applying the effective interest rate to the gross carrying amount of the financial asset.

For purchased or originated credit-impaired financial assets, the Company recognizes interest income by applying the credit-adjusted effective interest rate to the amortized cost of the financial asset from initial recognition. The calculation does not revert to the gross basis even if the credit risk of the financial asset subsequently improves so that the financial asset is no longer credit impaired.

Interest income is recognized in profit or loss and is included in the "financial income - interest income" line item.

1-2) Debt instruments classified as at FVTOCI

Fair value is determined in the manner described in Note 4.3. The corporate bonds are initially measured at fair value, plus transaction costs. Subsequently, changes in the carrying amount of these corporate bonds as a result of F/X gains and losses, impairment gains or losses and interest income calculated using the effective interest method are recognized in profit or loss. The amounts that are recognized in profit or loss are the same as the amounts that would have been recognized in profit or loss if these corporate bonds had been measured at amortized cost. All other changes in the carrying amount of these corporate bonds are recognized in other comprehensive income and accumulated under the heading of investments revaluation reserve. When these corporate bonds are derecognized, the cumulative gains or losses previously recognized in other comprehensive income are reclassified to profit or loss.

1-3) Equity instruments designated as at FVTOCI

On initial recognition, the Company may make an irrevocable election (on an instrument-by-instrument basis) to designate investments in equity instruments as at FVTOCI. Designation at FVTOCI is not permitted if the equity investment is held for trading or if it is contingent consideration recognized by an acquirer in a business combination.

A financial asset is held for trading if:

- It has been acquired principally for the purpose of selling in the near term;
- On initial recognition, it is part of a portfolio of identified financial instruments that the Company manages together and has evidence of a recent actual pattern of short-term profit taking; or
- It is a derivative (except for a derivative that is a financial guarantee contract or a designated and effective hedging instrument).

Investments in equity instruments at FVTOCI are initially measured at fair value, plus transaction costs. Subsequently, they are measured at fair value with gains and losses arising from changes in fair value recognized in other comprehensive income and accumulated in the investment revaluation reserve. The cumulative gain or loss is not be reclassified to profit or loss on disposal of the equity investments; instead, it is transferred to retained earnings.

Dividends on these investments in equity instruments are recognized in profit or loss in accordance with K-IFRS 1109, unless the dividends clearly represent a recovery of part of the cost of the investment. Dividends are included in the 'financial income' line item in profit or loss.

1-4) Financial assets measured at FVTPL

Financial assets that do not meet the criteria for being measured at amortized cost or FVTOCI are measured at FVTPL. Specifically:

- Investments in equity instruments are classified as at FVTPL, unless the Company designates an equity investment that is neither held for trading nor a contingent consideration arising from a business combination as at FVTOCI on initial recognition (see 1-3) above).
- Debt instruments that do not meet the amortized cost criteria or the FVTOCI criteria (see 1-1) and 1-2) above) are classified as at FVTPL. In addition, debt instruments that meet either the amortized cost criteria or the FVTOCI criteria may be designated as at FVTPL upon initial recognition if such designation eliminates or significantly reduces a measurement or recognition inconsistency (so called 'accounting mismatch') that would arise from measuring assets or liabilities or recognizing the gains and losses on them on different bases. The Company has not designated any debt instruments as at FVTPL.

Financial assets measured at FVTPL are measured at fair value at the end of each reporting period, with any fair value gains or losses recognized in profit or loss to the extent they are not part of a designated hedging relationship. The net gain or loss recognized in profit or loss includes any dividend and accounted for as 'non-operating income and expense' line item. Interest income earned on the financial asset measured at FVTPL is accounted for as 'financial income — interest income' line item. Fair value is determined in the manner described in Note 4.3.

2) *Gain or loss on foreign currency translation*

The carrying amount of financial assets that are denominated in a foreign currency is determined in that foreign currency and translated at the spot rate at the end of each reporting period. Specifically:

- For financial assets measured at amortized cost that are not part of a designated hedging relationship, exchange differences are recognized in profit or loss in the 'non-operating income and expense' line item.
- For debt instruments measured at FVTOCI that are not part of a designated hedging relationship, exchange differences on the amortized cost of the debt instrument are recognized in profit or loss in the 'non-operating income and expense' line item. Other exchange differences are recognized in other comprehensive income in the investment revaluation reserve.
- For financial assets measured at FVTPL that are not part of a designated hedging relationship, exchange differences are recognized in profit or loss in the 'non-operating income and expense' line item.
- For equity instruments measured at FVTOCI, exchange differences are recognized in other comprehensive income in the investment revaluation reserve.

3) *Impairment of financial assets*

The Company recognizes a loss allowance for ECLs on investments in debt instruments that are measured at amortized cost or at FVTOCI, lease receivables, trade receivables and contract assets, as well as on financial guarantee contracts. The amount of ECLs is updated at each reporting date to reflect changes in credit risk since initial recognition of the respective financial instrument.

The Company always recognizes lifetime ECL for trade receivables, contract assets and lease receivables. The ECLs on these financial assets are estimated using a provision matrix based on the Company's historical credit loss experience, adjusted for factors that are specific to the debtors, general economic conditions and an assessment of both the current as well as the forecast direction of conditions at the reporting date, including time value of money where appropriate.

For all other financial instruments, the Company recognizes lifetime ECL when there has been a significant increase in credit risk since initial recognition. However, if the credit risk on the financial instrument has not increased significantly since initial recognition, the Company measures the loss allowance for that financial instrument at an amount equal to 12-month ECL.

Lifetime ECL represents the ECLs that will result from all possible default events over the expected life of a financial instrument. In contrast, 12-month ECL represents the portion of lifetime ECL that is expected to result from default events on a financial instrument that are possible within 12 months after the reporting date.

3-1) Significant increase in credit risk

In assessing whether the credit risk on a financial instrument has increased significantly since initial recognition, the Company compares the risk of a default occurring on the financial instrument at the reporting date with the risk of a default occurring on the financial instrument at the date of initial recognition. In making this assessment, the Company considers both quantitative and qualitative information that is reasonable and supportable, including historical experience and forward-looking information that is available without undue cost or effort. Forward-looking information considered includes the future prospects of the industries in which the Company's debtors operate, obtained from economic expert reports, financial analysts, governmental bodies, relevant think tanks and other similar organizations, as well as consideration of various external sources of actual and forecast economic information that relate to the Company's core operations.

In particular, the following information is taken into account when assessing whether credit risk has increased significantly since initial recognition:

- An actual or expected significant deterioration in the financial instrument's external (if available) or internal credit rating.
- Significant deterioration in external market indicators of credit risk for a particular financial instrument, e.g., a significant increase in the credit spread, the credit default swap prices for the debtor or the length of time or the extent to which the fair value of a financial asset has been less than its amortized cost.
- Existing or forecast adverse changes in business, financial or economic conditions that are expected to cause a significant decrease in the debtor's ability to meet its debt obligations.
- An actual or expected significant deterioration in the operating results of the debtor.
- Significant increases in credit risk on other financial instruments of the same debtor.
- An actual or expected significant adverse change in the regulatory, economic or technological environment of the debtor that results in a significant decrease in the debtor's ability to meet its debt obligations.

Irrespective of the outcome of the above assessment, the Company presumes that the credit risk on a financial asset has increased significantly since initial recognition when contractual payments are more than 30 days past due, unless the Company has reasonable and supportable information that demonstrates otherwise.

Despite the foregoing, the Company assumes that the credit risk on a financial instrument has not increased significantly since initial recognition if the financial instrument is determined to have low-credit risk at the reporting date. A financial instrument is determined to have low credit risk if:

i) The financial instrument has a low risk of default;

ii) The debtor has a strong capacity to meet its contractual cash flow obligations in the near term; and

iii) Adverse changes in economic and business conditions in the longer term may, but will not necessarily, reduce the ability of the borrower to fulfil its contractual cash flow obligations.

The Company considers a financial asset to have low-credit risk when the asset has external credit rating of 'investment grade' in accordance with the globally understood definition or if an external rating is not available, the asset has an internal rating of 'performing.' Performing means that the counterparty has a strong financial position and there is no past due amounts.

For financial guarantee contracts, the date that the Company becomes a party to the irrevocable commitment is considered to be the date of initial recognition for the purposes of assessing the financial instrument for impairment. In assessing whether there has been a significant increase in the credit risk since initial recognition of the financial guarantee contracts, the Company considers the changes in the risk that the specified debtor will default on the contract.

The Company regularly monitors the effectiveness of the criteria used to identify whether there has been a significant increase in credit risk and revises them as appropriate to ensure that the criteria are capable of identifying significant increase in credit risk before the amount becomes past due.

3-2) Definition of default

The Company considers the following as constituting an event of default for internal credit risk management purposes as historical experience indicates that financial assets that meet either of the following criteria are generally not recoverable:

- When there is a breach of financial covenants by the debtor.

3-3) Credit-impaired financial assets

A financial asset is credit impaired when one or more events that have a detrimental impact on the estimated future cash flows of that financial asset have occurred. Evidence that a financial asset is credit impaired includes observable data about the following events:

- Significant financial difficulty of the issuer or the borrower.
- A breach of contract, such as a default or past due event (see 3-2) above).
- The lender(s) of the borrower, for economic or contractual reasons relating to the borrower's financial difficulty, having granted to the borrower a concession(s) that the lender(s) would not otherwise consider.
- It is becoming probable that the borrower will enter bankruptcy or other financial reorganization.
- The disappearance of an active market for that financial asset because of financial difficulties.

3-4) Write-off policy

The Company writes off a financial asset when there is information indicating that the debtor is in severe financial difficulty and there is no realistic prospect of recovery, e.g., when the debtor has been placed under liquidation or has entered into bankruptcy proceedings, or in the case of trade receivables, when the amounts are more than two years past due, whichever occurs sooner. Financial assets written off may still be subject to enforcement activities under the Company's recovery procedures, taking into account legal advice where appropriate. Any recoveries made are recognized in profit or loss.

3-5) Measurement and recognition of ECLs

The measurement of ECLs is a function of the probability of default, loss given default (i.e., the magnitude of the loss if there is a default) and the exposure at default. The assessment of the probability of default and loss given default is based on historical data adjusted by forward-looking information as described above. As for the exposure at default, for financial assets, this is represented by the assets' gross carrying amount at the reporting date; for the financial guarantee contracts, the exposure includes the amount drawn down as at the reporting date, together with any additional amounts expected to be drawn down in the future by default date determined based on historical trend, the Company's understanding of the specific future financing needs of the debtors and other relevant forward-looking information.

For financial assets, the ECL is estimated as the difference between all contractual cash flows that are due to the Company in accordance with the contract and all the cash flows that the Company expects to receive, discounted at the original effective interest rate. For a lease receivable, the cash flows used for determining the ECLs is consistent with the cash flows used in measuring the lease receivable in accordance with K-IFRS 1116 Leases.

For a financial guarantee contract, as the Company is required to make payments only in the event of a default by the debtor in accordance with the terms of the instrument that is guaranteed, the expected loss allowance is the expected payments to reimburse the holder for a credit loss that it incurs, less any amounts that the Company expects to receive from the holder, the debtor or any other party.

If the Company has measured the loss allowance for a financial instrument at an amount equal to lifetime ECL in the previous reporting period, but determines at the current reporting date that the conditions for lifetime ECL are no longer met, the Company measures the loss allowance at an amount equal to 12-month ECL at the current reporting date, except for assets for which simplified approach was used.

The Company recognizes an impairment gain or loss in profit or loss for all financial instruments with a corresponding adjustment to their carrying amount through a loss allowance account, except for investments in debt instruments that are measured at FVTOCI, for which the loss allowance is recognized in other comprehensive income and accumulated in the investment revaluation reserve, and does not reduce the carrying amount of the financial asset in the statements of financial position.

4) Derecognition of financial assets

The Company derecognizes a financial asset only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity. If the Company neither transfers nor retains substantially all the risks and rewards of ownership and continues to control the transferred asset, the Company recognizes its retained interest in the asset and an associated liability for amounts it may have to pay. If the Company retains substantially all the risks and rewards of ownership of a transferred financial asset, the Company continues to recognize the financial asset and also recognizes a collateralized borrowing for the proceeds received.

On derecognition of a financial asset measured at amortized cost, the difference between the asset's carrying amount and the sum of the consideration received and receivable is recognized in profit or loss. In addition, on derecognition of an investment in a debt instrument classified as at FVTOCI, the cumulative gain or loss previously accumulated in the investment revaluation reserve is reclassified to profit or loss. In contrast, on derecognition of an investment in equity instrument which the Company has elected on initial recognition to measure at FVTOCI, the cumulative gain or loss previously accumulated in the investment revaluation reserve is not reclassified to profit or loss, but is transferred to retained earnings.

(6) Inventories

Inventories are stated at the lower of cost and net realizable value. Cost of inventories, except for goods-in-transit, are measured under the monthly average method (individual method for the goods-in-transit).

(7) Property, plant and equipment

Property, plant and equipment are stated at cost, less subsequent accumulated depreciation and accumulated impairment losses. Historical cost includes expenses directly attributable to the acquisition of the asset.

Depreciation expense is computed using the straight-line method based on the estimated useful lives of the assets as follows except for the lands and the trees:

	Estimated useful lives
Buildings	40 years
Structures	20 years
Machinery	8 years
Other tangible assets	5~8 years

The Company reviews the depreciation method, the estimated useful lives and residual values of property, plant and equipment at the end of each annual reporting period. If expectations differ from previous estimates, the changes are accounted for as a change in an accounting estimate.

(8) Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale. Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalization. All other borrowing costs are recognized in profit or loss in the period in which they are incurred.

(9) Government grants

Government grants are not recognized until there is reasonable assurance that the Company will comply with the conditions attaching to them and that the grants will be received. Government grants related to assets are presented in the statements of financial position by deducting the grant from the carrying amount of the asset (including property, plant and equipment) while the government grants related to income are recognized in profit or loss on a systematic basis over the periods in which the Company recognizes as expenses the related costs for which the grants are intended to compensate. The government grants related to assets are recognized in profit or loss on a systematic basis over the life of an asset.

(10) Intangible assets

1) Industrial property rights and softwares

Industrial property rights and software which are acquired individually are presented at historical cost. Industrial property rights and software have a limited useful life and are presented at cost less accumulated amortization.

Industrial property rights are amortized using the straight-line method to allocate costs over the estimated useful life (5 to 10 years).

Acquired software is capitalized based on the costs incurred to acquire and use the specific software. Costs incurred are amortized using the straight-line method over 5 years which is the estimated useful life.

2) Research and development

Expenditure on research activities is recognized as an expense in the period in which it is incurred.

Among the development costs of new products and technologies, the Company recognizes costs that are individually identifiable and likely to generate future economic benefits as intangible assets when all of the following conditions are met:

- The technical feasibility of completing the intangible asset so that it will be available for use or sale.
- The intention to complete the intangible asset and use or sell it.
- The ability to use or sell the intangible asset.
- How the intangible asset will generate probable future economic benefits.
- The availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset.
- The ability to measure reliably the expenditure attributable to the intangible asset during its development.

Other development expenditures that do not meet the above conditions are recognized as expenses when incurred. Development costs previously recognized as an expense are not subsequently recognized as an asset. Capitalized development costs are recognized as intangible assets and amortized using the straight-line method over the useful life (5 years) from the point of use or sale.

(11) Impairment on non-financial assets

Goodwill and intangible assets with indefinite useful lives are tested for impairment at least annually and depreciable assets are tested when there is an indication that they may be impaired. Impairment loss is recognized for the carrying amount exceeding the recoverable amount (the higher of value in use and fair value less cost of disposal). Impairment losses on non-financial assets other than goodwill are reviewed for reversal at the end of each reporting period.

(12) Financial liabilities

1) Classification as debt or equity

Debt and equity instruments are classified as either financial liabilities or as equity in accordance with the substance of the contractual arrangement and the definitions of financial liability and an equity instrument.

2) Equity instruments

An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities. Equity instruments issued by the Company are recognized at the proceeds received, net of direct issue costs.

Repurchase of the Company's own equity instruments is recognized and deducted directly in equity. No gain or loss is recognized in profit or loss on the purchase, sale, issue or cancellation of the Company's own equity instruments.

3) Compound instruments

The component parts of compound instruments (convertible bonds ("CBs")) issued by the Company are classified separately as financial liabilities and equity in accordance with the substance of the contractual arrangements and the definitions of a financial liability and equity instrument. Conversion option that will be settled by the exchange of a fixed amount of cash or another financial asset for a fixed number of the Company's own equity instruments is an equity instrument.

At the date of issue, the fair value of the liability component is estimated using the prevailing market interest rate for a similar non-convertible instrument. This amount is recorded as a liability on an amortized cost basis using the effective interest method until extinguished upon conversion or at the instrument's maturity date.

The conversion option classified as equity is determined by deducting the amount of the liability component from the fair value of the compound instrument as a whole. This is recognized and included in equity, net of income tax effects, and is not subsequently remeasured. In addition, the conversion option classified as equity will remain in equity until the conversion option is exercised, in which case the balance recognized in equity will be transferred to share premium. Where the conversion option remains unexercised at the maturity date of the convertible loan note, the balance recognized in equity will be transferred to other equity. No gain or loss is recognized in profit or loss upon conversion or expiration of the conversion option.

Transaction costs that relate to the issue of the convertible notes are allocated to liability and equity components in proportion to the allocation of the gross proceeds. Transaction costs relating to equity component are recognized directly in equity. Transaction costs relating to the liability component are included in the carrying amount of the liability component and are amortized over the lives of the convertible notes using the effective interest method.

4) Financial liabilities

All financial liabilities are measured subsequently at amortized cost using the effective interest method or at FVTPL. However, financial liabilities that arise when a transfer of a financial asset does not qualify for derecognition, or when the continuing involvement approach applies, and financial guarantee contracts issued by the Company are measured in accordance with the specific accounting policies set out below.

5) Financial liabilities at FVTPL

Financial liabilities are classified as at FVTPL when the financial liability is (i) contingent consideration of an acquirer in a business combination, (ii) held for trading or (iii) it is designated as at FVTPL.

A financial liability is classified as held for trading if:

- It has been acquired principally for the purpose of repurchasing it in the near term;
- On initial recognition, it is part of a portfolio of identified financial instruments that the Company manages together and has a recent actual pattern of short-term profit taking; or
- It is a derivative that is not designated and effective as a hedging instrument.

A financial liability other than a financial liability held for trading or contingent consideration of an acquirer in a business combination may be designated as at FVTPL upon initial recognition if:

- Such designation eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise;
- The financial liability forms part of a group of financial assets or financial liabilities or both, which is managed and its performance is evaluated on a fair value basis, in accordance with the Company's documented risk management or investment strategy, and information about the grouping is provided internally on that basis; or
- It forms part of a contract containing one or more embedded derivatives, and K-IFRS 1109 permits the entire combined contract to be designated as at FVTPL.

Financial liabilities at FVTPL are measured at fair value, with any gains or losses arising on changes in fair value recognized in profit or loss to the extent that they are not part of a designated hedging relationship. The net gain or loss recognized in profit or loss incorporates any interest paid on the financial liability and is included in the 'non-operating income and expense' line item in profit or loss.

However, for financial liabilities that are designated as at FVTPL, the amount of change in the fair value of the financial liability that is attributable to changes in the credit risk of that liability is recognized in other comprehensive income, unless the recognition of the effects of changes in the liability's credit risk in other comprehensive income would create or enlarge an accounting mismatch in profit or loss. The remaining amount of change in the fair value of liability is recognized in profit or loss. Changes in fair value attributable to a financial liability's credit risk that are recognized in other comprehensive income are not subsequently reclassified to profit or loss; instead, they are transferred to retained earnings upon derecognition of the financial liability.

Gains or losses on financial guarantee contracts issued by the Company that are designated by the Company as at FVTPL are recognized in profit or loss.

Fair value is determined in the manner described in Note 4.3.

6) Financial liabilities measured subsequently at amortized cost

Financial liabilities that are not (i) contingent consideration of an acquirer in a business combination, (ii) held for trading or (iii) designated as at FVTPL are measured subsequently at amortized cost using the effective interest method.

The effective interest method is a method of calculating the amortized cost of a financial liability and allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments (including all fees and points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) through the expected life of the financial liability, or (where appropriate) a shorter period, to the amortized cost of the financial liability.

7) Financial guarantee contracts

A financial guarantee contract is a contract that requires the issuer to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payments when due in accordance with the terms of a debt instrument.

Financial guarantee contract liabilities are measured initially at their fair values and, if not designated as at FVTPL and do not arise from a transfer of an asset, are measured subsequently at the higher of:

- The amount of the loss allowance determined in accordance with K-IFRS 1109 (see financial assets above).
- The amount recognized initially less, where appropriate, cumulative revenue recognized in accordance with K-IFRS 1115.

8) F/X gains and losses

For financial liabilities that are denominated in a foreign currency and are measured at amortized cost at the end of each reporting period, the F/X gains and losses are determined based on the amortized cost of the instruments. These F/X gains and losses are recognized in the 'non-operating income and expense' line item in profit or loss for financial liabilities that are not part of a designated hedging relationship. For those which are designated as a hedging instrument for a hedge of foreign currency risk, the F/X gains and losses are recognized in other comprehensive income and accumulated in a separate component of equity.

The fair value of financial liabilities denominated in a foreign currency is determined in that foreign currency and translated at the spot rate at the end of the reporting period. For financial liabilities that are measured as at FVTPL, the F/X component forms part of the fair value gains or losses and is recognized in profit or loss for financial liabilities that are not part of a designated hedging relationship.

9) Derecognition of financial liabilities

The Company derecognizes financial liabilities when, and only when, its obligations are discharged, cancelled or have expired. The difference between the carrying amount of the financial liability derecognized and the consideration paid and payable is recognized in profit or loss.

When the Company exchanges with the existing lender one debt instrument for another one with the substantially different terms, such exchange is accounted for as an extinguishment of the original financial liability and the recognition of a new financial liability. Similarly, the Company accounts for substantial modification of terms of an existing liability or part of it as an extinguishment of the original financial liability and the recognition of a new liability. It is assumed that the terms are substantially different if the discounted present value of the cash flows under the new terms, including any fees paid, net of any fees received and discounted using the original effective rate, is at least 10% different from the discounted present value of the remaining cash flows of the original financial liability. If the modification is not substantial, the difference between (1) the carrying amount of the liability before the modification and (2) the present value of the cash flows after the modification should be recognized in profit or loss as the modification gain or loss within the 'non-operating income and expense' line item.

(13) Compound instruments

The Company has issued bonds with warrants through which equity instruments can be acquired at the holder's option and repaid them prior to the current year, and the balance of unexercised split-type warrants issued in relation to the bonds with warrants was fully exercised in 2020, and there are no outstanding balances as of December 31, 2020.

The company recognized the warrants as capital in accordance with the Financial Supervisory Service's inquiry and reply 'Hoejei-00094', and the accounting treatment is effective only for the K-IFRS of Article 13, Paragraph 1, Item 1 of the 'Act on External Audit of Stock Companies'.

The liability component of the compound financial instrument is initially recognized at the fair value of financial liabilities without warrants under the same conditions, and the equity component is initially recognized as the difference between the fair value of the compound financial instrument as a whole and the fair value of the liability component. Transaction costs directly attributable to the issuance of compound financial instruments are allocated in proportion to the initial recognition of the liability and equity components.

(14) Current tax and deferred tax

Income tax expense comprises the current tax and deferred tax. Income tax is recognized in profit or loss, except for items recognized directly in other comprehensive income or in equity. Income tax expense is measured based on tax laws that have been enacted or substantively enacted at the end of the reporting period.

Management periodically evaluates the Company's tax policies applied in tax filings in situations where applicable tax laws may be subject to interpretation. The Company recognizes current tax expense on the basis of the amount it expects to pay to the tax authorities.

Deferred income tax is recognized as the expected tax effect when the carrying amount of an asset or liability is recovered or settled for temporary differences, defined as the difference between the tax base and the carrying amount of an asset or liability. However, deferred tax assets and liabilities arising from the initial recognition of assets and liabilities in a transaction other than a business combination are not recognized unless the transaction affects accounting or taxable income.

Deferred tax assets are recognized when it is probable that future taxable income will be available against which the deductible temporary differences can be utilized.

Deferred tax liabilities are recognized for taxable temporary differences related to investments in subsidiaries, associates and joint ventures, except when the timing of their reversal is controllable and it is highly probable that the temporary differences will not reverse in the foreseeable future. In addition, for deductible temporary differences arising from these assets, deferred tax assets are recognized only when it is highly probable that the temporary differences will reverse in the foreseeable future and taxable income against which the temporary differences can be used is highly probable.

Deferred tax assets and liabilities are settled on a net basis if the Company has a legally enforceable right to set off current tax assets, current tax liabilities and the deferred tax assets and liabilities relate to income tax imposed by the same tax authority, and the Company has intentions to pay in net amount.

(15) Employee benefits

1) Defined benefit liabilities

In general, defined benefit plans determine the amount of pension benefit that an employee will receive upon retirement, based on factors such as age, years of service, and salary level. The liabilities recorded in the statement of financial position in relation to the defined benefit plan are the amount obtained by deducting the fair value of plan assets from the present value of the defined benefit liabilities as at the end of the reporting period. The defined benefit liabilities are calculated annually by independent actuaries using the projected unit credit method, and the present value of the defined benefit liabilities are calculated by discounting expected future cash outflows with the interest rate of high-credit-rating corporate bonds with similar maturity dates. Meanwhile, remeasurements related to net defined benefit liabilities are recognized in other comprehensive income.

In the event of a plan amendment, curtailment or settlement, past service cost or any gain or loss resulting from the settlement is recognized in profit or loss.

2) Allowance for annual leaves

The Company recognizes expenses and liabilities related to allowance for annual leaves during accounting periods in which employees have rendered service that gives rise to their entitlement to future annual leaves.

3) Share-based compensation

Equity-settled share-based compensation granted to employees are measured at the fair value of the equity instruments at the grant date and recognized as an employee benefit expense over the vesting period. At each reporting date, the Company revises its estimate of the number of equity instruments expected to vest as a result of the effect of non-market-based vesting conditions. The impact of the revision of the original estimates, if any, is recognized in profit or loss such that the cumulative expense reflects the revised estimate, with a corresponding adjustment to reserves. When new shares are issued at the time of exercise of stock options, the net proceeds excluding transaction costs attributable to the issuance of new shares are recognized as capital (nominal value) and additional paid-in capital.

(16) Revenue recognition

1) Performance obligations satisfied at a point in time - sale of goods

The Company manufactures products related to pearl luster pigments and sells them through partner agencies, or sells some products directly. In the case of product sales, revenue is recognized when the goods are transported (delivered) to a specific location, such as an agent or customer, and control of the goods is transferred to the agent or customer, etc. After delivery of the goods, distributors and customers, etc., retain complete discretion in determining the pricing and manner of distributing the goods, and assume primary responsibility when selling the goods and bear the risk of loss or obsolescence associated with the goods. In addition, the Company recognizes receivables when goods are delivered to agents and customers.

2) Calculation of transaction price

According to the Company's terms and conditions, the customer has the right to return the product. Accordingly, a provision for returns and a corresponding adjustment to gross sales are recognized for goods expected to be returned at the time of sale. At the same time, a returned asset and corresponding cost of sales adjustment are recognized for the right to recall the product when the customer exercises the right to return, unless the product is expected to be obsolete. The Company uses cumulative historical information to estimate returns at the portfolio level using expected values.

This is because it is highly probable that no significant return of cumulative revenue already recognized will occur given the consistent level of returns in the past.

(17) Lease

The Company has chosen the cumulative catch-up approach at the date of initial application of K-IFRS 1116. Therefore, the Company does not restate the comparative information. The detailed accounting policies that are applied under K-IFRS 1017 and K-IFRS 1116 are as follows:

1) Accounting policies applied on or after January 1, 2019

1-1) The Company as lessee

The Company assesses whether a contract is or contains a lease, at inception of the contract. The Company recognizes a right-of-use asset and a corresponding lease liability with respect to all lease arrangements in which it is the lessee, except for short-term leases (defined as leases with a lease term of 12 months or less) and leases of low-value assets (such as tablets and personal computers, small items of office furniture and telephones). For these leases, the Company recognizes the lease payments as an operating expense on a straight-line basis over the term of the lease, unless another systematic basis is more representative of the time pattern in which economic benefits from the leased assets are consumed.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted by using the rate implicit in the lease. If this rate cannot be readily determined, the Company uses its incremental borrowing rate.

Lease payments included in the measurement of the lease liability comprise:

- Fixed lease payments (including in-substance fixed payments), less any lease incentives receivable;
- Variable lease payments that depend on an index or a rate, initially measured using the index or rate at the commencement date;
- The amount expected to be payable by the lessee under residual value guarantees;
- The exercise price of purchase options if the lessee is reasonably certain to exercise the options; and
- Payments of penalties for terminating the lease if the lease term reflects the exercise of an option to terminate the lease.

The lease liability is presented as a separate line in the statements of financial position.

The lease liability is subsequently measured by increasing the carrying amount to reflect interest on the lease liability (using the effective interest method) and by reducing the carrying amount to reflect the lease payments made.

The Company remeasures the lease liability (and makes a corresponding adjustment to the related right-of-use asset) whenever:

- The lease term has changed or there is a significant event or change in circumstances resulting in a change in the assessment of exercise of a purchase option, in which case the lease liability is remeasured by discounting the revised lease payments using a revised discount rate.
- The lease payments change due to changes in an index or a rate or a change in expected payment under a guaranteed residual value, in which case the lease liability is remeasured by discounting the revised lease payments using an unchanged discount rate (unless the lease payments change is due to a change in a floating interest rate, in which case a revised discount rate is used).
- A lease contract is modified and the lease modification is not accounted for as a separate lease, in which case the lease liability is remeasured based on the lease term of the modified lease by discounting the revised lease payments using a revised discount rate at the effective date of the modification.

The right-of-use assets comprise the initial measurement of the corresponding lease liability, lease payments made at or before the commencement day, less any lease incentives received and any initial direct costs. They are subsequently measured at cost, less accumulated depreciation and impairment losses.

Whenever the Company incurs an obligation for costs to dismantle and remove a leased asset, restore the site on which it is located or restore the underlying asset to the condition required by the terms and conditions of the lease, a provision is recognized and measured under K-IFRS 1037. To the extent that the costs relate to a right-of-use asset, the costs are included in the related right-of-use asset, unless those costs are incurred to produce inventories.

Right-of-use assets are depreciated over the shorter period of lease term and useful life of the underlying asset. If a lease transfers ownership of the underlying asset or the cost of the right-of-use asset reflects that the Company expects to exercise a purchase option, the related right-of-use asset is depreciated over the useful life of the underlying asset. The depreciation starts at the commencement date of the lease.

The right-of-use assets are presented as a separate line in the statements of financial position.

The Company applies K-IFRS 1036 to determine whether a right-of-use asset is impaired and accounts for any identified impairment loss as described in the 'Property, Plant and Equipment' policy.

Variable rents that do not depend on an index or a rate are not included in the measurement of the lease liability and the right-of-use asset. The related payments are recognized as an expense in the period in which the event or condition that triggers those payments occurs and are included in profit or loss.

As a practical expedient, K-IFRS 1116 permits a lessee not to separate non-lease components, and instead account for any lease and associated non-lease components as a single arrangement. The Company has not used this practical expedient. For a contracts that contain a lease component and one or more additional lease or non-lease components, the Company allocates the consideration in the contract to each lease component on the basis of the relative stand-alone price of the lease component and the aggregate stand-alone price of the non-lease components.

1-2) The Company as a lessor

Leases for which the Company is a lessor are classified as finance or operating leases. Whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee, the contract is classified as a finance lease. All other leases are classified as operating leases.

When the Company is an intermediate lessor, it accounts for the head lease and the sublease as two separate contracts. The sublease is classified as a finance or operating lease by reference to the right-of-use asset arising from the head lease.

Rental income from operating leases is recognized on a straight-line basis over the term of the relevant lease. Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the leased asset and recognized on a straight-line basis over the lease term.

Amounts due from lessees under finance leases are recognized as receivables at the amount of the Company's net investment in the leases. Finance lease income is allocated to accounting periods so as to reflect a constant periodic rate of return on the Company's net investment outstanding in respect of the leases.

When a contract includes both lease and non-lease components, the Company applies K-IFRS 1115 to allocate the consideration under the contract to each component.

2) Accounting policy applied before January 1, 2019

Leases are classified as finance leases whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

2-1) The Company as a lessee

Assets held under finance leases are initially recognized as assets of the Company at their fair value at the inception of the lease or, if lower, at the present value of the minimum lease payments. The corresponding liability to the lessor is included in the statements of financial position as a finance lease obligation.

Lease payments are apportioned between financial expenses and reduction of the lease obligation so as to achieve a constant rate of interest on the remaining balance of the liability. Financial expenses are recognized immediately in profit or loss, unless they are directly attributable to qualifying assets, in which case they are capitalized in accordance with the Company's general policy on borrowing costs. Contingent rentals are recognized as expenses in the periods in which they are incurred.

Operating lease payments are recognized as an expense on a straight-line basis over the lease term, except where another systematic basis is more representative of the time pattern in which economic benefits from the leased asset are consumed. Contingent rentals arising under operating leases are recognized as an expense in the period in which they are incurred.

In the event that lease incentives are received to enter into operating leases, such incentives are recognized as a liability. The aggregate benefit of incentives is recognized as a reduction of rental expense on a straight-line basis, except where another systematic basis is more representative of the time pattern in which economic benefits from the leased asset are consumed.

2-2) The Company as a lessor

Amounts due from lessees under finance leases are recognized as receivables at the amount of the Company's net investment in the leases. Finance lease income is allocated to accounting periods so as to reflect a constant periodic rate of return on the Company's net investment outstanding in respect of the leases.

Rental income from operating leases is recognized on a straight-line basis over the term of the relevant lease. Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the leased asset and recognized on a straight-line basis over the lease term.

(18) Approval of the Company's financial statements

The issuance of the Company's financial statements was approved by the Board of Directors of the Company on February 10, 2021, and amendments on the financial statements may be finally approved in shareholders' meeting.

3. SIGNIFICANT ACCOUNTING ESTIMATIONS AND ASSUMPTIONS:

The Company makes estimations and assumptions about the future. Estimations and assumptions are continuously evaluated and are made taking into account historical experience and reasonably foreseeable future events in the present circumstances. These accounting estimates may differ from actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are addressed below.

(1) Income taxes

When a certain amount of taxable income is not used for investment or wage increase during a certain period, the Company pays additional corporate tax calculated according to the method prescribed by the tax law. Therefore, the tax effect must be reflected when measuring current and deferred corporate tax for the relevant period. Uncertainty exists in estimating the final tax effects as the corporate tax to be borne by the Company varies depending on the level of investment and wage increase in each year (see Note 29).

(2) Defined benefit obligations

The present value of the net defined benefit liability is affected by a variety of factors that are determined on an actuarial basis, particularly changes in the discount rate (see Note 20).

(3) Impairment of development cost

The recoverable amount for examining development costs for sign of impairment is determined based on the calculation of the value in use (see Note 14).

4. FINANCIAL RISK MANAGEMENT:

4.1 FACTORS OF FINANCIAL RISK MANAGEMENT:

The Company is exposed to various risks related to its financial instruments, such as market risk (currency risk, interest rate risk and price risk) and credit risk. The company's overall risk management focuses on the unpredictability of financial markets and focuses on minimizing potential adverse effects on its financial performance. Risk management is conducted by the accounting team according to the policy approved by the Board of Directors. The accounting team collaborates closely with the Company's operating departments to identify, evaluate and hedge financial risks.

(1) Market risk

1) Foreign currency risk

The Company undertakes transactions denominated in foreign currencies; consequently, is exposed to foreign exchange risks, particularly for US dollar and Japanese yen. The details of the carrying amount of financial instruments denominated in major foreign currency as of December 31, 2020 and 2019, are as follows (in thousands of Korean won):

	2020		2019	
	Foreign financial assets	Foreign financial liabilities	Foreign financial assets	Foreign financial liabilities
USD	₩ 7,127,813	₩ 182,838	₩ 6,888,277	₩ 939,354
JPY	323,604	—	313,117	—
EUR	15,388	434	3,318	165,257
GBP	2,179	—	2,233	107,359
CNY	713	—	708	2,978
Total	₩ 7,469,697	₩ 183,272	₩ 7,207,653	₩ 1,214,948

The Company regularly measures the exchange rate risk for changes in the Korean won exchange rate. A sensitivity analysis on the Company's pre-tax income for a period assuming a 5% increase and decrease in currency exchange rates as of December 31, 2020 and 2019, is as follows (in thousands of Korean won):

	2020		2019	
	5% increase	**5% decrease**	**5% increase**	**5% decrease**
Foreign financial assets	₩ 373,485	₩ (373,485)	₩ 360,383	₩ (360,383)
Foreign financial liabilities	(9,164)	9,164	(60,747)	60,747
Net effect	₩ 364,321	₩ (364,321)	₩ 299,636	₩ (299,636)

2) Interest rate risk

The Company's interest rate risk arises from borrowings, and the effect of changes in interest rates on the Company's business and financial status is regularly monitored by the management.

When other variables are constant and the interest rate for the borrowings with a variable interest rate changes by 1%, the effect of the change in interest rate on pre-tax income is as follows (in thousands of Korean won):

	2020		2019	
	1% increase	**1% decrease**	**1% increase**	**1% decrease**
Pre-tax income	₩ (118,953)	₩ 118,953	₩ (117,781)	₩ 117,781

(2) Credit risk

Credit risk arises from cash and cash equivalents and bank deposits, as well as credit risks to wholesale and retail customers, including outstanding receivables and committed contracts. For the transactions with banks and financial institutions, transactions are conducted after reviewing key stability indicators of banks and financial institutions such as the BIS ratio.

The maximum amount of exposure to credit risk of financial assets as of December 31, 2020 and 2019, is as follows (in thousands of Korean won):

	2020			2019		
	Nominal value	Accumulated impairment	Maximum exposure	Nominal value	Accumulated impairment	Maximum exposure
Cash and cash equivalents (*)	₩ 6,651,784	₩ —	₩ 6,651,784	₩ 5,307,180	₩ —	₩ 5,307,180
Trade receivables	8,727,307	(317,512)	8,409,795	9,595,758	(319,283)	9,276,475
Other financial assets	473,468	—	473,468	433,776	—	433,776

(*) Petty cash is excluded.

(3) Liquidity risk

The Company manages liquidity risk through periodic forecasting and adjustment of fund balance for proper liquidity management. The Company monitors cash flow through mid to long-term management plans and short-term management strategies to ensure smooth fund operations.

Maturity analysis of financial liabilities according to their remaining maturity as of December 31, 2020 and 2019, is as follows (in thousands of Korean won):

	2020				
	6 months	6 months - 1 year	1 - 2 years	More than 2 years	Total
Borrowings (*1)	₩17,149,456	₩ 654,308	₩ 1,290,673	₩ 4,338,768	₩23,433,205
Trade payables	353,093	—	—	—	353,093
Other financial liabilities	1,178,600	511,086	197,952	826,928	2,714,566
Total	₩18,681,149	₩ 1,165,394	₩ 1,488,625	₩ 5,165,696	₩26,500,864

	2019				
	6 months	6 months - 1 year	1 - 2 years	More than 2 years	Total
Borrowings (*1)	₩13,700,943	₩ 1,588,866	₩ 160,800	₩ 6,703,115	₩22,153,724
Trade payables	1,390,849	—	—	—	1,390,849
Other financial liabilities	1,017,646	561,387	319,695	648,756	2,547,484
Total	₩16,109,438	₩ 2,150,253	₩ 480,495	₩ 7,351,871	₩26,092,057

(*1) Borrowings include accrued interest expense which is related to the borrowings.

Financial liabilities are nominal amounts of undiscounted cash flows by remaining maturity, and are prepared as of the earliest date during which payment may be requested.

4.2 CAPITAL RISK MANAGEMENT:

The Company manages its capital to ensure that it will be able to continue while maximizing the return to shareholders through the optimization of the debt and equity balance. The Company uses the debt ratio as a capital management indicator. The debt ratio is calculated by dividing total liabilities by total shareholders' equity.

Details of the debt ratio as of December 31, 2020 and 2019, are as follows (in thousands of Korean won):

	2020	2019
Total liabilities (A)	₩ 27,971,409	₩ 28,081,966
Total shareholders' equity (B)	57,081,928	54,095,798
Cash and cash equivalents (C)	6,652,980	5,309,043
Borrowings (D)	23,000,000	21,000,000
Ratio of liabilities to the equity (A/B)	49.00%	52.00%
Ratio of net borrowings to the equity ((D-C)/B)	29.00%	29.00%

4.3 MEASUREMENT OF THE FAIR VALUE:

There are no significant changes in the business environment and economic environment that affect the fair value of the Company's financial assets and liabilities.

(1) Fair value by type of financial instrument

Details of the carrying amount and fair value by type of financial instruments as of December 31, 2020 and 2019, are as follows (in thousands of Korean won):

	2020		2019	
	Book value	**Fair value**	**Book value**	**Fair value**
Financial assets:				
Cash and cash equivalents	₩ 6,652,980	₩ 6,652,980	₩ 5,309,043	₩ 5,309,043
Trade receivables	8,409,795	8,409,795	9,276,475	9,276,475
Other financial assets	473,468	473,468	433,776	433,776
Subtotal	15,536,243	15,536,243	15,019,294	15,019,294
Financial liabilities:				
Trade payables	353,093	353,093	1,390,849	1,390,849
Borrowings	23,000,000	23,000,000	21,000,000	21,000,000
Other financial liabilities	2,707,491	2,707,491	2,542,368	2,542,368
Subtotal	₩ 26,060,584	₩ 26,060,584	₩ 24,933,217	₩ 24,933,217

(2) Measurement of fair value

1) The following table provides an analysis of financial instruments that are measured subsequent to initial recognition at fair value and classified as Level 1, 2 or 3 based on the degree to which the fair value is observable.

- Level 1: Fair value measurements are those derived from quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2: Fair value measurements are those derived from inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e., as prices) or indirectly (i.e., derived from prices).
- Level 3: Fair value measurements are those derived from valuation techniques that include inputs for the asset or liability that are not based on observable market data (unobservable inputs).

2) There is no financial instrument measured at fair value as of December 31, 2020.

5. INFORMATION OF OPERATIONAL DIVISION:

(1) Management who makes strategic decisions determines the Company's operating divisions. Management reviews the divisions' operating profits to make decision for the allocation of resources to divisions and review of performance of divisions. The company has a sole operating division.

(2) Details of the sales by region for the years ended December 31, 2020 and 2019, are as follows (in thousands of Korean won):

Region	2020	2019
Domestic	₩ 15,684,550	₩ 18,677,046
China	4,373,316	2,961,677
Taiwan	3,157,495	4,337,432
USA	2,807,487	3,181,438
Japan	2,108,923	4,168,043
Belgium	1,915,800	2,493,552
Thailand	1,482,120	1,675,555
Germany	1,035,879	633,866
Italy	674,380	1,882,219
Other	3,731,719	4,735,842
Total	₩ 36,971,669	₩ 44,746,670

(3) There is no external customer that accounted for more than 10% of the Company's total revenue for the years ended December 31, 2020 and 2019.

6. FINANCIAL INSTRUMENTS BY CLASSIFICATION:

(1) Details of financial assets and liabilities by classification as of December 31, 2020 and 2019, are as follows (in thousands of Korean won):

1) Financial assets:

	2020	2019
Financial assets at amortized cost:		
Cash and cash equivalents	₩ 6,652,980	₩ 5,309,043
Trade receivables	8,409,795	9,276,475
Other financial assets (current)	96,296	161,539
Other financial assets (non-current)	280,159	272,237
Subtotal	15,439,230	15,019,294
Financial assets at FVTPL:		
Long-term financial instrument	97,013	—
Total	₩ 15,536,243	₩ 15,019,294

2) Financial liabilities at amortized cost

		2020		2019
Trade payables	₩	353,093	₩	1,390,849
Other financial liabilities (current)		1,688,360		1,577,059
Other financial liabilities (non-current)		1,019,131		965,310
Borrowings (current)		17,600,000		15,000,000
Borrowings (non-current)		5,400,000		6,000,000
Total	₩	26,060,584	₩	24,933,218

(2) Details of financial income (expenses) by type of financial assets or financial liabilities for the years ended December 31, 2020 and 2019, are as follows (in thousands of Korean won):

		2020		2019
Financial assets at amortized cost:				
Interest income	₩	20,035	₩	38,048
Gain on foreign currency translation		2,336		5,250
Gain on foreign currency transaction		372,683		508,914
Bad debt expense (reversal)		1,771		(1,007)
Loss on foreign currency translation		(205,732)		(130,006)
Loss on foreign currency transaction		(805,632)		(145,978)
Total		(614,539)		275,221
Financial liabilities at amortized cost:				
Gain on foreign currency translation		4,006		12,944
Gain on foreign currency transaction		101,232		87,218
Interest expense		(377,038)		(360,389)
Loss on foreign currency translation		—		(362)
Loss on foreign currency transaction		(76,231)		(83,241)
Total	₩	(348,031)	₩	(343,830)

7. CASH AND CASH EQUIVALENTS, LONG AND SHORT-TERM FINANCIAL INSTRUMENTS:

Details of cash and cash equivalents, long and short-term financial instruments as of December 31, 2020 and 2019, are as follows (in thousands of Korean won):

	2020			2019
	Financial institution	Interest rate per annum	Amount	Amount
Cash and cash equivalents:				
Petty cash		—	₩ 1,196	₩ 1,863
Regular bank savings	Shinhan Bank etc.	0~0.1%	6,651,784	5,307,180
Subtotal			6,652,980	5,309,043
Short-term financial instruments (*):				
Periodical deposits	KEB Hana Bank etc.	1.3~1.65%	—	60,000
Long-term financial instruments (*):				
Long-term deposit-type insurance		—	97,013	—
Total			₩ 6,749,993	₩ 5,369,043

(*) Long and short-term financial instruments are classified as 'other financial instrument' on the Company's statements of financial position as of December 31, 2020 and 2019.

8. TRADE RECEIVABLES:

(1) Details of trade receivables as of December 31, 2020 and 2019, are as follows (in thousands of Korean won):

	2020	2019
Trade receivables	₩ 8,727,307	₩ 9,595,758
Allowance for bad debt	(317,512)	(319,283)
Trade receivables, net	₩ 8,409,795	₩ 9,276,475

The Company reviews its trade receivables individually for signs of impairment at the end of the reporting period.

The settlement of domestic trade receivables was subject to a credit policy of between 30 to 90 days from the date of transaction. The overseas payback period for new accounts in cash ranged between 30 to 100 days from the date of transaction.

(2) Changes in allowance for bad debt of trade and other receivables for the years ended December 31, 2020 and 2019, are as follows (in thousands of Korean won):

	2020	2019
Beginning balance	₩ 319,283	₩ 318,276
Bad debt expense	(1,771)	1,007
Ending balance	₩ 317,512	₩ 319,283

Provisions for impaired receivables and deductions are recorded as bad debt expenses in the statement of comprehensive income, and when there is no possibility of recovering additional cash, bad debt provisions are generally written off.

The maximum amount exposed to credit risk for trade receivables is total carrying amount as of December 31, 2020, and there is no collateral held by the Company.

(3) The details of the risk information of trade receivables based on the Company's provisioning rate table as of December 31, 2020 are as follows (in thousands of Korean won):

	Overdue days					
	Undue	< 3 months	3~6 months	6 months ~ 2 years	> 2 years	Total
Default rate	0%	0%	0%	0%	100%	
Total book value	₩6,475,650	₩ 482,895	₩1,262,238	₩ 189,012	₩ 317,512	₩8,727,307
Lifetime ECL (*)	—	—	—	—	317,512	317,512
Net book value	₩6,475,650	₩ 482,895	₩1,262,238	₩ 189,012	₩ —	₩8,409,795

(*) ECL: Expected Credit Loss

9. OTHER FINANCIAL ASSETS:

(1) Details of other financial assets as of December 31, 2020 and 2019, are as follows (in thousands of Korean won):

	2020	2019
Current assets:		
Short-term financial instrument	₩ —	₩ 60,000
Accrued income	—	256
Non-trade receivables	96,296	101,283
Subtotal	96,296	161,539
Non-current assets:		
Long-term financial instrument	97,013	—
Leasehold deposits	280,159	272,237
Subtotal	377,172	272,237
Total	₩ 473,468	₩ 433,776

The non-trade receivables represent custom duty receivables.

(2) Maximum amount exposed to credit risk of other financial assets is total carrying amount as of December 31, 2020, and there is no collateral held by the Company.

10. OTHER ASSETS:

Details of other assets as of December 31, 2020 and 2019, are as follows (in thousands of Korean won):

	2020	2019
Current assets:		
Prepayment	₩ 244,137	₩ 251,990
Prepaid expense	337,890	333,087
Value added tax prepaid	—	142,483
Subtotal	582,027	727,560
Non-current assets:		
Long-term prepaid expense	82,274	227,234
Total	₩ 664,301	₩ 954,794

Prepayment represents advance payments for patent rights and customs clearance fees.

11. INVENTORIES:

Details of inventory valuations as of December 31, 2020 and 2019, are as follows (in thousands of Korean won):

	2020			2019		
	Amount before Valuation	Reserve for valuation	Book value	Amount before Valuation	Reserve for valuation	Book value
Merchandises	₩ 2,140,354	₩ (282,926)	₩ 1,857,428	₩ 2,155,108	₩ (112,830)	₩ 2,042,278
Finished goods	13,642,229	(1,736,976)	11,905,253	12,784,615	(1,138,211)	11,646,404
Raw materials	2,451,264	(55,010)	2,396,254	2,025,983	(8,977)	2,017,006
Sub-materials	126,655	(1,353)	125,302	82,643	(177)	82,466
Working in process	9,471,913	(1,378,116)	8,093,797	7,333,833	(1,504,228)	5,829,605
Goods in transit	69,904	—	69,904	425,766	—	425,766
	₩ 27,902,319	₩ (3,454,381)	₩ 24,447,938	₩ 24,807,948	₩ (2,764,423)	₩ 22,043,525

The cost of inventories recognized as an expense and included in the cost of sales is ₩22,491 million in 2020 (₩25,758 million in 2019). This includes the loss on inventory valuation amounting to ₩690 million in 2020(₩1,304 million in 2019).

12. PROPERTY, PLANT AND EQUIPMENT:

(1) Changes in property, plant and equipment for the years ended December 31, 2020 and 2019, are as follows (in thousands of Korean won):

	2020										
	Land	Buildings	Structures	Machinery	Vehicles	Tools and equipments	Fixtures	Facilities	Trees	Construction in progress	Total
Beginning balance	₩ 8,407,034	₩13,228,597	₩ 1,668,197	₩ 2,857,924	₩ 127,026	₩ 69,593	₩ 145,723	₩ 526,475	₩ 1,324,900	₩ 9,687,199	₩38,042,668
Acquisitions and capital expenditures	—	6,410	2,500	31,773	—	45,600	51,056	18,830	—	2,204,010	2,360,179
Disposal	—	—	—	—	—	—	—	—	—	—	—
Depreciation	—	(377,259)	(112,782)	(1,669,067)	(36,908)	(24,275)	(58,926)	(149,422)	—	—	(2,428,639)
Impairment	—	—	—	—	—	—	—	—	—	(17,659)	(17,659)
Government grants	—	—	—	(136,279)	—	—	—	(85,937)	—	—	(222,216)
Transfer	136,212	(136,212)	130,208	11,234,566	—	20,647	—	455,529	—	(11,840,950)	—
Ending balance	₩ 8,543,246	₩12,721,536	₩ 1,688,123	₩12,318,917	₩ 90,118	₩ 111,565	₩ 137,853	₩ 765,475	₩ 1,324,900	₩ 32,600	₩37,734,333
Acquisition cost	8,543,246	15,050,553	2,284,781	29,940,515	324,085	1,833,388	944,246	2,270,800	1,324,900	32,600	62,549,114
Accumulated depreciation	—	(2,329,017)	(596,658)	(17,486,077)	(233,967)	(799,723)	(797,905)	(1,420,284)	—	—	(23,663,631)
Accumulated impairment	—	—	—	—	—	(922,100)	—	—	—	—	(922,100)
Government grants	-	—	—	(135,521)	—	—	(8,488)	(85,041)	—	—	(229,050)

	2019										
	Land	Buildings	Structures	Machinery	Vehicles	Tools and equipments	Fixtures	Facilities	Trees	Construction in progress	Total
Beginning balance	₩8,294,834	₩7,204,019	₩1,335,368	₩3,912,400	₩ 74,747	₩ 624,267	₩ 128,120	₩ 610,322	₩1,324,900	₩9,164,435	₩32,673,412
Acquisitions and capital expenditures	112,200	185,544	414,800	30,098	87,193	144,993	70,203	40,600	—	6,773,606	7,859,237
Disposal	—	—	—	—	—	—	(1)	—	—	—	(1)
Depreciation	—	(366,935)	(96,201)	(1,115,217)	(34,914)	(15,722)	(52,599)	(124,447)	—	—	(1,806,035)
Impairment	—	—	—	—	—	(683,945)	—	—	—	—	(683,945)
Transfer	—	6,205,969	14,230	30,643	—	—	—	—	—	(6,250,842)	—
Ending balance	₩8,407,034	₩13,228,597	₩1,668,197	₩2,857,924	₩ 127,026	₩ 69,593	₩ 145,723	₩ 526,475	₩1,324,900	₩9,687,199	₩38,042,668
Acquisition cost	8,407,034	15,180,355	2,152,073	18,674,176	324,085	1,767,142	893,190	1,796,440	1,324,900	9,687,199	60,206,594
Accumulated depreciation	—	(1,951,758)	(483,876)	(15,813,440)	(197,059)	(775,449)	(731,704)	(1,269,965)	—	—	(21,223,251)
Accumulated impairment	—	—	—	—	—	(922,100)	—	—	—	—	(922,100)
Government grants	—	—	—	(2,812)	—	—	(15,763)	—	—	—	(18,575)

Depreciations comprise i) cost of sales (₩2,141 million and ₩1,522 million respectively in 2020 and 2019), ii) selling and administrative expenses (₩175 million and ₩178 million respectively in 2020 and 2019) and iii) research and development expenses (₩113 million and ₩106 million respectively in 2020 and 2019).

Construction in progress represents assets under construction and machines under installations.

(2) Details of assets pledged as collateral for related borrowings as of December 31, 2020, are as follows (in thousands of Korean won):

Collateralized assets	Book value	Pledged amount	Beneficiary
Land	₩ 2,572,955		
Buildings	6,049,671	₩ 10,800,000	Shinhan Bank
Machineries, etc.	9,042,702		
Land	136,212	699,380	Korea Land & Housing Corporation
Buildings	721,897		

(3) The Company has fire insurance for PP&E and inventories of ₩61,884 million (₩51,884 million for buildings and machineries, etc., ₩10,000 million for inventories) as of December 31, 2020.

(4) The publicly announced land prices of the land owned by the Company are ₩5,444 million and ₩5,169 million, respectively as of December 31, 2020 and 2019.

13. RIGHT-OF-USE ASSETS:

(1) Right-of-use assets by underlying asset type as of December 31, 2020 and 2019, are as follows (in thousands of Korean won):

	2020		
	Buildings	Vehicles	Total
Acquisition cost	₩ 39,231	₩ 439,567	₩ 478,798
Accumulated depreciation	(23,595)	(214,948)	(238,543)
Book value	₩ 15,636	₩ 224,619	₩ 240,255

	2019		
	Buildings	Vehicles	Total
Acquisition cost	₩ 37,508	₩ 346,512	₩ 384,020
Accumulated depreciation	(16,698)	(144,691)	(161,389)
Book value	₩ 20,810	₩ 201,821	₩ 222,631

(2) Changes in right-of-use assets in 2020 and 2019, are as follows (in thousands of Korean won):

	2020		
	Buildings	Vehicles	Total
Beginning balance	₩ 20,810	₩ 201,821	₩ 222,631
Acquisition	14,498	180,126	194,624
Depreciation	(19,671)	(139,825)	(159,496)
Disposal	—	(17,504)	(17,504)
Ending balance	₩ 15,637	₩ 224,618	₩ 240,255

	2019		
	Buildings	Vehicles	Total
Beginning balance	₩ —	₩ —	₩ —
Changes in accounting policies	12,775	346,512	359,287
Acquisition	24,733	—	24,733
Depreciation	(16,698)	(144,691)	(161,389)
Ending balance	₩ 20,810	₩ 201,821	₩ 222,631

(3) Details of expenses recognized in profit or loss related to leases for the years ended December 31, 2020 and 2019, are as follows (in thousands of Korean won):

	2020	2019
Depreciation of the right-of-use assets	₩ 159,496	₩ 161,389
Interest expense on lease liabilities	5,937	8,144
Expenses for the short-term leases	333	5,685
Expenses for leases of low-value assets	14,379	10,527
Total	₩ 180,145	₩ 185,745

Total lease payment in cash are ₩172 million and ₩170 million respectively in 2020 and 2019.

14. INTANGIBLE ASSETS:

(1) Changes in intangible assets for the years ended December 31, 2020 and 2019, are as follows (in thousands of Korean won):

	2020			
	Software	Industrial property rights	Development cost	Total
Beginning balance	₩ 57,422	₩ 532,302	₩ 3,208,852	₩ 3,798,576
Internal development	—	—	766,300	766,300
Individual acquisition	—	144,553	—	144,553
Depreciation	(16,220)	(130,913)	(397,749)	(544,882)
Government grant	—	—	(230,616)	(230,616)
Ending balance	₩ 41,202	₩ 545,942	₩ 3,346,787	₩ 3,933,931
Acquisition cost	270,550	1,110,058	16,014,002	17,394,610
Accumulated depreciation and impairment	(229,348)	(564,116)	(10,931,068)	(11,724,532)
Government grant	—	—	(1,736,147)	(1,736,147)

	2019			
	Software	Industrial property rights	Development cost	Total
Beginning balance	₩ 48,167	₩ 443,845	₩ 3,183,784	₩ 3,675,796
Internal development	—	—	1,044,087	1,044,087
Individual acquisition	23,595	195,947	—	219,542
Depreciation	(14,340)	(107,490)	(420,445)	(542,275)
Impairment	—	—	(175,561)	(175,561)
Government grant	—	—	(423,013)	(423,013)
Ending balance	₩ 57,422	₩ 532,302	₩ 3,208,852	₩ 3,798,576
Acquisition cost	270,550	965,505	15,247,702	16,483,757
Accumulated depreciation and impairment	(213,128)	(433,203)	(10,154,452)	(10,800,783)
Government grant	—	—	(1,884,398)	(1,884,398)

(2) Amortization comprises i) cost of sales (₩398 million and ₩420 million respectively in 2020 and 2019) and ii) selling and administrative expenses (₩147 million and ₩122 million respectively in 2020 and 2019).

(3) Details of major development cost as of December 31, 2020 are as follows (in thousands of Korean won):

	Book value	Remaining amortizable period
Development of high-functional ceramic composite material used for anti-pollution cosmetics such as fine dust blocking and UV protection	₩ 298,292	3 years & 2 months
Development of complex functional pearl luster pigment coated with caesalpinia sappan and indigo	131,668	3 years
Manufacture of high-brightness plate-shaped aluminum flakes capable of multi-layer construction	300,068	4 years & 3 months
Development of optical functional pearl luster pigment for security and safety / ATC technology	622,788	4 years & 4 months
Development E of Al2O3 synthesis using pilot equipment and TiO2 coating procedure, etc.	135,543	3 years & 5 months
Development of colored Aluminum Flake product	589,346	Under development
Development B of New Effect Pigment using electroless plating	467,031	Under development
Development D of Glass Products	259,885	Under development
Development D of colored products using natural dyes	196,444	Under development
Development F of Al2O3 synthesis and TiO2 coating procedure using pilot equipment	115,224	Under development
Development of new pigments, etc.	230,498	Under development
Total	₩3,346,787	

(4) Research and development expenditures recognized as selling and administrative expenses in profit or loss are ₩2,456 million and ₩2,296 million respectively for the years ended December 31, 2020 and 2019.

(5) Details of the impairment of development cost for the years ended December 31, 2020 and 2019, are as follows (in thousands of Korean won):

	2020		
	Book value	Impairment recognized in profit or loss (*)	Accumulated Impairment (*)
Development B of Automotive Coating Procedure	₩ 1	₩ —	₩ 26,769
Development of New Effect Pigment using electroless plating	1	—	56,199
Development of colored products using natural dyes	1	—	16,788
Development F of products using Natural Mica	1	—	11,930
Development C of Automotive Coating Procedure	1	—	6,894
Development B of colored products using natural dyes	1	—	36,664
Development of optical functional pearl luster pigment for security and safety / ATC technology	622,788	—	79,773
Development of colored Aluminum Flake product	589,346	—	8,801
Development B of Chaos Trance Gold	5,477	—	57,773
Development G of products using Natural Mica	16,003	—	12,770
Development C of colored products using natural dyes	11,447	—	45,481
Development H of products using Natural Mica	51,437	—	50,736
Unimpaired development cost	2,050,283	—	—
Total	₩ 3,346,787	₩ —	₩ 410,578

(*) The recoverable amount for examining development costs for sign of impairment is determined based on the calculation of the value in use.

	2019		
	Book value	Impairment recognized in profit or loss (*)	Accumulated Impairment (*)
Development B of Automotive Coating Procedure	₩ 1	₩ —	₩ 26,769
Development of New Effect Pigment using electroless plating	2,833	—	56,199
Development of colored products using natural dyes	1	—	16,788
Development F of products using Natural Mica	1	—	11,930
Development C of Automotive Coating Procedure	1	—	6,894
Development B of colored products using natural dyes	1	—	36,664
Development of optical functional pearl luster pigment for security and safety / ATC technology	686,539	—	79,773
Development of colored Aluminum Flake product	484,283	8,801	8,801
Development B of Chaos Trance Gold	9,128	57,773	57,773
Development G of products using Natural Mica	32,007	12,770	12,770
Development C of colored products using natural dyes	19,079	45,481	45,481
Development H of products using Natural Mica	39,642	50,736	50,736
Unimpaired development cost	1,935,336	—	—
Total	₩ 3,208,852	₩ 175,561	₩ 410,578

(*) The recoverable amount for examining development costs for sign of impairment is determined based on the calculation of the value in use.

Impairment loss was recognized because the recoverable amount was less than the carrying amount as a result of the impairment test for each project, such as poor business feasibility due to low sales of developed products.

Future cash flows for the measurement of value in use were estimated for the remaining useful life of each project based on the Company's past operating performance and business plan.

(6) Impairment losses on intangible assets in 2020 and 2019, are fully reflected as other expenses.

15. TRADE PAYABLES AND OTHER FINANCIAL LIABILITIES:

Trade payables and other financial liabilities as of December 31, 2020 and 2019, are as follows (in thousands of Korean won):

	2020	2019
Trade payables	₩ 353,093	₩1,390,849
Other financial liabilities (current):		
Non-trade payables	942,479	725,116
Accrued expenses	622,991	715,430
Lease liabilities	122,890	136,513
Subtotal	1,688,360	1,577,059
Other financial liabilities (non-current):		
Lease liabilities	119,736	84,199
Long-term non-trade payables	899,395	881,111
Subtotal	1,019,131	965,310
Total	₩3,060,584	₩3,933,218

Non-trade payables represent payables arising out of business other than normal commercial transactions such as purchase costs of consumables and technology fees. Long-term non-trade payables represent mainly long-term unpaid amount related to the purchase of dormitory and R&D subsidy.

For purchasing debt and accounts payable, cash payment will be made in the current month and the month following the date of transaction.

16. OTHER CURRENT LIABILITIES:

Other current liabilities as of December 31, 2020 and 2019, are as follows (in thousands of Korean won):

	2020	2019
Withholdings	₩ 230,435	₩ 182,005
Advances received	40,798	11,532
VAT withholdings	11,179	—
Total	₩ 282,412	₩ 193,537

17. GOVERNMENT GRANT:

(1) Details of government grants used in relation to technology development of optical functional pearl luster pigments for security and safety for the years ended December 31, 2020 and 2019, are as follows (in thousands of Korean won):

	2020	2019
Beginning balance	₩ 245,311	₩ 237,941
Receipts of the government grants	767,753	672,716
Amount used:		
Acquisition of PP&E (*1)	222,216	—
Acquisition of intangible assets (*2)	230,616	423,013
Offsetting with specific costs (*3)	230,498	192,751
Subtotal	683,330	615,764
Amount repaid	—	33,268
Amount exempted from repayment obligations	—	16,314
Remaining balance:	₩ 329,734	₩ 245,311
Amount obligated to repay (*4)	288,936	245,311
Amount exempted from repayment obligations (*5)	40,798	—

(*1) It is presented as a deduction for PP&E in the financial statements.

(*2) It is presented as a deduction for intangible assets in the financial statements.

(*3) It is presented as a deduction for selling and administrative expenses, etc. in the financial statements.

(*4) It is presented as long-term non-trade payables among other financial liabilities in the financial statements.

(*5) It is presented as advance received among other current liabilities in the financial statements.

(2) Changes in government grants used for the acquisition of assets for the years ended December 31, 2020 and 2019, are as follows (in thousands of Korean won):

	2020			
	Beginning balance	**Increase**	**Decrease (*)**	**Ending balance**
PP&E	₩ 18,575	₩ 222,216	₩ 11,741	₩ 229,050
Intangible assets	1,884,398	230,616	378,867	1,736,147
Total	₩1,902,973	₩ 452,832	₩ 390,608	₩1,965,197

(*) Depreciation for the assets acquired with government grants is offset when calculating the depreciation.

	2019			
	Beginning balance	**Increase**	**Decrease (*)**	**Ending balance**
PP&E	₩ 28,172	₩ —	₩ 9,597	₩ 18,575
Intangible assets	1,861,508	423,013	400,123	1,884,398
Total	₩1,889,680	₩ 423,013	₩ 409,720	₩1,902,973

(*) Depreciation for the assets acquired with government grants is offset when calculating the depreciation.

18. BORROWINGS:

(1) Details of borrowings as of December 31, 2020 and 2019, are as follows (in thousands of Korean won):

Financial institution	Type of loan	Interest rate per annum (%)	2020	2019
Short-term borrowings:				
Citibank Korea	Trade bill loan	1.55	₩5,000,000	₩ 4,000,000
KEB Hana Bank	Trade bill loan	1.74	2,000,000	4,000,000
Kookmin Bank	Trade bill loan	1.66	1,000,000	—
Woori Bank	Trade bill loan	1.61	2,000,000	—
Shinhan Bank	Trade bill loan	1.55	2,000,000	2,000,000
Shinhan Bank	General loan	1.36	5,000,000	5,000,000
		Subtotal	17,000,000	15,000,000
Long-term borrowings:				
Shinhan Bank	Facility loan	1.89	6,000,000	6,000,000
Transfer to Current portion			(600,000)	—
		Subtotal	5,400,000	6,000,000
Current portion of long-term borrowings	Facility loan	1.89	600,000	—
		Total	₩23,000,000	₩ 21,000,000

(2) The planned repayment schedule per year as of December 31, 2020 is as follows (in thousands of Korean won):

Year	2020
2021	₩ 600,000
~2022	1,200,000
~2023	1,200,000
~2024	1,200,000
~2025	1,200,000
~2026	600,000
Total	₩ 6,000,000

(3) Changes in borrowings for the years ended December 31, 2020 and 2019, are as follows (in thousands of Korean won):

	2020	2019
Beginning balance	₩ 21,000,000	₩ 16,576,000
Increase in borrowings	10,000,000	11,424,000
Repayment of borrowings	(8,000,000)	(7,000,000)
Ending balance	₩ 23,000,000	₩ 21,000,000

(4) In relation to borrowings as of December 31, 2020, the Company is provided with a joint guarantee from the CEO (₩36,300 million).

19. LEASE LIABILITIES:

(1) Details of financial lease liabilities as of December 31, 2020 and 2019, are as follows (in thousands of Korean won):

	2020		2019	
	Minimum lease payments	Present value of minimum lease payments	Minimum lease payments	Present value of minimum lease payments
Within one year	₩ 124,216	₩ 122,890	₩ 138,488	₩ 136,513
One year—five years	125,485	119,736	87,340	84,199
Total	₩ 249,701	₩ 242,626	₩ 225,828	₩ 220,712

(2) Details of the liquidity classification of the financial lease liabilities as of December 31, 2020 and 2019, are as follows (in thousands of Korean won):

	2020	2019
Current liabilities	₩ 122,890	₩ 136,513
Non-current liabilities	119,736	84,199
Total	₩ 242,626	₩ 220,712

20. DEFINED BENEFIT OBLIGATION:

(1) Defined benefit obligations as of December 31, 2020 and 2019, are as follows (in thousands of Korean won):

	2020	2019
Present value of defined benefit liabilities	₩8,771,443	₩8,688,000
Fair value of plan assets	(7,235,481)	(6,820,583)
Net defined benefit liabilities	₩1,535,962	₩1,867,417

(2) Changes in the present value of defined benefit liabilities for the years ended December 31, 2020 and 2019, are as follows (in thousands of Korean won):

	2020	2019
Beginning balance	₩8,688,000	₩7,159,527
Current service cost	1,200,510	1,108,488
Interest expense	134,505	126,633
Remeasurement recognized in other comprehensive income:		
Actuarial gains or losses from changes in demographic assumptions	—	211,114
Actuarial gains or losses from changes in financial assumptions	(658,110)	288,094
Remeasurement factors from empirical adjustments	(448,607)	(14,839)
Cash flows:		
Retirement benefits paid by the Company	(144,855)	(191,017)
Ending balance	₩8,771,443	₩8,688,000

Related expenses comprise i) cost of sales (₩675 million and ₩654 million respectively in 2020 and 2019), ii) selling and administrative expenses (₩317 million and ₩284 million respectively in 2020 and 2019) and iii) development cost(asset) and research and development expenses (₩226 million and ₩198 million respectively in 2020 and 2019).

(3) Changes in fair value of plan assets for the years ended December 31, 2020 and 2019, are as follows (in thousands of Korean won):

	2020	2019
Beginning balance	₩6,820,583	₩5,214,214
Interest income	116,889	98,755
Remeasurement recognized in other comprehensive income:		
Return on plan assets except for the amount which is included above interest income	(1,991)	7,614
Contributions:		
Contribution paid by the Company	300,000	1,500,000
Benefit payments:		
Benefit payments	—	—
Ending balance	₩7,235,481	₩6,820,583

(4) The total plan asset consists of bank savings as of December 31, 2020.

(5) Principal actuarial assumptions as of December 31, 2020 and 2019, are as follows:

	2020	2019
Discount rate for defined benefit obligations	2.34%	2.16%
Weighted average wage increase rate	5.08%	6.10%

(6) When all other assumptions are maintained and if the actuarial assumption of the above has changed, the impact on the net defined benefit liabilities as of December 31, 2020 is as follows (in thousands of Korean won):

	2020	
	Increase by 1%	Decrease by 1%
Discount rate for defined benefit obligations	Decrease by 5.56%	Increase by 6.37%
Weighted average wage increase rate	Increase by 6.14%	Decrease by 5.47%

(7) The weighted average maturity of the Company's defined benefit obligations as of December 31, 2020 is 8.01 years.

21. CAPITAL STOCK AND CAPITAL SURPLUS:

(1) According to the Company's articles of incorporation, the total number of shares to be issued by the Company is 20,000,000 shares, and the price per share is ₩500. The details of stocks issued by the Company and changes in capital stock and paid-in capital in excess of par value for the years ended December 31, 2020 and 2019, are as follows (in shares and thousands of Korean won):

	Number of shares	Capital stock	Paid-in capital in excess of par value	Total
Jan 1, 2019	8,050,441	₩ 4,025,221	₩17,226,915	₩21,252,136
Increase in capital without consideration	2,087,743	1,043,871	(1,054,074)	(10,203)
Dec 31, 2019	10,138,184	5,069,092	16,172,841	21,241,933
Jan 1, 2020	10,138,184	5,069,092	16,172,841	21,241,933
Dec 31, 2020	10,138,184	₩ 5,069,092	₩16,172,841	₩21,241,933

(2) According to the Company's articles of incorporation, stock options can be granted to executives and employees within the scope of 15/100 of the total number of issued stocks by a special resolution at the general shareholders' meeting. Stock options can be granted by resolution of the Board of Directors and approval of the general shareholders' meeting within the scope of 3/100 of the total number of issued stocks. The total number of unexercised stock options among the stock options granted is 200,000 shares as of December 31, 2020.

(3) According to the Company's articles of incorporation, convertible bonds that can be converted into common stock and bonds with warrants that grant stock preemptive rights are distributed to persons other than shareholders by resolution of the Board of Directors within the extent that the total face value of each bond does not exceed ₩50,000 million. There are no convertible bonds or bonds with warrants issued under these conditions as of December 31, 2020.

(4) Details of capital surplus as of December 31, 2020 and 2019, are as follows (in thousands of Korean won):

	2020	2019
Paid-in capital in excess of par value	₩ 16,172,841	₩ 16,172,841
Gains on sale of treasury stock (*1)	323,880	323,880
Total	₩ 16,496,721	₩ 16,496,721

(*1) Gain on disposal of treasury stock is the part which was recognized as other capital item with regard to the gain on disposal of treasury stock disposed prior to current year. The income tax effect of ₩91 million is deducted in this amount.

22. OTHER CONTRIBUTED CAPITAL AND RETAINED EARNINGS:

(1) Other contributed capital as of December 31, 2020 and 2019, is as follows (in thousands of Korean won):

	2020	2019
Treasury stock	₩ (8,468,333)	₩ (8,468,333)
Stock option	868,678	868,678
Total	₩ (7,599,655)	₩ (7,599,655)

(2) Changes in treasury stock for the year ended December 31, 2020 are as follows (in shares and thousands of Korean won):

Beginning balance		Increase		Decrease		Ending balance	
Number of shares	Book value	Number of shares	Book value	Number of shares	Book value	Number of shares	Book value
1,175,576	₩8,468,333	—	₩ —	—	₩ —	1,175,576	₩8,468,333

(3) Changes in stock option for the year ended December 31, 2020 are as follows (in thousands of Korean won):

Beginning balance	Increase	Decrease	Ending balance
₩ 868,678	₩ —	₩ —	₩ 868,678

(4) Statements of appropriation of retained earnings

The (planned) date of appropriation of retained earnings for the year ended December 31, 2020 is March 25, 2021, the date of shareholders' meeting (the date of appropriation of retained earnings for the year ended December 31, 2019 was March 24, 2020). The statements of appropriation of retained earnings for the years ended December 31, 2020 and 2019, are as follows (in thousands of Korean won):

	2020	2019
Unappropriated retained earnings:		
Unappropriated retained earnings carried forward from prior year	₩ 38,045,419	₩ 34,148,176
Remeasurement of net retirement benefit obligations	861,686	(371,870)
Net income	3,648,087	5,945,121
Transfer of voluntary reserve, etc.	—	—
Total	42,555,192	39,721,427
Appropriation of retained earnings:		
Legal reserve	89,626	152,365
Dividends (dividends per common share (dividend ratio): ₩100 per share (20%) and ₩170 per share (34%) respectively in 2020 and 2019)	896,261	1,523,643
Subtotal	985,887	1,676,008
Unappropriated retained earnings carried forward to subsequent year	₩ 41,569,305	₩ 38,045,419

(5) Details of retained earnings as of December 31, 2020 and 2019, are as follows (in thousands of Korean won):

	2020	2019
Statutory reserve:		
Legal reserve (*1)	₩ 560,578	₩ 408,213
Unappropriated retained earnings	42,555,192	39,721,427
Total	₩ 43,115,770	₩ 40,129,640

(*1) In accordance with the provisions of the Commercial Act enacted and in force in the Republic of Korea, the Company is required to accumulate at least 10% of cash dividends as an earned reserve in each settlement period until it reaches 50% of its capital. The earned reserve cannot be distributed in cash, but can be transferred to capital or compensated for deficits by the resolution of the general shareholders' meeting, and if the total amount of the capital reserve and earnings reserve exceeds 1.5 times the capital (according to the resolution of the general shareholders' meeting), the capital reserve and earned reserve may be reduced within the range of excessed amount.

(6) Dividends

Dividend payments are ₩1,524 million (₩170 per share) and ₩1,044 million (₩150 per share), respectively in 2020 and 2019. Dividends per share and total dividends for the fiscal year ended December 31, 2020 are ₩100 per share and ₩896 million, respectively, and will be proposed as an agenda at the regular shareholders' meeting scheduled for March 25, 2021. The financial statements for current year do not include these accrued dividends.

23. SHARE-BASED COMPENSATION:

(1) The Company entered into stock option agreements with the Company's executives. Details of those options are as follows:

1) Type of stocks to be issued from the exercise of the stock options: registered common stock
2) Method of grant: issuance of new shares of common stock
3) Vesting requirements: employment for at least 3 years after grant date
4) Exercisable date: within 4 years after 3 years from grant date

(2) Changes in the number of stock options and weighted average exercise price for the years ended December 31, 2020 and 2019, are as follows (in shares and Korean won):

	Number of stock options		**Weighted average exercise price**	
	2020	**2019**	**2020**	**2019**
Beginning balance	200,000	200,000	₩ 7,575	₩ 7,575
Grant	—	—	—	—
Ending balance	200,000	200,000	₩ 7,575	₩ 7,575

The weighted average remaining maturity of valid stock options is 2.25 years, and their exercise price is ₩7,575 as of December 31, 2020.

(3) The Company calculated compensation costs for stock options granted in 2016 by applying the fair value approach, and various assumptions and variables for calculating compensation costs are as follows (in Korean won):

		Assumptions and variables
Weighted average fair value of stock options granted (in KRW)	₩	4,343
Weighted average stock price on grant date (in KRW)		9,540
Volatility of the stock price (*1)		51.2%
Dividend yield rate		1.0%
Expected expiration period (*2)		5 years
Risk-free rate		1.6%

(*1) Volatility of stock price is the standard deviation of a stock's continuously compounded return on investment based on daily stock price analysis over the past five years.

(*2) The impact of non-transferability, exercise restrictions, etc. was considered in calculating the expected maturity based on the management's best estimate.

(4) Share-based compensations recognized as expenses in 2019 amounted to ₩66 million, and these are expenses related to fully stock-settled share-based compensations. Meanwhile, the total stock compensation expense is ₩869 million, and there is no stock compensation expense to be recognized after December 31, 2020.

24. SELLING AND ADMINISTRATIVE EXPENSES:

(1) Details of selling and administrative expenses for the years ended December 31, 2020 and 2019, are as follows (in thousands of Korean won):

	2020	2019
Payroll	₩ 4,161,391	₩ 4,101,898
Research and development	2,455,652	2,295,943
Commissions	702,533	796,815
Export related expenses	514,048	581,094
Samples	343,080	225,517
Employee benefits	320,400	404,679
Provision for retirement benefits	317,017	284,395
Sales commission	260,560	270,164
Depreciation (PP&E)	175,192	177,633
Amortization	147,134	121,831
Insurance	135,083	122,426
Marketing	125,036	521,298
Carriage and storage expenses	119,288	143,145
Depreciation (right-of-use assets)	118,938	121,557
Taxes and dues	113,125	121,355
Supplies	69,676	66,731
Travel	60,227	392,263
Entertainment	57,605	190,911
Communication	49,089	58,121
Vehicle maintenance	43,414	56,369
Other	54,042	186,679
Total	₩ 10,342,530	₩ 11,240,824

25. OTHER INCOME AND EXPENSES:

(1) Details of other income and expenses for the years ended December 31, 2020 and 2019, are as follows (in thousands of Korean won):

	2020	2019
Other income:		
Gain on foreign currency translation	₩ 5,138	₩ 17,702
Gain on foreign currency transaction	387,308	488,525
Gain on disposal of the right-of-use asset	382	—
Gain on exemption of debt	—	16,314
Miscellaneous income	160,898	158,391
Total	₩ 553,726	₩ 680,932
Other expenses:		
Loss on foreign currency translation	₩ 104,769	₩ 105,101
Loss on foreign currency transaction	534,085	200,266
Loss on disposal of PP&E	—	1
Impairment loss on PP&E	—	683,945
Impairment loss on intangible assets	—	175,561
Donations	7,600	20,200
Loss on disaster	46,960	—
Miscellaneous expenses	17,494	361
Total	₩ 710,908	₩1,185,435

26. CLASSIFICATION OF EXPENSES BY NATURE:

The classification of expenses by nature for the years ended December 31, 2020 and 2019, is as follows (in thousands of Korean won):

	2020	2019
Changes in merchandise, finished goods and working in process	₩ (2,704,402)	₩ (2,520,029)
Purchase of merchandise	2,163,190	3,536,630
Use of raw materials	7,928,141	9,155,242
Payroll (*)	12,316,996	12,811,561
Research and development	2,455,652	2,295,943
Depreciation (PP&E) (*)	2,315,831	1,699,282
Supplies	1,655,257	1,832,741
Electricity	1,610,677	1,561,663
Commissions (*)	1,116,785	1,337,840
Water and gas	551,486	544,072
Amortization	544,883	555,636
Export related expenses	514,048	581,094
Samples	343,080	225,517
Sales commission	260,560	270,164
Outsourcing	248,708	553,338
Taxes and dues	191,833	198,007
Insurance	160,379	183,646
Depreciation (right-of-use assets) (*)	138,546	138,046
Transportation	127,151	152,177
Marketing	125,036	521,298
Travel	63,201	406,094
Entertainment	57,605	190,911
Other	647,224	768,470
Total sum of COGS, SG&A and bad debt expense	₩ 32,831,867	₩ 36,999,343

(*) The amount does not include the part which is classified as development costs, research and development.

27. LABOR COST FOR EMPLOYEES:

Labor cost for employees including research and development and development cost for the years ended December 31, 2020 and 2019, is as follows (in thousands of Korean won):

	2020	2019
Payroll (*)	₩ 11,666,749	₩ 12,165,234
Employee benefits	1,695,889	1,805,193
Provision for retirement benefits	1,230,708	1,141,775
Share-based compensation	—	65,845
Total	₩ 14,593,346	₩ 15,178,047

(*) The Company granted treasury stocks to executives and technical advisors prior to the current year, and accordingly, the amount corresponding to the fair value was recorded as payroll (see Note 33).

28. FINANCIAL INCOME AND EXPENSES:

(1) Details of financial income and expenses for the years ended December 31, 2020 and 2019, are as follows (in thousands of Korean won):

	2020	2019
Interest expenses:		
Borrowings	₩ 377,038	₩ 360,389
Loss on foreign currency transaction	347,779	28,953
Loss on foreign currency translation	100,963	25,266
Total financial expenses	825,780	414,608
Interest income:		
Bank savings and periodical deposits	12,440	23,217
Money trust, etc.	7,595	14,831
Gain on foreign currency transaction	86,607	107,608
Gain on foreign currency translation	1,204	492
Total financial income	107,846	146,148
Net financial expenses	₩ 717,934	₩ 268,460

Borrowing costs capitalized as part of an asset are ₩64 million and ₩189 million, respectively, and the capitalization rates applied are 2.03% and 2.49%, respectively, for the years ended December 31, 2020 and 2019.

29. INCOME TAX EXPENSE AND DEFERRED INCOME TAX:

(1) Income tax expense for the years ended December 31, 2020 and 2019, consists of the following (in thousands of Korean won):

	2020	2019
Current income tax expense:		
Income tax currently payable	₩ 211,643	₩ 1,339,768
Current adjustments regarding prior years' income tax	—	51,863
Deferred income tax expense:		
Changes in temporary differences	(352,005)	(467,274)
Income tax reflected directly to the equity (*)	(243,040)	104,886
Total income tax expenses	₩ (383,402)	₩ 1,029,243

(*) The effect of income tax reflected directly to the equity for the years ended December 31, 2020 and 2019, is as follows (in thousands of Korean won):

	2020		
	Pre-tax	Tax effect	After-tax
Remeasurement of net retirement benefit obligations	₩1,104,726	₩(243,040)	₩ 861,686

	2019		
	Pre-tax	Tax effect	After-tax
Remeasurement of net retirement benefit obligations	₩(476,755)	₩ 104,886	₩(371,869)

(2) Reconciliation from pre-tax income to income tax expense for the years ended December 31, 2020 and 2019, is as follows (in thousands of Korean won):

	2020	2019
Pre-tax income	₩ 3,264,686	₩ 6,974,364
Tax expense using currently applicable rates	696,231	1,512,360
Adjustments:		
Non-deductible expenses	11,288	46,298
Non-taxable income	(3)	(2)
Tax credit	(1,173,937)	(598,008)
Special tax for rural development	119,016	16,732
Current adjustments regarding prior years' income tax	(35,997)	51,863
Subtotal	(1,079,633)	(483,117)
Income tax expense	₩ (383,402)	₩ 1,029,243
Effective tax rate	-11.74%	14.76%

(3) Details of the deferred tax assets and liabilities as of December 31, 2020 and 2019, are as follows (in thousands of Korean won):

	2020	2019
Deferred tax assets:		
Deferred tax assets to be settled after 12 months	₩2,836,557	₩2,803,974
Deferred tax assets to be settled in 12 months	1,228,463	820,940
Subtotal	4,065,020	3,624,914
Deferred tax liabilities:		
Deferred tax liabilities to be settled after 12 months	(1,616,739)	(1,528,582)
Deferred tax liabilities to be settled in 12 months	—	(56)
Subtotal	(1,616,739)	(1,528,638)
Net deferred tax assets (liabilities)	₩2,448,281	₩2,096,276

(4) Changes in temporary differences and deferred tax assets (liabilities) for the years ended December 31, 2020 and 2019, are as follows (in thousands of Korean won):

	2020					
	Temporary differences				DTA (DTL)	
	Beginning balance	Increase	Decrease	Ending balance	Beginning balance	Ending balance
Defined benefit liabilities	₩ 8,688,000	₩ 1,335,015	₩ 1,251,572	₩ 8,771,443	₩ 1,911,360	₩ 1,929,717
Expense for retirement benefit	—	500	—	500	—	110
Benefit plan assets	(6,820,583)	(414,898)	—	(7,235,481)	(1,500,529)	(1,591,806)
Allowance for bad debts	220,268	226,821	219,772	227,317	48,459	50,010
Accrued income	(256)	—	(256)	—	(56)	—
Accrued expenses	498,169	393,481	453,940	437,710	109,597	96,296
Allowance for inventory valuations	2,764,422	3,454,381	2,764,422	3,454,381	608,173	759,964
Research and development	(1)	—	—	(1)	—	—
Government grant	2,148,285	436,248	508,289	2,076,244	472,623	456,774
Gain or loss on foreign currency translation	112,173	199,390	112,173	199,390	24,678	43,866
Impairment loss on intangible assets	118,272	—	49,935	68,337	26,020	15,034
Impairment loss on PP&E	922,100	—	—	922,100	202,862	202,862
Share-based compensation	868,678	—	—	868,678	191,109	191,109
Depreciation	—	210,642	8,000	202,642	—	44,581
Lease liabilities	8,999	9,556	8,999	9,556	1,980	2,102
Subtotal	9,528,526	5,851,135	5,376,846	10,002,815	2,096,276	2,200,619
Tax credit carried forward	—	1,054,922	807,260	247,662	—	247,662
Total	₩ 9,528,526	₩ 6,906,057	₩ 6,184,106	₩10,250,477	₩ 2,096,276	₩ 2,448,281

	2019					
	Temporary differences				DTA (DTL)	
	Beginning balance	Increase	Decrease	Ending balance	Beginning balance	Ending balance
Defined benefit liabilities	₩ 7,159,527	₩ 1,734,330	₩ 205,857	₩ 8,688,000	₩ 1,575,096	₩ 1,911,360
Benefit plan assets	(5,214,214)	(1,606,369)	—	(6,820,583)	(1,147,127)	(1,500,529)
Allowance for bad debts	228,731	219,772	228,235	220,268	50,321	48,459
Accrued income	(251)	(256)	(251)	(256)	(55)	(56)
Accrued expenses	438,377	395,293	335,502	498,168	96,443	109,597
Allowance for inventory valuations	1,460,430	2,764,422	1,460,430	2,764,422	321,295	608,173
Research and development	(1)	—	—	(1)	—	—
Government grant	2,194,865	568,350	614,930	2,148,285	482,870	472,623
Gain or loss on foreign currency translation	31,516	112,173	31,516	112,173	6,934	24,678
Impairment loss on intangible assets	64,587	116,024	62,339	118,272	14,209	26,020
Impairment loss on PP&E	238,154	683,946	—	922,100	52,394	202,862
Share-based compensation	802,833	65,845	—	868,678	176,622	191,109
Lease liabilities	—	8,999	—	8,999	—	1,980
Total	₩ 7,404,554	₩ 5,062,529	₩ 2,938,558	₩ 9,528,525	₩ 1,629,002	₩ 2,096,276

(5) The Company judges that deferred tax assets are feasible because the expected average annual profit from next fiscal year exceeds the deductible temporary difference that expires in each fiscal year.

30. FOREIGN CURRENCY TRANSLATION OF FOREIGN CURRENCY-DENOMINATED MONETARY ASSETS AND LIABILITIES:

Details foreign currency translation of foreign currency-denominated monetary assets and liabilities as of and for the years ended December 31, 2020 and 2019, are as follows (in USD, thousands of Korean won):

	2020				2019
	Amount in USD	Amount in KRW	Gain on foreign currency translation	Loss on foreign currency translation	Amount in KRW
Assets:					
Cash and cash equivalents	$2,753,851	₩2,996,190	₩ 1,203	₩ 100,963	₩1,551,753
Trade receivables	4,026,205	4,380,511	1,133	98,803	5,556,937
Non-trade receivables	85,475	92,996	—	5,966	98,962
Liabilities:					
Trade payables	130,681	142,181	3,043	—	1,146,657
Non-trade payables	37,767	41,091	963	—	68,291
Total			₩ 6,342	₩ 205,732	

31. EARNINGS PER SHARE:

(1) Basic earnings per share

Basic earnings per share (for common stocks) for the years ended December 31, 2020 and 2019, is calculated as follows (in shares and thousands of Korean won):

1) weighted-average number of common shares outstanding (basic) (in shares):

	2020		
	Number of shares issued	Number of days outstanding	Weighted number of shares
Beginning balance	10,138,184	366	3,710,575,344
Holding of treasury stocks	(1,175,576)	366	(430,260,816)
Weighted total			3,280,314,528
Number of days outstanding			366
Weighted-average number of common shares outstanding			8,962,608

	2019		
	Number of shares issued	Number of days outstanding	Weighted number of shares
Beginning balance	8,050,441	365	2,938,410,965
Holding of treasury stocks	(1,091,299)	365	(398,324,135)
Increase in capital without consideration (*)	2,087,743	365	762,026,195
Acquisition of treasury stocks	(30,000)	147	(4,410,000)
Acquisition of treasury stocks	(25,000)	97	(2,425,000)
Acquisition of treasury stocks	(23,000)	77	(1,771,000)
Acquisition of treasury stocks	(4,800)	76	(364,800)
Acquisition of treasury stocks	(700)	75	(52,500)
Acquisition of remaining shares through increase in capital without consideration	(777)	131	(101,787)
Weighted total			3,292,987,938
Number of days outstanding			365
Weighted-average number of common shares outstanding			9,021,885

(*) The Company decided to increase capital without considerations through a resolution of the Board of Directors on July 9, 2019, and accordingly, it was proportionally adjusted as if the event had occurred on the opening date of the first period to be compared.

2) Basic earnings per share (in shares and Korean won):

		2020		2019
Net income of common stock (in KRW)	₩	3,648,087,374	₩	5,945,120,683
(÷) Weighted-average number of common shares outstanding		8,962,608 Shares		9,021,885 Shares
Basic earnings per share (in KRW)	₩	407 won/share	₩	659 won/share

(2) Diluted earnings per share

Diluted earnings per share (for common stocks) for the years ended December 31, 2020 and 2019, is calculated as follows (in shares and thousands of Korean):

1) weighted-average number of common shares outstanding (diluted) (in shares):

	2020 Weighted-average number of common shares outstanding
Weighted-average number of common shares outstanding (basic)	8,962,608
(+) Number of shares to be issued upon exercise of stock option (*)	200,000
(-) Number of shares to be issued at average market price	(197,405)
Weighted-average number of common shares outstanding (diluted)	8,965,203

	2019 Weighted-average number of common shares outstanding
Weighted-average number of common shares outstanding (basic)	9,021,885
Weighted-average number of common shares outstanding (diluted)	9,021,885

(*) Details of potential ordinary shares which have the effect of dilution as of December 31, 2020 are as follows (in shares and Korean won):

	2020	
	Exercise price (in KRW)	Number of common shares available for exercise (in shares)
Stock options	₩ 7,575	200,000

2) Diluted earnings per share (in shares and Korean won):

	2020	2019
Net income of common stock (in KRW)	₩ 3,648,087,374	₩ 5,945,120,683
(+) Net income for the calculation of diluted earnings per share	—	—
Net income used in calculation of diluted earnings per share (in KRW)	3,648,087,374	5,945,120,683
(÷) Weighted-average number of common shares outstanding (diluted)	8,965,203 shares	9,021,885 shares
Diluted earnings per share	₩ 407 won/share	₩ 659 won/share

32. CASH GENERATED FROM OPERATIONS:

(1) Cash generated from operations:

1) Details of cash generated from operations for the years ended December 31, 2020 and 2019, are as follows (in thousands of Korean won):

	2020	2019
Net income	₩3,648,087	₩5,945,121
Adjustments:		
Income tax expense	(383,402)	1,029,243
Financial expenses	377,038	360,389
Financial income	(20,035)	(38,048)
Provision for retirement benefits	1,218,126	1,136,367
Depreciation	2,428,639	1,806,036
Depreciation for right-of-use assets	159,496	161,389
Bad debt expenses	(1,771)	1,007
Amortization	544,883	542,276
Loss on disposal of PP&E	—	1
Loss on foreign currency translation	205,732	130,367
Loss on inventory valuation	689,959	1,303,992
Loss on disaster	17,660	—
Share-based compensation	—	65,845
Impairment loss on PP&E	—	683,945
Impairment loss on intangible assets	—	175,561
Gain on foreign currency translation	(6,342)	(18,194)
Gain on disposal of right-of-use assets	(382)	—
Gain on exemption of debt	—	(16,314)
Fee income	—	(2,245)
Changes in operating assets and liabilities:		
Trade receivables	770,781	(1,091,839)
Other current assets, etc.	198,560	414,103
Inventories	(3,094,372)	(4,285,918)
Trade payables	(1,034,712)	155,473
Other current liabilities, etc.	165,047	68,973
Payment of severance benefits	(144,855)	(191,017)
Contribution to benefit plan assets	(300,000)	(1,500,000)
Payment of technical commissions	—	(33,268)
Cash generated from operations	₩ 5,438,137	₩ 6,803,245

2) Important transactions not involving cash flows for the years ended December 31, 2020 and 2019, are as follows (in thousands of Korean won):

	2020	**2019**
Transfer of construction in progress to PP&E	₩11,840,950	₩6,250,842
Liquidity transfer of long-term borrowings to current portion	600,000	—
Transfer of inventories to PP&E	—	76,023
Non-trade payable for the acquisition of PP&E	—	(28,790)
Transfer of prepayments to PP&E	—	76,023
Liquidity transfer of long-term prepaid expense to current portion	161,996	161,996
Recognition of right-of-use assets	194,624	384,021
Increase in capital without considerations	—	1,043,872

3) Details of the adjustment in the liabilities from the financial activities for the year ended December 31, 2020 are as follows (in thousands of Korean won):

	Liabilities from financial activities				
	Short-term borrowings	**Current portion of long-term borrowings**	**Long-term borrowings**	**Lease liabilities**	**Total**
Beginning balance	₩15,000,000	₩ —	₩ 6,000,000	₩ 220,712	₩21,220,712
Transfer	—	600,000	(600,000)	172,875	172,875
Cash flows	2,000,000	—	—	(156,899)	1,843,101
Depreciation	—	—	—	5,937	5,937
Ending balance	₩17,000,000	₩ 600,000	₩ 5,400,000	₩ 242,625	₩23,242,625

33. RELATED-PARTY TRANSACTIONS:

(1) The CEO of the Company is the largest shareholder as of December 31, 2020.

(2) The Company paid short-term employee benefits of ₩2,409 million (₩2,464 million in 2019) and defined benefit expenses of ₩169 million (₩158 million in 2019) to key executives such as directors (including non-executive directors) and internal auditors who have important authority and responsibility for planning, operation, and control of the Company's activities in 2020.

(3) In relation to borrowings as of December 31, 2020 and 2019, the Company is provided with a payment guarantee from the CEO (see Note 18).

(4) The company has granted stock options to executives in 2016 according to a special resolution at the general shareholders' meeting. The number of unexercised stock options is 200,000 shares as of December 31, 2020 (see Note 23).

(5) The company granted 50,000 shares of treasury stock to two executives in exchange for service in 2015. Of these, 10,000 shares are for past service, and the awarded executives have the right to dispose of the shares from one year after the date of grant. Meanwhile, the 40,000 shares are for future service and are subject to tenure for 7 years from the date of grant, and the executive will have the right to dispose of the shares as the tenure period elapses. The Company estimated the fair value of the equity instruments granted at the market price of ₩10,750 and ₩11,800 per share at the date of grant, and recognized payroll expenses of ₩67 million in 2020. In addition, 46,300 shares of treasury stock were granted to one technical advisor in exchange for service in 2018, and he(she) has the right to dispose of the stocks one year after the date of grant. This is for future service and is a condition of tenure for four years from the date of grant, and the executive will have the right to dispose of the stock according to the elapse of the tenure thereafter. The Company estimated the fair value of the equity instruments granted at ₩8,170 per share, which is the market price on the grant date, and recognized ₩95 million of payroll expenses in 2020.

34. COMMITMENTS AND CONTINGENCIES:

(1) The credit limits and amounts used in relation to the Company's borrowings and trade bill loans as of December 31, 2020 are as follows (in thousands of Korean won):

Financial institution	Type of loan	Credit limit	Amount used
Shinhan Bank	Facility loan (*)	₩ 6,000,000	₩ 6,000,000
Shinhan Bank	General loan	5,000,000	5,000,000
Shinhan Bank	Trade bill loan	3,000,000	2,000,000
Kookmin Bank	Trade bill loan	5,000,000	1,000,000
Citibank Korea	Trade bill loan	5,000,000	5,000,000
Woori Bank	Trade bill loan	5,000,000	2,000,000
KEB Hana Bank	Trade bill loan	5,000,000	2,000,000
Total		₩ 34,000,000	₩ 23,000,000

(*) This loan is pledged in the fire insurance contract of the Company, and the pledged amount is ₩10,800 million.

(2) The Company has entered into a loan agreement which is collateralized with electronic trade receivables with Woori Bank, and there is no related balance outstanding as of December 31, 2020 and 2019.

(3) The Company has entered into a derivative contract with Citibank Korea up to USD 550,000, and there is no related balance outstanding as of December 31, 2020.

(4) The Company has a L/C payment guarantee agreement (credit limit of ₩5,000 million) with Kookmin Bank in relation to the trade bill, and there is no related balance outstanding as of December 31, 2020.

(5) The Company is provided with payment guarantees of ₩357 million from Seoul Guarantee Insurance in connection with the execution of government projects as of December 31, 2020.

(6) The Company has a guarantee agreement of ₩2,000 million with the Korea Technology Finance Corporation in relation to the technology guarantee for R&D companies, and there is no outstanding balance as of December 31, 2020.

CQV CO., LTD.

FINANCIAL STATEMENTS
AS OF AND FOR THE YEARS ENDED
DECEMBER 31, 2021 AND 2020
with INDEPENDENT AUDITORS' REPORT

Induk Accounting Corp.

INDEPENDENT AUDITORS' REPORT

English Translation of Independent Auditors' Report Originally Issued in Korean on March 17, 2022.

To the Shareholders and the Board of Directors of CQV Co., Ltd.:

Audit Opinion

We have audited the financial statements of CQV Co., Ltd. (the "Company"), which comprise the statements of financial position as of December 31, 2021 and 2020, respectively, and the statements of comprehensive income, statements of changes in shareholders' equity and statements of cash flows for the years then ended, and notes to the financial statements, including a summary of significant accounting policies

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2021 and 2020, respectively, and its financial performance and its cash flows for the years then ended in accordance with Korean International Financial Reporting Standards ("K-IFRSs").

Basis for Audit Opinion

We conducted our audits in accordance with the Korean Standards on Auditing ("KSAs"). Our responsibilities under those standards are further described in Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Company in accordance with the ethical requirements that are relevant to our audits of the financial statements in the Republic of Korea, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Key Audit Matters

The key audit matters are those matters that, in our professional judgment, are of most significance in our audit of the financial statements of the current year. These matters are addressed in the context of our audits of the financial statements as a whole and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

(1) Appropriateness of the inventory valuation

There are inventories amounting to ₩27,078 million which are, as described in Note 2, valued at the lower of acquisition cost and net realizable value. Related carrying amount of the allowance for inventory valuation is ₩4,273 million, and the loss on the valuation of inventories for the year ended December 31, 2021 is ₩819 million, as described in Note 11.

We determined such inventory valuation as a key audit matter under following considerations:

i) The ratio of carrying amount of inventories to total assets of the Company is significant at 32.4% as of December 31, 2021.

ii) Significant judgment of management is involved in estimating the net realizable value expected to be realized at the time of sale.

Our audit procedures on the key audit matter are as follows:

a) Understanding the accounting policies used to calculate the allowance for inventory valuation and reviewing internal control related to inventory valuation

b) Verify the appropriateness of the calculation by re-calculating allowance for inventory valuation

c) Review of accuracy and completeness of basic information used to recognize the allowance for inventory valuation

d) Confirm whether the selling price used in calculating net realizable value matches the latest selling price through sampling test

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation of the accompanying financial statements in accordance with K-IFRSs, and for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management of the Company is responsible for assessing the Company's ability to continue as a going concern; disclosing, as applicable, matters related to going concern; and using the going-concern basis of accounting, unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Company's financial reporting process.

Auditors' Responsibilities for the Audits of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with KSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with KSAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error; design and perform audit procedures responsive to those risks; and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

- Conclude on the appropriateness of the management's use of the going-concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Company to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audits and significant audit findings, including any significant deficiencies in internal control that we identify during our audits.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the financial statements of the current year and are, therefore, the key audit matters. We describe these matters in our auditors' report, unless law or regulation precludes public disclosure about a matter or when, in extremely rare circumstances, we determine that the matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in this independent auditors' report is Yoon, Tae Ho.

March 17, 2022

Induk Accounting Corporation

Notice to Readers

This report is effective as of March 17, 2022, the auditors' report date. Certain subsequent events or circumstances may have occurred between the auditors' report date and the time the auditors' report is read. Such events or circumstances could significantly affect the financial statements and may result in modifications to the auditors' report.

CQV CO., LTD. (the "Company")

FINANCIAL STATEMENTS
AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2021 AND 2020

The accompanying financial statements, including all footnote disclosures, were prepared by, and are the responsibility of, CQV Co., Ltd.

Jang, Gil Wan
CHIEF EXECUTIVE OFFICER
CQV CO., LTD.

CQV CO., LTD.
STATEMENTS OF FINANCIAL POSITION
AS OF DECEMBER 31, 2021 AND 2020

	Notes	**2021**	**2020**
		(In Korean won)	
ASSETS			
Current assets:			
Cash and cash equivalents	4,6,7,31	₩ 5,808,177,381	₩ 6,652,979,901
Trade receivables	4,6,8,31	8,388,025,169	8,409,795,104
Other financial assets	4,6,7,9,31	6,170,970	96,295,667
Other current assets	10	458,530,547	582,026,713
Current tax assets		—	48,056,870
Inventories	11,12	27,078,139,787	24,447,938,267
Total current assets		41,739,043,854	40,237,092,522
Non-current assets:			
Property, plant and equipment	12,17	35,372,711,510	37,734,332,611
Right-of-use assets	13	328,843,843	240,254,886
Intangible assets	14,17	3,978,170,914	3,933,930,920
Other financial assets	4,6,7,9	277,175,871	377,171,790
Other non-current assets	10	—	82,273,592
Deferred tax assets	30	1,941,794,533	2,448,281,008
Total non-current assets		41,898,696,671	44,816,244,807
Total assets		₩ 83,637,740,525	₩ 85,053,337,329

(Continued)

CQV CO., LTD.
STATEMENTS OF FINANCIAL POSITION (CONTINUED)
AS OF DECEMBER 31, 2021 AND 2020

	Notes	**2021**	**2020**
		(In Korean won)	
LIABILITIES AND SHAREHOLDERS' EQUITY			
Current liabilities:			
Trade payables	4,6,15,31	₩ 908,029,609	₩ 353,093,274
Short-term borrowings	4,6,18	15,200,000,000	17,600,000,000
Other financial liabilities	4,6,15,17,19,31	1,489,987,722	1,688,359,949
Other current liabilities	16	194,745,123	282,411,638
Current tax liabilities		233,285,152	92,451,745
Total current liabilities		18,026,047,606	20,016,316,606
Non-current liabilities:			
Long-term borrowings	4,6,18	4,200,000,000	5,400,000,000
Defined benefit liabilities, net	20	851,250,332	1,535,961,918
Other financial liabilities	4,6,15,17,19	948,909,019	1,019,130,637
Total non-current liabilities		6,000,159,351	7,955,092,555
Total liabilities	4	24,026,206,957	27,971,409,161
Equity attributable to the owners of the parent company:			
Capital stock	1,21	5,069,092,000	5,069,092,000
Capital surplus	21	16,496,720,838	16,496,720,838
Other capital items	22	(7,599,655,018)	(7,599,655,018)
Retained earnings	22	45,645,375,748	43,115,770,348
Total shareholders' equity	4	59,611,533,568	57,081,928,168
Total liabilities and shareholders' equity		₩ 83,637,740,525	₩ 85,053,337,329

(Concluded)

See accompanying notes to financial statements.

CQV CO., LTD.
STATEMENTS OF COMPREHENSIVE INCOME
FOR THE YEARS ENDED DECEMBER 31, 2021 AND 2020

	Notes	**2021**	**2020**
		(In Korean won)	
SALES	5,24	₩ 40,002,344,966	₩ 36,971,668,671
COST OF SALES	11,27	25,402,979,424	22,491,108,392
GROSS PROFIT		14,599,365,542	14,480,560,279
Selling and administrative expenses	25,27	10,509,797,061	10,342,529,533
Bad debt expenses	8,27	2,473,964	(1,771,105)
OPERATING INCOME		4,087,094,517	4,139,801,851
Non-operating income	26	516,882,519	553,725,953
Non-operating expenses	26	174,765,292	710,908,144
Financial income	29	240,074,520	107,845,751
Financial expenses	29	389,443,897	825,779,665
PRE-TAX INCOME		4,279,842,367	3,264,685,746
INCOME TAX EXPENSE (REVENUE)	30	765,712,513	(383,401,628)
NET INCOME		3,514,129,854	3,648,087,374
OTHER COMPREHENSIVE INCOME (LOSS):			
Items that are not subsequently reclassified to profit or loss:			
Actuarial gain (loss) on defined benefit obligations, net	20,30	(88,263,654)	861,686,341
TOTAL COMPREHENSIVE INCOME		₩ 3,425,866,200	₩ 4,509,773,715
EARNINGS PER SHARE:			
Basic earnings per share	32	₩ 392	₩ 407
Diluted earnings per share	32	392	407

See accompanying notes to financial statements.

CQV CO., LTD.
STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY
FOR THE YEARS ENDED DECEMBER 31, 2021 AND 2020

(In Korean Won)	*Notes*	Capital stock	Capital surplus	Other capital items	Retained earnings	Total
I. Balance as of January 1, 2020		₩ 5,069,092,000	₩ 16,496,720,838	₩ (7,599,655,018)	₩ 40,129,639,993	₩ 54,095,797,813
II. Total comprehensive income:						
Net income		—	—	—	3,648,087,374	3,648,087,374
Other comprehensive income:						
Actuarial gain on defined benefit obligation	20	—	—	—	861,686,341	861,686,341
Total other comprehensive income		—	—	—	861,686,341	861,686,341
Total comprehensive income		—	—	—	4,509,773,715	4,509,773,715
III. Transactions with shareholders						
Dividends	22	—	—	—	(1,523,643,360)	(1,523,643,360)
Total transactions with shareholders		—	—	—	(1,523,643,360)	(1,523,643,360)
IV. Balance as of December 31, 2020		₩ 5,069,092,000	₩ 16,496,720,838	₩ (7,599,655,018)	₩ 43,115,770,348	₩ 57,081,928,168

(Continued)

CQV CO., LTD.
STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY (CONTINUED)
FOR THE YEARS ENDED DECEMBER 31, 2021 AND 2020

(In Korean Won)	*Notes*	Capital stock	Capital surplus	Other capital items	Retained earnings	Total
I. Balance as of January 1, 2021		₩ 5,069,092,000	₩ 16,496,720,838	₩ (7,599,655,018)	₩ 43,115,770,348	₩ 57,081,928,168
II. Total comprehensive income:						
Net income		—	—	—	3,514,129,854	3,514,129,854
Other comprehensive income (loss):						
Actuarial loss on defined benefit obligation	20	—	—	—	(88,263,654)	(88,263,654)
Total other comprehensive income (loss)		—	—	—	(88,263,654)	(88,263,654)
Total comprehensive income		—	—	—	3,425,866,200	3,425,866,200
III. Transactions with shareholders						
Dividends	22	—	—	—	(896,260,800)	(896,260,800)
Total transactions with shareholders		—	—	—	(896,260,800)	(896,260,800)
IV. Balance as of December 31, 2021		₩ 5,069,092,000	₩ 16,496,720,838	₩ (7,599,655,018)	₩ 45,645,375,748	₩ 59,611,533,568

(Concluded)

See accompanying notes to financial statements.

CQV CO., LTD.
STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, 2021 AND 2020

	Notes	**2021**	**2020**
		(In Korean won)	
I. CASH FLOWS FROM OPERATING ACTIVITIES:			
Cash generated from operations	33	₩ 5,403,496,271	₩ 5,438,136,566
Interest expense paid		(364,388,512)	(451,658,928)
Income tax paid		(45,440,885)	(1,255,043,384)
Net cash provided by operating activities		4,993,666,874	3,731,434,254
II. CASH FLOWS FROM INVESTING ACTIVITIES:			
Decrease in short-term financial instruments		—	120,000,000
Decrease in long-term financial instruments		19,944,095	—
Disposal of PP&E		700,000	—
Decrease in leasehold deposits		173,088,040	—
Receipt of interest income		6,922,692	12,695,684
Receipt of government grant	17	415,302,428	628,209,581
Increase in short-term financial instruments		—	(60,000,000)
Increase in long-term financial instruments		(38,703,415)	(97,012,706)
Acquisition of PP&E	12	(718,901,260)	(2,296,046,072)
Acquisition of intangible assets	14	(1,000,914,937)	(910,853,043)
Increase in leasehold deposits		(52,866,000)	(4,189,040)
Net cash used in investing activities		(1,195,428,357)	(2,607,195,596)
III. CASH FLOWS FROM FINANCING ACTIVITIES:			
Increase in borrowings	18,33	1,000,000,000	10,000,000,000
Repayment of borrowings	18,33	(4,600,000,000)	(8,000,000,000)
Repayment of lease liabilities	19	(147,711,120)	(156,898,814)
Dividend payment		(896,260,800)	(1,523,643,360)
Net cash provided by (used in) financing activities		(4,643,971,920)	319,457,826
IV. NET INCREASE(DECREASE) IN CASH AND CASH EQUIVALENTS (I+II+III)		(845,733,403)	1,443,696,484
V. CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR		6,652,979,901	5,309,043,352
VI. CHANGES IN CASH AND CASH EQUIVALENTS DUE TO FOREIGN CURRENCY TRANSLATION		930,883	(99,759,935)
VII. CASH AND CASH EQUIVALENTS, END OF YEAR		₩ 5,808,177,381	₩ 6,652,979,901

See accompanying notes to financial statements.

CQV CO., LTD.
NOTES TO FINANCIAL STATEMENTS
AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2021 AND 2020

1. GENERAL:

CQV Co., Ltd. (the "Company"), was incorporated on October 20, 2000, for the purpose of manufacturing and a sale of pearlescent pigments and mica products. On November 15, 2020, the Company was re-designated as a venture company by the Korea Technology Finance Corporation in accordance with Article 25 of the Act on Special Measures for the Promotion of Venture Businesses, and on November 8, 2011, the Company was listed on the Korean KOSDAQ market. The Company's total capital stock was ₩500 million at the time of establishment, and after a number of capital increases etc. the total capital stock of the Company is ₩5,069 million as of December 31, 2021.

The Company's major shareholders are as follows (in shares):

	Number of shares	Ownership ratio (%)
CEO of the Company	2,255,189	22.24
Related parties of CEO	907,222	8.95
Association of employee stock ownership	19,153	0.19
Treasury stock	1,175,576	11.60
Others	5,781,044	57.02
Total	10,138,184	100.00

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

The principal accounting policies are set out below. These policies are applied continuously for the period presented unless otherwise stated.

(1) Basis of Preparation

The Company has prepared the financial statements in accordance with the Korean International Financial Reporting Standards ("K-IFRSs"). K-IFRS refers to the contents adopted by Korea among the standards and interpretations published by the International Accounting Standards Board ("IASB").

K-IFRS allow the use of significant accounting estimates when preparing financial statements, and require management's judgment in applying accounting policies. Note 3 explains the parts that require more complex and high-level judgment or important assumptions and estimations.

(2) Changes in Accounting Policies and Disclosures

1) New and Amended K-IFRSs and new interpretations that are effective for the current year

- K-IFRS 1116 Leases — Impact of the initial application of Covid-19-Related Rent Concessions (Amendment)

The practical expedient permits a lessee to elect not to assess whether a COVID-19-related rent concession is a lease modification. A lessee that makes this election shall account for any change in lease payments resulting from the COVID-19-related rent concession the same way it would account for the change applying K-IFRS 1116 if the change were not a lease modification. There is no material impact on the Company's financial statements with respect to these amendments.

- K-IFRS 1109 Financial Instruments, K-IFRS 1039 Financial Instruments: Recognition and Measurement, K-IFRS 1107 Financial Instruments: Disclosures, K-IFRS 1104 Insurance Contracts and K-IFRS 1116 Leases - 'Interest rate benchmark Reform' (Amendment; Phase 2)

The amendments provide exceptions as followings:

① The effective interest rate, not the carrying amount, is adjusted when an interest rate benchmark is replaced on a financial instrument measured at amortized cost.

② Hedge accounting shall be continued without interruption even when interest rate benchmark is replaced in a hedging relationship.

There is no material impact on the Company's financial statements with respect to these amendments.

2) New and revised K-IFRSs in issue, but not yet effective

- K-IFRS 1103 Reference to the Conceptual Framework (Amendment)

The amendments update K-IFRS 1103 so that it refers to the Conceptual Framework (2018) instead of the Framework (2007). They also add to K-IFRS 1103 a requirement that, for obligations within the scope of K-IFRS 1037, an acquirer applies K-IFRS 1037 to determine whether at the acquisition date a present obligation exists as a result of past events. For a levy that would be within the scope of K-IFRS 2121 Levies, the acquirer applies K-IFRS 2121 to determine whether the obligating event that gives rise to a liability to pay the levy has occurred by the acquisition date. Finally, the amendments add an explicit statement that an acquirer does not recognize contingent assets acquired in a business combination. The amendments are effective for business combinations for which the date of acquisition is on or after the beginning of the first annual period beginning on or after 1 January 2022, with early application permitted. The Company does not anticipate that the application of the enactment and amendments will have a significant impact on the Company's financial statements.

- K-IFRS 1016 Property, Plant and Equipment (Amendment)

The amendments prohibit deducting from the cost of an item of property, plant and equipment any proceeds from selling items produced before that asset is available for use, i.e. proceeds while bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management. Consequently, an entity recognizes such sales proceeds and related costs in profit or loss. The amendments are effective for annual periods beginning on or after 1 January 2022, with early application permitted. The Company is reviewing the impact of the amendment on its financial statements.

- K-IFRS 1037 Onerous Contracts—Cost of Fulfilling a Contract (Amendment)

The amendments specify that the 'cost of fulfilling' a contract comprises the 'costs that relate directly to the contract'. Costs that relate directly to a contract consist of both the incremental costs of fulfilling that contract (examples would be direct labor or materials) and an allocation of other costs that relate directly to fulfilling contracts (an example would be the allocation of the depreciation charge for an item of property, plant and equipment used in fulfilling the contract). The amendments are effective for annual periods beginning on or after 1 January 2022, with early application permitted. The Company does not anticipate that the application of the enactment and amendments will have a significant impact on the Company's financial statements.

- K-IFRS 1001 Classification of Liabilities as Current or Non-current (Amendment)

The amendments to K-IFRS 1001 affect only the presentation of liabilities as current or non-current in the statement of financial position and not the amount or timing of recognition of any asset, liability, income or expenses, or the information disclosed about those items. The amendments clarify that the classification of liabilities as current or non-current is based on rights that are in existence at the end of the reporting period, specify that classification is unaffected by expectations about whether an entity will exercise its right to defer settlement of a liability, explain that rights are in existence if covenants are complied with at the end of the reporting period, and introduce a definition of 'settlement' to make clear that settlement refers to the transfer to the counterparty of cash, equity instruments, other assets or services. The amendments are applied retrospectively for annual periods beginning on or after 1 January 2023, with early application permitted. The Company is reviewing the impact of the amendment on its financial statements.

- K-IFRS 1117 Insurance Contracts

K-IFRS 1117 establishes the principles for the recognition, measurement, presentation and disclosure of insurance contracts and supersedes IFRS 4 Insurance Contracts. K-IFRS 1117 lets the entities estimate all cash flows from insurance contracts, use a discount rate that reflects assumptions and risks at the time of reporting, and recognize the revenue on an accrual basis reflecting the service (insurance coverage) provided to policyholders for each fiscal year. In addition, regardless of the insured event, expedited investment elements (cancellation/maturity refund) are excluded from insurance income, and insurance gains and losses are separated from investment gains and losses so that information users can check the source of profit and loss. The amendments are applied for annual periods beginning on or after 1 January 2023, with early application permitted for the entities which adopted and applied K-IFRS 1109 'Financial Instruments'. The Company is reviewing the impact of the amendment on its financial statements.

-K-IFRS 1001 Presentation of Financial Statements - Disclosure of Accounting Policies (Amendment)

IFRS Practice Statement 2 was amended to define and disclose material accounting policies and to provide guidance on how to apply the concept of materiality. The amendments are applied prospectively for annual periods beginning on or after 1 January 2023, with early application permitted. The Company is reviewing the impact of the amendment on its financial statements.

-K-IFRS 1008 Accounting Polices, Changes in Accounting Estimates and Errors - Definition of Accounting Estimates (Amendment)

The amendments replace the definition of a change in accounting estimates with a definition of accounting estimates. Under the new definition, accounting estimates are "monetary amounts in financial statements that are subject to measurement uncertainty". The amendments are effective for annual periods beginning on or after 1 January 2023 to changes in accounting policies and changes in accounting estimates that occur on or after the beginning of that period, with earlier application permitted. The Company does not anticipate that the application of the enactment and amendments will have a significant impact on the Company's financial statements.

-K-IFRS 1012 Income Taxes - Deferred Tax related to Assets and Liabilities arising from a Single Transaction (Amendment)

The amendments add a requirement for a transaction that does not give rise to the same taxable temporary difference and deductible temporary difference at the time of the transaction to the requirement for the exceptions of initial recognition for a transaction in which an asset or liability is recognized for the first time. The amendments are effective for annual periods beginning on or after 1 January 2023, with earlier application permitted. The Company does not anticipate that the application of the enactment and amendments will have a significant impact on the Company's financial statements.

- Annual Improvements to K-IFRS Standards 2018—2020

The annual improvements to K-IFRS Standards 2018-2020 are effective for annual periods beginning on or after 1 January 2022, with early application permitted. The Company does not anticipate that the application of the enactment and amendments will have a significant impact on the Company's financial statements.

① K-IFRS 1101 First-time Adoption of K-IFRS — A subsidiary which becomes a first-time adopter

② K-IFRS 1109 Financial Instruments — Fees relating to the'10 per cent' test to assess whether to derecognize a financial liability

③ K-IFRS 1116 Leases — Lease Incentives

④ K-IFRS 1041 Agriculture — Measuring Fair Value

(3) Operating Divisions

Management who makes strategic decisions determines the Company's operating divisions. Management reviews the divisions' operating profits to make decision for the allocation of resources to divisions and review of performance of divisions. The company has a sole operating division.

(4) Foreign Currency Translations

1) Functional currency and presentation currency

The individual items included in the Company's financial statements are measured in the currency of the primary economic environment in which the Company operates (its functional currency). For the purpose of the financial statements, the results and financial position of the Company are expressed in Korean won, which is the functional currency and the presentation currency of the Company for the financial statements.

2) Foreign currency transactions and translations at the end of the reporting period

In preparing the Company's financial statements, transactions in currencies other than the Company's functional currency (foreign currencies) are recognized at the rates of exchange prevailing at the dates of the transactions. At the end of each reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at that date. Exchange differences arising from the non-monetary items are regarded as part of the profit or loss from the change of the fair value. And then, foreign exchange differences arising from the equity instruments measured at a fair value are recognized as profit or loss, and foreign exchange differences arising from the available-for-sale equity instruments are recognized as other comprehensive income.

(5) Financial assets

All regular-way purchases or sales of financial assets are recognized and derecognized on a trade-date basis. Regular-way purchases or sales are purchases or sales of financial assets that require delivery of assets within the time frame established by regulation or convention in the marketplace.

All recognized financial assets are measured subsequently in their entirety at either amortized cost or fair value, depending on the classification of the financial assets.

1) Classification of financial assets

Debt instruments that meet the following conditions are measured subsequently at amortized cost:

- The financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows.
- The contractual terms of the financial asset give rise on specified dates to cash flows that are SPPI on the principal amount outstanding.

Debt instruments that meet the following conditions are measured subsequently at fair value through other comprehensive income (“FVTOCI”):

- The financial asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling the financial assets.
- The contractual terms of the financial asset give rise on specified dates to cash flows that are SPPI on the principal amount outstanding.

By default, all other financial assets are measured subsequently at FVTPL.

Despite the foregoing, the Company may make the following irrevocable election/designation at initial recognition of a financial asset:

- The Company may irrevocably elect to present subsequent changes in fair value of an equity investment in other comprehensive income if certain criteria are met.
- The Company may irrevocably designate a debt investment that meets the amortized cost or FVTOCI criteria as measured at FVTPL if doing so eliminates or significantly reduces an accounting mismatch.

1-1) Amortized cost and effective interest method

The effective interest method is a method of calculating the amortized cost of a debt instrument and allocating interest income over the relevant period. For financial assets other than purchased or originated credit-impaired financial assets (i.e., assets that are credit impaired on initial recognition), the effective interest rate is the rate that exactly discounts estimated future cash receipts (including all fees and points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) excluding expected credit losses (“ECLs”), through the expected life of the debt instrument, or, where appropriate, a shorter period, to the gross carrying amount of the debt instrument on initial recognition. For purchased or originated credit-impaired financial assets, a credit-adjusted effective interest rate is calculated by discounting the estimated future cash flows, including ECLs, to the amortized cost of the debt instrument on initial recognition.

The amortized cost of a financial asset is the amount at which the financial asset is measured at initial recognition minus the principal repayments, plus the cumulative amortization using the effective interest method of any difference between that initial amount and the maturity amount, adjusted for any loss allowance. The gross carrying amount of a financial asset is the amortized cost of the financial asset before adjusting for any loss allowance.

Interest income is recognized using the effective interest method for debt instruments measured subsequently at amortized cost and at FVTOCI. For financial assets other than purchased or originated credit-impaired financial assets, interest income is calculated by applying the effective interest rate to the gross carrying amount of a financial asset, except for financial assets that have subsequently become credit impaired. For financial assets that have subsequently become credit impaired, interest income is recognized by applying the effective interest rate to the amortized cost of the financial asset. If, in subsequent reporting periods, the credit risk on the credit-impaired financial instrument improves so that the financial asset is no longer credit impaired, interest income is recognized by applying the effective interest rate to the gross carrying amount of the financial asset.

For purchased or originated credit-impaired financial assets, the Company recognizes interest income by applying the credit-adjusted effective interest rate to the amortized cost of the financial asset from initial recognition. The calculation does not revert to the gross basis even if the credit risk of the financial asset subsequently improves so that the financial asset is no longer credit impaired.

Interest income is recognized in profit or loss and is included in the "financial income - interest income" line item.

1-2) Debt instruments classified as at FVTOCI

Fair value is determined in the manner described in Note 4.3. The corporate bonds are initially measured at fair value, plus transaction costs. Subsequently, changes in the carrying amount of these corporate bonds as a result of F/X gains and losses, impairment gains or losses and interest income calculated using the effective interest method are recognized in profit or loss. The amounts that are recognized in profit or loss are the same as the amounts that would have been recognized in profit or loss if these corporate bonds had been measured at amortized cost. All other changes in the carrying amount of these corporate bonds are recognized in other comprehensive income and accumulated under the heading of investments revaluation reserve. When these corporate bonds are derecognized, the cumulative gains or losses previously recognized in other comprehensive income are reclassified to profit or loss.

1-3) Equity instruments designated as at FVTOCI

On initial recognition, the Company may make an irrevocable election (on an instrument-by-instrument basis) to designate investments in equity instruments as at FVTOCI. Designation at FVTOCI is not permitted if the equity investment is held for trading or if it is contingent consideration recognized by an acquirer in a business combination.

A financial asset is held for trading if:

- It has been acquired principally for the purpose of selling in the near term;
- On initial recognition, it is part of a portfolio of identified financial instruments that the Company manages together and has evidence of a recent actual pattern of short-term profit taking; or
- It is a derivative (except for a derivative that is a financial guarantee contract or a designated and effective hedging instrument).

Investments in equity instruments at FVTOCI are initially measured at fair value, plus transaction costs. Subsequently, they are measured at fair value with gains and losses arising from changes in fair value recognized in other comprehensive income and accumulated in the investment revaluation reserve. The cumulative gain or loss is not be reclassified to profit or loss on disposal of the equity investments; instead, it is transferred to retained earnings.

Dividends on these investments in equity instruments are recognized in profit or loss in accordance with K-IFRS 1109, unless the dividends clearly represent a recovery of part of the cost of the investment. Dividends are included in the 'financial income' line item in profit or loss.

1-4) Financial assets measured at FVTPL

Financial assets that do not meet the criteria for being measured at amortized cost or FVTOCI are measured at FVTPL. Specifically:

- Investments in equity instruments are classified as at FVTPL, unless the Company designates an equity investment that is neither held for trading nor a contingent consideration arising from a business combination as at FVTOCI on initial recognition (see 1-3) above).
- Debt instruments that do not meet the amortized cost criteria or the FVTOCI criteria (see 1-1) and 1-2) above) are classified as at FVTPL. In addition, debt instruments that meet either the amortized cost criteria or the FVTOCI criteria may be designated as at FVTPL upon initial recognition if such designation eliminates or significantly reduces a measurement or recognition inconsistency (so called 'accounting mismatch') that would arise from measuring assets or liabilities or recognizing the gains and losses on them on different bases. The Company has not designated any debt instruments as at FVTPL.

Financial assets measured at FVTPL are measured at fair value at the end of each reporting period, with any fair value gains or losses recognized in profit or loss to the extent they are not part of a designated hedging relationship. The net gain or loss recognized in profit or loss includes any dividend and accounted for as 'non-operating income and expense' line item. Interest income earned on the financial asset measured at FVTPL is accounted for as 'financial income — interest income' line item. Fair value is determined in the manner described in Note 4.3.

2) Gain or loss on foreign currency translation

The carrying amount of financial assets that are denominated in a foreign currency is determined in that foreign currency and translated at the spot rate at the end of each reporting period. Specifically:

- For financial assets measured at amortized cost that are not part of a designated hedging relationship, exchange differences are recognized in profit or loss in the 'non-operating income and expense' line item.
- For debt instruments measured at FVTOCI that are not part of a designated hedging relationship, exchange differences on the amortized cost of the debt instrument are recognized in profit or loss in the 'non-operating income and expense' line item. Other exchange differences are recognized in other comprehensive income in the investment revaluation reserve.
- For financial assets measured at FVTPL that are not part of a designated hedging relationship, exchange differences are recognized in profit or loss in the 'non-operating income and expense' line item.
- For equity instruments measured at FVTOCI, exchange differences are recognized in other comprehensive income in the investment revaluation reserve.

3) Impairment of financial assets

The Company recognizes a loss allowance for ECLs on investments in debt instruments that are measured at amortized cost or at FVTOCI, lease receivables, trade receivables and contract assets, as well as on financial guarantee contracts. The amount of ECLs is updated at each reporting date to reflect changes in credit risk since initial recognition of the respective financial instrument.

The Company always recognizes lifetime ECL for trade receivables, contract assets and lease receivables. The ECLs on these financial assets are estimated using a provision matrix based on the Company's historical credit loss experience, adjusted for factors that are specific to the debtors, general economic conditions and an assessment of both the current as well as the forecast direction of conditions at the reporting date, including time value of money where appropriate.

For all other financial instruments, the Company recognizes lifetime ECL when there has been a significant increase in credit risk since initial recognition. However, if the credit risk on the financial instrument has not increased significantly since initial recognition, the Company measures the loss allowance for that financial instrument at an amount equal to 12-month ECL.

Lifetime ECL represents the ECLs that will result from all possible default events over the expected life of a financial instrument. In contrast, 12-month ECL represents the portion of lifetime ECL that is expected to result from default events on a financial instrument that are possible within 12 months after the reporting date.

3-1) Significant increase in credit risk

In assessing whether the credit risk on a financial instrument has increased significantly since initial recognition, the Company compares the risk of a default occurring on the financial instrument at the reporting date with the risk of a default occurring on the financial instrument at the date of initial recognition. In making this assessment, the Company considers both quantitative and qualitative information that is reasonable and supportable, including historical experience and forward-looking information that is available without undue cost or effort. Forward-looking information considered includes the future prospects of the industries in which the Company's debtors operate, obtained from economic expert reports, financial analysts, governmental bodies, relevant think tanks and other similar organizations, as well as consideration of various external sources of actual and forecast economic information that relate to the Company's core operations.

In particular, the following information is taken into account when assessing whether credit risk has increased significantly since initial recognition:

- An actual or expected significant deterioration in the financial instrument's external (if available) or internal credit rating.
- Significant deterioration in external market indicators of credit risk for a particular financial instrument, e.g., a significant increase in the credit spread, the credit default swap prices for the debtor or the length of time or the extent to which the fair value of a financial asset has been less than its amortized cost.
- Existing or forecast adverse changes in business, financial or economic conditions that are expected to cause a significant decrease in the debtor's ability to meet its debt obligations.
- An actual or expected significant deterioration in the operating results of the debtor.
- Significant increases in credit risk on other financial instruments of the same debtor.
- An actual or expected significant adverse change in the regulatory, economic or technological environment of the debtor that results in a significant decrease in the debtor's ability to meet its debt obligations.

Irrespective of the outcome of the above assessment, the Company presumes that the credit risk on a financial asset has increased significantly since initial recognition when contractual payments are more than 30 days past due, unless the Company has reasonable and supportable information that demonstrates otherwise.

Despite the foregoing, the Company assumes that the credit risk on a financial instrument has not increased significantly since initial recognition if the financial instrument is determined to have low-credit risk at the reporting date. A financial instrument is determined to have low credit risk if:

i) The financial instrument has a low risk of default;
ii) The debtor has a strong capacity to meet its contractual cash flow obligations in the near term; and
iii) Adverse changes in economic and business conditions in the longer term may, but will not necessarily, reduce the ability of the borrower to fulfil its contractual cash flow obligations.

The Company considers a financial asset to have low-credit risk when the asset has external credit rating of 'investment grade' in accordance with the globally understood definition or if an external rating is not available, the asset has an internal rating of 'performing.' Performing means that the counterparty has a strong financial position and there is no past due amounts.

For financial guarantee contracts, the date that the Company becomes a party to the irrevocable commitment is considered to be the date of initial recognition for the purposes of assessing the financial instrument for impairment. In assessing whether there has been a significant increase in the credit risk since initial recognition of the financial guarantee contracts, the Company considers the changes in the risk that the specified debtor will default on the contract.

The Company regularly monitors the effectiveness of the criteria used to identify whether there has been a significant increase in credit risk and revises them as appropriate to ensure that the criteria are capable of identifying significant increase in credit risk before the amount becomes past due.

3-2) Definition of default

The Company considers the following as constituting an event of default for internal credit risk management purposes as historical experience indicates that financial assets that meet either of the following criteria are generally not recoverable:

- When there is a breach of financial covenants by the debtor.

3-3) Credit-impaired financial assets

A financial asset is credit impaired when one or more events that have a detrimental impact on the estimated future cash flows of that financial asset have occurred. Evidence that a financial asset is credit impaired includes observable data about the following events:

- Significant financial difficulty of the issuer or the borrower.
- A breach of contract, such as a default or past due event (see 3-2) above).

- The lender(s) of the borrower, for economic or contractual reasons relating to the borrower's financial difficulty, having granted to the borrower a concession(s) that the lender(s) would not otherwise consider.
- It is becoming probable that the borrower will enter bankruptcy or other financial reorganization.
- The disappearance of an active market for that financial asset because of financial difficulties.

3-4) Write-off policy

The Company writes off a financial asset when there is information indicating that the debtor is in severe financial difficulty and there is no realistic prospect of recovery, e.g., when the debtor has been placed under liquidation or has entered into bankruptcy proceedings, or in the case of trade receivables, when the amounts are more than two years past due, whichever occurs sooner. Financial assets written off may still be subject to enforcement activities under the Company's recovery procedures, taking into account legal advice where appropriate. Any recoveries made are recognized in profit or loss.

3-5) Measurement and recognition of ECLs

The measurement of ECLs is a function of the probability of default, loss given default (i.e., the magnitude of the loss if there is a default) and the exposure at default. The assessment of the probability of default and loss given default is based on historical data adjusted by forward-looking information as described above. As for the exposure at default, for financial assets, this is represented by the assets' gross carrying amount at the reporting date; for the financial guarantee contracts, the exposure includes the amount drawn down as at the reporting date, together with any additional amounts expected to be drawn down in the future by default date determined based on historical trend, the Company's understanding of the specific future financing needs of the debtors and other relevant forward-looking information.

For financial assets, the ECL is estimated as the difference between all contractual cash flows that are due to the Company in accordance with the contract and all the cash flows that the Company expects to receive, discounted at the original effective interest rate. For a lease receivable, the cash flows used for determining the ECLs is consistent with the cash flows used in measuring the lease receivable in accordance with K-IFRS 1116 Leases.

For a financial guarantee contract, as the Company is required to make payments only in the event of a default by the debtor in accordance with the terms of the instrument that is guaranteed, the expected loss allowance is the expected payments to reimburse the holder for a credit loss that it incurs, less any amounts that the Company expects to receive from the holder, the debtor or any other party.

If the Company has measured the loss allowance for a financial instrument at an amount equal to lifetime ECL in the previous reporting period, but determines at the current reporting date that the conditions for lifetime ECL are no longer met, the Company measures the loss allowance at an amount equal to 12-month ECL at the current reporting date, except for assets for which simplified approach was used.

The Company recognizes an impairment gain or loss in profit or loss for all financial instruments with a corresponding adjustment to their carrying amount through a loss allowance account, except for investments in debt instruments that are measured at FVTOCI, for which the loss allowance is recognized in other comprehensive income and accumulated in the investment revaluation reserve, and does not reduce the carrying amount of the financial asset in the statements of financial position.

4) Derecognition of financial assets

The Company derecognizes a financial asset only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity. If the Company neither transfers nor retains substantially all the risks and rewards of ownership and continues to control the transferred asset, the Company recognizes its retained interest in the asset and an associated liability for amounts it may have to pay. If the Company retains substantially all the risks and rewards of ownership of a transferred financial asset, the Company continues to recognize the financial asset and also recognizes a collateralized borrowing for the proceeds received.

On derecognition of a financial asset measured at amortized cost, the difference between the asset's carrying amount and the sum of the consideration received and receivable is recognized in profit or loss. In addition, on derecognition of an investment in a debt instrument classified as at FVTOCI, the cumulative gain or loss previously accumulated in the investment revaluation reserve is reclassified to profit or loss. In contrast, on derecognition of an investment in equity instrument which the Company has elected on initial recognition to measure at FVTOCI, the cumulative gain or loss previously accumulated in the investment revaluation reserve is not reclassified to profit or loss, but is transferred to retained earnings.

(6) Inventories

Inventories are stated at the lower of cost and net realizable value. Cost of inventories, except for goods-in-transit, are measured under the monthly average method (individual method for the goods-in-transit).

(7) Property, plant and equipment

Property, plant and equipment are stated at cost, less subsequent accumulated depreciation and accumulated impairment losses. Historical cost includes expenses directly attributable to the acquisition of the asset.

Depreciation expense is computed using the straight-line method based on the estimated useful lives of the assets as follows except for the lands and the trees:

	Estimated useful lives
Buildings	40 years
Structures	20 years
Machinery	8 years
Other tangible assets	5~8 years

The Company reviews the depreciation method, the estimated useful lives and residual values of property, plant and equipment at the end of each annual reporting period. If expectations differ from previous estimates, the changes are accounted for as a change in an accounting estimate.

(8) Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale. Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalization. All other borrowing costs are recognized in profit or loss in the period in which they are incurred.

(9) Government grants

Government grants are not recognized until there is reasonable assurance that the Company will comply with the conditions attaching to them and that the grants will be received. Government grants related to assets are presented in the statements of financial position by deducting the grant from the carrying amount of the asset (including property, plant and equipment) while the government grants related to income are recognized in profit or loss on a systematic basis over the periods in which the Company recognizes as expenses the related costs for which the grants are intended to compensate. The government grants related to assets are recognized in profit or loss on a systematic basis over the life of an asset.

(10) Intangible assets

1) Industrial property rights and softwares

Industrial property rights and software which are acquired individually are presented at historical cost. Industrial property rights and software have a limited useful life and are presented at cost less accumulated amortization.

Industrial property rights are amortized using the straight-line method to allocate costs over the estimated useful life (5 to 10 years).

Acquired software is capitalized based on the costs incurred to acquire and use the specific software. Costs incurred are amortized using the straight-line method over 5 years which is the estimated useful life.

2) Research and development

Expenditure on research activities is recognized as an expense in the period in which it is incurred.

Among the development costs of new products and technologies, the Company recognizes costs that are individually identifiable and likely to generate future economic benefits as intangible assets when all of the following conditions are met:

- The technical feasibility of completing the intangible asset so that it will be available for use or sale.
- The intention to complete the intangible asset and use or sell it.
- The ability to use or sell the intangible asset.
- How the intangible asset will generate probable future economic benefits.
- The availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset.
- The ability to measure reliably the expenditure attributable to the intangible asset during its development.

Other development expenditures that do not meet the above conditions are recognized as expenses when incurred. Development costs previously recognized as an expense are not subsequently recognized as an asset. Capitalized development costs are recognized as intangible assets and amortized using the straight-line method over the useful life (5 years) from the point of use or sale.

(11) Impairment on non-financial assets

Goodwill and intangible assets with indefinite useful lives are tested for impairment at least annually and depreciable assets are tested when there is an indication that they may be impaired. Impairment loss is recognized for the carrying amount exceeding the recoverable amount (the higher of value in use and fair value less cost of disposal). Impairment losses on non-financial assets other than goodwill are reviewed for reversal at the end of each reporting period.

(12) Financial liabilities

1) Classification as debt or equity

Debt and equity instruments are classified as either financial liabilities or as equity in accordance with the substance of the contractual arrangement and the definitions of financial liability and an equity instrument.

2) Equity instruments

An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities. Equity instruments issued by the Company are recognized at the proceeds received, net of direct issue costs.

Repurchase of the Company's own equity instruments is recognized and deducted directly in equity. No gain or loss is recognized in profit or loss on the purchase, sale, issue or cancellation of the Company's own equity instruments.

3) Compound instruments

The component parts of compound instruments (convertible bonds ("CBs")) issued by the Company are classified separately as financial liabilities and equity in accordance with the substance of the contractual arrangements and the definitions of a financial liability and equity instrument. Conversion option that will be settled by the exchange of a fixed amount of cash or another financial asset for a fixed number of the Company's own equity instruments is an equity instrument.

At the date of issue, the fair value of the liability component is estimated using the prevailing market interest rate for a similar non-convertible instrument. This amount is recorded as a liability on an amortized cost basis using the effective interest method until extinguished upon conversion or at the instrument's maturity date.

The conversion option classified as equity is determined by deducting the amount of the liability component from the fair value of the compound instrument as a whole. This is recognized and included in equity, net of income tax effects, and is not subsequently remeasured. In addition, the conversion option classified as equity will remain in equity until the conversion option is exercised, in which case the balance recognized in equity will be transferred to share premium. Where the conversion option remains unexercised at the maturity date of the convertible loan note, the balance recognized in equity will be transferred to other equity. No gain or loss is recognized in profit or loss upon conversion or expiration of the conversion option.

Transaction costs that relate to the issue of the convertible notes are allocated to liability and equity components in proportion to the allocation of the gross proceeds. Transaction costs relating to equity component are recognized directly in equity. Transaction costs relating to the liability component are included in the carrying amount of the liability component and are amortized over the lives of the convertible notes using the effective interest method.

4) Financial liabilities

All financial liabilities are measured subsequently at amortized cost using the effective interest method or at FVTPL. However, financial liabilities that arise when a transfer of a financial asset does not qualify for derecognition, or when the continuing involvement approach applies, and financial guarantee contracts issued by the Company are measured in accordance with the specific accounting policies set out below.

5) Financial liabilities at FVTPL

Financial liabilities are classified as at FVTPL when the financial liability is (i) contingent consideration of an acquirer in a business combination, (ii) held for trading or (iii) it is designated as at FVTPL.

A financial liability is classified as held for trading if:

- It has been acquired principally for the purpose of repurchasing it in the near term;
- On initial recognition, it is part of a portfolio of identified financial instruments that the Company manages together and has a recent actual pattern of short-term profit taking; or
- It is a derivative that is not designated and effective as a hedging instrument.

A financial liability other than a financial liability held for trading or contingent consideration of an acquirer in a business combination may be designated as at FVTPL upon initial recognition if:

- Such designation eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise;
- The financial liability forms part of a group of financial assets or financial liabilities or both, which is managed and its performance is evaluated on a fair value basis, in accordance with the Company's documented risk management or investment strategy, and information about the grouping is provided internally on that basis; or
- It forms part of a contract containing one or more embedded derivatives, and K-IFRS 1109 permits the entire combined contract to be designated as at FVTPL.

Financial liabilities at FVTPL are measured at fair value, with any gains or losses arising on changes in fair value recognized in profit or loss to the extent that they are not part of a designated hedging relationship. The net gain or loss recognized in profit or loss incorporates any interest paid on the financial liability and is included in the 'non-operating income and expense' line item in profit or loss.

However, for financial liabilities that are designated as at FVTPL, the amount of change in the fair value of the financial liability that is attributable to changes in the credit risk of that liability is recognized in other comprehensive income, unless the recognition of the effects of changes in the liability's credit risk in other comprehensive income would create or enlarge an accounting mismatch in profit or loss. The remaining amount of change in the fair value of liability is recognized in profit or loss. Changes in fair value attributable to a financial liability's credit risk that are recognized in other comprehensive income are not subsequently reclassified to profit or loss; instead, they are transferred to retained earnings upon derecognition of the financial liability.

Gains or losses on financial guarantee contracts issued by the Company that are designated by the Company as at FVTPL are recognized in profit or loss.

Fair value is determined in the manner described in Note 4.3.

6) Financial liabilities measured subsequently at amortized cost

Financial liabilities that are not (i) contingent consideration of an acquirer in a business combination, (ii) held for trading or (iii) designated as at FVTPL are measured subsequently at amortized cost using the effective interest method.

The effective interest method is a method of calculating the amortized cost of a financial liability and allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments (including all fees and points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) through the expected life of the financial liability, or (where appropriate) a shorter period, to the amortized cost of the financial liability.

7) Financial guarantee contracts

A financial guarantee contract is a contract that requires the issuer to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payments when due in accordance with the terms of a debt instrument.

Financial guarantee contract liabilities are measured initially at their fair values and, if not designated as at FVTPL and do not arise from a transfer of an asset, are measured subsequently at the higher of:

- The amount of the loss allowance determined in accordance with K-IFRS 1109 (see financial assets above).
- The amount recognized initially less, where appropriate, cumulative revenue recognized in accordance with K-IFRS 1115.

8) F/X gains and losses

For financial liabilities that are denominated in a foreign currency and are measured at amortized cost at the end of each reporting period, the F/X gains and losses are determined based on the amortized cost of the instruments. These F/X gains and losses are recognized in the 'non-operating income and expense' line item in profit or loss for financial liabilities that are not part of a designated hedging relationship. For those which are designated as a hedging instrument for a hedge of foreign currency risk, the F/X gains and losses are recognized in other comprehensive income and accumulated in a separate component of equity.

The fair value of financial liabilities denominated in a foreign currency is determined in that foreign currency and translated at the spot rate at the end of the reporting period. For financial liabilities that are measured as at FVTPL, the F/X component forms part of the fair value gains or losses and is recognized in profit or loss for financial liabilities that are not part of a designated hedging relationship.

9) Derecognition of financial liabilities

The Company derecognizes financial liabilities when, and only when, its obligations are discharged, cancelled or have expired. The difference between the carrying amount of the financial liability derecognized and the consideration paid and payable is recognized in profit or loss.

When the Company exchanges with the existing lender one debt instrument for another one with the substantially different terms, such exchange is accounted for as an extinguishment of the original financial liability and the recognition of a new financial liability. Similarly, the Company accounts for substantial modification of terms of an existing liability or part of it as an extinguishment of the original financial liability and the recognition of a new liability. It is assumed that the terms are substantially different if the discounted present value of the cash flows under the new terms, including any fees paid, net of any fees received and discounted using the original effective rate, is at least 10% different from the discounted present value of the remaining cash flows of the original financial liability. If the modification is not substantial, the difference between (1) the carrying amount of the liability before the modification and (2) the present value of the cash flows after the modification should be recognized in profit or loss as the modification gain or loss within the 'non-operating income and expense' line item.

(13) Compound instruments

The Company has issued bonds with warrants through which equity instruments can be acquired at the holder's option and repaid them prior to the current year, and the balance of unexercised split-type warrants issued in relation to the bonds with warrants was fully exercised, and there are no outstanding balances as of December 31, 2021.

The company recognized the warrants as capital in accordance with the Financial Supervisory Service's inquiry and reply 'Hoejei-00094', and the accounting treatment is effective only for the K-IFRS of Article 13, Paragraph 1, Item 1 of the 'Act on External Audit of Stock Companies'.

The liability component of the compound financial instrument is initially recognized at the fair value of financial liabilities without warrants under the same conditions, and the equity component is initially recognized as the difference between the fair value of the compound financial instrument as a whole and the fair value of the liability component. Transaction costs directly attributable to the issuance of compound financial instruments are allocated in proportion to the initial recognition of the liability and equity components.

(14) Current tax and deferred tax

Income tax expense comprises the current tax and deferred tax. Income tax is recognized in profit or loss, except for items recognized directly in other comprehensive income or in equity. Income tax expense is measured based on tax laws that have been enacted or substantively enacted at the end of the reporting period.

Management periodically evaluates the Company's tax policies applied in tax filings in situations where applicable tax laws may be subject to interpretation. The Company recognizes current tax expense on the basis of the amount it expects to pay to the tax authorities.

Deferred income tax is recognized as the expected tax effect when the carrying amount of an asset or liability is recovered or settled for temporary differences, defined as the difference between the tax base and the carrying amount of an asset or liability. However, deferred tax assets and liabilities arising from the initial recognition of assets and liabilities in a transaction other than a business combination are not recognized unless the transaction affects accounting or taxable income.

Deferred tax assets are recognized when it is probable that future taxable income will be available against which the deductible temporary differences can be utilized.

Deferred tax liabilities are recognized for taxable temporary differences related to investments in subsidiaries, associates and joint ventures, except when the timing of their reversal is controllable and it is highly probable that the temporary differences will not reverse in the foreseeable future. In addition, for deductible temporary differences arising from these assets, deferred tax assets are recognized only when it is highly probable that the temporary differences will reverse in the foreseeable future and taxable income against which the temporary differences can be used is highly probable.

Deferred tax assets and liabilities are settled on a net basis if the Company has a legally enforceable right to set off current tax assets, current tax liabilities and the deferred tax assets and liabilities relate to income tax imposed by the same tax authority, and the Company has intentions to pay in net amount.

(15) Employee benefits

1) Defined benefit liabilities

In general, defined benefit plans determine the amount of pension benefit that an employee will receive upon retirement, based on factors such as age, years of service, and salary level. The liabilities recorded in the statement of financial position in relation to the defined benefit plan are the amount obtained by deducting the fair value of plan assets from the present value of the defined benefit liabilities as at the end of the reporting period. The defined benefit liabilities are calculated annually by independent actuaries using the projected unit credit method, and the present value of the defined benefit liabilities are calculated by discounting expected future cash outflows with the interest rate of high-credit-rating corporate bonds with similar maturity dates. Meanwhile, remeasurements related to net defined benefit liabilities are recognized in other comprehensive income.

In the event of a plan amendment, curtailment or settlement, past service cost or any gain or loss resulting from the settlement is recognized in profit or loss.

2) Allowance for annual leaves

The Company recognizes expenses and liabilities related to allowance for annual leaves during accounting periods in which employees have rendered service that gives rise to their entitlement to future annual leaves.

3) Share-based compensation

Equity-settled share-based compensation granted to employees are measured at the fair value of the equity instruments at the grant date and recognized as an employee benefit expense over the vesting period. At each reporting date, the Company revises its estimate of the number of equity instruments expected to vest as a result of the effect of non-market-based vesting conditions. The impact of the revision of the original estimates, if any, is recognized in profit or loss such that the cumulative expense reflects the revised estimate, with a corresponding adjustment to reserves. When new shares are issued at the time of exercise of stock options, the net proceeds excluding transaction costs attributable to the issuance of new shares are recognized as capital (nominal value) and additional paid-in capital.

(16) Revenue recognition

1) Performance obligations satisfied at a point in time - sale of goods

The Company manufactures products related to pearl luster pigments and sells them through partner agencies, or sells some products directly. In the case of product sales, revenue is recognized when the goods are transported (delivered) to a specific location, such as an agent or customer, and control of the goods is transferred to the agent or customer, etc. After delivery of the goods, distributors and customers, etc., retain complete discretion in determining the pricing and manner of distributing the goods, and assume primary responsibility when selling the goods and bear the risk of loss or obsolescence associated with the goods. In addition, the Company recognizes receivables when goods are delivered to agents and customers.

2) Calculation of transaction price

According to the Company's terms and conditions, the customer has the right to return the product. Accordingly, a provision for returns and a corresponding adjustment to gross sales are recognized for goods expected to be returned at the time of sale. At the same time, a returned asset and corresponding cost of sales adjustment are recognized for the right to recall the product when the customer exercises the right to return, unless the product is expected to be obsolete. The Company uses cumulative historical information to estimate returns at the portfolio level using expected values.

This is because it is highly probable that no significant return of cumulative revenue already recognized will occur given the consistent level of returns in the past.

(17) Lease

The Company has chosen the cumulative catch-up approach at the date of initial application of K-IFRS 1116. Therefore, the Company does not restate the comparative information. The detailed accounting policies that are applied under K-IFRS 1017 and K-IFRS 1116 are as follows:

1) Accounting policies applied on or after January 1, 2019

1-1) The Company as lessee

The Company assesses whether a contract is or contains a lease, at inception of the contract. The Company recognizes a right-of-use asset and a corresponding lease liability with respect to all lease arrangements in which it is the lessee, except for short-term leases (defined as leases with a lease term of 12 months or less) and leases of low-value assets (such as tablets and personal computers, small items of office furniture and telephones). For these leases, the Company recognizes the lease payments as an operating expense on a straight-line basis over the term of the lease, unless another systematic basis is more representative of the time pattern in which economic benefits from the leased assets are consumed.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted by using the rate implicit in the lease. If this rate cannot be readily determined, the Company uses its incremental borrowing rate.

Lease payments included in the measurement of the lease liability comprise:

- Fixed lease payments (including in-substance fixed payments), less any lease incentives receivable;
- Variable lease payments that depend on an index or a rate, initially measured using the index or rate at the commencement date;
- The amount expected to be payable by the lessee under residual value guarantees;
- The exercise price of purchase options if the lessee is reasonably certain to exercise the options; and
- Payments of penalties for terminating the lease if the lease term reflects the exercise of an option to terminate the lease.

The lease liability is presented as a separate line in the statements of financial position.

The lease liability is subsequently measured by increasing the carrying amount to reflect interest on the lease liability (using the effective interest method) and by reducing the carrying amount to reflect the lease payments made.

The Company remeasures the lease liability (and makes a corresponding adjustment to the related right-of-use asset) whenever:

- The lease term has changed or there is a significant event or change in circumstances resulting in a change in the assessment of exercise of a purchase option, in which case the lease liability is remeasured by discounting the revised lease payments using a revised discount rate.
- The lease payments change due to changes in an index or a rate or a change in expected payment under a guaranteed residual value, in which case the lease liability is remeasured by discounting the revised lease payments using an unchanged discount rate (unless the lease payments change is due to a change in a floating interest rate, in which case a revised discount rate is used).
- A lease contract is modified and the lease modification is not accounted for as a separate lease, in which case the lease liability is remeasured based on the lease term of the modified lease by discounting the revised lease payments using a revised discount rate at the effective date of the modification.

The right-of-use assets comprise the initial measurement of the corresponding lease liability, lease payments made at or before the commencement day, less any lease incentives received and any initial direct costs. They are subsequently measured at cost, less accumulated depreciation and impairment losses.

Whenever the Company incurs an obligation for costs to dismantle and remove a leased asset, restore the site on which it is located or restore the underlying asset to the condition required by the terms and conditions of the lease, a provision is recognized and measured under K-IFRS 1037. To the extent that the costs relate to a right-of-use asset, the costs are included in the related right-of-use asset, unless those costs are incurred to produce inventories.

Right-of-use assets are depreciated over the shorter period of lease term and useful life of the underlying asset. If a lease transfers ownership of the underlying asset or the cost of the right-of-use asset reflects that the Company expects to exercise a purchase option, the related right-of-use asset is depreciated over the useful life of the underlying asset. The depreciation starts at the commencement date of the lease.

The right-of-use assets are presented as a separate line in the statements of financial position.

The Company applies K-IFRS 1036 to determine whether a right-of-use asset is impaired and accounts for any identified impairment loss as described in the 'Property, Plant and Equipment' policy.

Variable rents that do not depend on an index or a rate are not included in the measurement of the lease liability and the right-of-use asset. The related payments are recognized as an expense in the period in which the event or condition that triggers those payments occurs and are included in profit or loss.

As a practical expedient, K-IFRS 1116 permits a lessee not to separate non-lease components, and instead account for any lease and associated non-lease components as a single arrangement. The Company has not used this practical expedient. For a contracts that contain a lease component and one or more additional lease or non-lease components, the Company allocates the consideration in the contract to each lease component on the basis of the relative stand-alone price of the lease component and the aggregate stand-alone price of the non-lease components.

1-2) The Company as a lessor

Leases for which the Company is a lessor are classified as finance or operating leases. Whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee, the contract is classified as a finance lease. All other leases are classified as operating leases.

When the Company is an intermediate lessor, it accounts for the head lease and the sublease as two separate contracts. The sublease is classified as a finance or operating lease by reference to the right-of-use asset arising from the head lease.

Rental income from operating leases is recognized on a straight-line basis over the term of the relevant lease. Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the leased asset and recognized on a straight-line basis over the lease term.

Amounts due from lessees under finance leases are recognized as receivables at the amount of the Company's net investment in the leases. Finance lease income is allocated to accounting periods so as to reflect a constant periodic rate of return on the Company's net investment outstanding in respect of the leases.

When a contract includes both lease and non-lease components, the Company applies K-IFRS 1115 to allocate the consideration under the contract to each component.

2) Accounting policy applied before January 1, 2019

Leases are classified as finance leases whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

2-1) The Company as a lessee

Assets held under finance leases are initially recognized as assets of the Company at their fair value at the inception of the lease or, if lower, at the present value of the minimum lease payments. The corresponding liability to the lessor is included in the statements of financial position as a finance lease obligation.

Lease payments are apportioned between financial expenses and reduction of the lease obligation so as to achieve a constant rate of interest on the remaining balance of the liability. Financial expenses are recognized immediately in profit or loss, unless they are directly attributable to qualifying assets, in which case they are capitalized in accordance with the Company's general policy on borrowing costs. Contingent rentals are recognized as expenses in the periods in which they are incurred.

Operating lease payments are recognized as an expense on a straight-line basis over the lease term, except where another systematic basis is more representative of the time pattern in which economic benefits from the leased asset are consumed. Contingent rentals arising under operating leases are recognized as an expense in the period in which they are incurred.

In the event that lease incentives are received to enter into operating leases, such incentives are recognized as a liability. The aggregate benefit of incentives is recognized as a reduction of rental expense on a straight-line basis, except where another systematic basis is more representative of the time pattern in which economic benefits from the leased asset are consumed.

2-2) The Company as a lessor

Amounts due from lessees under finance leases are recognized as receivables at the amount of the Company's net investment in the leases. Finance lease income is allocated to accounting periods so as to reflect a constant periodic rate of return on the Company's net investment outstanding in respect of the leases.

Rental income from operating leases is recognized on a straight-line basis over the term of the relevant lease. Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the leased asset and recognized on a straight-line basis over the lease term.

(18) Approval of the Company's financial statements

The issuance of the Company's financial statements was approved by the Board of Directors of the Company on February 14, 2022, and amendments on the financial statements may be finally approved in shareholders' meeting.

3. SIGNIFICANT ACCOUNTING ESTIMATIONS AND ASSUMPTIONS:

The Company makes estimations and assumptions about the future. Estimations and assumptions are continuously evaluated and are made taking into account historical experience and reasonably foreseeable future events in the present circumstances. These accounting estimates may differ from actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are addressed below.

(1) Income taxes

When a certain amount of taxable income is not used for investment or wage increase during a certain period, the Company pays additional corporate tax calculated according to the method prescribed by the tax law. Therefore, the tax effect must be reflected when measuring current and deferred corporate tax for the relevant period. Uncertainty exists in estimating the final tax effects as the corporate tax to be borne by the Company varies depending on the level of investment and wage increase in each year (see Note 30).

(2) Defined benefit obligations

The present value of the net defined benefit liability is affected by a variety of factors that are determined on an actuarial basis, particularly changes in the discount rate (see Note 20).

(3) Impairment of development cost

The recoverable amount for examining development costs for sign of impairment is determined based on the calculation of the value in use (see Note 14).

4. FINANCIAL RISK MANAGEMENT:

4.1 FACTORS OF FINANCIAL RISK MANAGEMENT:

The Company is exposed to various risks related to its financial instruments, such as market risk (currency risk, interest rate risk and price risk) and credit risk. The company's overall risk management focuses on the unpredictability of financial markets and focuses on minimizing potential adverse effects on its financial performance. Risk management is conducted by the accounting team according to the policy approved by the Board of Directors. The accounting team collaborates closely with the Company's operating departments to identify, evaluate and hedge financial risks.

(1) Market risk

1) Foreign currency risk

The Company undertakes transactions denominated in foreign currencies; consequently, is exposed to foreign exchange risks, particularly for US dollar and Japanese yen. The details of the carrying amount of financial instruments denominated in major foreign currency as of December 31, 2021 and 2020, are as follows (in thousands of Korean won):

	2021		2020	
	Foreign financial assets	Foreign financial liabilities	Foreign financial assets	Foreign financial liabilities
USD	₩ 7,643,611	₩ 291,403	₩ 7,127,813	₩ 182,838
JPY	292,046	—	323,604	—
EUR	1,658	372,864	15,388	434
GBP	1,793	110,063	2,179	—
CNY	796	—	713	—
Total	₩ 7,939,904	₩ 774,330	₩ 7,469,697	₩ 183,272

The Company regularly measures the exchange rate risk for changes in the Korean won exchange rate. A sensitivity analysis on the Company's pre-tax income for a period assuming a 5% increase and decrease in currency exchange rates as of December 31, 2021 and 2020, is as follows (in thousands of Korean won):

	2021		2020	
	5% increase	5% decrease	5% increase	5% decrease
Foreign financial assets	₩ 396,995	₩ (396,995)	₩ 373,485	₩ (373,485)
Foreign financial liabilities	(38,716)	38,716	(9,164)	9,164
Net effect	₩ 358,279	₩ (358,279)	₩ 364,321	₩ (364,321)

2) Interest rate risk

The Company's interest rate risk arises from borrowings, and the effect of changes in interest rates on the Company's business and financial status is regularly monitored by the management.

When other variables are constant and the interest rate for the borrowings with a variable interest rate changes by 1%, the effect of the change in interest rate on pre-tax income is as follows (in thousands of Korean won):

	2021		2020	
	1% increase	1% decrease	1% increase	1% decrease
Pre-tax income	₩ (86,770)	₩ 86,770	₩ (118,953)	₩ 118,953

(2) Credit risk

Credit risk arises from cash and cash equivalents and bank deposits, as well as credit risks to wholesale and retail customers, including outstanding receivables and committed contracts. For the transactions with banks and financial institutions, transactions are conducted after reviewing key stability indicators of banks and financial institutions such as the BIS ratio.

The maximum amount of exposure to credit risk of financial assets as of December 31, 2021 and 2020, is as follows (in thousands of Korean won):

	2021			2020		
	Nominal value	Accumulated impairment	Maximum exposure	Nominal value	Accumulated impairment	Maximum exposure
Cash and cash equivalents (*1)	₩ 5,806,917	₩ —	₩ 5,806,917	₩ 6,651,784	₩ —	₩ 6,651,784
Trade receivables	8,708,011	(319,986)	8,388,025	8,727,307	(317,512)	8,409,795
Other financial assets(*2)	167,575	—	167,575	376,455	—	376,455

(*1) Petty cash is excluded.

(*2) Financial assets measured at FVTPL are excluded.

(3) Liquidity risk

The Company manages liquidity risk through periodic forecasting and adjustment of fund balance for proper liquidity management. The Company monitors cash flow through mid to long-term management plans and short-term management strategies to ensure smooth fund operations.

Maturity analysis of financial liabilities according to their remaining maturity as of December 31, 2021 and 2020, is as follows (in thousands of Korean won):

	2021				
	6 months	6 months - 1 year	1 - 2 years	More than 2 years	Total
Borrowings (*1)	₩14,752,866	₩ 655,578	₩ 1,288,140	₩ 3,091,744	₩19,788,328
Trade payables	908,030	—	—	—	908,030
Other financial liabilities	824,027	667,265	201,566	753,335	2,446,193
Total	₩16,484,923	₩ 1,322,843	₩ 1,489,706	₩ 3,845,079	₩23,142,551

	2020				
	6 months	6 months - 1 year	1 - 2 years	More than 2 years	Total
Borrowings (*1)	₩17,149,456	₩ 654,308	₩ 1,290,673	₩ 4,338,768	₩23,433,205
Trade payables	353,093	—	—	—	353,093
Other financial liabilities	1,178,600	511,086	197,952	826,928	2,714,566
Total	₩18,681,149	₩ 1,165,394	₩ 1,488,625	₩ 5,165,696	₩26,500,864

(*1) Borrowings include accrued interest expense which is related to the borrowings.

Financial liabilities are nominal amounts of undiscounted cash flows by remaining maturity, and are prepared as of the earliest date during which payment may be requested.

4.2 CAPITAL RISK MANAGEMENT:

The Company manages its capital to ensure that it will be able to continue while maximizing the return to shareholders through the optimization of the debt and equity balance. The Company uses the debt ratio as a capital management indicator. The debt ratio is calculated by dividing total liabilities by total shareholders' equity.

Details of the debt ratio as of December 31, 2021 and 2020, are as follows (in thousands of Korean won):

	2021	2020
Total liabilities (A)	₩ 24,026,207	₩ 27,971,409
Total shareholders' equity (B)	59,611,534	57,081,928
Cash and cash equivalents (C)	5,808,177	6,652,980
Borrowings (D)	19,400,000	23,000,000
Ratio of liabilities to the equity (A/B)	40.00%	49.00%
Ratio of net borrowings to the equity ((D-C)/B)	23.00%	29.00%

4.3 MEASUREMENT OF THE FAIR VALUE:

There are no significant changes in the business environment and economic environment that affect the fair value of the Company's financial assets and liabilities.

(1) Fair value by type of financial instrument

Details of the carrying amount and fair value by type of financial instruments as of December 31, 2021 and 2020, are as follows (in thousands of Korean won):

	2021		2020	
	Book value	Fair value	Book value	Fair value
Financial assets:				
Cash and cash equivalents	₩ 5,808,177	(*)	₩ 6,652,980	(*)
Trade receivables	8,388,025	(*)	8,409,795	(*)
Other financial assets:				
Financial assets measured at amortized cost	167,575	(*)	376,455	(*)
Financial assets measured at FVTPL	115,772	115,772	97,013	97,013
Subtotal	14,479,549		15,536,243	
Financial liabilities:				
Trade payables	908,030	(*)	353,093	(*)
Borrowings	19,400,000	(*)	23,000,000	(*)
Other financial liabilities	2,438,897	(*)	2,707,491	(*)
Subtotal	₩22,746,927		₩26,060,584	

(*) Fair value is excluded from disclosure since the carrying amount is a reasonable approximation of fair value.

(2) Measurement of fair value

1) The following table provides an analysis of financial instruments that are measured subsequent to initial recognition at fair value and classified as Level 1, 2 or 3 based on the degree to which the fair value is observable.

- Level 1: Fair value measurements are those derived from quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2: Fair value measurements are those derived from inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e., as prices) or indirectly (i.e., derived from prices).
- Level 3: Fair value measurements are those derived from valuation techniques that include inputs for the asset or liability that are not based on observable market data (unobservable inputs).

2) Fair values of financial instruments by classification as of December 31, 2021 are as follows (in thousands of Korean won):

	Level 1	Level 2	Level 3	Total
Financial assets:				
Financial assets measured at FVTPL	—	—	115,772	115,772

5. INFORMATION OF OPERATIONAL DIVISION:

(1) Management who makes strategic decisions determines the Company's operating divisions. Management reviews the divisions' operating profits to make decision for the allocation of resources to divisions and review of performance of divisions. The company has a sole operating division.

(2) Details of the sales by region for the years ended December 31, 2021 and 2020, are as follows (in thousands of Korean won):

Region	**2021**	**2020**
Domestic	₩ 16,420,382	₩ 15,684,550
China	4,754,467	4,373,316
USA	2,994,101	2,807,487
Taiwan	2,796,572	3,157,495
Belgium	2,108,792	1,915,800
Japan	2,095,171	2,108,923
Italy	1,477,104	674,380
Thailand	1,426,633	1,482,120
Germany	1,087,681	1,035,879
Other	4,841,442	3,731,719
Total	₩ 40,002,345	₩ 36,971,669

(3) There is no external customer that accounted for more than 10% of the Company's total revenue for the years ended December 31, 2021 and 2020.

6. FINANCIAL INSTRUMENTS BY CLASSIFICATION:

(1) Details of financial assets and liabilities by classification as of December 31, 2021 and 2020, are as follows (in thousands of Korean won):

1) Financial assets:

	2021	**2020**
Financial assets at amortized cost:		
Cash and cash equivalents	₩ 5,808,177	₩ 6,652,980
Trade receivables	8,388,025	8,409,795
Other financial assets (current)	6,171	96,296
Other financial assets (non-current)	161,404	280,159
Subtotal	14,363,777	15,439,230
Financial assets at FVTPL:		
Long-term financial instrument	115,772	97,013
Total	₩ 14,479,549	₩ 15,536,243

2) Financial liabilities at amortized cost

		2021		2020
Trade payables	₩	908,030	₩	353,093
Other financial liabilities (current)		1,489,988		1,688,360
Other financial liabilities (non-current)		948,909		1,019,131
Borrowings (current)		15,200,000		17,600,000
Borrowings (non-current)		4,200,000		5,400,000
Total	₩	22,746,927	₩	26,060,584

(2) Details of financial income (expenses) by type of financial assets or financial liabilities for the years ended December 31, 2021 and 2020, are as follows (in thousands of Korean won):

		2021		2020
Financial assets at amortized cost:				
Interest income	₩	11,790	₩	20,035
Gain on foreign currency translation		25,465		2,336
Gain on foreign currency transaction		635,176		372,683
Bad debt expense (reversal)		(2,474)		1,771
Loss on foreign currency translation		(2,889)		(205,732)
Loss on foreign currency transaction		(115,331)		(805,632)
Total		551,737		(614,539)
Financial liabilities at amortized cost:				
Gain on foreign currency translation		871		4,006
Gain on foreign currency transaction		47,636		101,232
Interest expense		(371,043)		(377,038)
Loss on foreign currency translation		(1,627)		—
Loss on foreign currency transaction		(53,805)		(76,231)
Total	₩	(377,968)	₩	(348,031)

7. CASH AND CASH EQUIVALENTS, LONG AND SHORT-TERM FINANCIAL INSTRUMENTS:

Details of cash and cash equivalents, long and short-term financial instruments as of December 31, 2021 and 2020, are as follows (in thousands of Korean won):

	2021			2020
	Financial institution	**Interest rate per annum**	**Amount**	**Amount**
Cash and cash equivalents:				
Petty cash		—	₩ 1,260	₩ 1,196
Regular bank savings	Shinhan Bank, etc.	0~0.1%	5,806,917	6,651,784
Subtotal			5,808,177	6,652,980
Long-term financial instruments (*):				
Long-term deposit-type insurance		—	115,772	97,013
Total			₩ 5,923,949	₩ 6,749,993

(*) Long and short-term financial instruments are classified as 'other financial instrument' on the Company's statements of financial position as of December 31, 2021 and 2020.

8. TRADE RECEIVABLES:

(1) Details of trade receivables as of December 31, 2021 and 2020, are as follows (in thousands of Korean won):

	2021	2020
Trade receivables	₩ 8,708,011	₩ 8,727,307
Allowance for bad debt	(319,986)	(317,512)
Trade receivables, net	₩ 8,388,025	₩ 8,409,795

The Company reviews its trade receivables individually for signs of impairment at the end of the reporting period.

The settlement of domestic trade receivables was subject to a credit policy of between 30 to 90 days from the date of transaction. The overseas payback period for new accounts in cash ranged between 30 to 100 days from the date of transaction.

(2) Changes in allowance for bad debt of trade and other receivables for the years ended December 31, 2021 and 2020, are as follows (in thousands of Korean won):

	2021	2020
Beginning balance	₩ 317,512	₩ 319,283
Bad debt expense	2,474	(1,771)
Ending balance	₩ 319,986	₩ 317,512

Provisions for impaired receivables and deductions are recorded as bad debt expenses in the statement of comprehensive income, and when there is no possibility of recovering additional cash, bad debt provisions are generally written off.

The maximum amount exposed to credit risk for trade receivables is total carrying amount as of December 31, 2021, and there is no collateral held by the Company.

(3) The details of the risk information of trade receivables based on the Company's provisioning rate table as of December 31, 2021 are as follows (in thousands of Korean won):

		Overdue days				
	Undue	< 3 months	3~6 months	6 months ~ 2 years	> 2 years	Total
Default rate	0%	0%	0%	0%	100%	
Total book value	₩7,108,107	₩ 824,404	₩ 455,514	₩ —	₩ 319,986	₩8,708,011
Lifetime ECL (*)	—	—	—	—	319,986	319,986
Net book value	₩7,108,107	₩ 824,404	₩ 455,514	₩ —	₩ —	₩8,388,025

(*) ECL: Expected Credit Loss

9. OTHER FINANCIAL ASSETS:

(1) Details of other financial assets as of December 31, 2021 and 2020, are as follows (in thousands of Korean won):

	2021	2020
Current assets:		
Non-trade receivables	₩ 6,171	₩ 96,296
Subtotal	6,171	96,296
Non-current assets:		
Long-term financial instrument	115,772	97,013
Leasehold deposits	161,404	280,159
Subtotal	277,176	377,172
Total	₩ 283,347	₩ 473,468

The non-trade receivables represent custom duty receivables.

(2) Maximum amount exposed to credit risk of other financial assets is total carrying amount as of December 31, 2021, and there is no collateral held by the Company.

10. OTHER ASSETS:

Details of other assets as of December 31, 2021 and 2020, are as follows (in thousands of Korean won):

	2021	2020
Current assets:		
Prepayment	₩ 148,856	₩ 244,137
Prepaid expense	249,924	337,890
Value added tax prepaid	59,750	—
Subtotal	458,530	582,027
Non-current assets:		
Long-term prepaid expense	—	82,274
Total	₩ 458,530	₩ 664,301

Prepayment represents advance payments for patent rights and customs clearance fees.

11. INVENTORIES:

Details of inventory valuations as of December 31, 2021 and 2020, are as follows (in thousands of Korean won):

	2021			2020		
	Amount before Valuation	Reserve for valuation	Book value	Amount before Valuation	Reserve for valuation	Book value
Merchandises	₩ 1,789,193	₩ (451,392)	₩ 1,337,801	₩ 2,140,354	₩ (282,926)	₩ 1,857,428
Finished goods	16,146,099	(2,075,889)	14,070,210	13,642,229	(1,736,976)	11,905,253
Raw materials	3,215,432	(50,467)	3,164,965	2,451,264	(55,010)	2,396,254
Sub-materials	405,080	(17,405)	387,675	126,655	(1,353)	125,302
Working in process	9,435,443	(1,677,848)	7,757,595	9,471,913	(1,378,116)	8,093,797
Goods in transit	359,894	—	359,894	69,904	—	69,904
	₩ 31,351,141	₩ (4,273,001)	₩ 27,078,140	₩ 27,902,319	₩ (3,454,381)	₩ 24,447,938

The cost of inventories recognized as an expense and included in the cost of sales is ₩25,403 million in 2021 (₩22,491 million in 2020). This includes the loss on inventory valuation amounting to ₩819 million in 2021 (₩690 million in 2020).

12. PROPERTY, PLANT AND EQUIPMENT:

(1) Changes in property, plant and equipment for the years ended December 31, 2021 and 2020, are as follows (in thousands of Korean won):

	2021										
	Land	Buildings	Structures	Machinery	Vehicles	Tools and equipments	Fixtures	Facilities	Trees	Construction in progress	Total
Beginning balance	₩8,543,246	₩12,721,536	₩1,688,123	₩12,318,917	₩ 90,118	₩ 111,565	₩ 137,853	₩ 765,475	₩1,324,900	₩ 32,600	₩37,734,333
Acquisitions and capital expenditures	—	20,065	2,000	114,669	—	8,357	89,273	190,818	—	200,819	626,001
Disposal	—	—	—	—	(1)	—	(4)	—	—	—	(5)
Depreciation	—	(381,224)	(114,531)	(2,027,458)	(30,708)	(30,416)	(67,765)	(182,024)	—	—	(2,834,125)
Impairment	—	—	—	—	—	—	—	—	—	—	—
Government grants	—	—	—	—	—	—	—	(153,492)	—	—	(153,492)
Transfer	—	—	—	—	—	—	—	213,211	—	(213,211)	—
Ending balance	₩8,543,246	₩12,360,377	₩1,575,593	₩10,406,128	₩ 59,409	₩ 89,506	₩ 159,357	₩ 833,988	₩1,324,900	₩ 20,208	₩35,372,712
Acquisition cost	8,543,246	15,070,618	2,286,781	30,055,184	310,028	1,841,745	1,030,894	2,674,828	1,324,900	20,208	63,158,432
Accumulated depreciation	—	(2,710,241)	(711,188)	(19,531,534)	(250,619)	(830,139)	(870,325)	(1,614,648)	—	—	(26,518,694)
Accumulated impairment	—	—	—	—	—	(922,100)	—	—	—	—	(922,100)
Government grants	—	—	—	(117,522)	—	—	(1,212)	(226,192)	—	—	(344,926)

	2020										
	Land	Buildings	Structures	Machinery	Vehicles	Tools and equipments	Fixtures	Facilities	Trees	Construction in progress	Total
Beginning balance	₩8,407,034	₩13,228,597	₩1,668,197	₩2,857,924	₩ 127,026	₩ 69,593	₩ 145,723	₩ 526,475	₩1,324,900	₩9,687,199	₩38,042,668
Acquisitions and capital expenditures	—	6,410	2,500	31,773	—	45,600	51,056	18,830	—	2,204,010	2,360,179
Disposal	—	—	—	—	—	—	—	—	—	—	—
Depreciation	—	(377,259)	(112,782)	(1,669,067)	(36,908)	(24,275)	(58,926)	(149,422)	—	—	(2,428,639)
Impairment	—	—	—	—	—	—	—	—	—	(17,659)	(17,659)
Government grants	—	—	—	(136,279)	—	—	—	(85,937)	—	—	(222,216)
Transfer	136,212	(136,212)	130,208	11,234,566	—	20,647	—	455,529	—	(11,840,950)	—
Ending balance	₩8,543,246	₩12,721,536	₩1,688,123	₩12,318,917	₩ 90,118	₩ 111,565	₩ 137,853	₩ 765,475	₩1,324,900	₩ 32,600	₩37,734,333
Acquisition cost	8,543,246	15,050,553	2,284,781	29,940,515	324,085	1,833,388	944,246	2,270,800	1,324,900	32,600	62,549,114
Accumulated depreciation	—	(2,329,017)	(596,658)	(17,486,077)	(233,967)	(799,723)	(797,905)	(1,420,284)	—	—	(23,663,631)
Accumulated impairment	—	—	—	—	—	(922,100)	—	—	—	—	(922,100)
Government grants	—	—	—	(135,521)	—	—	(8,488)	(85,041)	—	—	(229,050)

Depreciations comprise i) cost of sales (₩2,544 million and ₩2,141 million respectively in 2021 and 2020), ii) selling and administrative expenses (₩181 million and ₩175 million respectively in 2021 and 2020) and iii) research and development expenses (₩109 million and ₩113 million respectively in 2021 and 2020).

Construction in progress represents assets under construction and machines under installations.

(2) Details of assets pledged as collateral for related borrowings as of December 31, 2021, are as follows (in thousands of Korean won):

Collateralized assets	Book value	Pledged amount	Beneficiary
Land	₩ 2,572,955		
Buildings	5,910,142	₩ 10,800,000	Shinhan Bank
Machineries, etc.	7,990,909		
Land	136,212	699,380	Korea Land & Housing Corporation
Buildings	702,858		

(3) The Company has fire insurance for PP&E and inventories of ₩63,127 million (₩50,501 million for buildings and machineries, etc., ₩12,626 million for inventories) as of December 31, 2021.

(4) The publicly announced land prices of the land owned by the Company are ₩5,903 million and ₩5,444 million, respectively as of December 31, 2021 and 2020.

13. RIGHT-OF-USE ASSETS:

(1) Right-of-use assets by underlying asset type as of December 31, 2021 and 2020, are as follows (in thousands of Korean won):

	2021		
	Buildings	Vehicles	Total
Acquisition cost	₩ 32,952	₩ 464,138	₩ 497,090
Accumulated depreciation	(16,275)	(151,972)	(168,247)
Book value	₩ 16,677	₩ 312,166	₩ 328,843

	2020		
	Buildings	Vehicles	Total
Acquisition cost	₩ 39,231	₩ 439,567	₩ 478,798
Accumulated depreciation	(23,595)	(214,948)	(238,543)
Book value	₩ 15,636	₩ 224,619	₩ 240,255

(2) Changes in right-of-use assets in 2021 and 2020, are as follows (in thousands of Korean won):

	2021		
	Buildings	Vehicles	Total
Beginning balance	₩ 15,637	₩ 224,618	₩ 240,255
Acquisition	18,454	227,381	245,835
Depreciation	(17,414)	(130,456)	(147,870)
Cancelation of lease agreement	—	(9,377)	(9,377)
Ending balance	₩ 16,677	₩ 312,166	₩ 328,843

	2020		
	Buildings	Vehicles	Total
Beginning balance	₩ 20,810	₩ 201,821	₩ 222,631
Acquisition	14,498	180,126	194,624
Depreciation	(19,671)	(139,825)	(159,496)
Cancelation of lease agreement	—	(17,504)	(17,504)
Ending balance	₩ 15,637	₩ 224,618	₩ 240,255

(3) Details of expenses recognized in profit or loss related to leases for the years ended December 31, 2021 and 2020, are as follows (in thousands of Korean won):

	2021	2020
Depreciation of the right-of-use assets	₩ 147,869	₩ 159,496
Interest expense on lease liabilities	5,434	5,937
Expenses for the short-term leases	3,451	333
Expenses for leases of low-value assets	15,543	14,379
Total	₩ 172,297	₩ 180,145

Total lease payment in cash are ₩172 million and ₩172 million respectively in 2021 and 2020.

14. INTANGIBLE ASSETS:

(1) Changes in intangible assets for the years ended December 31, 2021 and 2020, are as follows (in thousands of Korean won):

	2021			
	Software	Industrial property rights	Development cost	Total
Beginning balance	₩ 41,202	₩ 545,942	₩ 3,346,787	₩ 3,933,931
Internal development	—	—	840,094	840,094
Individual acquisition	—	160,821	—	160,821
Depreciation	(14,759)	(152,667)	(527,439)	(694,865)
Government grant	—	—	(261,811)	(261,811)
Ending balance	₩ 26,442	₩ 554,097	₩ 3,397,631	₩ 3,978,171
Acquisition cost	270,550	1,270,880	16,854,095	18,395,526
Accumulated depreciation and impairment	(244,108)	(716,783)	(11,876,179)	(12,837,070)
Government grant	—	—	(1,580,285)	(1,580,285)

	2020			
	Software	Industrial property rights	Development cost	Total
Beginning balance	₩ 57,422	₩ 532,302	₩ 3,208,852	₩ 3,798,576
Internal development	—	—	766,300	766,300
Individual acquisition	—	144,553	—	144,553
Depreciation	(16,220)	(130,913)	(397,749)	(544,882)
Government grant	—	—	(230,616)	(230,616)
Ending balance	₩ 41,202	₩ 545,942	₩ 3,346,787	₩ 3,933,931
Acquisition cost	270,550	1,110,058	16,014,002	17,394,610
Accumulated depreciation and impairment	(229,348)	(564,116)	(10,931,068)	(11,724,532)
Government grant	—	—	(1,736,147)	(1,736,147)

(2) Amortization comprises i) cost of sales (₩527 million and ₩398 million respectively in 2021 and 2020) and ii) selling and administrative expenses (₩167 million and ₩147 million respectively in 2021 and 2020).

(3) Details of major development cost as of December 31, 2021 are as follows (in thousands of Korean won):

	Book value	Remaining amortizable period
Development of high-functional ceramic composite material used for anti-pollution cosmetics such as fine dust blocking and UV protection	₩ 204,095	2 years & 2 months
Manufacture of high-brightness plate-shaped aluminum flakes capable of multi-layer construction	229,464	3 years & 3 months
Development of optical functional pearl luster pigment for security and safety / ATC technology	479,068	3 years & 4 months
Development of colored Aluminum Flake product	570,384	4 years & 6 months
Development F of Al2O3 synthesis using pilot equipment and TiO2 coating procedure, etc.	149,662	4 years & 7 months
Development D of Glass Products	303,187	4 years & 10 months
Development A of Coating Aluminum Pigment product	297,521	4 years & 10 months
Development B of New Effect Pigment using electroless plating	517,819	Under development
Development D of colored products using natural dyes	234,718	Under development
Development of core technology for industrial material (material for chemical process)	169,490	Under development
Development of new pigments, etc.	242,223	Under development
Total	₩3,397,631	

(4) Research and development expenditures recognized as selling and administrative expenses in profit or loss are ₩1,796 million and ₩2,456 million respectively for the years ended December 31, 2021 and 2020.

(5) Details of the impairment of development cost for the years ended December 31, 2021 and 2020, are as follows (in thousands of Korean won):

	2021		
	Book value	**Impairment recognized in profit or loss (*)**	**Accumulated Impairment (*)**
Development B of Automotive Coating Procedure	₩ 1	₩ —	₩ 26,769
Development of New Effect Pigment using electroless plating	1	—	56,199
Development of colored products using natural dyes	1	—	16,788
Development F of products using Natural Mica	1	—	11,930
Development C of Automotive Coating Procedure	1	—	6,894
Development B of colored products using natural dyes	1	—	36,664
Development of optical functional pearl luster pigment for security and safety / ATC technology	479,068	—	79,773
Development of colored Aluminum Flake product	570,384	—	8,801
Development B of Chaos Trance Gold	1,826	—	57,773
Development G of products using Natural Mica	—	—	12,770
Development C of colored products using natural dyes	3,816	—	45,481
Development H of products using Natural Mica	64,073	—	50,736
Unimpaired development cost	2,278,460	—	—
Total	₩ 3,397,631	₩ —	₩ 410,578

(*) The recoverable amount for examining development costs for sign of impairment is determined based on the calculation of the value in use.

	Book value	2020 Impairment recognized in profit or loss (*)	Accumulated Impairment (*)
Development B of Automotive Coating Procedure	₩ 1	₩ —	₩ 26,769
Development of New Effect Pigment using electroless plating	1	—	56,199
Development of colored products using natural dyes	1	—	16,788
Development F of products using Natural Mica	1	—	11,930
Development C of Automotive Coating Procedure	1	—	6,894
Development B of colored products using natural dyes	1	—	36,664
Development of optical functional pearl luster pigment for security and safety / ATC technology	622,788	—	79,773
Development of colored Aluminum Flake product	589,346	—	8,801
Development B of Chaos Trance Gold	5,477	—	57,773
Development G of products using Natural Mica	16,003	—	12,770
Development C of colored products using natural dyes	11,447	—	45,481
Development H of products using Natural Mica	51,437	—	50,736
Unimpaired development cost	2,050,283	—	—
Total	₩ 3,346,787	₩ —	₩ 410,578

(*) The recoverable amount for examining development costs for sign of impairment is determined based on the calculation of the value in use.

Impairment loss was recognized because the recoverable amount was less than the carrying amount as a result of the impairment test for each project, such as poor business feasibility due to low sales of developed products.

Future cash flows for the measurement of value in use were estimated for the remaining useful life of each project based on the Company's past operating performance and business plan.

15. TRADE PAYABLES AND OTHER FINANCIAL LIABILITIES:

Trade payables and other financial liabilities as of December 31, 2021 and 2020, are as follows (in thousands of Korean won):

	2021	2020
Trade payables	₩ 908,030	₩ 353,093
Other financial liabilities (current):		
Non-trade payables	721,918	942,479
Accrued expenses	627,036	622,991
Lease liabilities	141,034	122,890
Subtotal	1,489,988	1,688,360
Other financial liabilities (non-current):		
Lease liabilities	185,813	119,736
Long-term non-trade payables	763,096	899,395
Subtotal	948,909	1,019,131
Total	₩3,346,927	₩3,060,584

Non-trade payables represent payables arising out of business other than normal commercial transactions such as purchase costs of consumables and technology fees. Long-term non-trade payables represent mainly long-term unpaid amount related to the purchase of a dormitory and R&D subsidy.

For purchasing debt and accounts payable, cash payment will be made in the current month and the month following the date of transaction.

16. OTHER CURRENT LIABILITIES:

Other current liabilities as of December 31, 2021 and 2020, are as follows (in thousands of Korean won):

	2021	2020
Withholdings	₩ 194,745	₩ 230,435
Advances received	1	40,798
VAT withholdings	—	11,179
Total	₩ 194,746	₩ 282,412

17. GOVERNMENT GRANT:

(1) Details of government grants used in relation to technology development of optical functional pearl luster pigments for security and safety for the years ended December 31, 2021 and 2020, are as follows (in thousands of Korean won):

	2021	2020
Beginning balance	₩ 329,734	₩ 245,311
Receipts of the government grants	569,818	767,753
Amount used:		
Acquisition of PP&E (*1)	153,492	222,216
Acquisition of intangible assets (*2)	261,811	230,616
Offsetting with specific costs (*3)	166,166	230,498
Subtotal	581,469	683,330
Amount repaid	38,757	—
Amount exempted from repayment obligations	4,995	—
Remaining balance:	₩ 274,331	₩ 329,734
Amount obligated to repay (*4)	274,331	288,936
Amount exempted from repayment obligations (*5)	—	40,798

(*1) It is presented as a deduction for PP&E in the financial statements.

(*2) It is presented as a deduction for intangible assets in the financial statements.

(*3) It is presented as a deduction for selling and administrative expenses, etc. in the financial statements.

(*4) It is presented as long-term non-trade payables among other financial liabilities in the financial statements.

(*5) It is presented as advance received among other current liabilities in the financial statements.

(2) Changes in government grants used for the acquisition of assets for the years ended December 31, 2021 and 2020, are as follows (in thousands of Korean won):

	2021			
	Beginning balance	**Increase**	**Decrease (*)**	**Ending balance**
PP&E	₩ 229,050	₩ 153,492	₩ 37,615	₩ 344,927
Intangible assets	1,736,147	261,811	417,673	1,580,285
Total	₩1,965,197	₩ 415,303	₩ 455,288	₩1,925,212

(*) Depreciation for the assets acquired with government grants is offset when calculating the depreciation.

	2020			
	Beginning balance	**Increase**	**Decrease (*)**	**Ending balance**
PP&E	₩ 18,575	₩ 222,216	₩ 11,741	₩ 229,050
Intangible assets	1,884,398	230,616	378,867	1,736,147
Total	₩1,902,973	₩ 452,832	₩ 390,608	₩1,965,197

(*) Depreciation for the assets acquired with government grants is offset when calculating the depreciation.

18. BORROWINGS:

(1) Details of borrowings as of December 31, 2021 and 2020, are as follows (in thousands of Korean won):

Financial institution	Type of loan	Interest rate per annum (%)	2021	2020
Short-term borrowings:				
Citibank Korea	Trade bill loan	1.75	₩5,000,000	₩ 5,000,000
KEB Hana Bank	Trade bill loan	—	—	2,000,000
Kookmin Bank	Trade bill loan	2.41	1,000,000	1,000,000
Woori Bank	Trade bill loan	1.97	2,000,000	2,000,000
Shinhan Bank	Trade bill loan	1.62	1,000,000	2,000,000
Shinhan Bank	General loan	1.71	5,000,000	5,000,000
		Subtotal	14,000,000	17,000,000
Long-term borrowings:				
Shinhan Bank	Facility loan	2.45	5,400,000	6,000,000
Transfer to Current portion			(1,200,000)	(600,000)
		Subtotal	4,200,000	5,400,000
Current portion of long-term borrowings	Facility loan	2.45	1,200,000	600,000
		Total	₩19,400,000	₩ 23,000,000

(2) The planned repayment schedule per year as of December 31, 2021 is as follows (in thousands of Korean won):

Year	2021
~2022	₩ 1,200,000
~2023	1,200,000
~2024	1,200,000
~2025	1,200,000
~2026	600,000
Total	₩ 5,400,000

(3) Changes in borrowings for the years ended December 31, 2021 and 2020, are as follows (in thousands of Korean won):

	2021	2020
Beginning balance	₩ 23,000,000	₩ 21,000,000
Increase in borrowings	1,000,000	10,000,000
Repayment of borrowings	(4,600,000)	(8,000,000)
Ending balance	₩ 19,400,000	₩ 23,000,000

(4) In relation to borrowings as of December 31, 2021, the Company is provided with a joint guarantee from the CEO (₩30,300 million).

19. LEASE LIABILITIES:

(1) Details of financial lease liabilities as of December 31, 2021 and 2020, are as follows (in thousands of Korean won):

	2021		2020	
	Minimum lease payments	Present value of minimum lease payments	Minimum lease payments	Present value of minimum lease payments
Within one year	₩ 142,338	₩ 141,034	₩ 124,216	₩ 122,890
One year—five years	191,805	185,813	125,485	119,736
Total	₩ 334,143	₩ 326,847	₩ 249,701	₩ 242,626

(2) Details of the liquidity classification of the financial lease liabilities as of December 31, 2021 and 2020, are as follows (in thousands of Korean won):

	2021	2020
Current liabilities	₩ 141,034	₩ 122,890
Non-current liabilities	185,813	119,736
Total	₩ 326,847	₩ 242,626

20. DEFINED BENEFIT OBLIGATION:

(1) Defined benefit obligations as of December 31, 2021 and 2020, are as follows (in thousands of Korean won):

	2021	2020
Present value of defined benefit liabilities	₩ 9,683,533	₩ 8,771,443
Fair value of plan assets	(8,832,283)	(7,235,481)
Net defined benefit liabilities	₩ 851,250	₩ 1,535,962

(2) Changes in the present value of defined benefit liabilities for the years ended December 31, 2021 and 2020, are as follows (in thousands of Korean won):

	2021	2020
Beginning balance	₩ 8,771,443	₩ 8,688,000
Current service cost	1,040,483	1,200,510
Interest expense	139,585	134,505
Remeasurement recognized in other comprehensive income:		
Actuarial gains or losses from changes in demographic assumptions	—	—
Actuarial gains or losses from changes in financial assumptions	(387,014)	(658,110)
Remeasurement factors from empirical adjustments	465,875	(448,607)
Cash flows:		
Retirement benefits paid by the Company	(346,839)	(144,855)
Ending balance	₩ 9,683,533	₩ 8,771,443

Related expenses comprise i) cost of sales (₩564 million and ₩675 million respectively in 2021 and 2020), ii) selling and administrative expenses (₩312 million and ₩317 million respectively in 2021 and 2020) and iii) development cost(asset) and research and development expenses (₩172 million and ₩226 million respectively in 2021 and 2020).

(3) Changes in fair value of plan assets for the years ended December 31, 2021 and 2020, are as follows (in thousands of Korean won):

	2021	2020
Beginning balance	₩ 7,235,481	₩ 6,820,583
Interest income	131,099	116,889
Remeasurement recognized in other comprehensive income:		
Return on plan assets except for the amount which is included above interest income	(34,297)	(1,991)
Contributions:		
Contribution paid by the Company	1,500,000	300,000
Benefit payments:		
Benefit payments	—	—
Ending balance	₩ 8,832,283	₩ 7,235,481

(4) The total plan asset consists of bank savings as of December 31, 2021.

(5) Principal actuarial assumptions as of December 31, 2021 and 2020, are as follows:

	2021	2020
Discount rate for defined benefit obligations	2.87%	2.34%
Weighted average wage increase rate	4.92%	5.08%

(6) When all other assumptions are maintained and if the actuarial assumption of the above has changed, the impact on the net defined benefit liabilities as of December 31, 2021 is as follows (in thousands of Korean won):

	2021	
	Increase by 1%	Decrease by 1%
Discount rate for defined benefit obligations	Decrease by 4.98%	Increase by 5.67%
Weighted average wage increase rate	Increase by 5.50%	Decrease by 4.94%

(7) The weighted average maturity of the Company's defined benefit obligations as of December 31, 2021 is 7.93 years.

21. CAPITAL STOCK AND CAPITAL SURPLUS:

(1) According to the Company's articles of incorporation, the total number of shares to be issued by the Company is 20,000,000 shares, and the price per share is ₩500. The details of stocks issued by the Company and changes in capital stock and paid-in capital in excess of par value for the years ended December 31, 2021 and 2020, are as follows (in shares and thousands of Korean won):

	Number of shares	Capital stock	Paid-in capital in excess of par value	Total
Jan 1, 2020	10,138,184	₩ 5,069,092	₩16,172,841	₩21,241,933
Dec 31, 2020	10,138,184	5,069,092	16,172,841	21,241,933
Jan 1, 2021	10,138,184	5,069,092	16,172,841	21,241,933
Dec 31, 2021	10,138,184	₩ 5,069,092	₩16,172,841	₩21,241,933

(2) According to the Company's articles of incorporation, stock options can be granted to executives and employees within the scope of 15/100 of the total number of issued stocks by a special resolution at the general shareholders' meeting. Stock options can be granted by resolution of the Board of Directors and approval of the general shareholders' meeting within the scope of 3/100 of the total number of issued stocks. The total number of unexercised stock options among the stock options granted is 200,000 shares as of December 31, 2021.

(3) According to the Company's articles of incorporation, convertible bonds that can be converted into common stock and bonds with warrants that grant stock preemptive rights are distributed to persons other than shareholders by resolution of the Board of Directors within the extent that the total face value of each bond does not exceed ₩50,000 million. There are no convertible bonds or bonds with warrants issued under these conditions as of December 31, 2021.

(4) Details of capital surplus as of December 31, 2021 and 2020, are as follows (in thousands of Korean won):

	2021	2020
Paid-in capital in excess of par value	₩ 16,172,841	₩ 16,172,841
Gains on sale of treasury stock (*1)	323,880	323,880
Total	₩ 16,496,721	₩ 16,496,721

(*1) Gain on disposal of treasury stock is the part which was recognized as other capital item with regard to the gain on disposal of treasury stock disposed prior to current year. The income tax effect of ₩91 million is deducted in this amount.

22. OTHER CONTRIBUTED CAPITAL AND RETAINED EARNINGS:

(1) Other contributed capital as of December 31, 2021 and 2020, is as follows (in thousands of Korean won):

	2021	2020
Treasury stock	₩ (8,468,333)	₩ (8,468,333)
Stock option	868,678	868,678
Total	₩ (7,599,655)	₩ (7,599,655)

(2) Changes in treasury stock for the year ended December 31, 2021 are as follows (in shares and thousands of Korean won):

Beginning balance		Increase		Decrease		Ending balance	
Number of shares	Book value	Number of shares	Book value	Number of shares	Book value	Number of shares	Book value
1,175,576	₩8,468,333	—	₩ —	—	₩ —	1,175,576	₩8,468,333

(3) Changes in stock option for the year ended December 31, 2021 are as follows (in thousands of Korean won):

Beginning balance	Increase	Decrease	Ending balance
₩ 868,678	₩ —	₩ —	₩ 868,678

(4) Statements of appropriation of retained earnings

The (planned) date of appropriation of retained earnings for the year ended December 31, 2021 is March 29, 2022, the date of shareholders' meeting (the date of appropriation of retained earnings for the year ended December 31, 2020 was March 25, 2021). The statements of appropriation of retained earnings for the years ended December 31, 2021 and 2020, are as follows (in thousands of Korean won):

	2021	**2020**
Unappropriated retained earnings:		
Unappropriated retained earnings carried forward from prior year	₩ 41,569,306	₩ 38,045,419
Remeasurement of net retirement benefit obligations	(88,264)	861,686
Net income	3,514,130	3,648,087
Transfer of voluntary reserve, etc.	—	—
Total	44,995,172	42,555,192
Appropriation of retained earnings:		
Legal reserve	107,551	89,626
Dividends (dividends per common share (dividend ratio): ₩120 per share (24%) and ₩100 per share (20%) respectively in 2021 and 2020)	1,075,513	896,261
Subtotal	1,183,064	985,887
Unappropriated retained earnings carried forward to subsequent year	₩ 43,812,108	₩ 41,569,305

(5) Details of retained earnings as of December 31, 2021 and 2020, are as follows (in thousands of Korean won):

	2021	**2020**
Statutory reserve:		
Legal reserve (*1)	₩ 650,204	₩ 560,578
Unappropriated retained earnings	44,995,172	42,555,192
Total	₩ 45,645,376	₩ 43,115,770

(*1) In accordance with the provisions of the Commercial Act enacted and in force in the Republic of Korea, the Company is required to accumulate at least 10% of cash dividends as an earned reserve in each settlement period until it reaches 50% of its capital. The earned reserve cannot be distributed in cash, but can be transferred to capital or compensated for deficits by the resolution of the general shareholders' meeting, and if the total amount of the capital reserve and earnings reserve exceeds 1.5 times the capital (according to the resolution of the general shareholders' meeting), the capital reserve and earned reserve may be reduced within the range of excessed amount.

(6) Dividends

Dividend payments are ₩896 million (₩100 per share) and ₩1,524 million (₩170 per share), respectively in 2021 and 2020. Dividends per share and total dividends for the fiscal year ended December 31, 2021 are ₩120 per share and ₩1,076 million, respectively, and will be proposed as an agenda at the regular shareholders' meeting scheduled for March 29, 2022. The financial statements for current year do not include these accrued dividends.

23. SHARE-BASED COMPENSATION:

(1) The Company entered into stock option agreements with the Company's executives. Details of those options are as follows:

1) Type of stocks to be issued from the exercise of the stock options: registered common stock
2) Method of grant: issuance of new shares of common stock
3) Vesting requirements: employment for at least 3 years after grant date
4) Exercisable date: within 4 years after 3 years from grant date

(2) Changes in the number of stock options and weighted average exercise price for the years ended December 31, 2021 and 2020, are as follows (in shares and Korean won):

	Number of stock options		Weighted average exercise price	
	2021	2020	2021	2020
Beginning balance	200,000	200,000	₩ 7,575	₩ 7,575
Grant	—	—	—	—
Ending balance	200,000	200,000	₩ 7,575	₩ 7,575

The weighted average remaining maturity of valid stock options is 1.25 years, and their exercise price is ₩7,575 as of December 31, 2021.

(3) The Company calculated compensation costs for stock options granted in 2016 by applying the fair value approach, and various assumptions and variables for calculating compensation costs are as follows (in Korean won):

	Assumptions and variables
Weighted average fair value of stock options granted (in KRW)	₩ 4,343
Weighted average stock price on grant date (in KRW)	9,540
Volatility of the stock price (*1)	51.2%
Dividend yield rate	1.0%
Expected expiration period (*2)	5 years
Risk-free rate	1.6%

(*1) Volatility of stock price is the standard deviation of a stock's continuously compounded return on investment based on daily stock price analysis over the past five years.

(*2) The impact of non-transferability, exercise restrictions, etc. was considered in calculating the expected maturity based on the management's best estimate.

(4) Total stock compensation expense is ₩869 million, and there is no stock compensation expense to be recognized after December 31, 2021.

24. SALES:

(1) Details of sales for the years ended December 31, 2021 and 2020, are as follows (in thousands of Korean won):

	2021	2020
Sales of merchandise	₩ 4,022,874	₩ 3,303,362
Sales of finished goods	35,654,086	33,463,795
Service revenue, etc.	325,385	204,512
Total	₩ 40,002,345	₩ 36,971,669
Timing of revenue recognition:		
Recognized at a time	39,676,960	36,767,157
Recognized over time	325,385	204,512

(2) Details of contract liabilities as of December 31, 2021 and 2020, are as follows (in thousands of Korean won):

	2021	2020
Contract liabilities for merchandise and finished goods	₩ 1	₩ —

Revenue for providing goods is recognized when the goods are delivered to the customer and control of the goods is transferred to the customer. Advance received from the customer before control of the goods transfers to the customer is recognized as contract liabilities until control of the goods transfers to the customer.

(3) The Company applies the practical expedient method with respect to the incremental cost of entering into a contract incurred in 2021 and 2020, and there are no contract assets recognized as of December 31, 2021 and 2020.

(4) There is no external customer that accounted for more than 10% of the Company's total revenue for the years ended December 31, 2021 and 2020.

25. SELLING AND ADMINISTRATIVE EXPENSES:

(1) Details of selling and administrative expenses for the years ended December 31, 2021 and 2020, are as follows (in thousands of Korean won):

	2021	2020
Payroll	₩ 4,511,474	₩ 4,161,391
Research and development	1,796,015	2,455,652
Commissions	1,155,192	702,533
Export related expenses	714,380	514,048
Employee benefits	341,816	320,400
Provision for retirement benefits	312,497	317,017
Samples	225,996	343,080
Depreciation (PP&E)	180,787	175,192
Amortization	167,426	147,134
Insurance	135,393	135,083
Carriage and storage expenses	131,897	119,288
Taxes and dues	123,267	113,125
Entertainment	122,337	57,605
Marketing	121,285	125,036
Depreciation (right-of-use assets)	107,774	118,938
Supplies	88,995	69,676
Sales commission	59,087	260,560
Communication	49,517	49,089
Repairs	42,458	4,884
Vehicle maintenance	33,914	43,414
Other	88,291	109,385
Total	₩ 10,509,797	₩ 10,342,530

26. OTHER INCOME AND EXPENSES:

(1) Details of other income and expenses for the years ended December 31, 2021 and 2020, are as follows (in thousands of Korean won):

	2021	2020
Other income:		
Gain on foreign currency translation	₩ 24,746	₩ 5,138
Gain on foreign currency transaction	456,117	387,308
Gain on disposal of the right-of-use asset	—	382
Gain on disposal of PP&E	699	—
Gain on exemption of debt	4,995	—
Miscellaneous income	30,325	160,898
Total	₩ 516,882	₩ 553,726
Other expenses:		
Loss on foreign currency translation	₩ 3,856	₩ 104,769
Loss on foreign currency transaction	151,395	534,085
Loss on disposal of PP&E	4	—
Loss on disposal of the right-of-use asset	6,267	—
Donations	11,400	7,600
Loss on disaster	—	46,960
Miscellaneous expenses	1,843	17,494
Total	₩ 174,765	₩ 710,908

27. CLASSIFICATION OF EXPENSES BY NATURE:

The classification of expenses by nature for the years ended December 31, 2021 and 2020, is as follows (in thousands of Korean won):

	2021	2020
Changes in merchandise, finished goods and working in process	₩ (1,609,978)	₩ (2,704,402)
Purchase of merchandise	2,179,939	2,163,190
Use of raw materials	8,838,596	7,928,141
Payroll (*)	13,101,590	12,316,996
Depreciation (PP&E) (*)	2,724,949	2,315,831
Research and development	1,796,015	2,455,652
Commissions (*)	1,602,807	1,116,785
Electricity	1,592,212	1,610,677
Supplies	1,590,059	1,655,257
Export related expenses	714,380	514,048
Amortization	694,864	544,883
Water and gas	601,824	551,486
Samples	225,996	343,080
Taxes and dues	183,429	191,833
Insurance	169,774	160,379
Outsourcing	163,577	248,708
Transportation	137,252	127,151
Depreciation (right-of-use assets) (*)	123,692	138,546
Entertainment	122,337	57,605
Marketing	121,285	125,036
Sales commission	59,087	260,560
Travel	36,029	63,201
Other	745,535	647,224
Total sum of COGS, SG&A and bad debt expense	₩ 35,915,250	₩ 32,831,867

(*) The amount does not include the part which is classified as development costs, research and development.

28. LABOR COST FOR EMPLOYEES:

Labor cost for employees including research and development and development cost for the years ended December 31, 2021 and 2020, is as follows (in thousands of Korean won):

	2021	2020
Payroll (*)	₩ 12,371,759	₩ 11,666,749
Employee benefits	1,652,700	1,695,889
Provision for retirement benefits	1,064,549	1,230,708
Total	₩ 15,089,008	₩ 14,593,346

(*) The Company granted treasury stocks to executives and technical advisors prior to the current year, and accordingly, the amount corresponding to the fair value was recorded as payroll (see Note 34).

29. FINANCIAL INCOME AND EXPENSES:

(1) Details of financial income and expenses for the years ended December 31, 2021 and 2020, are as follows (in thousands of Korean won):

	2021	2020
Interest expenses:		
Borrowings	₩ 371,043	₩ 377,038
Loss on foreign currency transaction	17,742	347,779
Loss on foreign currency translation	659	100,963
Total financial expenses	389,444	825,780
Interest income:		
Bank savings and periodical deposits, etc.	11,790	20,035
Gain on foreign currency transaction	226,695	86,607
Gain on foreign currency translation	1,590	1,204
Total financial income	240,075	107,846
Net financial expenses	₩ 149,369	₩ 717,934

Borrowing cost capitalized as part of an asset is ₩64 million, and the capitalization rate applied is 2.03% for the year ended December 31, 2020.

30. INCOME TAX EXPENSE AND DEFERRED INCOME TAX:

(1) Income tax expense for the years ended December 31, 2021 and 2020, consists of the following (in thousands of Korean won):

	2021	2020
Current income tax expense:		
Income tax currently payable	₩ 234,331	₩ 211,643
Deferred income tax expense:		
Changes in temporary differences	506,486	(352,005)
Income tax reflected directly to the equity (*)	24,895	(243,040)
Total income tax expenses	₩ 765,712	₩ (383,402)

(*) The effect of income tax reflected directly to the equity for the years ended December 31, 2021 and 2020, is as follows (in thousands of Korean won):

	2021		
	Pre-tax	Tax effect	After-tax
Remeasurement of net retirement benefit obligations	₩(113,159)	₩ 24,895	₩ (88,264)

	2020		
	Pre-tax	Tax effect	After-tax
Remeasurement of net retirement benefit obligations	₩1,104,726	₩(243,040)	₩ 861,686

(2) Reconciliation from pre-tax income to income tax expense for the years ended December 31, 2021 and 2020, is as follows (in thousands of Korean won):

	2021	2020
Pre-tax income	₩ 4,279,842	₩ 3,264,686
Tax expense using currently applicable rates	919,565	696,231
Adjustments:		
Non-deductible expenses	9,959	11,288
Non-taxable income	—	(3)
Tax credit	(392,921)	(1,173,937)
Special tax for rural development	38,000	119,016
Current adjustments regarding prior years' income tax	—	(35,997)
Others	191,109	—
Subtotal	(153,853)	(1,079,633)
Income tax expense	₩ 765,712	₩ (383,402)
Effective tax rate	17.89%	-11.74%

(3) Details of the deferred tax assets and liabilities as of December 31, 2021 and 2020, are as follows (in thousands of Korean won):

	2021	2020
Deferred tax assets:		
Deferred tax assets to be settled after 12 months	₩ 2,796,310	₩ 2,836,557
Deferred tax assets to be settled in 12 months	1,123,597	1,228,463
Subtotal	3,919,907	4,065,020
Deferred tax liabilities:		
Deferred tax liabilities to be settled after 12 months	(1,973,311)	(1,616,739)
Deferred tax liabilities to be settled in 12 months	(4,801)	—
Subtotal	(1,978,112)	(1,616,739)
Net deferred tax assets (liabilities)	₩ 1,941,795	₩ 2,448,281

(4) Changes in temporary differences and deferred tax assets (liabilities) for the years ended December 31, 2021 and 2020, are as follows (in thousands of Korean won):

	2021					
	Temporary differences				DTA (DTL)	
	Beginning balance	Increase	Decrease	Ending balance	Beginning balance	Ending balance
Defined benefit liabilities	₩ 8,771,443	₩ 1,645,943	₩ 733,853	₩ 9,683,533	₩ 1,929,717	₩ 2,130,377
Expense for retirement benefit	500	—	500	—	110	—
Benefit plan assets	(7,235,481)	(1,596,802)	—	(8,832,283)	(1,591,806)	(1,943,102)
Allowance for bad debts	227,317	231,634	226,821	232,130	50,010	51,069
Accrued income	—	—	—	—	—	—
Accrued expenses	437,710	416,308	400,927	453,091	96,296	99,680
Allowance for inventory valuations	3,454,381	4,273,002	3,454,381	4,273,002	759,964	940,060
Research and development	(1)	—	—	(1)	—	—
Government grant	2,076,244	287,360	505,114	1,858,490	456,774	408,868
Gain or loss on foreign currency translation	199,390	(21,821)	199,390	(21,821)	43,866	(4,801)
Impairment loss on intangible assets	68,337	—	47,687	20,650	15,034	4,543
Impairment loss on PP&E	922,100	—	—	922,100	202,862	202,862
Share-based compensation	868,678	—	868,678	—	191,109	—
Depreciation	202,642	39,084	8,000	233,726	44,581	51,420
Lease liabilities	9,556	3,722	9,556	3,722	2,102	819
Subtotal	10,002,815	5,278,430	6,454,907	8,826,339	2,200,619	1,941,795
Tax credit carried forward	247,662	—	247,662	—	247,662	—
Total	₩10,250,477	₩ 5,278,430	₩ 6,702,569	₩ 8,826,339	₩ 2,448,281	₩ 1,941,795

	2020					
	Temporary differences				DTA (DTL)	
	Beginning balance	Increase	Decrease	Ending balance	Beginning balance	Ending balance
Defined benefit liabilities	₩ 8,688,000	₩ 1,335,015	₩ 1,251,572	₩ 8,771,443	₩ 1,911,360	₩ 1,929,717
Expense for retirement benefit	—	500	—	500	—	110
Benefit plan assets	(6,820,583)	(414,898)	—	(7,235,481)	(1,500,529)	(1,591,806)
Allowance for bad debts	220,268	226,821	219,772	227,317	48,459	50,010
Accrued income	(256)	—	(256)	—	(56)	—
Accrued expenses	498,169	393,481	453,940	437,710	109,597	96,296
Allowance for inventory valuations	2,764,422	3,454,381	2,764,422	3,454,381	608,173	759,964
Research and development	(1)	—	—	(1)	—	—
Government grant	2,148,285	436,248	508,289	2,076,244	472,623	456,774
Gain or loss on foreign currency translation	112,173	199,390	112,173	199,390	24,678	43,866
Impairment loss on intangible assets	118,272	—	49,935	68,337	26,020	15,034
Impairment loss on PP&E	922,100	—	—	922,100	202,862	202,862
Share-based compensation	868,678	—	—	868,678	191,109	191,109
Depreciation	—	210,642	8,000	202,642	—	44,581
Lease liabilities	8,999	9,556	8,999	9,556	1,980	2,102
Subtotal	9,528,526	5,851,135	5,376,846	10,002,815	2,096,276	2,200,619
Tax credit carried forward	—	1,054,922	807,260	247,662	—	247,662
Total	₩ 9,528,526	₩ 6,906,057	₩ 6,184,106	₩10,250,477	₩ 2,096,276	₩ 2,448,281

(5) The Company judges that deferred tax assets are feasible because the expected average annual profit from next fiscal year exceeds the deductible temporary difference that expires in each fiscal year.

31. FOREIGN CURRENCY TRANSLATION OF FOREIGN CURRENCY-DENOMINATED MONETARY ASSETS AND LIABILITIES:

Details foreign currency translation of foreign currency-denominated monetary assets and liabilities as of and for the years ended December 31, 2021 and 2020, are as follows (in USD, thousands of Korean won):

	2021				2020
	Amount in USD	Amount in KRW	Gain on foreign currency translation	Loss on foreign currency translation	Amount in KRW
Assets:					
Cash and cash equivalents	$2,163,747	₩2,565,122	₩ 1,591	₩ 659	₩2,996,190
Trade receivables	4,533,767	5,374,781	23,875	2,230	4,380,511
Non-trade receivables	—	—	—	—	92,996
Liabilities:					
Trade payables	641,128	760,058	871	1,619	142,181
Non-trade payables	12,039	14,272	—	8	41,091
Total			₩ 26,336	₩ 4,515	

32. EARNINGS PER SHARE:

(1) Basic earnings per share

Basic earnings per share (for common stocks) for the years ended December 31, 2021 and 2020, is calculated as follows (in shares and thousands of Korean won):

1) weighted-average number of common shares outstanding (basic) (in shares):

	2021		
	Number of shares issued	Number of days outstanding	Weighted number of shares
Beginning balance	10,138,184	365	3,700,437,160
Holding of treasury stocks	(1,175,576)	365	(429,085,240)
Weighted total			3,271,351,920
Number of days outstanding			365
Weighted-average number of common shares outstanding			8,962,608

	2020		
	Number of shares issued	Number of days outstanding	Weighted number of shares
Beginning balance	10,138,184	366	3,710,575,344
Holding of treasury stocks	(1,175,576)	366	(430,260,816)
Weighted total			3,280,314,528
Number of days outstanding			366
Weighted-average number of common shares outstanding			8,962,608

2) Basic earnings per share (in shares and Korean won):

	2021	2020
Net income of common stock (in KRW)	₩ 3,514,129,854	₩ 3,648,087,374
(÷) Weighted-average number of common shares outstanding	8,962,608 Shares	8,962,608 Shares
Basic earnings per share (in KRW)	₩392 won/share	₩407 won/share

(2) Diluted earnings per share

Diluted earnings per share (for common stocks) for the years ended December 31, 2021 and 2020, is calculated as follows (in shares and thousands of Korean):

1) weighted-average number of common shares outstanding (diluted) (in shares):

	2021 Weighted-average number of common shares outstanding
Weighted-average number of common shares outstanding (basic)	8,962,608
(+) Number of shares to be issued upon exercise of stock option (*)	200,000
(-) Number of shares to be issued at average market price	(192,041)
Weighted-average number of common shares outstanding (diluted)	8,970,567

	2020 Weighted-average number of common shares outstanding
Weighted-average number of common shares outstanding (basic)	8,962,608
(+) Number of shares to be issued upon exercise of stock option (*)	200,000
(-) Number of shares to be issued at average market price	(197,405)
Weighted-average number of common shares outstanding (diluted)	8,965,203

(*) Details of potential ordinary shares which have the effect of dilution as of December 31, 2021 are as follows (in shares and Korean won):

	2021	
	Exercise price (in KRW)	Number of common shares available for exercise (in shares)
Stock options	₩ 7,575	200,000

2) Diluted earnings per share (in shares and Korean won):

	2021	2020
Net income of common stock (in KRW)	₩ 3,514,129,854	₩ 3,648,087,374
(+) Net income for the calculation of diluted earnings per share	—	—
Net income used in calculation of diluted earnings per share (in KRW)	3,514,129,854	3,648,087,374
(÷) Weighted-average number of common shares outstanding (diluted)	8,970,567 shares	8,965,203 shares
Diluted earnings per share	₩ 392 won/share	₩ 407 won/share

33. CASH GENERATED FROM OPERATIONS:

(1) Cash generated from operations:

1) Details of cash generated from operations for the years ended December 31, 2021 and 2020, are as follows (in thousands of Korean won):

	2021	2020
Net income	₩3,514,130	₩3,648,087
Adjustments:		
Income tax expense	765,713	(383,402)
Financial expenses	371,043	377,038
Financial income	(11,790)	(20,035)
Provision for retirement benefits	1,048,969	1,218,126
Depreciation	2,834,125	2,428,639
Depreciation for right-of-use assets	147,869	159,496
Bad debt expenses	2,474	(1,771)
Amortization	694,864	544,883
Loss on disposal of PP&E	4	—
Loss on disposal of right-of-use assets	6,267	—
Loss on foreign currency translation	4,515	205,732
Loss on inventory valuation	818,621	689,959
Loss on disaster	—	17,660
Gain on foreign currency translation	(26,336)	(6,342)
Gain on disposal of PP&E	(699)	—
Gain on disposal of right-of-use assets	—	(382)
Gain on exemption of debt	(4,995)	—
Changes in operating assets and liabilities:		
Trade receivables	40,941	770,781
Other current assets, etc.	288,502	198,560
Inventories	(3,448,823)	(3,094,372)
Trade payables	554,189	(1,034,712)
Other current liabilities, etc.	(364,980)	165,047
Other non-current liabilities, etc.	15,732	—
Payment of severance benefits	(346,839)	(144,855)
Contribution to benefit plan assets	(1,500,000)	(300,000)
Cash generated from operations	₩ 5,403,496	₩ 5,438,137

2) Important transactions not involving cash flows for the years ended December 31, 2021 and 2020, are as follows (in thousands of Korean won):

	2021	2020
Transfer of construction in progress to PP&E	₩213,211	₩11,840,950
Liquidity transfer of long-term borrowings to current portion	1,200,000	600,000
Liquidity transfer of long-term prepaid expense to current portion	82,274	161,996
Recognition of right-of-use assets	245,836	194,624
Liquidity transfer of long-term non-trade payables to current portion	147,035	—

3) Details of the adjustment in the liabilities from the financial activities for the year ended December 31, 2021 are as follows (in thousands of Korean won):

	Liabilities from financial activities				
	Short-term borrowings	Current portion of long-term borrowings	Long-term borrowings	Lease liabilities	Total
Beginning balance	₩17,000,000	₩ 600,000	₩ 5,400,000	₩ 242,625	₩23,242,625
Transfer	—	1,200,000	(1,200,000)	231,933	231,933
Cash flows	(3,000,000)	(600,000)	—	(147,711)	(3,747,711)
Depreciation	—	—	—	—	—
Ending balance	₩14,000,000	₩ 1,200,000	₩ 4,200,000	₩ 326,847	₩19,726,847

34. RELATED-PARTY TRANSACTIONS:

(1) The CEO of the Company is the largest shareholder as of December 31, 2021.

(2) The Company paid short-term employee benefits of ₩2,477 million (₩2,409 million in 2020) and defined benefit expenses of ₩163 million (₩169 million in 2020) to key executives such as directors (including non-executive directors) and internal auditors who have important authority and responsibility for planning, operation, and control of the Company's activities in 2021.

(3) In relation to borrowings as of December 31, 2021 and 2020, the Company is provided with a payment guarantee from the CEO (see Note 18).

(4) The company has granted stock options to executives in 2016 according to a special resolution at the general shareholders' meeting. The number of unexercised stock options is 200,000 shares as of December 31, 2021 (see Note 23).

(5) The company granted 50,000 shares of treasury stock to two executives in exchange for service in 2015. Of these, 10,000 shares are for past service, and the awarded executives have the right to dispose of the shares from one year after the date of grant. Meanwhile, the 40,000 shares are for future service and are subject to tenure for 7 years from the date of grant, and the executive will have the right to dispose of the shares as the tenure period elapses. The Company estimated the fair value of the equity instruments granted at the market price of ₩10,750 and ₩11,800 per share at the date of grant, and recognized payroll expenses of ₩67 million in 2021. In addition, 46,300 shares of treasury stock were granted to one technical advisor in exchange for service in 2018, and he(she) has the right to dispose of the stocks one year after the date of grant. This is for future service and is a condition of tenure for four years from the date of grant, and the executive will have the right to dispose of the stock according to the elapse of the tenure thereafter. The Company estimated the fair value of the equity instruments granted at ₩8,170 per share, which is the market price on the grant date, and recognized ₩95 million of payroll expenses in 2021.

35. COMMITMENTS AND CONTINGENCIES:

(1) The credit limits and amounts used in relation to the Company's borrowings and trade bill loans as of December 31, 2021 are as follows (in thousands of Korean won):

Financial institution	Type of loan	Credit limit	Amount used
Shinhan Bank	Facility loan (*)	₩ 5,400,000	₩ 5,400,000
Shinhan Bank	General loan	5,000,000	5,000,000
Shinhan Bank	Trade bill loan	3,000,000	1,000,000
Kookmin Bank	Trade bill loan	5,000,000	1,000,000
Citibank Korea	Trade bill loan	5,000,000	5,000,000
Woori Bank	Trade bill loan	5,000,000	2,000,000
Total		₩ 28,400,000	₩ 19,400,000

(*) This loan is pledged in the fire insurance contract of the Company, and the pledged amount is ₩10,800 million.

(2) The Company has entered into a loan agreement which is collateralized with electronic trade receivables with Woori Bank, and there is no related balance outstanding as of December 31, 2021 and 2020.

(3) The Company has a L/C payment guarantee agreement (credit limit of ₩5,000 million) with Kookmin Bank in relation to the trade bill, and there is no related balance outstanding as of December 31, 2021.

(4) The Company is provided with payment guarantees of ₩159 million from Seoul Guarantee Insurance in connection with the execution of government projects as of December 31, 2021.

CQV CO., LTD.

FINANCIAL STATEMENTS
AS OF AND FOR THE YEARS ENDED
DECEMBER 31, 2022 AND 2021
with INDEPENDENT AUDITORS' REPORT

Induk Accounting Corp.

INDEPENDENT AUDITORS' REPORT

English Translation of Independent Auditors' Report Originally Issued in Korean on March 20, 2023.

To the Shareholders and the Board of Directors of CQV Co., Ltd.:

Audit Opinion

We have audited the financial statements of CQV Co., Ltd. (the "Company"), which comprise the statements of financial position as of December 31, 2022 and 2021, respectively, and the statements of comprehensive income, statements of changes in shareholders' equity and statements of cash flows for the years then ended, and notes to the financial statements, including a summary of significant accounting policies

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, respectively, and its financial performance and its cash flows for the years then ended in accordance with Korean International Financial Reporting Standards ("K-IFRSs").

Basis for Audit Opinion

We conducted our audits in accordance with the Korean Standards on Auditing ("KSAs"). Our responsibilities under those standards are further described in Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Company in accordance with the ethical requirements that are relevant to our audits of the financial statements in the Republic of Korea, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Key Audit Matters

The key audit matters are those matters that, in our professional judgment, are of most significance in our audit of the financial statements of the current year. These matters are addressed in the context of our audits of the financial statements as a whole and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

(1) Appropriateness of the inventory valuation

There are inventories amounting to ₩24,804 million which are, as described in Note 2, valued at the lower of acquisition cost and net realizable value. Related carrying amount of the allowance for inventory valuation is ₩5,052 million, and the loss on the valuation of inventories for the year ended December 31, 2022 is ₩779 million, as described in Note 11.

We determined such inventory valuation as a key audit matter under following considerations:

i) The ratio of carrying amount of inventories to total assets of the Company is significant at 28.7% as of December 31, 2022.

ii) Significant judgment of management is involved in estimating the net realizable value expected to be realized at the time of sale.

Our audit procedures on the key audit matter are as follows:

a) Understanding the accounting policies used to calculate the allowance for inventory valuation and reviewing internal control related to inventory valuation

b) Verify the appropriateness of the calculation by re-calculating allowance for inventory valuation

c) Review of accuracy and completeness of basic information used to recognize the allowance for inventory valuation

d) Confirm whether the selling price used in calculating net realizable value matches the latest selling price through sampling test

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation of the accompanying financial statements in accordance with K-IFRSs, and for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management of the Company is responsible for assessing the Company's ability to continue as a going concern; disclosing, as applicable, matters related to going concern; and using the going-concern basis of accounting, unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Company's financial reporting process.

Auditors' Responsibilities for the Audits of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with KSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with KSAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error; design and perform audit procedures responsive to those risks; and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

- Conclude on the appropriateness of the management's use of the going-concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Company to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audits and significant audit findings, including any significant deficiencies in internal control that we identify during our audits.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the financial statements of the current year and are, therefore, the key audit matters. We describe these matters in our auditors' report, unless law or regulation precludes public disclosure about a matter or when, in extremely rare circumstances, we determine that the matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in this independent auditors' report is Choi, Seong Hwan.

March 20, 2023

Induk Accounting Corporation

Notice to Readers

This report is effective as of March 20, 2023, the auditors' report date. Certain subsequent events or circumstances may have occurred between the auditors' report date and the time the auditors' report is read. Such events or circumstances could significantly affect the financial statements and may result in modifications to the auditors' report.

CQV CO., LTD. (the "Company")

FINANCIAL STATEMENTS
AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2022 AND 2021

The accompanying financial statements, including all footnote disclosures, were prepared by, and are the responsibility of, CQV Co., Ltd.

Jang, Gil Wan
CHIEF EXECUTIVE OFFICER
CQV CO., LTD.

CQV CO., LTD.
STATEMENTS OF FINANCIAL POSITION
AS OF DECEMBER 31, 2022 AND 2021

	Notes	**2022**	**2021**
		(In Korean won)	
ASSETS			
Current assets:			
Cash and cash equivalents	4,6,7,31	₩ 10,829,529,840	₩ 5,808,177,381
Trade receivables	4,6,8,31	9,728,576,814	8,388,025,169
Other financial assets	4,6,7,9,31	3,060,400	6,170,970
Other current assets	10	558,959,798	458,530,547
Inventories	11,12	24,803,850,853	27,078,139,787
Total current assets		45,923,977,705	41,739,043,854
Non-current assets:			
Property, plant and equipment	12,17	33,306,704,098	35,372,711,510
Right-of-use assets	13	244,232,954	328,843,843
Intangible assets	14,17	3,851,861,447	3,978,170,914
Other financial assets	4,6,7,9	299,994,246	277,175,871
Defined benefit assets, net	20	948,992,600	—
Deferred tax assets	30	1,799,646,480	1,941,794,533
Total non-current assets		40,451,431,825	41,898,696,671
Total assets		₩ 86,375,409,530	₩ 83,637,740,525

(Continued)

CQV CO., LTD.
STATEMENTS OF FINANCIAL POSITION (CONTINUED)
AS OF DECEMBER 31, 2022 AND 2021

	Notes	**2022**	**2021**
		(In Korean won)	
LIABILITIES AND SHAREHOLDERS' EQUITY			
Current liabilities:			
Trade payables	4,6,15,31	₩ 661,532,895	₩ 908,029,609
Short-term borrowings	4,6,18	9,200,000,000	15,200,000,000
Other financial liabilities	4,6,15,17,19,31	1,458,518,805	1,489,987,722
Other current liabilities	16	241,355,172	194,745,123
Current tax liabilities		1,089,755,318	233,285,152
Total current liabilities		12,651,162,190	18,026,047,606
Non-current liabilities:			
Long-term borrowings	4,6,18	8,000,000,000	4,200,000,000
Defined benefit liabilities, net	20	—	851,250,332
Other financial liabilities	4,6,15,17,19	872,209,415	948,909,019
Total non-current liabilities		8,872,209,415	6,000,159,351
Total liabilities	4	21,523,371,605	24,026,206,957
Equity attributable to the owners of the parent company:			
Capital stock	1,21	5,069,092,000	5,069,092,000
Capital surplus	21	16,496,720,838	16,496,720,838
Other capital items	22	(7,599,655,018)	(7,599,655,018)
Retained earnings	22	50,885,880,105	45,645,375,748
Total shareholders' equity	4	64,852,037,925	59,611,533,568
Total liabilities and shareholders' equity		₩ 86,375,409,530	₩ 83,637,740,525

(Concluded)

See accompanying notes to financial statements.

CQV CO., LTD.
STATEMENTS OF COMPREHENSIVE INCOME
FOR THE YEARS ENDED DECEMBER 31, 2022 AND 2021

	Notes	**2022**	**2021**
		(In Korean won)	
SALES	5,24	₩ 46,284,761,435	₩ 40,002,344,966
COST OF SALES	11,27	28,753,023,445	25,402,979,424
GROSS PROFIT		17,531,737,990	14,599,365,542
Selling and administrative expenses	25,27	11,023,168,804	10,509,797,061
Bad debt expenses	8,27	2,075,593	2,473,964
OPERATING INCOME		6,506,493,593	4,087,094,517
Non-operating income	26	1,416,808,971	516,882,519
Non-operating expenses	26	918,724,081	174,765,292
Financial income	29	339,541,210	240,074,520
Financial expenses	29	914,316,680	389,443,897
PRE-TAX INCOME		6,429,803,013	4,279,842,367
INCOME TAX EXPENSE	30	1,046,023,660	765,712,513
NET INCOME		5,383,779,353	3,514,129,854
OTHER COMPREHENSIVE INCOME (LOSS):			
Items that are not subsequently reclassified to profit or loss:			
Actuarial gain (loss) on defined benefit obligations, net	20,30	932,237,964	(88,263,654)
TOTAL COMPREHENSIVE INCOME		₩ 6,316,017,317	₩ 3,425,866,200
EARNINGS PER SHARE:			
Basic earnings per share	32	₩ 601	₩ 392
Diluted earnings per share	32	601	392

See accompanying notes to financial statements.

CQV CO., LTD.
STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY
FOR THE YEARS ENDED DECEMBER 31, 2022 AND 2021

(In Korean Won)	*Notes*	Capital stock	Capital surplus	Other capital items	Retained earnings	Total
I. Balance as of January 1, 2021		₩ 5,069,092,000	₩ 16,496,720,838	₩ (7,599,655,018)	₩ 43,115,770,348	₩ 57,081,928,168
II. Total comprehensive income:						
Net income		—	—	—	3,514,129,854	3,514,129,854
Other comprehensive income (loss):						
Actuarial loss on defined benefit obligation	20	—	—	—	(88,263,654)	(88,263,654)
Total other comprehensive income (loss)	—	—	—	(88,263,654)	(88,263,654)	
Total comprehensive income	—	—	—	3,425,866,200	3,425,866,200	
III. Transactions with shareholders:						
Dividends	22	—	—	—	(896,260,800)	(896,260,800)
Total transactions with shareholders		—	—	—	(896,260,800)	(896,260,800)
IV. Balance as of December 31, 2021		₩ 5,069,092,000	₩ 16,496,720,838	₩ (7,599,655,018)	₩ 45,645,375,748	₩ 59,611,533,568

(Continued)

CQV CO., LTD.
STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY (CONTINUED)
FOR THE YEARS ENDED DECEMBER 31, 2022 AND 2021

(In Korean Won)	*Notes*	Capital stock	Capital surplus	Other capital items	Retained earnings	Total
I. Balance as of January 1, 2022		₩ 5,069,092,000	₩ 16,496,720,838	₩ (7,599,655,018)	₩ 45,645,375,748	₩ 59,611,533,568
II. Total comprehensive income:						
Net income		—	—	—	5,383,779,353	5,383,779,353
Other comprehensive income:						
Actuarial loss on defined benefit obligation	20	—	—	—	932,237,964	932,237,964
Total other comprehensive income		—	—	—	932,237,964	932,237,964
Total comprehensive income		—	—	—	6,316,017,317	6,316,017,317
III. Transactions with shareholders:						
Dividends	22	—	—	—	(1,075,512,960)	(1,075,512,960)
Total transactions with shareholders		—	—	—	(1,075,512,960)	(1,075,512,960)
IV. Balance as of December 31, 2022		₩ 5,069,092,000	₩ 16,496,720,838	₩ (7,599,655,018)	₩ 50,885,880,105	₩ 64,852,037,925

(Concluded)

See accompanying notes to financial statements.

CQV CO., LTD.
STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, 2022 AND 2021

	Notes	2022	2021
		(In Korean won)	
I. CASH FLOWS FROM OPERATING ACTIVITIES:			
Cash generated from operations	33	₩10,690,818,642	₩ 5,403,496,271
Interest expense paid		(501,568,636)	(364,388,512)
Income tax paid		(295,215,532)	(45,440,885)
Net cash provided by operating activities		9,894,034,474	4,993,666,874
II. CASH FLOWS FROM INVESTING ACTIVITIES:			
Decrease in long-term financial instruments		14,168,952	19,944,095
Disposal of PP&E		—	700,000
Decrease in leasehold deposits		5,492,000	173,088,040
Receipt of interest income		14,934,554	6,922,692
Receipt of government grant	17	530,432,313	415,302,428
Increase in long-term financial instruments		(34,835,811)	(38,703,415)
Acquisition of PP&E	12	(1,025,372,049)	(718,901,260)
Payment of interest expense		(1,685,333)	—
Acquisition of intangible assets	14	(883,446,231)	(1,000,914,937)
Increase in leasehold deposits		(5,492,000)	(52,866,000)
Net cash used in investing activities		(1,385,803,605)	(1,195,428,357)
III. CASH FLOWS FROM FINANCING ACTIVITIES:			
Increase in borrowings	18,33	5,000,000,000	1,000,000,000
Repayment of borrowings	18,33	(7,200,000,000)	(4,600,000,000)
Repayment of lease liabilities	19	(150,389,470)	(147,711,120)
Dividend payment		(1,075,512,840)	(896,260,800)
Net cash used in financing activities		(3,425,902,310)	(4,643,971,920)
IV. NET INCREASE(DECREASE) IN CASH AND CASH EQUIVALENTS (I+II+III)		5,082,328,559	(845,733,403)
V. CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR		5,808,177,381	6,652,979,901
VI. CHANGES IN CASH AND CASH EQUIVALENTS DUE TO FOREIGN CURRENCY TRANSLATION		(60,976,100)	930,883
VII. CASH AND CASH EQUIVALENTS, END OF YEAR		₩10,829,529,840	₩ 5,808,177,381

See accompanying notes to financial statements.

CQV CO., LTD.
NOTES TO FINANCIAL STATEMENTS
AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2022 AND 2021

1. GENERAL:

CQV Co., Ltd. (the "Company"), was incorporated on October 20, 2000, for the purpose of manufacturing and a sale of pearlescent pigments and mica products. On November 15, 2020, the Company was re-designated as a venture company by the Korea Technology Finance Corporation in accordance with Article 25 of the Act on Special Measures for the Promotion of Venture Businesses, and on November 8, 2011, the Company was listed on the Korean KOSDAQ market. The Company's total capital stock was ₩500 million at the time of establishment, and after a number of capital increases etc. the total capital stock of the Company is ₩5,069 million as of December 31, 2022.

The Company's major shareholders are as follows (in shares):

	Number of shares	Ownership ratio (%)
CEO of the Company	2,255,189	22.24
Related parties of CEO	900,342	8.88
Association of employee stock ownership	19,153	0.19
Treasury stock	1,175,576	11.60
Others	5,787,924	57.09
Total	10,138,184	100.00

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

The principal accounting policies are set out below. These policies are applied continuously for the period presented unless otherwise stated.

(1) Basis of Preparation

The Company has prepared the financial statements in accordance with the Korean International Financial Reporting Standards ("K-IFRSs"). K-IFRS refers to the contents adopted by Korea among the standards and interpretations published by the International Accounting Standards Board ("IASB").

K-IFRS allow the use of significant accounting estimates when preparing financial statements, and require management's judgment in applying accounting policies. Note 3 explains the parts that require more complex and high-level judgment or important assumptions and estimations.

(2) Changes in Accounting Policies and Disclosures

1) New and Amended K-IFRSs and new interpretations that are effective for the current year

- K-IFRS 1116 Leases — Impact of the initial application of Covid-19-Related Rent Concessions (Amendment)

The practical expedient permits a lessee to elect not to assess whether a COVID-19-related rent concession is a lease modification. A lessee that makes this election shall account for any change in lease payments resulting from the COVID-19-related rent concession the same way it would account for the change applying K-IFRS 1116 if the change were not a lease modification. There is no material impact on the Company's financial statements with respect to these amendments.

- K-IFRS 1103 Reference to the Conceptual Framework (Amendment)

The amendments update K-IFRS 1103 so that it refers to the Conceptual Framework (2018) instead of the Framework (2007). They also add to K-IFRS 1103 a requirement that, for obligations within the scope of K-IFRS 1037, an acquirer applies K-IFRS 1037 to determine whether at the acquisition date a present obligation exists as a result of past events. For a levy that would be within the scope of K-IFRS 2121 Levies, the acquirer applies K-IFRS 2121 to determine whether the obligating event that gives rise to a liability to pay the levy has occurred by the acquisition date. Finally, the amendments add an explicit statement that an acquirer does not recognize contingent assets acquired in a business combination. There is no material impact on the Company's financial statements with respect to these amendments.

- K-IFRS 1016 Property, Plant and Equipment (Amendment)

The amendments prohibit deducting from the cost of an item of property, plant and equipment any proceeds from selling items produced before that asset is available for use, i.e. proceeds while bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management. Consequently, an entity recognizes such sales proceeds and related costs in profit or loss. There is no material impact on the Company's financial statements with respect to these amendments.

- K-IFRS 1037 Onerous Contracts—Cost of Fulfilling a Contract (Amendment)

The amendments specify that the 'cost of fulfilling' a contract comprises the 'costs that relate directly to the contract'. Costs that relate directly to a contract consist of both the incremental costs of fulfilling that contract (examples would be direct labor or materials) and an allocation of other costs that relate directly to fulfilling contracts (an example would be the allocation of the depreciation charge for an item of property, plant and equipment used in fulfilling the contract). There is no material impact on the Company's financial statements with respect to these amendments.

- Annual Improvements to K-IFRS Standards 2018—2020

The annual improvements to K-IFRS Standards 2018-2020 are effective for annual periods beginning on or after 1 January 2022, with early application permitted. There is no material impact on the Company's financial statements with respect to these amendments.

① K-IFRS 1101 First-time Adoption of K-IFRS — A subsidiary which becomes a first-time adopter

② K-IFRS 1109 Financial Instruments — Fees relating to the'10 per cent' test to assess whether to derecognize a financial liability

③ K-IFRS 1041 Agriculture — Measuring Fair Value

2) New and revised K-IFRSs in issue, but not yet effective

- K-IFRS 1001 Classification of Liabilities as Current or Non-current (Amendment)

The amendments to K-IFRS 1001 affect only the presentation of liabilities as current or non-current in the statement of financial position and not the amount or timing of recognition of any asset, liability, income or expenses, or the information disclosed about those items. The amendments clarify that the classification of liabilities as current or non-current is based on rights that are in existence at the end of the reporting period, specify that classification is unaffected by expectations about whether an entity will exercise its right to defer settlement of a liability, explain that rights are in existence if covenants are complied with at the end of the reporting period, and introduce a definition of 'settlement' to make clear that settlement refers to the transfer to the counterparty of cash, equity instruments, other assets or services. The amendments are applied retrospectively for annual periods beginning on or after 1 January 2023, with early application permitted. The Company is reviewing the impact of the amendment on its financial statements.

-K-IFRS 1001 Presentation of Financial Statements - Disclosure of Accounting Policies (Amendment)

IFRS Practice Statement 2 was amended to define and disclose material accounting policies and to provide guidance on how to apply the concept of materiality. The amendments are applied prospectively for annual periods beginning on or after 1 January 2023, with early application permitted. The Company is reviewing the impact of the amendment on its financial statements.

-K-IFRS 1008 Accounting Polices, Changes in Accounting Estimates and Errors - Definition of Accounting Estimates (Amendment)

The amendments replace the definition of a change in accounting estimates with a definition of accounting estimates. Under the new definition, accounting estimates are "monetary amounts in financial statements that are subject to measurement uncertainty". The amendments are effective for annual periods beginning on or after 1 January 2023 to changes in accounting policies and changes in accounting estimates that occur on or after the beginning of that period, with earlier application permitted. The Company does not anticipate that the application of the enactment and amendments will have a significant impact on the Company's financial statements.

-K-IFRS 1012 Income Taxes - Deferred Tax related to Assets and Liabilities arising from a Single Transaction (Amendment)

The amendments add a requirement for a transaction that does not give rise to the same taxable temporary difference and deductible temporary difference at the time of the transaction to the requirement for the exceptions of initial recognition for a transaction in which an asset or liability is recognized for the first time. The amendments are effective for annual periods beginning on or after 1 January 2023, with earlier application permitted. The Company does not anticipate that the application of the enactment and amendments will have a significant impact on the Company's financial statements.

- K-IFRS 1117 Insurance Contracts

K-IFRS 1117 establishes the principles for the recognition, measurement, presentation and disclosure of insurance contracts and supersedes IFRS 4 Insurance Contracts. K-IFRS 1117 lets the entities estimate all cash flows from insurance contracts, use a discount rate that reflects assumptions and risks at the time of reporting, and recognize the revenue on an accrual basis reflecting the service (insurance coverage) provided to policyholders for each fiscal year. In addition, regardless of the insured event, expedited investment elements (cancellation/maturity refund) are excluded from insurance income, and insurance gains and losses are separated from investment gains and losses so that information users can check the source of profit and loss. The amendments are applied for annual periods beginning on or after 1 January 2023, with early application permitted for the entities which adopted and applied K-IFRS 1109 'Financial Instruments'. The Company does not anticipate that the application of the enactment and amendments will have a significant impact on the Company's financial statements.

(3) Operating Divisions

Management who makes strategic decisions determines the Company's operating divisions. Management reviews the divisions' operating profits to make decision for the allocation of resources to divisions and review of performance of divisions. The company has a sole operating division.

(4) Foreign Currency Translations

1) Functional currency and presentation currency

The individual items included in the Company's financial statements are measured in the currency of the primary economic environment in which the Company operates (its functional currency). For the purpose of the financial statements, the results and financial position of the Company are expressed in Korean won, which is the functional currency and the presentation currency of the Company for the financial statements.

2) Foreign currency transactions and translations at the end of the reporting period

In preparing the Company's financial statements, transactions in currencies other than the Company's functional currency (foreign currencies) are recognized at the rates of exchange prevailing at the dates of the transactions. At the end of each reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at that date. Exchange differences arising from the non-monetary items are regarded as part of the profit or loss from the change of the fair value. And then, foreign exchange differences arising from the equity instruments measured at a fair value are recognized as profit or loss, and foreign exchange differences arising from the available-for-sale equity instruments are recognized as other comprehensive income.

(5) Financial assets

All regular-way purchases or sales of financial assets are recognized and derecognized on a trade-date basis. Regular-way purchases or sales are purchases or sales of financial assets that require delivery of assets within the time frame established by regulation or convention in the marketplace.

All recognized financial assets are measured subsequently in their entirety at either amortized cost or fair value, depending on the classification of the financial assets.

1) Classification of financial assets

Debt instruments that meet the following conditions are measured subsequently at amortized cost:

- The financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows.
- The contractual terms of the financial asset give rise on specified dates to cash flows that are SPPI on the principal amount outstanding.

Debt instruments that meet the following conditions are measured subsequently at fair value through other comprehensive income ("FVTOCI"):

- The financial asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling the financial assets.
- The contractual terms of the financial asset give rise on specified dates to cash flows that are SPPI on the principal amount outstanding.

By default, all other financial assets are measured subsequently at FVTPL.

Despite the foregoing, the Company may make the following irrevocable election/designation at initial recognition of a financial asset:

- The Company may irrevocably elect to present subsequent changes in fair value of an equity investment in other comprehensive income if certain criteria are met.
- The Company may irrevocably designate a debt investment that meets the amortized cost or FVTOCI criteria as measured at FVTPL if doing so eliminates or significantly reduces an accounting mismatch.

1-1) Amortized cost and effective interest method

The effective interest method is a method of calculating the amortized cost of a debt instrument and allocating interest income over the relevant period. For financial assets other than purchased or originated credit-impaired financial assets (i.e., assets that are credit impaired on initial recognition), the effective interest rate is the rate that exactly discounts estimated future cash receipts (including all fees and points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) excluding expected credit losses ("ECLs"), through the expected life of the debt instrument, or, where appropriate, a shorter period, to the gross carrying amount of the debt instrument on initial recognition. For purchased or originated credit-impaired financial assets, a credit-adjusted effective interest rate is calculated by discounting the estimated future cash flows, including ECLs, to the amortized cost of the debt instrument on initial recognition.

The amortized cost of a financial asset is the amount at which the financial asset is measured at initial recognition minus the principal repayments, plus the cumulative amortization using the effective interest method of any difference between that initial amount and the maturity amount, adjusted for any loss allowance. The gross carrying amount of a financial asset is the amortized cost of the financial asset before adjusting for any loss allowance.

Interest income is recognized using the effective interest method for debt instruments measured subsequently at amortized cost and at FVTOCI. For financial assets other than purchased or originated credit-impaired financial assets, interest income is calculated by applying the effective interest rate to the gross carrying amount of a financial asset, except for financial assets that have subsequently become credit impaired. For financial assets that have subsequently become credit impaired, interest income is recognized by applying the effective interest rate to the amortized cost of the financial asset. If, in subsequent reporting periods, the credit risk on the credit-impaired financial instrument improves so that the financial asset is no longer credit impaired, interest income is recognized by applying the effective interest rate to the gross carrying amount of the financial asset.

For purchased or originated credit-impaired financial assets, the Company recognizes interest income by applying the credit-adjusted effective interest rate to the amortized cost of the financial asset from initial recognition. The calculation does not revert to the gross basis even if the credit risk of the financial asset subsequently improves so that the financial asset is no longer credit impaired.

Interest income is recognized in profit or loss and is included in the "financial income - interest income" line item.

1-2) Debt instruments classified as at FVTOCI

Fair value is determined in the manner described in Note 4.3. The corporate bonds are initially measured at fair value, plus transaction costs. Subsequently, changes in the carrying amount of these corporate bonds as a result of F/X gains and losses, impairment gains or losses and interest income calculated using the effective interest method are recognized in profit or loss. The amounts that are recognized in profit or loss are the same as the amounts that would have been recognized in profit or loss if these corporate bonds had been measured at amortized cost. All other changes in the carrying amount of these corporate bonds are recognized in other comprehensive income and accumulated under the heading of investments revaluation reserve. When these corporate bonds are derecognized, the cumulative gains or losses previously recognized in other comprehensive income are reclassified to profit or loss.

1-3) Equity instruments designated as at FVTOCI

On initial recognition, the Company may make an irrevocable election (on an instrument-by-instrument basis) to designate investments in equity instruments as at FVTOCI. Designation at FVTOCI is not permitted if the equity investment is held for trading or if it is contingent consideration recognized by an acquirer in a business combination.

A financial asset is held for trading if:

- It has been acquired principally for the purpose of selling in the near term;
- On initial recognition, it is part of a portfolio of identified financial instruments that the Company manages together and has evidence of a recent actual pattern of short-term profit taking; or
- It is a derivative (except for a derivative that is a financial guarantee contract or a designated and effective hedging instrument).

Investments in equity instruments at FVTOCI are initially measured at fair value, plus transaction costs. Subsequently, they are measured at fair value with gains and losses arising from changes in fair value recognized in other comprehensive income and accumulated in the investment revaluation reserve. The cumulative gain or loss is not be reclassified to profit or loss on disposal of the equity investments; instead, it is transferred to retained earnings.

Dividends on these investments in equity instruments are recognized in profit or loss in accordance with K-IFRS 1109, unless the dividends clearly represent a recovery of part of the cost of the investment. Dividends are included in the 'financial income' line item in profit or loss.

1-4) Financial assets measured at FVTPL

Financial assets that do not meet the criteria for being measured at amortized cost or FVTOCI are measured at FVTPL. Specifically:

- Investments in equity instruments are classified as at FVTPL, unless the Company designates an equity investment that is neither held for trading nor a contingent consideration arising from a business combination as at FVTOCI on initial recognition (see 1-3) above).
- Debt instruments that do not meet the amortized cost criteria or the FVTOCI criteria (see 1-1) and 1-2) above) are classified as at FVTPL. In addition, debt instruments that meet either the amortized cost criteria or the FVTOCI criteria may be designated as at FVTPL upon initial recognition if such designation eliminates or significantly reduces a measurement or recognition inconsistency (so called 'accounting mismatch') that would arise from measuring assets or liabilities or recognizing the gains and losses on them on different bases. The Company has not designated any debt instruments as at FVTPL.

Financial assets measured at FVTPL are measured at fair value at the end of each reporting period, with any fair value gains or losses recognized in profit or loss to the extent they are not part of a designated hedging relationship. The net gain or loss recognized in profit or loss includes any dividend and accounted for as 'non-operating income and expense' line item. Interest income earned on the financial asset measured at FVTPL is accounted for as 'financial income — interest income' line item. Fair value is determined in the manner described in Note 4.3.

2) Gain or loss on foreign currency translation

The carrying amount of financial assets that are denominated in a foreign currency is determined in that foreign currency and translated at the spot rate at the end of each reporting period. Specifically:

- For financial assets measured at amortized cost that are not part of a designated hedging relationship, exchange differences are recognized in profit or loss in the 'non-operating income and expense' line item.
- For debt instruments measured at FVTOCI that are not part of a designated hedging relationship, exchange differences on the amortized cost of the debt instrument are recognized in profit or loss in the 'non-operating income and expense' line item. Other exchange differences are recognized in other comprehensive income in the investment revaluation reserve.
- For financial assets measured at FVTPL that are not part of a designated hedging relationship, exchange differences are recognized in profit or loss in the 'non-operating income and expense' line item.
- For equity instruments measured at FVTOCI, exchange differences are recognized in other comprehensive income in the investment revaluation reserve.

3) Impairment of financial assets

The Company recognizes a loss allowance for ECLs on investments in debt instruments that are measured at amortized cost or at FVTOCI, lease receivables, trade receivables and contract assets, as well as on financial guarantee contracts. The amount of ECLs is updated at each reporting date to reflect changes in credit risk since initial recognition of the respective financial instrument.

The Company always recognizes lifetime ECL for trade receivables, contract assets and lease receivables. The ECLs on these financial assets are estimated using a provision matrix based on the Company's historical credit loss experience, adjusted for factors that are specific to the debtors, general economic conditions and an assessment of both the current as well as the forecast direction of conditions at the reporting date, including time value of money where appropriate.

For all other financial instruments, the Company recognizes lifetime ECL when there has been a significant increase in credit risk since initial recognition. However, if the credit risk on the financial instrument has not increased significantly since initial recognition, the Company measures the loss allowance for that financial instrument at an amount equal to 12-month ECL.

Lifetime ECL represents the ECLs that will result from all possible default events over the expected life of a financial instrument. In contrast, 12-month ECL represents the portion of lifetime ECL that is expected to result from default events on a financial instrument that are possible within 12 months after the reporting date.

3-1) Significant increase in credit risk

In assessing whether the credit risk on a financial instrument has increased significantly since initial recognition, the Company compares the risk of a default occurring on the financial instrument at the reporting date with the risk of a default occurring on the financial instrument at the date of initial recognition. In making this assessment, the Company considers both quantitative and qualitative information that is reasonable and supportable, including historical experience and forward-looking information that is available without undue cost or effort. Forward-looking information considered includes the future prospects of the industries in which the Company's debtors operate, obtained from economic expert reports, financial analysts, governmental bodies, relevant think tanks and other similar organizations, as well as consideration of various external sources of actual and forecast economic information that relate to the Company's core operations.

In particular, the following information is taken into account when assessing whether credit risk has increased significantly since initial recognition:

- An actual or expected significant deterioration in the financial instrument's external (if available) or internal credit rating.
- Significant deterioration in external market indicators of credit risk for a particular financial instrument, e.g., a significant increase in the credit spread, the credit default swap prices for the debtor or the length of time or the extent to which the fair value of a financial asset has been less than its amortized cost.
- Existing or forecast adverse changes in business, financial or economic conditions that are expected to cause a significant decrease in the debtor's ability to meet its debt obligations.
- An actual or expected significant deterioration in the operating results of the debtor.
- Significant increases in credit risk on other financial instruments of the same debtor.
- An actual or expected significant adverse change in the regulatory, economic or technological environment of the debtor that results in a significant decrease in the debtor's ability to meet its debt obligations.

Irrespective of the outcome of the above assessment, the Company presumes that the credit risk on a financial asset has increased significantly since initial recognition when contractual payments are more than 30 days past due, unless the Company has reasonable and supportable information that demonstrates otherwise.

Despite the foregoing, the Company assumes that the credit risk on a financial instrument has not increased significantly since initial recognition if the financial instrument is determined to have low-credit risk at the reporting date. A financial instrument is determined to have low credit risk if:

i) The financial instrument has a low risk of default;
ii) The debtor has a strong capacity to meet its contractual cash flow obligations in the near term; and

iii) Adverse changes in economic and business conditions in the longer term may, but will not necessarily, reduce the ability of the borrower to fulfil its contractual cash flow obligations.

The Company considers a financial asset to have low-credit risk when the asset has external credit rating of 'investment grade' in accordance with the globally understood definition or if an external rating is not available, the asset has an internal rating of 'performing.' Performing means that the counterparty has a strong financial position and there is no past due amounts.

For financial guarantee contracts, the date that the Company becomes a party to the irrevocable commitment is considered to be the date of initial recognition for the purposes of assessing the financial instrument for impairment. In assessing whether there has been a significant increase in the credit risk since initial recognition of the financial guarantee contracts, the Company considers the changes in the risk that the specified debtor will default on the contract.

The Company regularly monitors the effectiveness of the criteria used to identify whether there has been a significant increase in credit risk and revises them as appropriate to ensure that the criteria are capable of identifying significant increase in credit risk before the amount becomes past due.

3-2) Definition of default

The Company considers the following as constituting an event of default for internal credit risk management purposes as historical experience indicates that financial assets that meet either of the following criteria are generally not recoverable:

- When there is a breach of financial covenants by the debtor.

3-3) Credit-impaired financial assets

A financial asset is credit impaired when one or more events that have a detrimental impact on the estimated future cash flows of that financial asset have occurred. Evidence that a financial asset is credit impaired includes observable data about the following events:

- Significant financial difficulty of the issuer or the borrower.
- A breach of contract, such as a default or past due event (see 3-2) above).
- The lender(s) of the borrower, for economic or contractual reasons relating to the borrower's financial difficulty, having granted to the borrower a concession(s) that the lender(s) would not otherwise consider.
- It is becoming probable that the borrower will enter bankruptcy or other financial reorganization.
- The disappearance of an active market for that financial asset because of financial difficulties.

3-4) Write-off policy

The Company writes off a financial asset when there is information indicating that the debtor is in severe financial difficulty and there is no realistic prospect of recovery, e.g., when the debtor has been placed under liquidation or has entered into bankruptcy proceedings, or in the case of trade receivables, when the amounts are more than two years past due, whichever occurs sooner. Financial assets written off may still be subject to enforcement activities under the Company's recovery procedures, taking into account legal advice where appropriate. Any recoveries made are recognized in profit or loss.

3-5) Measurement and recognition of ECLs

The measurement of ECLs is a function of the probability of default, loss given default (i.e., the magnitude of the loss if there is a default) and the exposure at default. The assessment of the probability of default and loss given default is based on historical data adjusted by forward-looking information as described above. As for the exposure at default, for financial assets, this is represented by the assets' gross carrying amount at the reporting date; for the financial guarantee contracts, the exposure includes the amount drawn down as at the reporting date, together with any additional amounts expected to be drawn down in the future by default date determined based on historical trend, the Company's understanding of the specific future financing needs of the debtors and other relevant forward-looking information.

For financial assets, the ECL is estimated as the difference between all contractual cash flows that are due to the Company in accordance with the contract and all the cash flows that the Company expects to receive, discounted at the original effective interest rate. For a lease receivable, the cash flows used for determining the ECLs is consistent with the cash flows used in measuring the lease receivable in accordance with K-IFRS 1116 Leases.

For a financial guarantee contract, as the Company is required to make payments only in the event of a default by the debtor in accordance with the terms of the instrument that is guaranteed, the expected loss allowance is the expected payments to reimburse the holder for a credit loss that it incurs, less any amounts that the Company expects to receive from the holder, the debtor or any other party.

If the Company has measured the loss allowance for a financial instrument at an amount equal to lifetime ECL in the previous reporting period, but determines at the current reporting date that the conditions for lifetime ECL are no longer met, the Company measures the loss allowance at an amount equal to 12-month ECL at the current reporting date, except for assets for which simplified approach was used.

The Company recognizes an impairment gain or loss in profit or loss for all financial instruments with a corresponding adjustment to their carrying amount through a loss allowance account, except for investments in debt instruments that are measured at FVTOCI, for which the loss allowance is recognized in other comprehensive income and accumulated in the investment revaluation reserve, and does not reduce the carrying amount of the financial asset in the statements of financial position.

4) Derecognition of financial assets

The Company derecognizes a financial asset only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity. If the Company neither transfers nor retains substantially all the risks and rewards of ownership and continues to control the transferred asset, the Company recognizes its retained interest in the asset and an associated liability for amounts it may have to pay. If the Company retains substantially all the risks and rewards of ownership of a transferred financial asset, the Company continues to recognize the financial asset and also recognizes a collateralized borrowing for the proceeds received.

On derecognition of a financial asset measured at amortized cost, the difference between the asset's carrying amount and the sum of the consideration received and receivable is recognized in profit or loss. In addition, on derecognition of an investment in a debt instrument classified as at FVTOCI, the cumulative gain or loss previously accumulated in the investment revaluation reserve is reclassified to profit or loss. In contrast, on derecognition of an investment in equity instrument which the Company has elected on initial recognition to measure at FVTOCI, the cumulative gain or loss previously accumulated in the investment revaluation reserve is not reclassified to profit or loss, but is transferred to retained earnings.

(6) Inventories

Inventories are stated at the lower of cost and net realizable value. Cost of inventories, except for goods-in-transit, are measured under the monthly average method (individual method for the goods-in-transit).

(7) Property, plant and equipment

Property, plant and equipment are stated at cost, less subsequent accumulated depreciation and accumulated impairment losses. Historical cost includes expenses directly attributable to the acquisition of the asset.

Depreciation expense is computed using the straight-line method based on the estimated useful lives of the assets as follows except for the lands and the trees:

	Estimated useful lives
Buildings	40 years
Structures	20 years
Machinery	8 years
Other tangible assets	5~8 years

The Company reviews the depreciation method, the estimated useful lives and residual values of property, plant and equipment at the end of each annual reporting period. If expectations differ from previous estimates, the changes are accounted for as a change in an accounting estimate.

(8) Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale. Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalization. All other borrowing costs are recognized in profit or loss in the period in which they are incurred.

(9) Government grants

Government grants are not recognized until there is reasonable assurance that the Company will comply with the conditions attaching to them and that the grants will be received. Government grants related to assets are presented in the statements of financial position by deducting the grant from the carrying amount of the asset (including property, plant and equipment) while the government grants related to income are recognized in profit or loss on a systematic basis over the periods in which the Company recognizes as expenses the related costs for which the grants are intended to compensate. The government grants related to assets are recognized in profit or loss on a systematic basis over the life of an asset.

(10) Intangible assets

1) Industrial property rights and softwares

Industrial property rights and software which are acquired individually are presented at historical cost. Industrial property rights and software have a limited useful life and are presented at cost less accumulated amortization.

Industrial property rights are amortized using the straight-line method to allocate costs over the estimated useful life (5 to 10 years).

Acquired software is capitalized based on the costs incurred to acquire and use the specific software. Costs incurred are amortized using the straight-line method over 5 years which is the estimated useful life.

2) Research and development

Expenditure on research activities is recognized as an expense in the period in which it is incurred.

Among the development costs of new products and technologies, the Company recognizes costs that are individually identifiable and likely to generate future economic benefits as intangible assets when all of the following conditions are met:

The technical feasibility of completing the intangible asset so that it will be available for use or sale.

- The intention to complete the intangible asset and use or sell it.

- The ability to use or sell the intangible asset.
- How the intangible asset will generate probable future economic benefits.
- The availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset.
- The ability to measure reliably the expenditure attributable to the intangible asset during its development.

Other development expenditures that do not meet the above conditions are recognized as expenses when incurred. Development costs previously recognized as an expense are not subsequently recognized as an asset. Capitalized development costs are recognized as intangible assets and amortized using the straight-line method over the useful life (5 years) from the point of use or sale.

(11) Impairment on non-financial assets

Goodwill and intangible assets with indefinite useful lives are tested for impairment at least annually and depreciable assets are tested when there is an indication that they may be impaired. Impairment loss is recognized for the carrying amount exceeding the recoverable amount (the higher of value in use and fair value less cost of disposal). Impairment losses on non-financial assets other than goodwill are reviewed for reversal at the end of each reporting period.

(12) Financial liabilities

1) Classification as debt or equity

Debt and equity instruments are classified as either financial liabilities or as equity in accordance with the substance of the contractual arrangement and the definitions of financial liability and an equity instrument.

2) Equity instruments

An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities. Equity instruments issued by the Company are recognized at the proceeds received, net of direct issue costs.

Repurchase of the Company's own equity instruments is recognized and deducted directly in equity. No gain or loss is recognized in profit or loss on the purchase, sale, issue or cancellation of the Company's own equity instruments.

3) Compound instruments

The component parts of compound instruments (convertible bonds ("CBs")) issued by the Company are classified separately as financial liabilities and equity in accordance with the substance of the contractual arrangements and the definitions of a financial liability and equity instrument. Conversion option that will be settled by the exchange of a fixed amount of cash or another financial asset for a fixed number of the Company's own equity instruments is an equity instrument.

At the date of issue, the fair value of the liability component is estimated using the prevailing market interest rate for a similar non-convertible instrument. This amount is recorded as a liability on an amortized cost basis using the effective interest method until extinguished upon conversion or at the instrument's maturity date.

The conversion option classified as equity is determined by deducting the amount of the liability component from the fair value of the compound instrument as a whole. This is recognized and included in equity, net of income tax effects, and is not subsequently remeasured. In addition, the conversion option classified as equity will remain in equity until the conversion option is exercised, in which case the balance recognized in equity will be transferred to share premium. Where the conversion option remains unexercised at the maturity date of the convertible loan note, the balance recognized in equity will be transferred to other equity. No gain or loss is recognized in profit or loss upon conversion or expiration of the conversion option.

Transaction costs that relate to the issue of the convertible notes are allocated to liability and equity components in proportion to the allocation of the gross proceeds. Transaction costs relating to equity component are recognized directly in equity. Transaction costs relating to the liability component are included in the carrying amount of the liability component and are amortized over the lives of the convertible notes using the effective interest method.

4) Financial liabilities

All financial liabilities are measured subsequently at amortized cost using the effective interest method or at FVTPL. However, financial liabilities that arise when a transfer of a financial asset does not qualify for derecognition, or when the continuing involvement approach applies, and financial guarantee contracts issued by the Company are measured in accordance with the specific accounting policies set out below.

5) Financial liabilities at FVTPL

Financial liabilities are classified as at FVTPL when the financial liability is (i) contingent consideration of an acquirer in a business combination, (ii) held for trading or (iii) it is designated as at FVTPL.

A financial liability is classified as held for trading if:

- It has been acquired principally for the purpose of repurchasing it in the near term;
- On initial recognition, it is part of a portfolio of identified financial instruments that the Company manages together and has a recent actual pattern of short-term profit taking; or
- It is a derivative that is not designated and effective as a hedging instrument.

A financial liability other than a financial liability held for trading or contingent consideration of an acquirer in a business combination may be designated as at FVTPL upon initial recognition if:

- Such designation eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise;

- The financial liability forms part of a group of financial assets or financial liabilities or both, which is managed and its performance is evaluated on a fair value basis, in accordance with the Company's documented risk management or investment strategy, and information about the grouping is provided internally on that basis; or
- It forms part of a contract containing one or more embedded derivatives, and K-IFRS 1109 permits the entire combined contract to be designated as at FVTPL.

Financial liabilities at FVTPL are measured at fair value, with any gains or losses arising on changes in fair value recognized in profit or loss to the extent that they are not part of a designated hedging relationship. The net gain or loss recognized in profit or loss incorporates any interest paid on the financial liability and is included in the 'non-operating income and expense' line item in profit or loss.

However, for financial liabilities that are designated as at FVTPL, the amount of change in the fair value of the financial liability that is attributable to changes in the credit risk of that liability is recognized in other comprehensive income, unless the recognition of the effects of changes in the liability's credit risk in other comprehensive income would create or enlarge an accounting mismatch in profit or loss. The remaining amount of change in the fair value of liability is recognized in profit or loss. Changes in fair value attributable to a financial liability's credit risk that are recognized in other comprehensive income are not subsequently reclassified to profit or loss; instead, they are transferred to retained earnings upon derecognition of the financial liability.

Gains or losses on financial guarantee contracts issued by the Company that are designated by the Company as at FVTPL are recognized in profit or loss.

Fair value is determined in the manner described in Note 4.3.

6) Financial liabilities measured subsequently at amortized cost

Financial liabilities that are not (i) contingent consideration of an acquirer in a business combination, (ii) held for trading or (iii) designated as at FVTPL are measured subsequently at amortized cost using the effective interest method.

The effective interest method is a method of calculating the amortized cost of a financial liability and allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments (including all fees and points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) through the expected life of the financial liability, or (where appropriate) a shorter period, to the amortized cost of the financial liability.

7) Financial guarantee contracts

A financial guarantee contract is a contract that requires the issuer to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payments when due in accordance with the terms of a debt instrument.

Financial guarantee contract liabilities are measured initially at their fair values and, if not designated as at FVTPL and do not arise from a transfer of an asset, are measured subsequently at the higher of:

- The amount of the loss allowance determined in accordance with K-IFRS 1109 (see financial assets above).
- The amount recognized initially less, where appropriate, cumulative revenue recognized in accordance with K-IFRS 1115.

8) F/X gains and losses

For financial liabilities that are denominated in a foreign currency and are measured at amortized cost at the end of each reporting period, the F/X gains and losses are determined based on the amortized cost of the instruments. These F/X gains and losses are recognized in the 'non-operating income and expense' line item in profit or loss for financial liabilities that are not part of a designated hedging relationship. For those which are designated as a hedging instrument for a hedge of foreign currency risk, the F/X gains and losses are recognized in other comprehensive income and accumulated in a separate component of equity.

The fair value of financial liabilities denominated in a foreign currency is determined in that foreign currency and translated at the spot rate at the end of the reporting period. For financial liabilities that are measured as at FVTPL, the F/X component forms part of the fair value gains or losses and is recognized in profit or loss for financial liabilities that are not part of a designated hedging relationship.

9) Derecognition of financial liabilities

The Company derecognizes financial liabilities when, and only when, its obligations are discharged, cancelled or have expired. The difference between the carrying amount of the financial liability derecognized and the consideration paid and payable is recognized in profit or loss.

When the Company exchanges with the existing lender one debt instrument for another one with the substantially different terms, such exchange is accounted for as an extinguishment of the original financial liability and the recognition of a new financial liability. Similarly, the Company accounts for substantial modification of terms of an existing liability or part of it as an extinguishment of the original financial liability and the recognition of a new liability. It is assumed that the terms are substantially different if the discounted present value of the cash flows under the new terms, including any fees paid, net of any fees received and discounted using the original effective rate, is at least 10% different from the discounted present value of the remaining cash flows of the original financial liability. If the modification is not substantial, the difference between (1) the carrying amount of the liability before the modification and (2) the present value of the cash flows after the modification should be recognized in profit or loss as the modification gain or loss within the 'non-operating income and expense' line item.

(13) Compound instruments

The Company has issued bonds with warrants through which equity instruments can be acquired at the holder's option and repaid them prior to the current year, and the balance of unexercised split-type warrants issued in relation to the bonds with warrants was fully exercised, and there are no outstanding balances as of December 31, 2022.

The company recognized the warrants as capital in accordance with the Financial Supervisory Service's inquiry and reply 'Hoejei-00094', and the accounting treatment is effective only for the K-IFRS of Article 13, Paragraph 1, Item 1 of the 'Act on External Audit of Stock Companies'.

The liability component of the compound financial instrument is initially recognized at the fair value of financial liabilities without warrants under the same conditions, and the equity component is initially recognized as the difference between the fair value of the compound financial instrument as a whole and the fair value of the liability component. Transaction costs directly attributable to the issuance of compound financial instruments are allocated in proportion to the initial recognition of the liability and equity components.

(14) Current tax and deferred tax

Income tax expense comprises the current tax and deferred tax. Income tax is recognized in profit or loss, except for items recognized directly in other comprehensive income or in equity. Income tax expense is measured based on tax laws that have been enacted or substantively enacted at the end of the reporting period.

Management periodically evaluates the Company's tax policies applied in tax filings in situations where applicable tax laws may be subject to interpretation. The Company recognizes current tax expense on the basis of the amount it expects to pay to the tax authorities.

Deferred income tax is recognized as the expected tax effect when the carrying amount of an asset or liability is recovered or settled for temporary differences, defined as the difference between the tax base and the carrying amount of an asset or liability. However, deferred tax assets and liabilities arising from the initial recognition of assets and liabilities in a transaction other than a business combination are not recognized unless the transaction affects accounting or taxable income.

Deferred tax assets are recognized when it is probable that future taxable income will be available against which the deductible temporary differences can be utilized.

Deferred tax liabilities are recognized for taxable temporary differences related to investments in subsidiaries, associates and joint ventures, except when the timing of their reversal is controllable and it is highly probable that the temporary differences will not reverse in the foreseeable future. In addition, for deductible temporary differences arising from these assets, deferred tax assets are recognized only when it is highly probable that the temporary differences will reverse in the foreseeable future and taxable income against which the temporary differences can be used is highly probable.

Deferred tax assets and liabilities are settled on a net basis if the Company has a legally enforceable right to set off current tax assets, current tax liabilities and the deferred tax assets and liabilities relate to income tax imposed by the same tax authority, and the Company has intentions to pay in net amount.

(15) Employee benefits

1) Defined benefit liabilities

In general, defined benefit plans determine the amount of pension benefit that an employee will receive upon retirement, based on factors such as age, years of service, and salary level. The liabilities recorded in the statement of financial position in relation to the defined benefit plan are the amount obtained by deducting the fair value of plan assets from the present value of the defined benefit liabilities as at the end of the reporting period. The defined benefit liabilities are calculated annually by independent actuaries using the projected unit credit method, and the present value of the defined benefit liabilities are calculated by discounting expected future cash outflows with the interest rate of high-credit-rating corporate bonds with similar maturity dates. Meanwhile, remeasurements related to net defined benefit liabilities are recognized in other comprehensive income.

In the event of a plan amendment, curtailment or settlement, past service cost or any gain or loss resulting from the settlement is recognized in profit or loss.

2) Allowance for annual leaves

The Company recognizes expenses and liabilities related to allowance for annual leaves during accounting periods in which employees have rendered service that gives rise to their entitlement to future annual leaves.

3) Share-based compensation

Equity-settled share-based compensation granted to employees are measured at the fair value of the equity instruments at the grant date and recognized as an employee benefit expense over the vesting period. At each reporting date, the Company revises its estimate of the number of equity instruments expected to vest as a result of the effect of non-market-based vesting conditions. The impact of the revision of the original estimates, if any, is recognized in profit or loss such that the cumulative expense reflects the revised estimate, with a corresponding adjustment to reserves. When new shares are issued at the time of exercise of stock options, the net proceeds excluding transaction costs attributable to the issuance of new shares are recognized as capital (nominal value) and additional paid-in capital.

(16) Revenue recognition

1) Performance obligations satisfied at a point in time - sale of goods

The Company manufactures products related to pearl luster pigments and sells them through partner agencies, or sells some products directly. In the case of product sales, revenue is recognized when the goods are transported (delivered) to a specific location, such as an agent or customer, and control of the goods is transferred to the agent or customer, etc. After delivery of the goods, distributors and customers, etc., retain complete discretion in determining the pricing and manner of distributing the goods, and assume primary responsibility when selling the goods and bear the risk of loss or obsolescence associated with the goods. In addition, the Company recognizes receivables when goods are delivered to agents and customers.

2) Calculation of transaction price

According to the Company's terms and conditions, the customer has the right to return the product. Accordingly, a provision for returns and a corresponding adjustment to gross sales are recognized for goods expected to be returned at the time of sale. At the same time, a returned asset and corresponding cost of sales adjustment are recognized for the right to recall the product when the customer exercises the right to return, unless the product is expected to be obsolete. The Company uses cumulative historical information to estimate returns at the portfolio level using expected values.

This is because it is highly probable that no significant return of cumulative revenue already recognized will occur given the consistent level of returns in the past.

(17) Lease

The Company has chosen the cumulative catch-up approach at the date of initial application of K-IFRS 1116. Therefore, the Company does not restate the comparative information. The detailed accounting policies that are applied under K-IFRS 1017 and K-IFRS 1116 are as follows:

1) Accounting policies applied on or after January 1, 2019

1-1) The Company as lessee

The Company assesses whether a contract is or contains a lease, at inception of the contract. The Company recognizes a right-of-use asset and a corresponding lease liability with respect to all lease arrangements in which it is the lessee, except for short-term leases (defined as leases with a lease term of 12 months or less) and leases of low-value assets (such as tablets and personal computers, small items of office furniture and telephones). For these leases, the Company recognizes the lease payments as an operating expense on a straight-line basis over the term of the lease, unless another systematic basis is more representative of the time pattern in which economic benefits from the leased assets are consumed.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted by using the rate implicit in the lease. If this rate cannot be readily determined, the Company uses its incremental borrowing rate.

Lease payments included in the measurement of the lease liability comprise:

- Fixed lease payments (including in-substance fixed payments), less any lease incentives receivable;
- Variable lease payments that depend on an index or a rate, initially measured using the index or rate at the commencement date;
- The amount expected to be payable by the lessee under residual value guarantees;
- The exercise price of purchase options if the lessee is reasonably certain to exercise the options; and
- Payments of penalties for terminating the lease if the lease term reflects the exercise of an option to terminate the lease.

The lease liability is presented as a separate line in the statements of financial position.

The lease liability is subsequently measured by increasing the carrying amount to reflect interest on the lease liability (using the effective interest method) and by reducing the carrying amount to reflect the lease payments made.

The Company remeasures the lease liability (and makes a corresponding adjustment to the related right-of-use asset) whenever:

- The lease term has changed or there is a significant event or change in circumstances resulting in a change in the assessment of exercise of a purchase option, in which case the lease liability is remeasured by discounting the revised lease payments using a revised discount rate.
- The lease payments change due to changes in an index or a rate or a change in expected payment under a guaranteed residual value, in which case the lease liability is remeasured by discounting the revised lease payments using an unchanged discount rate (unless the lease payments change is due to a change in a floating interest rate, in which case a revised discount rate is used).
- A lease contract is modified and the lease modification is not accounted for as a separate lease, in which case the lease liability is remeasured based on the lease term of the modified lease by discounting the revised lease payments using a revised discount rate at the effective date of the modification.

The right-of-use assets comprise the initial measurement of the corresponding lease liability, lease payments made at or before the commencement day, less any lease incentives received and any initial direct costs. They are subsequently measured at cost, less accumulated depreciation and impairment losses.

Whenever the Company incurs an obligation for costs to dismantle and remove a leased asset, restore the site on which it is located or restore the underlying asset to the condition required by the terms and conditions of the lease, a provision is recognized and measured under K-IFRS 1037. To the extent that the costs relate to a right-of-use asset, the costs are included in the related right-of-use asset, unless those costs are incurred to produce inventories.

Right-of-use assets are depreciated over the shorter period of lease term and useful life of the underlying asset. If a lease transfers ownership of the underlying asset or the cost of the right-of-use asset reflects that the Company expects to exercise a purchase option, the related right-of-use asset is depreciated over the useful life of the underlying asset. The depreciation starts at the commencement date of the lease.

The right-of-use assets are presented as a separate line in the statements of financial position.

The Company applies K-IFRS 1036 to determine whether a right-of-use asset is impaired and accounts for any identified impairment loss as described in the 'Property, Plant and Equipment' policy.

Variable rents that do not depend on an index or a rate are not included in the measurement of the lease liability and the right-of-use asset. The related payments are recognized as an expense in the period in which the event or condition that triggers those payments occurs and are included in profit or loss.

As a practical expedient, K-IFRS 1116 permits a lessee not to separate non-lease components, and instead account for any lease and associated non-lease components as a single arrangement. The Company has not used this practical expedient. For a contracts that contain a lease component and one or more additional lease or non-lease components, the Company allocates the consideration in the contract to each lease component on the basis of the relative stand-alone price of the lease component and the aggregate stand-alone price of the non-lease components.

1-2) The Company as a lessor

Leases for which the Company is a lessor are classified as finance or operating leases. Whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee, the contract is classified as a finance lease. All other leases are classified as operating leases.

When the Company is an intermediate lessor, it accounts for the head lease and the sublease as two separate contracts. The sublease is classified as a finance or operating lease by reference to the right-of-use asset arising from the head lease.

Rental income from operating leases is recognized on a straight-line basis over the term of the relevant lease. Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the leased asset and recognized on a straight-line basis over the lease term.

Amounts due from lessees under finance leases are recognized as receivables at the amount of the Company's net investment in the leases. Finance lease income is allocated to accounting periods so as to reflect a constant periodic rate of return on the Company's net investment outstanding in respect of the leases.

When a contract includes both lease and non-lease components, the Company applies K-IFRS 1115 to allocate the consideration under the contract to each component.

2) Accounting policy applied before January 1, 2019

Leases are classified as finance leases whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

2-1) The Company as a lessee

Assets held under finance leases are initially recognized as assets of the Company at their fair value at the inception of the lease or, if lower, at the present value of the minimum lease payments. The corresponding liability to the lessor is included in the statements of financial position as a finance lease obligation.

Lease payments are apportioned between financial expenses and reduction of the lease obligation so as to achieve a constant rate of interest on the remaining balance of the liability. Financial expenses are recognized immediately in profit or loss, unless they are directly attributable to qualifying assets, in which case they are capitalized in accordance with the Company's general policy on borrowing costs. Contingent rentals are recognized as expenses in the periods in which they are incurred.

Operating lease payments are recognized as an expense on a straight-line basis over the lease term, except where another systematic basis is more representative of the time pattern in which economic benefits from the leased asset are consumed. Contingent rentals arising under operating leases are recognized as an expense in the period in which they are incurred.

In the event that lease incentives are received to enter into operating leases, such incentives are recognized as a liability. The aggregate benefit of incentives is recognized as a reduction of rental expense on a straight-line basis, except where another systematic basis is more representative of the time pattern in which economic benefits from the leased asset are consumed.

2-2) The Company as a lessor

Amounts due from lessees under finance leases are recognized as receivables at the amount of the Company's net investment in the leases. Finance lease income is allocated to accounting periods so as to reflect a constant periodic rate of return on the Company's net investment outstanding in respect of the leases.

Rental income from operating leases is recognized on a straight-line basis over the term of the relevant lease. Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the leased asset and recognized on a straight-line basis over the lease term.

(18) Approval of the Company's financial statements

The issuance of the Company's financial statements was approved by the Board of Directors of the Company on February 13, 2023, and amendments on the financial statements may be finally approved in shareholders' meeting.

3. SIGNIFICANT ACCOUNTING ESTIMATIONS AND ASSUMPTIONS:

The Company makes estimations and assumptions about the future. Estimations and assumptions are continuously evaluated and are made taking into account historical experience and reasonably foreseeable future events in the present circumstances. These accounting estimates may differ from actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are addressed below.

(1) Income taxes

When a certain amount of taxable income is not used for investment or wage increase during a certain period, the Company pays additional corporate tax calculated according to the method prescribed by the tax law. Therefore, the tax effect must be reflected when measuring current and deferred corporate tax for the relevant period. Uncertainty exists in estimating the final tax effects as the corporate tax to be borne by the Company varies depending on the level of investment and wage increase in each year (see Note 30).

(2) Defined benefit obligations

The present value of the net defined benefit liability is affected by a variety of factors that are determined on an actuarial basis, particularly changes in the discount rate (see Note 20).

(3) Impairment of development cost

The recoverable amount for examining development costs for sign of impairment is determined based on the calculation of the value in use (see Note 14).

4. FINANCIAL RISK MANAGEMENT:

4.1 FACTORS OF FINANCIAL RISK MANAGEMENT:

The Company is exposed to various risks related to its financial instruments, such as market risk (currency risk, interest rate risk and price risk) and credit risk. The company's overall risk management focuses on the unpredictability of financial markets and focuses on minimizing potential adverse effects on its financial performance. Risk management is conducted by the accounting team according to the policy approved by the Board of Directors. The accounting team collaborates closely with the Company's operating departments to identify, evaluate and hedge financial risks.

(1) Market risk

1) Foreign currency risk

The Company undertakes transactions denominated in foreign currencies; consequently, is exposed to foreign exchange risks, particularly for US dollar and Japanese yen. The details of the carrying amount of financial instruments denominated in major foreign currency as of December 31, 2022 and 2021, are as follows (in thousands of Korean won):

	2022		2021	
	Foreign financial assets	Foreign financial liabilities	Foreign financial assets	Foreign financial liabilities
USD	₩ 8,154,682	₩ 218,301	₩ 7,643,611	₩ 291,403
JPY	1,418,715	—	292,046	—
EUR	1,332	41,796	1,658	372,864
GBP	1,711	152,732	1,793	110,063
CNY	111,015	—	796	—
Total	₩ 9,687,454	₩ 412,828	₩ 7,939,904	₩ 774,330

The Company regularly measures the exchange rate risk for changes in the Korean won exchange rate. A sensitivity analysis on the Company's pre-tax income for a period assuming a 5% increase and decrease in currency exchange rates as of December 31, 2022 and 2021, is as follows (in thousands of Korean won):

	2022		2021	
	5% increase	5% decrease	5% increase	5% decrease
Foreign financial assets	₩ 484,373	₩ (484,373)	₩ 396,995	₩ (396,995)
Foreign financial liabilities	(20,641)	20,641	(38,716)	38,716
Net effect	₩ 463,731	₩ (463,731)	₩ 358,279	₩ (358,279)

2) Interest rate risk

The Company's interest rate risk arises from borrowings, and the effect of changes in interest rates on the Company's business and financial status is regularly monitored by the management.

When other variables are constant and the interest rate for the borrowings with a variable interest rate changes by 1%, the effect of the change in interest rate on pre-tax income is as follows (in thousands of Korean won):

	2022		2021	
	1% increase	**1% decrease**	**1% increase**	**1% decrease**
Pre-tax income	₩ (172,000)	₩ 172,000	₩ (194,000)	₩ 194,000

(2) Credit risk

Credit risk arises from cash and cash equivalents and bank deposits, as well as credit risks to wholesale and retail customers, including outstanding receivables and committed contracts. For the transactions with banks and financial institutions, transactions are conducted after reviewing key stability indicators of banks and financial institutions such as the BIS ratio.

The maximum amount of exposure to credit risk of financial assets as of December 31, 2022 and 2021, is as follows (in thousands of Korean won):

	2022			2021		
	Nominal value	**Accumulated impairment**	**Maximum exposure**	**Nominal value**	**Accumulated impairment**	**Maximum exposure**
Cash and cash equivalents (*1)	₩ 10,827,688	₩ —	₩ 10,827,688	₩ 5,806,917	₩ —	₩ 5,806,917
Trade receivables	10,050,639	(322,062)	9,728,577	8,708,011	(319,986)	8,388,025
Other financial assets(*2)	166,616	—	166,616	167,575	—	167,575

(*1) Petty cash is excluded.

(*2) Financial assets measured at FVTPL are excluded.

(3) Liquidity risk

The Company manages liquidity risk through periodic forecasting and adjustment of fund balance for proper liquidity management. The Company monitors cash flow through mid to long-term management plans and short-term management strategies to ensure smooth fund operations.

Maturity analysis of financial liabilities according to their remaining maturity as of December 31, 2022 and 2021, is as follows (in thousands of Korean won):

	2022				
	6 months	6 months - 1 year	1 - 2 years	More than 2 years	Total
Borrowings (*1)	₩8,962,517	₩802,440	₩1,459,430	₩6,904,844	₩18,129,231
Trade payables	661,533	—	—	—	661,533
Other financial liabilities	891,087	568,836	810,428	64,880	2,335,231
Total	₩10,515,137	₩ 1,371,276	₩ 2,269,858	₩ 6,969,724	₩21,125,995

	2021				
	6 months	6 months - 1 year	1 - 2 years	More than 2 years	Total
Borrowings (*1)	₩14,752,866	₩655,578	₩1,288,140	₩3,091,744	₩19,788,328
Trade payables	908,030	—	—	—	908,030
Other financial liabilities	824,027	667,265	201,566	753,335	2,446,193
Total	₩16,484,923	₩ 1,322,843	₩ 1,489,706	₩ 3,845,079	₩23,142,551

(*1) Borrowings include accrued interest expense which is related to the borrowings.

Financial liabilities are nominal amounts of undiscounted cash flows by remaining maturity, and are prepared as of the earliest date during which payment may be requested.

4.2 CAPITAL RISK MANAGEMENT:

The Company manages its capital to ensure that it will be able to continue while maximizing the return to shareholders through the optimization of the debt and equity balance. The Company uses the debt ratio as a capital management indicator. The debt ratio is calculated by dividing total liabilities by total shareholders' equity.

Details of the debt ratio as of December 31, 2022 and 2021, are as follows (in thousands of Korean won):

	2022	2021
Total liabilities (A)	₩21,523,372	₩24,026,207
Total shareholders' equity (B)	64,852,038	59,611,534
Cash and cash equivalents (C)	10,829,530	5,808,177
Borrowings (D)	17,200,000	19,400,000
Ratio of liabilities to the equity (A/B)	33.00%	40.00%
Ratio of net borrowings to the equity ((D-C)/B)	10.00%	23.00%

4.3 MEASUREMENT OF THE FAIR VALUE:

There are no significant changes in the business environment and economic environment that affect the fair value of the Company's financial assets and liabilities.

(1) Fair value by type of financial instrument

Details of the carrying amount and fair value by type of financial instruments as of December 31, 2022 and 2021, are as follows (in thousands of Korean won):

	2022		2021	
	Book value	Fair value	Book value	Fair value
Financial assets:				
Cash and cash equivalents	₩ 10,829,530	(*)	₩ 5,808,177	(*)
Trade receivables	9,728,577	(*)	8,388,025	(*)
Other financial assets:				
Financial assets measured at amortized cost	166,616	(*)	167,575	(*)
Financial assets measured at FVTPL	136,439	136,439	115,772	115,772
Subtotal	20,861,161		14,479,549	
Financial liabilities:				
Trade payables	661,533	(*)	908,030	(*)
Borrowings	17,200,000	(*)	19,400,000	(*)
Other financial liabilities	2,330,728	(*)	2,438,897	(*)
Subtotal	₩ 20,192,261		₩ 22,746,927	

(*) Fair value is excluded from disclosure since the carrying amount is a reasonable approximation of fair value.

(2) Measurement of fair value

1) The following table provides an analysis of financial instruments that are measured subsequent to initial recognition at fair value and classified as Level 1, 2 or 3 based on the degree to which the fair value is observable.

- Level 1: Fair value measurements are those derived from quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2: Fair value measurements are those derived from inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e., as prices) or indirectly (i.e., derived from prices).
- Level 3: Fair value measurements are those derived from valuation techniques that include inputs for the asset or liability that are not based on observable market data (unobservable inputs).

2) Fair values of financial instruments by classification as of December 31, 2022 are as follows (in thousands of Korean won):

	Level 1	Level 2	Level 3	Total
Financial assets:				
Financial assets measured at FVTPL	—	—	136,439	136,439

5. INFORMATION OF OPERATIONAL DIVISION:

(1) Management who makes strategic decisions determines the Company's operating divisions. Management reviews the divisions' operating profits to make decision for the allocation of resources to divisions and review of performance of divisions. The company has a sole operating division.

(2) Details of the sales by region for the years ended December 31, 2022 and 2021, are as follows (in thousands of Korean won):

Region	2022	2021
Domestic	₩15,519,285	₩16,420,382
China	6,037,886	4,754,467
USA	5,025,941	2,994,101
Taiwan	3,677,546	2,796,572
Belgium	2,928,271	2,108,792
Japan	2,295,520	2,095,171
Germany	1,719,020	1,087,681
Thailand	1,631,820	1,426,633
Italy	1,508,781	1,477,104
Other	5,940,691	4,841,442
Total	₩ 46,284,761	₩ 40,002,345

(3) There is no external customer that accounted for more than 10% of the Company's total revenue for the years ended December 31, 2022 and 2021.

6. FINANCIAL INSTRUMENTS BY CLASSIFICATION:

(1) Details of financial assets and liabilities by classification as of December 31, 2022 and 2021, are as follows (in thousands of Korean won):

1) Financial assets:

	2022	2021
Financial assets at amortized cost:		
Cash and cash equivalents	₩ 10,829,530	₩ 5,808,177
Trade receivables	9,728,577	8,388,025
Other financial assets (current)	3,060	6,171
Other financial assets (non-current)	163,555	161,404
Subtotal	20,724,722	14,363,777
Financial assets at FVTPL:		
Long-term financial instrument	136,439	115,772
Total	₩ 20,861,161	₩ 14,479,549

2) Financial liabilities at amortized cost

	2022	2021
Trade payables	₩ 661,533	₩ 908,030
Other financial liabilities (current)	1,458,519	1,489,988
Other financial liabilities (non-current)	872,209	948,909
Borrowings (current)	9,200,000	15,200,000
Borrowings (non-current)	8,000,000	4,200,000
Total	₩ 20,192,261	₩ 22,746,927

(2) Details of financial income (expenses) by type of financial assets or financial liabilities for the years ended December 31, 2022 and 2021, are as follows (in thousands of Korean won):

	2022	2021
Financial assets at amortized cost:		
Interest income	₩ 17,774	₩ 11,790
Gain on foreign currency translation	2,148	25,465
Gain on foreign currency transaction	1,479,019	635,176
Bad debt expense (reversal)	(2,076)	(2,474)
Loss on foreign currency translation	(520,974)	(2,889)
Loss on foreign currency transaction	(518,164)	(115,331)
Total	457,727	551,737
Financial liabilities at amortized cost:		
Gain on foreign currency translation	23,383	871
Gain on foreign currency transaction	68,825	47,636
Interest expense	(566,674)	(371,043)
Loss on foreign currency translation	(182)	(1,627)
Loss on foreign currency transaction	(124,292)	(53,805)
Total	₩ (598,940)	₩ (377,968)

7. CASH AND CASH EQUIVALENTS, LONG AND SHORT-TERM FINANCIAL INSTRUMENTS:

Details of cash and cash equivalents, long and short-term financial instruments as of December 31, 2022 and 2021, are as follows (in thousands of Korean won):

	2022			2021
	Financial institution	Interest rate per annum	Amount	Amount
Cash and cash equivalents:				
Petty cash		—	₩ 1,842	₩ 1,260
Regular bank savings	Shinhan Bank, etc.	0~0.1%	10,827,688	5,806,917
Subtotal			10,829,530	5,808,177
Long-term financial instruments (*):				
Long-term deposit-type insurance		—	136,439	115,772
Total			₩10,965,969	₩ 5,923,949

(*) Long and short-term financial instruments are classified as 'other financial instrument' on the Company's statements of financial position as of December 31, 2022 and 2021.

8. TRADE RECEIVABLES:

(1) Details of trade receivables as of December 31, 2022 and 2021, are as follows (in thousands of Korean won):

	2022	2021
Trade receivables	₩10,050,639	₩8,708,011
Allowance for bad debt	(322,062)	(319,986)
Trade receivables, net	₩ 9,728,577	₩ 8,388,025

The Company reviews its trade receivables individually for signs of impairment at the end of the reporting period.

The settlement of domestic trade receivables was subject to a credit policy of between 30 to 90 days from the date of transaction. The overseas payback period for new accounts in cash ranged between 30 to 100 days from the date of transaction.

(2) Changes in allowance for bad debt of trade and other receivables for the years ended December 31, 2022 and 2021, are as follows (in thousands of Korean won):

	2022	2021
Beginning balance	₩319,986	₩317,512
Bad debt expense	2,076	2,474
Ending balance	₩ 322,062	₩ 319,986

Provisions for impaired receivables and deductions are recorded as bad debt expenses in the statement of comprehensive income, and when there is no possibility of recovering additional cash, bad debt provisions are generally written off.

The maximum amount exposed to credit risk for trade receivables is total carrying amount as of December 31, 2022, and there is no collateral held by the Company.

(3) The details of the risk information of trade receivables based on the Company's provisioning rate table as of December 31, 2022 are as follows (in thousands of Korean won):

	Overdue days					
	Undue	< 3 months	3~6 months	6 months ~ 2 years	> 2 years	Total
Default rate	0%	0%	0%	0%	100%	
Total book value	₩9,132,408	₩ 284,736	₩ 305,386	₩ 6,047	₩ 322,062	₩10,050,639
Lifetime ECL (*)	—	—	—	—	322,062	322,062
Net book value	₩9,132,408	₩ 284,736	₩ 305,386	₩ 6,047	₩ —	₩ 9,728,577

(*) ECL: Expected Credit Loss

9. OTHER FINANCIAL ASSETS:

(1) Details of other financial assets as of December 31, 2022 and 2021, are as follows (in thousands of Korean won):

		2022		2021
Current assets:				
Non-trade receivables	₩	3,060	₩	6,171
Subtotal		3,060		6,171
Non-current assets:				
Long-term financial instrument		136,439		115,772
Leasehold deposits		163,555		161,404
Subtotal		299,994		277,176
Total	₩	303,054	₩	283,347

The non-trade receivables represent custom duty receivables.

(2) Maximum amount exposed to credit risk of other financial assets is total carrying amount as of December 31, 2022, and there is no collateral held by the Company.

10. OTHER ASSETS:

Details of other assets as of December 31, 2022 and 2021, are as follows (in thousands of Korean won):

		2022		2021
Current assets:				
Prepayment	₩	310,463	₩	148,856
Prepaid expense		189,976		249,924
Value added tax prepaid		58,520		59,750
Total	₩	558,959	₩	458,530

Prepayment represents advance payments for patent rights and customs clearance fees. For advance payment and other current assets, cash payment will be made following the date of transaction.

11. INVENTORIES:

Details of inventory valuations as of December 31, 2022 and 2021, are as follows (in thousands of Korean won):

	2022			2021		
	Amount before Valuation	Reserve for valuation	Book value	Amount before Valuation	Reserve for valuation	Book value
Merchandises	₩ 1,608,753	₩ (513,904)	₩ 1,094,849	₩ 1,789,193	₩ (451,392)	₩ 1,337,801
Finished goods	15,718,590	(2,622,528)	13,096,062	16,146,099	(2,075,889)	14,070,210
Raw materials	3,303,379	(156,282)	3,147,097	3,215,432	(50,467)	3,164,965
Sub-materials	238,784	(8,586)	230,198	405,080	(17,405)	387,675
Working in process	8,773,338	(1,750,908)	7,022,430	9,435,443	(1,677,848)	7,757,595
Goods in transit	213,215	—	213,215	359,894	—	359,894
	₩ 29,856,059	₩ (5,052,208)	₩ 24,803,851	₩ 31,351,141	₩ (4,273,001)	₩ 27,078,140

The cost of inventories recognized as an expense and included in the cost of sales is ₩28,753 million in 2022 (₩25,403 million in 2021). This includes the loss on inventory valuation amounting to ₩779 million in 2022(₩819 million in 2021).

12. PROPERTY, PLANT AND EQUIPMENT:

(1) Changes in property, plant and equipment for the years ended December 31, 2022 and 2021, are as follows (in thousands of Korean won):

	2022										
	Land	Buildings	Structures	Machinery	Vehicles	Tools and equipments	Fixtures	Facilities	Trees	Construction in progress	Total
Beginning balance	₩8,543,246	₩12,360,377	₩1,575,593	₩10,406,128	₩ 59,409	₩ 89,506	₩ 159,357	₩ 833,988	₩1,324,900	₩ 20,208	₩35,372,712
Acquisitions and capital expenditures	—	—	4,600	79,430	—	113,718	36,520	249,440	—	503,767	987,476
Disposal	—	—	—	—	—	—	(8)	—	—	—	(8)
Depreciation	—	(381,355)	(114,663)	(1,923,907)	(28,039)	(41,636)	(58,056)	(199,146)	—	—	(2,746,801)
Impairment	—	—	—	—	—	—	—	—	—	—	—
Government grants	—	—	—	—	—	(2,434)	—	(104,240)	—	(200,000)	(306,674)
Transfer	—	—	—	52,553	—	—	—	17,000	—	(69,553)	—
Ending balance	₩8,543,246	₩11,979,022	₩1,465,530	₩8,614,204	₩ 31,370	₩ 159,153	₩ 137,813	₩ 797,043	₩1,324,900	₩ 254,422	₩33,306,704
Acquisition cost	8,543,246	15,070,618	2,291,381	30,187,167	310,028	1,955,463	1,053,557	2,941,269	1,324,900	454,422	64,132,051
Accumulated depreciation	—	(3,091,596)	(825,851)	(21,473,439)	(278,658)	(871,979)	(915,744)	(1,850,237)	—	—	(29,307,504)
Accumulated impairment	—	—	—	—	—	(922,100)	—	—	—	—	(922,100)
Government grants	—	—	—	(99,524)	—	(2,231)	—	(293,989)	—	(200,000)	(595,744)

	2021										
	Land	Buildings	Structures	Machinery	Vehicles	Tools and equipments	Fixtures	Facilities	Trees	Construction in progress	Total
Beginning balance	₩8,543,246	₩12,721,536	₩1,688,123	₩12,318,917	₩ 90,118	₩ 111,565	₩ 137,853	₩ 765,475	₩1,324,900	₩ 32,600	₩37,734,333
Acquisitions and capital expenditures	—	20,065	2,000	114,669	—	8,357	89,273	190,818	—	200,819	626,001
Disposal	—	—	—	—	(1)	—	(4)	—	—	—	(5)
Depreciation	—	(381,224)	(114,531)	(2,027,458)	(30,708)	(30,416)	(67,765)	(182,024)	—	—	(2,834,125)
Impairment	—	—	—	—	—	—	—	—	—	—	—
Government grants	—	—	—	—	—	—	—	(153,492)	—	—	(153,492)
Transfer	—	—	—	—	—	—	—	213,211	—	(213,211)	—
Ending balance	₩8,543,246	₩12,360,377	₩1,575,593	₩10,406,128	₩ 59,409	₩ 89,506	₩ 159,357	₩ 833,988	₩1,324,900	₩ 20,208	₩35,372,712
Acquisition cost	8,543,246	15,070,618	2,286,781	30,055,184	310,028	1,841,745	1,030,894	2,674,828	1,324,900	20,208	63,158,432
Accumulated depreciation	—	(2,710,241)	(711,188)	(19,531,534)	(250,619)	(830,139)	(870,325)	(1,614,648)	—	—	(26,518,694)
Accumulated impairment	—	—	—	—	—	(922,100)	—	—	—	—	(922,100)
Government grants	—	—	—	(117,522)	—	—	(1,212)	(226,192)	—	—	(344,926)

Depreciations comprise i) cost of sales (₩2,468 million and ₩2,544 million respectively in 2022 and 2021), ii) selling and administrative expenses (₩164 million and ₩181 million respectively in 2022 and 2021) and iii) research and development expenses (₩115 million and ₩109 million respectively in 2022 and 2021).

Construction in progress represents assets under construction and machines under installations.

(2) Details of assets pledged as collateral for related borrowings as of December 31, 2022, are as follows (in thousands of Korean won):

Collateralized assets	Book value	Pledged amount	Beneficiary
Land	₩ 2,572,955		
Buildings	5,750,416	₩ 10,800,000	Shinhan Bank
Machineries, etc.	6,756,181		
Land	136,212	699,380	Korea Land & Housing Corporation
Buildings	683,819		

(3) The Company has fire insurance for PP&E and inventories of ₩67,056 million (₩52,944 million for buildings and machineries, etc., ₩14,112 million for inventories) as of December 31, 2022.

(4) The publicly announced land prices of the land owned by the Company are ₩5,914 million and ₩5,903 million, respectively as of December 31, 2022 and 2021.

13. RIGHT-OF-USE ASSETS:

(1) Right-of-use assets by underlying asset type as of December 31, 2022 and 2021, are as follows (in thousands of Korean won):

	2022		
	Buildings	Vehicles	Total
Acquisition cost	₩ 25,811	₩ 468,982	₩ 494,793
Accumulated depreciation	(18,511)	(232,049)	(250,560)
Book value	₩ 7,300	₩ 236,933	₩ 244,233

	2021		
	Buildings	Vehicles	Total
Acquisition cost	₩ 32,952	₩ 464,138	₩ 497,090
Accumulated depreciation	(16,275)	(151,972)	(168,247)
Book value	₩ 16,677	₩ 312,166	₩ 328,843

(2) Changes in right-of-use assets in 2022 and 2021, are as follows (in thousands of Korean won):

	2022		
	Buildings	Vehicles	Total
Beginning balance	₩ 16,677	₩ 312,166	₩ 328,843
Acquisition	7,357	61,474	68,831
Depreciation	(16,734)	(136,708)	(153,442)
Ending balance	₩ 7,300	₩ 236,933	₩ 244,233

	2021		
	Buildings	Vehicles	Total
Beginning balance	₩ 15,637	₩ 224,618	₩ 240,255
Acquisition	18,454	227,381	245,835
Depreciation	(17,414)	(130,456)	(147,870)
Cancelation of lease agreement	—	(9,377)	(9,377)
Ending balance	₩ 16,677	₩ 312,166	₩ 328,843

(3) Details of expenses recognized in profit or loss related to leases for the years ended December 31, 2022 and 2021, are as follows (in thousands of Korean won):

	2022	2021
Depreciation of the right-of-use assets	₩153,441	₩147,869
Interest expense on lease liabilities	5,473	5,434
Expenses for the short-term leases	500	3,451
Expenses for leases of low-value assets	16,403	15,543
Total	₩ 175,817	₩ 172,297

Total lease payment in cash are ₩173 million and ₩172 million respectively in 2022 and 2021.

14. INTANGIBLE ASSETS:

(1) Changes in intangible assets for the years ended December 31, 2022 and 2021, are as follows (in thousands of Korean won):

	2022			
	Software	Industrial property rights	Development cost	Total
Beginning balance	₩ 26,442	₩ 554,097	₩ 3,397,631	₩ 3,978,171
Internal development	—	—	860,330	860,330
Individual acquisition	1,280	91,655	—	92,935
Depreciation	(15,015)	(156,056)	(684,745)	(855,816)
Government grant	—	—	(223,758)	(223,758)
Ending balance	₩ 12,707	₩ 489,697	₩ 3,349,458	₩ 3,851,862
Acquisition cost	271,830	1,362,536	17,714,425	19,348,791
Accumulated depreciation and impairment	(259,123)	(872,839)	(12,992,772)	(14,124,733)
Government grant	—	—	(1,372,196)	(1,372,196)

	2021			
	Software	Industrial property rights	Development cost	Total
Beginning balance	₩ 41,202	₩ 545,942	₩ 3,346,787	₩ 3,933,931
Internal development	—	—	840,094	840,094
Individual acquisition	—	160,821	—	160,821
Depreciation	(14,759)	(152,667)	(527,439)	(694,865)
Government grant	—	—	(261,811)	(261,811)
Ending balance	₩ 26,442	₩ 554,097	₩ 3,397,631	₩ 3,978,171
Acquisition cost	270,550	1,270,880	16,854,095	18,395,526
Accumulated depreciation and impairment	(244,108)	(716,783)	(11,876,179)	(12,837,070)
Government grant	—	—	(1,580,285)	(1,580,285)

(2) Amortization comprises i) cost of sales (₩685 million and ₩527 million respectively in 2022 and 2021) and ii) selling and administrative expenses (₩171 million and ₩167 million respectively in 2022 and 2021).

(3) Details of major development cost as of December 31, 2022 are as follows (in thousands of Korean won):

	Book value	Remaining amortizable period
Development of high-functional ceramic composite material used for anti-pollution cosmetics such as fine dust blocking and UV protection	₩109,897	1 years & 2 months
Manufacture of high-brightness plate-shaped aluminum flakes capable of multi-layer construction	158,860	2 years & 3 months
Development of optical functional pearl luster pigment for security and safety / ATC technology	335,348	2 years & 4 months
Development of colored Aluminum Flake product	443,632	3 years & 6 months
Development F of Al2O3 synthesis using pilot equipment and TiO2 coating procedure, etc.	117,009	3 years & 7 months
Development D of Glass Products	240,458	3 years & 10 months
Development D of colored products using natural dyes	229,040	4 years & 6 months
Development B of New Effect Pigment using electroless plating	576,234	4 years & 11 months
Development A of Coating Aluminum Pigment product	282,090	4 years & 4 months
Development F of Automotive Coating Procedure	103,431	Under development
Development of core technology for industrial material (material for chemical process)	243,918	Under development
Development of new pearl synthesis and coating procedure process using TiO2 flake	109,446	Under development
Development E of Glass Products	110,224	Under development
Development of new pigments, etc.	289,871	Under development
Total	₩3,349,458	

(4) Research and development expenditures recognized as selling and administrative expenses in profit or loss are ₩1,843 million and ₩1,796 million respectively for the years ended December 31, 2022 and 2021.

(5) Details of the impairment of development cost for the years ended December 31, 2022 and 2021, are as follows (in thousands of Korean won):

	2022		
	Book value	**Impairment recognized in profit or loss (*)**	**Accumulated Impairment (*)**
Development B of Automotive Coating Procedure	₩ 1	₩ —	₩ 26,769
Development of New Effect Pigment using electroless plating	1	—	56,199
Development of colored products using natural dyes	—	—	16,788
Development F of products using Natural Mica	1	—	11,930
Development C of Automotive Coating Procedure	1	—	6,894
Development B of colored products using natural dyes	1	—	36,664
Development of optical functional pearl luster pigment for security and safety / ATC technology	335,348	—	79,773
Development of colored Aluminum Flake product	443,632	—	8,801
Development B of Chaos Trance Gold	—	—	57,773
Development G of products using Natural Mica	—	—	12,770
Development C of colored products using natural dyes	—	—	45,481
Development H of products using Natural Mica	77,887	—	50,736
Unimpaired development cost	2,492,585	—	—
Total	₩ 3,349,457	₩ —	₩ 410,578

(*) The recoverable amount for examining development costs for sign of impairment is determined based on the calculation of the value in use.

	2021		
	Book value	Impairment recognized in profit or loss (*)	Accumulated Impairment (*)
Development B of Automotive Coating Procedure	₩ 1	₩ —	₩ 26,769
Development of New Effect Pigment using electroless plating	1	—	56,199
Development of colored products using natural dyes	1	—	16,788
Development F of products using Natural Mica	1	—	11,930
Development C of Automotive Coating Procedure	1	—	6,894
Development B of colored products using natural dyes	1	—	36,664
Development of optical functional pearl luster pigment for security and safety / ATC technology	479,068	—	79,773
Development of colored Aluminum Flake product	570,384	—	8,801
Development B of Chaos Trance Gold	1,826	—	57,773
Development G of products using Natural Mica	—	—	12,770
Development C of colored products using natural dyes	3,816	—	45,481
Development H of products using Natural Mica	64,073	—	50,736
Unimpaired development cost	2,278,460	—	—
Total	₩ 3,397,631	₩ —	₩ 410,578

(*) The recoverable amount for examining development costs for sign of impairment is determined based on the calculation of the value in use.

Impairment loss was recognized because the recoverable amount was less than the carrying amount as a result of the impairment test for each project, such as poor business feasibility due to low sales of developed products.

Future cash flows for the measurement of value in use were estimated for the remaining useful life of each project based on the Company's past operating performance and business plan.

15. TRADE PAYABLES AND OTHER FINANCIAL LIABILITIES:

Trade payables and other financial liabilities as of December 31, 2022 and 2021, are as follows (in thousands of Korean won):

	2022	2021
Trade payables	₩661,533	₩908,030
Other financial liabilities (current):		
Non-trade payables	567,223	721,918
Accrued expenses	746,822	627,036
Lease liabilities	144,474	141,034
Subtotal	1,458,519	1,489,988
Other financial liabilities (non-current):		
Lease liabilities	100,127	185,813
Long-term non-trade payables	772,083	763,096
Subtotal	872,210	948,909
Total	₩2,992,262	₩3,346,927

Non-trade payables represent payables arising out of business other than normal commercial transactions such as purchase costs of consumables and technology fees. Long-term non-trade payables represent mainly long-term unpaid amount related to purchase of a dormitory.

For purchasing debt and accounts payable, cash payment will be made in the current month and the month following the date of transaction.

16. OTHER CURRENT LIABILITIES:

Other current liabilities as of December 31, 2022 and 2021, are as follows (in thousands of Korean won):

	2022	2021
Withholdings	₩188,327	₩194,745
Advances received	53,028	1
Total	₩ 241,355	₩ 194,746

17. GOVERNMENT GRANT:

(1) Details of government grants used in relation to technology development of optical functional pearl luster pigments for security and safety for the years ended December 31, 2022 and 2021, are as follows (in thousands of Korean won):

	2022	2021
Beginning balance	₩274,331	₩329,734
Receipts of the government grants	760,243	569,818
Amount used:		
Acquisition of PP&E (*1)	306,674	153,492
Acquisition of intangible assets (*2)	223,758	261,811
Offsetting with specific costs (*3)	195,483	166,166
Subtotal	725,915	581,469
Amount repaid	25,341	38,757
Amount exempted from repayment obligations	98,750	4,995
Remaining balance:	₩ 184,567	₩ 274,331
Amount obligated to repay (*4)	184,567	274,331
Amount exempted from repayment obligations (*5)	—	—

(*1) It is presented as a deduction for PP&E in the financial statements.

(*2) It is presented as a deduction for intangible assets in the financial statements.

(*3) It is presented as a deduction for selling and administrative expenses, etc. in the financial statements.

(*4) It is presented as long-term non-trade payables among other financial liabilities in the financial statements.

(*5) It is presented as advance received among other current liabilities in the financial statements.

(2) Changes in government grants used for the acquisition of assets for the years ended December 31, 2022 and 2021, are as follows (in thousands of Korean won):

	2022			
	Beginning balance	Increase	Decrease (*)	Ending balance
PP&E	₩ 344,927	₩ 306,674	₩ 55,858	₩ 595,744
Intangible assets	1,580,285	223,758	431,847	1,372,196
Total	₩1,925,212	₩ 530,432	₩ 487,705	₩1,967,940

(*) Depreciation for the assets acquired with government grants is offset when calculating the depreciation.

	2021			
	Beginning balance	Increase	Decrease (*)	Ending balance
PP&E	₩ 229,050	₩ 153,492	₩ 37,615	₩ 344,927
Intangible assets	1,736,147	261,811	417,673	1,580,285
Total	₩1,965,197	₩ 415,303	₩ 455,288	₩1,925,212

(*) Depreciation for the assets acquired with government grants is offset when calculating the depreciation.

18. BORROWINGS:

(1) Details of borrowings as of December 31, 2022 and 2021, are as follows (in thousands of Korean won):

Financial institution	Type of loan	Interest rate per annum (%)	2022	2021
Short-term borrowings:				
Citibank Korea	Trade bill loan	4.49	₩2,000,000	₩ 5,000,000
Kookmin Bank	Trade bill loan	4.40	1,000,000	1,000,000
Woori Bank	Trade bill loan	4.44	2,000,000	2,000,000
Shinhan Bank	Trade bill loan	4.07	3,000,000	1,000,000
Shinhan Bank	General loan	—	—	5,000,000
		Subtotal	8,000,000	14,000,000
Long-term borrowings:				
Shinhan Bank	Facility loan	5.26	4,200,000	5,400,000
Shinhan Bank	General loan	4.56	5,000,000	—
Transfer to Current portion			(1,200,000)	(1,200,000)
		Subtotal	8,000,000	4,200,000
Current portion of long-term borrowings	Facility loan	5.26	1,200,000	1,200,000
		Total	₩17,200,000	₩ 19,400,000

(2) The planned repayment schedule per year as of December 31, 2022 is as follows (in thousands of Korean won):

Year	2022
~2023	₩1,200,000
~2024	1,200,000
~2025	6,200,000
~2026	600,000
Total	₩ 9,200,000

(3) Changes in borrowings for the years ended December 31, 2022 and 2021, are as follows (in thousands of Korean won):

	2022	2021
Beginning balance	₩19,400,000	₩23,000,000
Increase in borrowings	5,000,000	1,000,000
Repayment of borrowings	(7,200,000)	(4,600,000)
Ending balance	₩ 17,200,000	₩ 19,400,000

(4) In relation to borrowings as of December 31, 2022, the Company is provided with a joint guarantee from the CEO (₩30,300 million).

The Directors have been confirmed by CQV that upon the retirement of the CEO, Vendor B will provide a sole guarantee to CQV in relation to the borrowings of CQV to replace the joint guarantee. Save as disclosed above, the lender has not required CQV and/or the Company to provide other pledge assets to replace the joint guarantee upon Closing.

19. LEASE LIABILITIES:

(1) Details of financial lease liabilities as of December 31, 2022 and 2021, are as follows (in thousands of Korean won):

	2022		2021	
	Minimum lease payments	Present value of minimum lease payments	Minimum lease payments	Present value of minimum lease payments
Within one year	₩ 145,877	₩ 144,474	₩ 142,338	₩ 141,034
One year—five years	103,226	100,127	191,805	185,813
Total	₩ 249,103	₩ 244,600	₩ 334,143	₩ 326,847

(2) Details of the liquidity classification of the financial lease liabilities as of December 31, 2022 and 2021, are as follows (in thousands of Korean won):

	2022	2021
Current liabilities	₩144,474	₩141,034
Non-current liabilities	100,127	185,813
Total	₩ 244,600	₩ 326,847

20. DEFINED BENEFIT OBLIGATION:

(1) Defined benefit obligations as of December 31, 2022 and 2021, are as follows (in thousands of Korean won):

	2022	2021
Present value of defined benefit liabilities	₩ 9,217,856	₩ 9,683,533
Fair value of plan assets	(10,166,848)	(8,832,283)
Net defined benefit liabilities (assets)	₩ (948,993)	₩ 851,250

(2) Changes in the present value of defined benefit liabilities for the years ended December 31, 2022 and 2021, are as follows (in thousands of Korean won):

	2022	2021
Beginning balance	₩ 9,683,533	₩ 8,771,443
Current service cost	1,054,214	1,040,483
Interest expense	178,952	139,585
Remeasurement recognized in other comprehensive income:		
Actuarial gains or losses from changes in financial assumptions	(1,403,304)	(387,014)
Remeasurement factors from empirical adjustments	179,719	465,875
Cash flows:		
Retirement benefits paid by the Company	(143,933)	(346,839)
Benefit paid from the plan assets	(331,326)	—
Ending balance	₩ 9,217,856	₩ 9,683,533

Related expenses comprise i) cost of sales (₩550 million and ₩564 million respectively in 2022 and 2021), ii) selling and administrative expenses (₩307 million and ₩312 million respectively in 2022 and 2021) and iii) development cost(asset) and research and development expenses (₩167 million and ₩172 million respectively in 2022 and 2021).

(3) Changes in fair value of plan assets for the years ended December 31, 2022 and 2021, are as follows (in thousands of Korean won):

	2022	2021
Beginning balance	₩ 8,832,283	₩ 7,235,481
Interest income	209,428	131,099
Remeasurement recognized in other comprehensive income:		
Return on plan assets except for the amount which is included above interest income	(43,537)	(34,297)
Contributions:		
Contribution paid by the Company	1,500,000	1,500,000
Benefit payments:		
Benefit payments	(331,326)	—
Ending balance	₩ 10,166,848	₩ 8,832,283

(4) The total plan asset consists of bank savings as of December 31, 2022.

(5) Principal actuarial assumptions as of December 31, 2022 and 2021, are as follows:

	2022	2021
Discount rate for defined benefit obligations	5.30%	2.87%
Weighted average wage increase rate	4.31%	4.92%

(6) When all other assumptions are maintained and if the actuarial assumption of the above has changed, the impact on the net defined benefit liabilities as of December 31, 2022 is as follows (in thousands of Korean won):

	2022	
	Increase by 1%	Decrease by 1%
Discount rate for defined benefit obligations	Decrease by 3.94%	Increase by 4.42%
Weighted average wage increase rate	Increase by 4.42%	Decrease by 4.02%

(7) The weighted average maturity of the Company's defined benefit obligations as of December 31, 2022 is 7.26 years.

21. CAPITAL STOCK AND CAPITAL SURPLUS:

(1) According to the Company's articles of incorporation, the total number of shares to be issued by the Company is 20,000,000 shares, and the price per share is ₩500. The details of stocks issued by the Company and changes in capital stock and paid-in capital in excess of par value for the years ended December 31, 2022 and 2021, are as follows (in shares and thousands of Korean won):

	Number of shares	Capital stock	Paid-in capital in excess of par value	Total
Jan 1, 2021	10,138,184	₩5,069,092	₩16,172,841	₩21,241,933
Dec 31, 2021	10,138,184	5,069,092	16,172,841	21,241,933
Jan 1, 2022	10,138,184	5,069,092	16,172,841	21,241,933
Dec 31, 2022	10,138,184	₩ 5,069,092	₩16,172,841	₩21,241,933

(2) According to the Company's articles of incorporation, stock options can be granted to executives and employees within the scope of 15/100 of the total number of issued stocks by a special resolution at the general shareholders' meeting. Stock options can be granted by resolution of the Board of Directors and approval of the general shareholders' meeting within the scope of 3/100 of the total number of issued stocks. The total number of unexercised stock options among the stock options granted is 200,000 shares as of December 31, 2022.

(3) According to the Company's articles of incorporation, convertible bonds that can be converted into common stock and bonds with warrants that grant stock preemptive rights are distributed to persons other than shareholders by resolution of the Board of Directors within the extent that the total face value of each bond does not exceed ₩50,000 million. There are no convertible bonds or bonds with warrants issued under these conditions as of December 31, 2022.

(4) Details of capital surplus as of December 31, 2022 and 2021, are as follows (in thousands of Korean won):

	2022	2021
Paid-in capital in excess of par value	₩ 16,172,841	₩ 16,172,841
Gains on sale of treasury stock (*1)	323,880	323,880
Total	₩ 16,496,721	₩ 16,496,721

(*1) Gain on disposal of treasury stock is the part which was recognized as other capital item with regard to the gain on disposal of treasury stock disposed prior to current year. The income tax effect of ₩91 million is deducted in this amount.

22. OTHER CONTRIBUTED CAPITAL AND RETAINED EARNINGS:

(1) Other contributed capital as of December 31, 2022 and 2021, is as follows (in thousands of Korean won):

	2022	2021
Treasury stock	₩ (8,468,333)	₩ (8,468,333)
Stock option	868,678	868,678
Total	₩ (7,599,655)	₩ (7,599,655)

(2) Changes in treasury stock for the year ended December 31, 2022 are as follows (in shares and thousands of Korean won):

Beginning balance		Increase		Decrease		Ending balance	
Number of shares	Book value	Number of shares	Book value	Number of shares	Book value	Number of shares	Book value
1,175,576	₩8,468,333	—	₩ —	—	₩ —	1,175,576	₩8,468,333

(3) Changes in stock option for the year ended December 31, 2022 are as follows (in thousands of Korean won):

Beginning balance	Increase	Decrease	Ending balance
₩ 868,678	₩ —	₩ —	₩ 868,678

(4) Statements of appropriation of retained earnings

The (planned) date of appropriation of retained earnings for the year ended December 31, 2022 is March 29, 2023, the date of shareholders' meeting (the date of appropriation of retained earnings for the year ended December 31, 2021 was March 29, 2022). The statements of appropriation of retained earnings for the years ended December 31, 2022 and 2021, are as follows (in thousands of Korean won):

	2022	2021
Unappropriated retained earnings:		
Unappropriated retained earnings carried forward from prior year	₩ 43,812,108	₩ 41,569,306
Remeasurement of net retirement benefit obligations	932,238	(88,264)
Net income	5,383,779	3,514,130
Transfer of voluntary reserve, etc.	—	—
Total	50,128,125	44,995,172
Appropriation of retained earnings:		
Legal reserve	161,327	107,551
Dividends (dividends per common share (dividend ratio): ₩180 per share (36%) and ₩120 per share (24%) respectively in 2022 and 2021)	1,613,269	1,075,513
Subtotal	1,774,596	1,183,064
Unappropriated retained earnings carried forward to subsequent year	₩ 48,353,529	₩ 43,812,108

(5) Details of retained earnings as of December 31, 2022 and 2021, are as follows (in thousands of Korean won):

	2022	2021
Statutory reserve:		
Legal reserve (*1)	₩ 757,755	₩ 650,204
Unappropriated retained earnings	50,128,125	44,995,172
Total	₩ 50,885,880	₩ 45,645,376

(*1) In accordance with the provisions of the Commercial Act enacted and in force in the Republic of Korea, the Company is required to accumulate at least 10% of cash dividends as an earned reserve in each settlement period until it reaches 50% of its capital. The earned reserve cannot be distributed in cash, but can be transferred to capital or compensated for deficits by the resolution of the general shareholders' meeting, and if the total amount of the capital reserve and earnings reserve exceeds 1.5 times the capital (according to the resolution of the general shareholders' meeting), the capital reserve and earned reserve may be reduced within the range of excessed amount.

(6) Dividends

Dividend payments are ₩1,076 million (₩120 per share) and ₩896 million (₩100 per share), respectively in 2022 and 2021. Dividends per share and total dividends for the fiscal year ended December 31, 2022 are ₩180 per share and ₩1,613 million, respectively, and will be proposed as an agenda at the regular shareholders' meeting scheduled for March 29, 2023. The financial statements for current year do not include these accrued dividends.

23. SHARE-BASED COMPENSATION:

(1) The Company entered into stock option agreements with the Company's executives. Details of those options are as follows:

1) Type of stocks to be issued from the exercise of the stock options: registered common stock
2) Method of grant: issuance of new shares of common stock
3) Vesting requirements: employment for at least 3 years after grant date
4) Exercisable date: within 4 years after 3 years from grant date

(2) Changes in the number of stock options and weighted average exercise price for the years ended December 31, 2022 and 2021, are as follows (in shares and Korean won):

	Number of stock options		Weighted average exercise price	
	2022	2021	2022	2021
Beginning balance	200,000	200,000	₩ 7,575	₩ 7,575
Grant	—	—	—	—
Ending balance	200,000	200,000	₩ 7,575	₩ 7,575

The weighted average remaining maturity of valid stock options is 0.25 year, and their exercise price is ₩7,575 as of December 31, 2022.

(3) The Company calculated compensation costs for stock options granted in 2016 by applying the fair value approach, and various assumptions and variables for calculating compensation costs are as follows (in Korean won):

	Assumptions and variables
Weighted average fair value of stock options granted (in KRW)	₩ 4,343
Weighted average stock price on grant date (in KRW)	9,540
Volatility of the stock price (*1)	51.2%
Dividend yield rate	1.0%
Expected expiration period (*2)	5 years
Risk-free rate	1.6%

(*1) Volatility of stock price is the standard deviation of a stock's continuously compounded return on investment based on daily stock price analysis over the past five years.

(*2) The impact of non-transferability, exercise restrictions, etc. was considered in calculating the expected maturity based on the management's best estimate.

(4) Total stock compensation expense is ₩869 million, and there is no stock compensation expense to be recognized after December 31, 2022.

24. SALES:

(1) Details of sales for the years ended December 31, 2022 and 2021, are as follows (in thousands of Korean won):

	2022	2021
Sales of merchandise	₩ 3,706,897	₩ 4,022,874
Sales of finished goods	42,196,765	35,654,086
Service revenue, etc.	381,099	325,385
Total	₩ 46,284,761	₩ 40,002,345
Timing of revenue recognition:		
Recognized at a time	45,903,663	39,676,960
Recognized over time	381,098	325,385

(2) Details of contract liabilities as of December 31, 2022 and 2021, are as follows (in thousands of Korean won):

	2022	2021
Contract liabilities for merchandise and finished goods	₩53,028	₩1

Revenue for providing goods is recognized when the goods are delivered to the customer and control of the goods is transferred to the customer. Advance received from the customer before control of the goods transfers to the customer is recognized as contract liabilities until control of the goods transfers to the customer.

(3) The Company applies the practical expedient method with respect to the incremental cost of entering into a contract incurred in 2022 and 2021, and there are no contract assets recognized as of December 31, 2022 and 2021.

(4) There is no external customer that accounted for more than 10% of the Company's total revenue for the years ended December 31, 2022 and 2021.

25. SELLING AND ADMINISTRATIVE EXPENSES:

(1) Details of selling and administrative expenses for the years ended December 31, 2022 and 2021, are as follows (in thousands of Korean won):

	2022	**2021**
Payroll	₩ 4,673,276	₩ 4,511,474
Research and development	1,843,109	1,796,015
Commissions	994,223	1,155,192
Export related expenses	767,154	714,380
Marketing	382,619	121,285
Employee benefits	374,837	341,816
Provision for retirement benefits	310,572	312,497
Samples	217,085	225,996
Travel	213,731	33,366
Amortization	171,071	167,426
Depreciation (PP&E)	164,261	180,787
Entertainment	143,796	122,337
Insurance	130,598	135,393
Taxes and dues	124,344	123,267
Carriage and storage expenses	116,962	131,897
Depreciation (right-of-use assets)	113,482	107,774
Supplies	97,460	88,995
Communication	51,201	49,517
Vehicle maintenance	29,619	33,914
Sales commission	25,624	59,087
Other	78,145	97,382
Total	₩ 11,023,169	₩ 10,509,797

26. OTHER INCOME AND EXPENSES:

(1) Details of other income and expenses for the years ended December 31, 2022 and 2021, are as follows (in thousands of Korean won):

		2022		2021
Other income:				
Gain on foreign currency translation	₩	25,458	₩	24,746
Gain on foreign currency transaction		1,226,149		456,117
Gain on disposal of PP&E		—		699
Gain on exemption of debt		98,939		4,995
Miscellaneous income		66,263		30,325
Total	₩	1,416,809	₩	516,882
Other expenses:				
Loss on foreign currency translation	₩	460,107	₩	3,856
Loss on foreign currency transaction		355,861		151,395
Loss on disposal of PP&E		8		4
Loss on disposal of the right-of-use asset		—		6,267
Donations		21,200		11,400
Miscellaneous expenses		81,548		1,843
Total	₩	918,724	₩	174,765

27. CLASSIFICATION OF EXPENSES BY NATURE:

The classification of expenses by nature for the years ended December 31, 2022 and 2021, is as follows (in thousands of Korean won):

	2022	2021
Changes in merchandise, finished goods and working in process	₩ 1,695,639	₩ (1,609,978)
Purchase of merchandise	2,273,996	2,179,939
Use of raw materials	8,623,786	8,838,596
Payroll (*)	13,280,638	13,101,590
Depreciation (PP&E) (*)	2,631,767	2,724,949
Research and development	1,843,109	1,796,015
Electricity	1,648,713	1,592,212
Supplies	1,495,094	1,590,059
Commissions (*)	1,436,480	1,602,807
Amortization	855,816	694,864
Water and gas	824,996	601,824
Export related expenses	767,154	714,380
Marketing	382,619	121,285
Travel	219,306	36,029
Samples	217,085	225,996
Taxes and dues	186,732	183,429
Insurance	161,503	169,774
Entertainment	143,796	122,337
Outsourcing	142,521	163,577
Depreciation (right-of-use assets) (*)	129,658	123,692
Transportation	122,469	137,252
Sales commission	25,624	59,087
Other	669,766	745,535
Total sum of COGS, SG&A and bad debt expense	₩ 39,778,268	₩ 35,915,250

(*) The amount does not include the part which is classified as development costs, research and development.

28. LABOR COST FOR EMPLOYEES:

Labor cost for employees including research and development and development cost for the years ended December 31, 2022 and 2021, is as follows (in thousands of Korean won):

	2022	2021
Payroll (*)	₩ 12,424,160	₩ 12,371,759
Employee benefits	1,765,548	1,652,700
Provision for retirement benefits	1,051,786	1,064,549
Total	₩ 15,241,494	₩ 15,089,008

(*) The Company granted treasury stocks to executives and technical advisors prior to the current year, and accordingly, the amount corresponding to the fair value was recorded as payroll (see Note 34).

29. FINANCIAL INCOME AND EXPENSES:

(1) Details of financial income and expenses for the years ended December 31, 2022 and 2021, are as follows (in thousands of Korean won):

	2022	2021
Interest expenses:		
Borrowings	₩ 566,674	₩ 371,043
Loss on foreign currency transaction	286,595	17,742
Loss on foreign currency translation	61,048	659
Total financial expenses	914,317	389,444
Interest income:		
Bank savings and periodical deposits, etc.	17,774	11,790
Gain on foreign currency transaction	321,695	226,695
Gain on foreign currency translation	72	1,590
Total financial income	339,541	240,075
Net financial expenses	₩ 574,775	₩ 149,369

Borrowing cost capitalized as part of an asset is ₩1.7 million, and the capitalization rate applied is 3.92% for the year ended December 31, 2022.

30. INCOME TAX EXPENSE AND DEFERRED INCOME TAX:

(1) Income tax expense for the years ended December 31, 2022 and 2021, consists of the following (in thousands of Korean won):

	2022	2021
Current income tax expense:		
Income tax currently payable	₩ 1,151,686	₩ 234,331
Deferred income tax expense:		
Changes in temporary differences	142,148	506,486
Income tax reflected directly to the equity (*)	(247,810)	24,895
Total income tax expenses	₩ 1,046,024	₩ 765,712

(*) The effect of income tax reflected directly to the equity for the years ended December 31, 2022 and 2021, is as follows (in thousands of Korean won):

	2022		
	Pre-tax	Tax effect	After-tax
Remeasurement of net retirement benefit obligations	₩1,180,048	₩(247,810)	₩ 932,238

	2021		
	Pre-tax	Tax effect	After-tax
Remeasurement of net retirement benefit obligations	₩(113,159)	₩ 24,895	₩ (88,264)

(2) Reconciliation from pre-tax income to income tax expense for the years ended December 31, 2022 and 2021, is as follows (in thousands of Korean won):

	2022	2021
Pre-tax income	₩6,429,803	₩4,279,842
Tax expense using currently applicable rates	1,392,557	919,565
Adjustments:		
Non-deductible expenses	8,521	9,959
Non-taxable income	(1)	—
Tax credit	(452,956)	(392,921)
Special tax for rural development	—	38,000
Others	97,903	191,109
Subtotal	(346,533)	(153,853)
Income tax expense	₩ 1,046,024	₩ 765,712
Effective tax rate	16.27%	17.89%

(3) Details of the deferred tax assets and liabilities as of December 31, 2022 and 2021, are as follows (in thousands of Korean won):

	2022	2021
Deferred tax assets:		
Deferred tax assets to be settled after 12 months	₩ 2,505,217	₩ 2,796,310
Deferred tax assets to be settled in 12 months	1,344,843	1,123,597
Subtotal	3,850,060	3,919,907
Deferred tax liabilities:		
Deferred tax liabilities to be settled after 12 months	(2,050,413)	(1,973,311)
Deferred tax liabilities to be settled in 12 months	—	(4,801)
Subtotal	(2,050,413)	(1,978,112)
Net deferred tax assets (liabilities)	₩ 1,799,646	₩ 1,941,795

(4) Changes in temporary differences and deferred tax assets (liabilities) for the years ended December 31, 2022 and 2021, are as follows (in thousands of Korean won):

	2022					
	Temporary differences				DTA (DTL)	
	Beginning balance	Increase	Decrease	Ending balance	Beginning balance	Ending balance
Defined benefit liabilities	₩ 9,683,533	₩ 1,412,885	₩ 1,878,563	₩ 9,217,855	₩ 2,130,377	₩ 1,935,750
Expense for retirement benefit	—	250	—	250	—	53
Benefit plan assets	(8,832,283)	(1,122,377)	(331,326)	(9,623,334)	(1,943,102)	(2,020,900)
Allowance for bad debts	232,130	214,522	231,634	215,018	51,069	45,154
Accrued expenses	453,091	443,377	424,028	472,441	99,680	99,213
Allowance for inventory valuations	4,273,002	5,052,207	4,273,002	5,052,207	940,060	1,060,964
Research and development	(1)	—	—	(1)	—	—
Government grant	1,858,490	343,278	641,267	1,560,501	408,868	327,705
Gain or loss on foreign currency translation	(21,821)	495,625	(21,821)	495,625	(4,801)	104,081
Impairment loss on intangible assets	20,650	—	20,651	(1)	4,543	—
Impairment loss on PP&E	922,100	—	—	922,100	202,862	193,641
Depreciation	233,726	43,423	24,000	253,148	51,420	53,161
Lease liabilities	3,722	3,935	3,722	3,935	819	826
Total	₩ 8,826,339	₩ 6,887,125	₩ 7,143,718	₩ 8,569,745	₩ 1,941,795	₩ 1,799,646

	2021					
	Temporary differences				DTA (DTL)	
	Beginning balance	Increase	Decrease	Ending balance	Beginning balance	Ending balance
Defined benefit liabilities	₩ 8,771,443	₩ 1,645,943	₩ 733,853	₩ 9,683,533	₩ 1,929,717	₩ 2,130,377
Expense for retirement benefit	500	—	500	—	110	—
Benefit plan assets	(7,235,481)	(1,596,802)	—	(8,832,283)	(1,591,806)	(1,943,102)
Allowance for bad debts	227,317	231,634	226,821	232,130	50,010	51,069
Accrued income	—	—	—	—	—	—
Accrued expenses	437,710	416,308	400,927	453,091	96,296	99,680
Allowance for inventory valuations	3,454,381	4,273,002	3,454,381	4,273,002	759,964	940,060
Research and development	(1)	—	—	(1)	—	—
Government grant	2,076,244	287,360	505,114	1,858,490	456,774	408,868
Gain or loss on foreign currency translation	199,390	(21,821)	199,390	(21,821)	43,866	(4,801)
Impairment loss on intangible assets	68,337	—	47,687	20,650	15,034	4,543
Impairment loss on PP&E	922,100	—	—	922,100	202,862	202,862
Share-based compensation	868,678	—	868,678	—	191,109	—
Depreciation	202,642	39,084	8,000	233,726	44,581	51,420
Lease liabilities	9,556	3,722	9,556	3,722	2,102	819
Subtotal	10,002,815	5,278,430	6,454,907	8,826,339	2,200,619	1,941,795
Tax credit carried forward	247,662	—	247,662	—	247,662	—
Total	₩10,250,477	₩ 5,278,430	₩ 6,702,569	₩ 8,826,339	₩ 2,448,281	₩ 1,941,795

(5) The Company judges that deferred tax assets are feasible because the expected average annual profit from next fiscal year exceeds the deductible temporary difference that expires in each fiscal year.

31. FOREIGN CURRENCY TRANSLATION OF FOREIGN CURRENCY-DENOMINATED MONETARY ASSETS AND LIABILITIES:

Details foreign currency translation of foreign currency-denominated monetary assets and liabilities as of and for the years ended December 31, 2022 and 2021, are as follows (in USD, thousands of Korean won):

	2022				2021
	Amount in USD	Amount in KRW	Gain on foreign currency translation	Loss on foreign currency translation	Amount in KRW
Assets:					
Cash and cash equivalents	$2,505,932	₩3,175,768	₩ 72	₩ 61,048	₩2,565,122
Trade receivables	5,138,236	6,511,686	2,076	459,925	5,374,781
Liabilities:					
Trade payables	294,941	373,779	23,133	—	760,058
Non-trade payables	30,813	39,049	249	182	14,272
Total			₩ 25,530	₩ 521,155	

32. EARNINGS PER SHARE:

(1) Basic earnings per share

Basic earnings per share (for common stocks) for the years ended December 31, 2022 and 2021, is calculated as follows (in shares and thousands of Korean won):

1) weighted-average number of common shares outstanding (basic) (in shares):

	2022		
	Number of shares issued	Number of days outstanding	Weighted number of shares
Beginning balance	10,138,184	365	3,700,437,160
Holding of treasury stocks	(1,175,576)	365	(429,085,240)
Weighted total			3,271,351,920
Number of days outstanding			365
Weighted-average number of common shares outstanding			8,962,608

	2021		
	Number of shares issued	Number of days outstanding	Weighted number of shares
Beginning balance	10,138,184	365	3,700,437,160
Holding of treasury stocks	(1,175,576)	365	(429,085,240)
Weighted total			3,271,351,920
Number of days outstanding			365
Weighted-average number of common shares outstanding			8,962,608

2) Basic earnings per share (in shares and Korean won):

	2022	2021
Net income of common stock (in KRW)	₩5,383,779,353	₩3,514,129,854
(÷) Weighted-average number of common shares outstanding	8,962,608 Shares	8,962,608 Shares
Basic earnings per share (in KRW)	₩ 601 won/share	₩ 392 won/share

(2) Diluted earnings per share

Diluted earnings per share (for common stocks) for the years ended December 31, 2022 and 2021, is calculated as follows (in shares and thousands of Korean):

1) weighted-average number of common shares outstanding (diluted) (in shares):

	2022 Weighted-average number of common shares outstanding
Weighted-average number of common shares outstanding (basic)	8,962,608
(+) Number of shares to be issued upon exercise of stock options (*1)	200,000
(-) Number of shares to be issued at average market price	(220,403)
Weighted-average number of common shares outstanding (diluted)(*2)	8,962,608

	2021 Weighted-average number of common shares outstanding
Weighted-average number of common shares outstanding (basic)	8,962,608
(+) Number of shares to be issued upon exercise of stock options (*1)	200,000
(-) Number of shares to be issued at average market price	(192,041)
Weighted-average number of common shares outstanding (diluted)	8,970,567

(*1) Details of potential ordinary shares which have the effect of dilution as of December 31, 2022 are as follows (in shares and Korean won):

	2022	
	Exercise price (in KRW)	Number of common shares available for exercise (in shares)
Stock options	₩ 7,575	200,000

(*2) The weighted average number of outstanding shares (diluted) for the current year is the same as the weighted average number of outstanding shares (basic), since the number of shares issued at the average market price exceeds the number to be issued upon exercise of stock options.

2) Diluted earnings per share (in shares and Korean won):

	2022	2021
Net income of common stock (in KRW)	₩5,383,779,353	₩3,514,129,854
(+) Net income for the calculation of diluted earnings per share	—	—
Net income used in calculation of diluted earnings per share (in KRW)	5,383,779,353	3,514,129,854
(÷) Weighted-average number of common shares outstanding (diluted)	8,962,608 shares	8,970,567 shares
Diluted earnings per share	₩ 601 won/share	₩ 392 won/share

33. CASH GENERATED FROM OPERATIONS:

(1) Cash generated from operations:

1) Details of cash generated from operations for the years ended December 31, 2022 and 2021, are as follows (in thousands of Korean won):

	2022	2021
Net income	₩5,383,779	₩3,514,130
Adjustments:		
Income tax expense	1,046,024	765,713
Financial expenses	566,674	371,043
Financial income	(17,774)	(11,790)
Provision for retirement benefits	1,023,738	1,048,969
Depreciation	2,746,801	2,834,125
Depreciation for right-of-use assets	153,441	147,869
Bad debt expenses	2,076	2,474
Amortization	855,816	694,864
Loss on disposal of PP&E	8	4
Loss on disposal of right-of-use assets	—	6,267
Loss on foreign currency translation	521,156	4,515
Loss on inventory valuation	779,206	818,621
Gain on foreign currency translation	(25,531)	(26,336)
Gain on disposal of PP&E	—	(699)
Gain on exemption of debt	(98,939)	(4,995)
Changes in operating assets and liabilities:		
Trade receivables	(1,800,477)	40,941
Other current assets, etc.	(166,949)	288,502
Inventories	1,495,083	(3,448,823)
Trade payables	(223,363)	554,189
Other current liabilities, etc.	84,996	(364,980)
Other non-current liabilities, etc.	8,987	15,732
Payment of severance benefits	(143,933)	(346,839)
Contribution to benefit plan assets	(1,500,000)	(1,500,000)
Cash generated from operations	₩ 10,690,819	₩ 5,403,496

2) Important transactions not involving cash flows for the years ended December 31, 2022 and 2021, are as follows (in thousands of Korean won):

	2022	2021
Transfer of construction in progress to PP&E	₩69,553	₩213,211
Liquidity transfer of long-term borrowings to current portion	1,200,000	1,200,000
Liquidity transfer of long-term prepaid expense to current portion	—	82,274
Recognition of right-of-use assets	68,831	245,836
Liquidity transfer of long-term non-trade payables to current portion	—	147,035
Transfer of prepayment to patent	69,630	—
Non-trade payable for the acquisition of PP&E	39,582	—

3) Details of the adjustment in the liabilities from the financial activities for the year ended December 31, 2022 are as follows (in thousands of Korean won):

	Liabilities from financial activities				
	Short-term borrowings	Current portion of long-term borrowings	Long-term borrowings	Lease liabilities	Total
Beginning balance	₩14,000,000	₩ 1,200,000	₩ 4,200,000	₩ 326,847	₩19,726,847
Transfer	—	1,200,000	(1,200,000)	68,143	68,143
Cash flows	(6,000,000)	(1,200,000)	5,000,000	(150,389)	(2,350,389)
Ending balance	₩ 8,000,000	₩ 1,200,000	₩ 8,000,000	₩ 244,600	₩17,444,600

34. RELATED-PARTY TRANSACTIONS:

(1) The CEO of the Company is the largest shareholder as of December 31, 2022.

(2) The Company paid short-term employee benefits of ₩2,470 million (₩2,477 million in 2021) and defined benefit expenses of ₩153 million (₩163 million in 2021) to key executives such as directors (including non-executive directors) and internal auditors who have important authority and responsibility for planning, operation, and control of the Company's activities in 2022.

(3) In relation to borrowings as of December 31, 2022 and 2021, the Company is provided with a payment guarantee from the CEO (see Note 18).

(4) The company has granted stock options to executives in 2016 according to a special resolution at the general shareholders' meeting. The number of unexercised stock options is 200,000 shares as of December 31, 2022 (see Note 23).

(5) The company granted 50,000 shares of treasury stock to two executives in exchange for service in 2015. Of these, 10,000 shares are for past service, and the awarded executives have the right to dispose of the shares from one year after the date of grant. Meanwhile, the 40,000 shares are for future service and are subject to tenure for 7 years from the date of grant, and the executive will have the right to dispose of the shares as the tenure period elapses. The Company estimated the fair value of the equity instruments granted at the market price of ₩10,750 and ₩11,800 per share at the date of grant, and recognized payroll expenses of ₩34 million in 2022. In addition, 46,300 shares of treasury stock were granted to one technical advisor in exchange for service in 2018, and he(she) has the right to dispose of the stocks one year after the date of grant. This is for future service and is a condition of tenure for four years from the date of grant, and the executive will have the right to dispose of the stock according to the elapse of the tenure thereafter. The Company estimated the fair value of the equity instruments granted at ₩8,170 per share, which is the market price on the grant date, and recognized ₩32 million of payroll expenses in 2022.

35. COMMITMENTS AND CONTINGENCIES:

(1) The credit limits and amounts used in relation to the Company's borrowings and trade bill loans as of December 31, 2022 are as follows (in thousands of Korean won):

Financial institution	Type of loan	Credit limit	Amount used
Shinhan Bank	Facility loan (*)	₩ 4,200,000	₩ 4,200,000
Shinhan Bank	General loan	5,000,000	5,000,000
Shinhan Bank	Trade bill loan	3,000,000	3,000,000
Kookmin Bank	Trade bill loan	5,000,000	1,000,000
Citibank Korea	Trade bill loan	5,000,000	2,000,000
Woori Bank	Trade bill loan	5,000,000	2,000,000
Total		₩ 27,200,000	₩ 17,200,000

(*) This loan is pledged in the fire insurance contract of the Company, and the pledged amount is ₩6,200 million.

(2) The Company has entered into a loan agreement which is collateralized with electronic trade receivables with Woori Bank, and there is no related balance outstanding as of December 31, 2022 and 2021.

(3) The Company has a L/C payment guarantee agreement (credit limit of ₩5,000 million) with Kookmin Bank in relation to the trade bill, and there is no related balance outstanding as of December 31, 2022.

(4) The Company is provided with payment guarantees of ₩518 million from Seoul Guarantee Insurance in connection with the execution of government projects as of December 31, 2022.

(5) Detail of a pending litigation as of December 31, 2022 is as follows (in thousands of Korean won):

Description	Plaintiff	Defendant	Litigation value	Progress
Lawsuit for injunction of patent infringement, etc. (2022 Ga-hap 560632)	Merck Patent GmbH	CQV Co., Ltd.	₩200,000	Process of 1st trial

The Company anticipates that the impact of the pending litigation on the Company's financial statements will not be material, since it is impossible to reasonably predict the result of the lawsuit and the amount and the timing of outflow of resources are uncertain.

36. SUBSEQUENT EVENTS:

(1) Signing on a stock transfer agreement which results in a change of the largest shareholder

Jang, Gil Wan, the Company's largest shareholder, and Lim, Kwang Soo, the Company's executive entered into an agreement to sell their 3,128,352 shares (30.86% of total issued stock) to STAR CHEER CORPORATION LIMITED for ₩62,423,079 thousand on January 27, 2023.

At the extraordinary shareholders' meeting convened after the agreement is signed, the management rights will be transferred to STAR CHEER CORPORATION LIMITED by its designating directors and internal auditors under the condition that the total transaction amount will be fully paid.

(2) Signing on an agreement of disposal of treasury stocks

The Company entered into an agreement to sell 1,175,576 shares of treasury stocks (total treasury stock that the Company holds) to Global New Material International Holdings Ltd. for ₩23,457,422 thousand (₩19,953.98 per share) after December 31, 2022. According to the agreement, the contract is expected to be concluded in an over-the-counter transaction before April 27, 2023. The board of directors of CQV has approved the disposal of CQV Treasury Shares at the directors' meeting of CQV. CQV published an announcement on The Korea Exchange in relation to its decision to dispose the CQV Treasury Shares on 28 January 2023.

Originally, the disclosure of the completion of the disposal of CQV Treasury Shares will be made by 27 April 2023. However, due to the extension of the deadline for the closing date of the transaction, such disclosure has been extended until 24 July 2023 by The Korean Exchange. As of the Latest Practicable Date, the transaction under the CQV Treasury Shares Agreement has not been completed.

A. DIFFERENCES BETWEEN ACCOUNTING POLICIES ADOPTED BY THE GROUP AND CQV

As described in the section headed "Letter from the Board — Waiver from Strict Compliance with the Requirements under the Listing Rules" of this circular, the Company has applied to the Stock Exchange for, and been granted, a waiver from the requirement to include in this circular an accountants' report on the CQV in accordance with Rule 14.67(6)(a)(i) and Chapter 4 of the Listing Rules.

Instead, the Appendix II contain a copy of the English translation of financial statements of CQV for the three years ended 31 December 2020, 2021 and 2022, which were prepared in accordance with the Korean IFRS and audited by Induk.

The financial information included in the Appendix II are referred hereinafter as "CQV Historical Financial Information". The CQV Historical Financial Information covers the financial positions of CQV as of 31 December 2020, 2021 and 2022 and the financial performance of CQV for each of the three years ended 31 December 2020, 2021 and 2022 (the "**Relevant Periods**").

The accounting policies adopted by CQV in the preparation of the CQV Historical Financial Information for the Relevant Periods are in accordance with the Korean IFRS (the "**CQV's Accounting Policies**"), while accounting policies adopted by the Group for each of the Relevant Periods are in accordance with the IFRS issued by the International Accounting Standards Board (the "**Group's Accounting Policies**"). A line-by-line reconciliation (the "**Reconciliation**") of the statements of financial position of CQV as of 31 December 2020, 2021 and 2022, and the statements of comprehensive income of CQV for each of the Relevant Periods to address the differences, in all material respects, on the CQV Historical Financial Information had it been prepared in accordance with the Group's Accounting Policies, as set forth below in the section headed "D. Line-by-line Reconciliation".

B. Basis of Preparation

The Reconciliation for the each of the Relevant Periods was prepared by restating the "Unadjusted Financial Information of CQV" which are extracted from the CQV Historical Financial Information, and quantified adjustments to financial information as if it had been prepared in accordance with the Group's Accounting Policies which are in the compliance with the IFRS.

C. Reconciliation Process

The Reconciliation has been prepared by the Directors by comparing the differences between the accounting policies adopted by CQV for the preparation of Unadjusted Financial Information of CQV for the Relevant Periods, and the accounting policies presently adopted by the Group which are in compliance with the IFRS, and quantifying the relevant material financial effects of such differences, if any.

Your attention is drawn to the fact that the Reconciliation has not been subject to an independent audit. Accordingly, no opinion is expressed by an auditor on whether it presents a true and fair view of CQV's financial positions as of 31 December 2020, 2021 and 2022, nor its financial performance for each of the Relevant Periods then ended under the accounting policies presently adopted by the Group which are in compliance with IFRS.

RSM HK was engaged by the Company to conduct work in accordance with the Hong Kong Standard on Assurance Engagements 3000 (Revised) "Assurance Engagements Other Than Audits or Reviews of Historical Financial Information" ("**HKSAE 3000 (Revised)**") issued by the HKICPA on the Reconciliation. The work consisted primarily of:

(i) comparing the "Unadjusted Financial Information of CQV" as set forth in Reconciliation with the CQV Historical Financial Information that has been included in the Appendix II of this circular, as appropriate;

(ii) assessing the accounting treatments and classifications according to CQV's Accounting Policies and the Group's Accounting Policies and evaluating the different accounting treatments and classifications identified by the Directors;

(iii) considering the adjustments and reclassifications made and evidence supporting them made in the Reconciliation in arriving at the "Adjusted Financial Information of CQV under the Group's Accounting Policies"; and

(iv) checking the arithmetic accuracy of the computation of the Reconciliation.

RSM HK's engagement did not involve independent examination of any of the CQV Historical Financial Information. The work carried out in accordance with HKSAE 3000 (Revised) is different in scope from an audit or review conducted in accordance with Hong Kong Standards on Auditing or Hong Kong Standards on Review Engagements issued by the HKICPA and consequently, RSM HK did not express an audit opinion nor a review conclusion on the Reconciliation.

RSM HK's engagement was intended solely for the use of the Directors in connection with this circular and may not be suitable for another purpose. Based on the work performed, RSM HK has concluded that:

(i) the "Unadjusted Financial Information of CQV" for the each of the Relevant Periods as set forth in the Reconciliation is in agreement with the CQV Historical Financial Information prepared in accordance with the CQV's Accounting Policies, as appropriate;

(ii) the adjustments and reclassifications made in the Reconciliation reflect, in all material respects, the differences in accounting treatments and classifications between the CQV's Accounting Policies and the Group's Accounting Policies; and

(iii) the computation of the Reconciliation is arithmetically accurate.

D. Line-by-line Reconciliation

Statement of Comprehensive Income

	For the year ended 31 December 2022				
	Unadjusted Financial Information of CQV (Audited) Korean Won	GAAP difference adjustments (Unaudited) Korean Won *(Note 1)*	Reclassification adjustment (Unaudited) Korean Won *(Note 2)*	Presentation adjustments (Unaudited) Korean Won *(Note 3)*	Adjusted Financial Information of CQV under the Group's Accounting Policies (Unaudited) Korean Won
SALES	46,284,761,435	—	—	—	46,284,761,435
COST OF SALES	(28,753,023,445)	21,748,488	(475,205,946)	—	(29,206,480,903)
GROSS PROFIT	17,531,737,990	21,748,488	(475,205,946)	—	17,078,280,532
Selling and administrative expenses	(11,023,168,804)	—	—	11,023,168,804	—
Selling expenses	—	(6,184,264)	(1,212,515)	(4,515,232,374)	(4,522,629,153)
Administrative and other operating expenses	—	(145,240,001)	(377,040)	(6,610,684,157)	(6,756,301,198)
Other income and other gains and losses	—	—	476,795,501	592,730,824	1,069,526,325
Bad debt expenses	(2,075,593)	—	—	—	(2,075,593)
OPERATING INCOME	6,506,493,593	(129,675,777)	—	489,983,097	6,866,800,913
Non-operating income	1,416,808,971	—	—	(1,416,808,971)	—
Non-operating expenses	(918,724,081)	—	—	918,724,081	—
Financial income	339,541,210	—	—	(339,541,210)	—
Financial expenses	(914,316,680)	—	—	347,643,003	(566,673,677)
PRE-TAX INCOME	6,429,803,013	(129,675,777)	—	—	6,300,127,236
INCOME TAX EXPENSES	(1,046,023,660)	—	—	—	(1,046,023,660)
NET INCOME	5,383,779,353	(129,675,777)	—	—	5,254,103,576
OTHER COMPREHENSIVE INCOME					
Item that are not subsequently reclassified to profit or loss:					
Actuarial gain/(loss) on defined benefit obligations, net	932,237,964	—	—	—	932,237,964
TOTAL COMPREHENSIVE INCOME	6,316,017,317	(129,675,777)	—	—	6,186,341,540

	For the year ended 31 December 2021				
	Unadjusted Financial Information of CQV (Audited) Korean Won	GAAP difference adjustments (Unaudited) Korean Won *(Note 1)*	Reclassification adjustment (Unaudited) Korean Won *(Note 2)*	Presentation adjustments (Unaudited) Korean Won *(Note 3)*	Adjusted Financial Information of CQV under the Group's Accounting Policies (Unaudited) Korean Won
SALES	40,002,344,966	—	—	—	40,002,344,966
COST OF SALES	(25,402,979,424)	(175,139,605)	(441,908,763)	—	(26,020,027,792)
GROSS PROFIT	14,599,365,542	(175,139,605)	(441,908,763)	—	13,982,317,174
Selling and administrative expenses	(10,509,797,061)	—	—	10,509,797,061	—
Selling expenses	—	589,104	(7,275,089)	(3,955,234,238)	(3,961,920,223)
Administrative and other operating expenses	—	(147,835,666)	(1,337,455)	(6,567,806,300)	(6,716,979,421)
Other income and other gains and losses	—	—	450,521,307	577,034,711	1,027,556,018
Bad debt expenses	(2,473,964)	—	—	—	(2,473,964)
OPERATING INCOME	4,087,094,517	(322,386,167)	—	563,791,234	4,328,499,584
Non-operating income	516,882,519	—	—	(516,882,519)	—
Non-operating expenses	(174,765,292)	—	—	174,765,292	—
Financial income	240,074,520	—	—	(240,074,520)	—
Financial expenses	(389,443,897)	—	—	18,400,513	(371,043,384)
PRE-TAX INCOME	4,279,842,367	(322,386,167)	—	—	3,957,456,200
INCOME TAX EXPENSES	(765,712,513)	—	—	—	(765,712,513)
NET INCOME	3,514,129,854	(322,386,167)	—	—	3,191,743,687
OTHER COMPREHENSIVE INCOME					
Item that are not subsequently reclassified to profit or loss:					
Actuarial gain/(loss) on defined benefit obligations, net	(88,263,654)	—	—	—	(88,263,654)
TOTAL COMPREHENSIVE INCOME	3,425,866,200	(322,386,167)	—	—	3,103,480,033

	For the year ended 31 December 2020				
	Unadjusted Financial Information of CQV (Audited) Korean Won	**GAAP difference adjustments (Unaudited) Korean Won** *(Note 1)*	**Reclassification adjustment (Unaudited) Korean Won** *(Note 2)*	**Presentation adjustments (Unaudited) Korean Won** *(Note 3)*	**Adjusted Financial Information of CQV under the Group's Accounting Policies (Unaudited) Korean Won**
SALES	36,971,668,671	—	—	—	36,971,668,671
COST OF SALES	(22,491,108,392)	(312,820,722)	(382,604,289)	—	(23,186,533,403)
GROSS PROFIT	14,480,560,279	(312,820,722)	(382,604,289)	—	13,785,135,268
Selling and administrative expenses	(10,342,529,533)	—	—	10,342,529,533	—
Selling expenses	—	584,536	(7,275,095)	(4,120,106,372)	(4,126,796,931)
Administrative and other operating expenses	—	(151,012,693)	(8,799,574)	(6,247,517,394)	(6,407,329,661)
Other income and other gains and losses	—	—	398,678,958	(472,983,601)	(74,304,643)
Bad debt expenses	1,771,105	—	—	—	1,771,105
OPERATING INCOME	4,139,801,851	(463,248,879)	—	(498,077,834)	3,178,475,138
Non-operating income	553,725,953	—	—	(553,725,953)	—
Non-operating expenses	(710,908,144)	—	—	710,908,144	—
Financial income	107,845,751	—	—	(107,845,751)	—
Financial expenses	(825,779,665)	—	—	448,741,394	(377,038,271)
PRE-TAX INCOME	3,264,685,746	(463,248,879)	—	—	2,801,436,867
INCOME TAX EXPENSES	383,401,628	—	—	—	383,401,628
NET INCOME	3,648,087,374	(463,248,879)	—	—	3,184,838,495
OTHER COMPREHENSIVE INCOME					
Item that are not subsequently reclassified to profit or loss:					
Actuarial gain/(loss) on defined benefit obligations, net	861,686,341	—	—	—	861,686,341
TOTAL COMPREHENSIVE INCOME	4,509,773,715	(463,248,879)	—	—	4,046,524,836

Statement of Financial Position

	As at 31 December 2022				
	Unadjusted Financial Information of CQV (Audited) Korean Won	GAAP difference adjustments (Unaudited) Korean Won *(Note 1)*	Reclassification adjustment (Unaudited) Korean Won *(Note 2)*	Presentation adjustments (Unaudited) Korean Won *(Note 3)*	Adjusted Financial Information of CQV under the Group's Accounting Policies (Unaudited) Korean Won
ASSETS					
Non-current assets					
Property, plant and equipment	33,306,704,098	(1,730,207,666)	614,408,049	—	32,190,904,481
Right-of-use assets	244,232,954	—	—	—	244,232,954
Intangible assets	3,851,861,447	—	1,372,195,756	—	5,224,057,203
Other financial assets	299,994,246	—	—	(299,994,246)	—
Defined benefit assets, net	948,992,600	—	—	—	948,992,600
Financial assets at fair value through profit or loss	—	—	—	136,438,885	136,438,885
Deposits, prepayments and other receivables	—	—	—	163,555,361	163,555,361
Deferred tax assets	1,799,646,480	—	—	—	1,799,646,480
Total non-current assets	40,451,431,825	(1,730,207,666)	1,986,603,805	—	40,707,827,964
Current assets					
Inventories	24,803,850,853	—	—	—	24,803,850,853
Trade receivables	9,728,576,814	—	—	—	9,728,576,814
Other financial assets	3,060,400	—	—	(3,060,400)	—
Deposits, prepayments and other receivables	—	—	—	562,020,198	562,020,198
Cash and cash equivalents	10,829,529,840	—	—	—	10,829,529,840
Other current assets	558,959,798	—	—	(558,959,798)	—
Total current assets	45,923,977,705	—	—	—	45,923,977,705
Total assets	86,375,409,530	(1,730,207,666)	1,986,603,805	—	86,631,805,669
EQUITY AND LIABILITIES					
Equity					
Share capital	5,069,092,000	—	—	—	5,069,092,000
Capital reserves	16,496,720,838	—	—	(16,496,720,838)	—
Other capital items	(7,599,655,018)	—	—	—	(7,599,655,018)
Share premium	—	—	—	16,496,720,838	16,496,720,838
Retained earnings	50,885,880,105	(1,730,207,666)	—	—	49,155,672,439
Total equity	64,852,037,925	(1,730,207,666)	—	—	63,121,830,259
Liabilities					
Non-current liabilities					
Lease liabilities	—	—	—	100,126,768	100,126,768
Long-term borrowings	8,000,000,000	—	—	—	8,000,000,000
Deferred revenue	—	—	1,385,570,581	—	1,385,570,581
Accruals and other payables	—	—	—	772,082,647	772,082,647
Other financial liabilities	872,209,415	—	—	(872,209,415)	—
Total non-current liabilities	8,872,209,415	—	1,385,570,581	—	10,257,779,996
Current liabilities					
Short-term borrowings	9,200,000,000	—	—	—	9,200,000,000
Trade payables	661,532,895	—	—	—	661,532,895
Contract liabilities	—	—	—	53,028,452	53,028,452
Deferred revenue	—	—	601,033,224	—	601,033,224
Accruals and other payables	—	—	—	1,502,371,823	1,502,371,823
Other financial liabilities	1,458,518,805	—	—	(1,458,518,805)	—
Lease liabilities	—	—	—	144,473,702	144,473,702
Current tax liabilities	1,089,755,318	—	—	—	1,089,755,318
Other current liabilities	241,355,172	—	—	(241,355,172)	—
Total current liabilities	12,651,162,190	—	601,033,224	—	13,252,195,414
Total liabilities	21,523,371,605	—	1,986,603,805	—	23,509,975,410
Total equity and liabilities	86,375,409,530	(1,730,207,666)	1,986,603,805	—	86,631,805,669

As at 31 December 2021

	Unadjusted Financial Information of CQV (Audited) Korean Won	GAAP difference adjustments (Unaudited) Korean Won *(Note 1)*	Reclassification adjustments (Unaudited) Korean Won *(Note 2)*	Presentation adjustments (Unaudited) Korean Won *(Note 3)*	Adjusted Financial Information of CQV under the Group's Accounting Policies (Unaudited) Korean Won
ASSETS					
Non-current assets					
Property, plant and equipment	35,372,711,510	(1,600,531,889)	352,681,819	—	34,124,861,440
Right-of-use assets	328,843,843	—	—	—	328,843,843
Intangible assets	3,978,170,914	—	1,580,285,174	—	5,558,456,088
Other financial assets	277,175,871	—	—	(277,175,871)	—
Defined benefit assets, net	—	—	—	—	—
Financial assets at fair value through profit or loss	—	—	—	115,772,026	115,772,026
Deposits, prepayments and other receivables	—	—	—	161,403,845	161,403,845
Deferred tax assets	1,941,794,533	—	—	—	1,941,794,533
Total non-current assets	41,898,696,671	(1,600,531,889)	1,932,966,993	—	42,231,131,775
Current assets					
Inventories	27,078,139,787	—	—	—	27,078,139,787
Trade receivables	8,388,025,169	—	—	—	8,388,025,169
Other financial assets	6,170,970	—	—	(6,170,970)	—
Deposits, prepayments and other receivables	—	—	—	464,701,517	464,701,517
Cash and cash equivalents	5,808,177,381	—	—	—	5,808,177,381
Other current assets	458,530,547	—	—	(458,530,547)	—
Total current assets	41,739,043,854	—	—	—	41,739,043,854
Total assets	83,637,740,525	(1,600,531,889)	1,932,966,993	—	83,970,175,629
EQUITY AND LIABILITIES					
Equity					
Share capital	5,069,092,000	—	—	—	5,069,092,000
Capital reserves	16,496,720,838	—	—	(16,496,720,838)	—
Other capital items	(7,599,655,018)	—	—	—	(7,599,655,018)
Share premium	—	—	—	16,496,720,838	16,496,720,838
Retained earnings	45,645,375,748	(1,600,531,889)	—	—	44,044,843,859
Total equity	59,611,533,568	(1,600,531,889)	—	—	58,011,001,679
Liabilities					
Non-current liabilities					
Lease liabilities	—	—	—	185,813,144	185,813,144
Long-term borrowings	4,200,000,000	—	—	—	4,200,000,000
Defined benefit liabilities, net	851,250,332	—	—	—	851,250,332
Deferred revenue	—	—	1,495,054,693	—	1,495,054,693
Accruals and other payables	—	—	—	763,095,875	763,095,875
Other financial liabilities	948,909,019	—	—	(948,909,019)	—
Total non-current liabilities	6,000,159,351	—	1,495,054,693	—	7,495,214,044
Current liabilities					
Short-term borrowings	15,200,000,000	—	—	—	15,200,000,000
Trade payables	908,029,609	—	—	—	908,029,609
Contract liabilities	—	—	—	593	593
Deferred revenue	—	—	437,912,300	—	437,912,300
Accruals and other payables	—	—	—	1,543,698,281	1,543,698,281
Other financial liabilities	1,489,987,722	—	—	(1,489,987,722)	—
Lease liabilities	—	—	—	141,033,971	141,033,971
Current tax liabilities	233,285,152	—	—	—	233,285,152
Other current liabilities	194,745,123	—	—	(194,745,123)	—
Total current liabilities	18,026,047,606	—	437,912,300	—	18,463,959,906
Total liabilities	24,026,206,957	—	1,932,966,993	—	25,959,173,950
Total equity and liabilities	83,637,740,525	(1,600,531,889)	1,932,966,993	—	83,970,175,629

	As at 31 December 2020				
	Unadjusted Financial Information of CQV (Audited) Korean Won	**GAAP difference adjustments (Unaudited) Korean Won** *(Note 1)*	**Reclassification adjustment (Unaudited) Korean Won** *(Note 2)*	**Presentation adjustments (Unaudited) Korean Won** *(Note 3)*	**Adjusted Financial Information of CQV under the Group's Accounting Policies (Unaudited) Korean Won**
ASSETS					
Non-current assets					
Property, plant and equipment	37,734,332,611	(1,278,145,722)	232,038,710	—	36,688,225,599
Right-of-use assets	240,254,886	—	—	—	240,254,886
Intangible assets	3,933,930,920	—	1,736,147,163	—	5,670,078,083
Other financial assets	377,171,790	—	—	(377,171,790)	—
Defined benefit assets, net	—	—	—	—	—
Financial assets at fair value through profit or loss	—	—	—	97,012,706	97,012,706
Deposits, prepayments and other receivables	—	—	—	362,432,676	362,432,676
Deferred tax assets	2,448,281,008	—	—	—	2,448,281,008
Other non-current assets	82,273,592	—	—	(82,273,592)	—
Total non-current assets	44,816,244,807	(1,278,145,722)	1,968,185,873	—	45,506,284,958
Current assets					
Inventories	24,447,938,267	—	—	—	24,447,938,267
Trade receivables	8,409,795,104	—	—	—	8,409,795,104
Other financial assets	96,295,667	—	—	(96,295,667)	—
Deposits, prepayments and other receivables	—	—	—	678,322,380	678,322,380
Current tax assets	48,056,870	—	—	—	48,056,870
Cash and cash equivalents	6,652,979,901	—	—	—	6,652,979,901
Other current assets	582,026,713	—	—	(582,026,713)	—
Total current assets	40,237,092,522	—	—	—	40,237,092,522
Total assets	85,053,337,329	(1,278,145,722)	1,968,185,873	—	85,743,377,480
EQUITY AND LIABILITIES					
Equity					
Share capital	5,069,092,000	—	—	—	5,069,092,000
Capital reserves	16,496,720,838	—	—	(16,496,720,838)	—
Other capital items	(7,599,655,018)	—	—	—	(7,599,655,018)
Share premium	—	—	—	16,496,720,838	16,496,720,838
Retained earnings	43,115,770,348	(1,278,145,722)	—	—	41,837,624,626
Total equity	57,081,928,168	(1,278,145,722)	—	—	55,803,782,446
Liabilities					
Non-current liabilities					
Lease liabilities	—	—	—	119,735,689	119,735,689
Long-term borrowings	5,400,000,000	—	—	—	5,400,000,000
Defined benefit liabilities, net	1,535,961,918	—	—	—	1,535,961,918
Deferred revenue	—	—	1,520,438,142	—	1,520,438,142
Accruals and other payables	—	—	—	899,394,948	899,394,948
Other financial liabilities	1,019,130,637	—	—	(1,019,130,637)	—
Total non-current liabilities	7,955,092,555	—	1,520,438,142	—	9,475,530,697
Current liabilities					
Short-term borrowings	17,600,000,000	—	—	—	17,600,000,000
Trade payables	353,093,274	—	—	—	353,093,274
Contract liabilities	—	—	—	—	—
Deferred revenue	—	—	447,747,731	—	447,747,731
Accruals and other payables	—	—	—	1,847,881,963	1,847,881,963
Other financial liabilities	1,688,359,949	—	—	(1,688,359,949)	—
Lease liabilities	—	—	—	122,889,624	122,889,624
Current tax liabilities	92,451,745	—	—	—	92,451,745
Other current liabilities	282,411,638	—	—	(282,411,638)	—
Total current liabilities	20,016,316,606	—	447,747,731	—	20,464,064,337
Total liabilities	27,971,409,161	—	1,968,185,873	—	29,939,595,034
Total equity and liabilities	85,053,337,329	(1,278,145,722)	1,968,185,873	—	85,743,377,480

Notes:

1. Matters related to the useful lives of the property, plant and equipment

The estimated useful lives of the property, plant and equipment under CQV's Accounting Policies and the Group's Accounting Policies are different and are shown below:

	CQV's Accounting Policies	Group's Accounting Policies
Buildings	40 years	20 years
Plant and machinery	8 years	10 years
Motor vehicles	5 years	5 years
Office equipment	5 years	3-5 years
Leasehold improvements	N/A	3 years

Had CQV adopted the Group's Accounting Policies, the impact of the adjustments on the CQV's statements of financial position as at 31 December 2020, 2021 and 2022, and statements of comprehensive income for the three years ended 31 December 2020, 2021 and 2022 are set out below.

Statements of financial position

	As at 31 December		
	2020	**2021**	**2022**
	Korean Won	**Korean Won**	**Korean Won**
	Unaudited	**Unaudited**	**Unaudited**
	Dr. / (Cr.)	*Dr. / (Cr.)*	*Dr. / (Cr.)*
Property, plant and equipment	(1,278,145,722)	(1,600,531,889)	(1,730,207,666)
Retained earnings	1,278,145,722	1,601,531,889	1,730,207,666

Statements of comprehensive income

	For the year ended 31 December		
	2020	**2021**	**2022**
	Korean Won	**Korean Won**	**Korean Won**
	Unaudited	**Unaudited**	**Unaudited**
	Dr. / (Cr.)	*Dr. / (Cr.)*	*Dr. / (Cr.)*
Cost of sales	312,820,722	175,139,605	(21,748,488)
Selling expenses	(584,536)	(589,104)	6,184,264
Administrative and other operating expenses	151,012,693	147,835,666	145,240,001

2. Reclassification Adjustment

Government grant

Under CQV's Accounting Policies, government grants related to the purchase of assets are presented in the statements of financial position by deducting the grant from the carrying amount of the asset (including property, plant and equipment and intangible assets) and the grant is recognised in profit or loss over the life of a depreciable asset as a reduced depreciation expense, while government grants relating to the purchase of assets are recorded as deferred income and recognised in profit or loss as other income under the Group's Accounting Policies.

3. Presentation Adjustments

These adjustments for each of the Relevant Periods are presentation adjustments to bring in line the CQV Historical Financial Information with the Group's consolidated financial statements presentation as if they are prepared under the Group's Accounting Policies.

A. UNAUDITED PRO FORMA STATEMENT OF ASSETS AND LIABILITIES OF THE ENLARGED GROUP

The accompanying unaudited pro forma statement of assets and liabilities of the Group (the "Statement") has been prepared to illustrate the effect of the proposed acquisition of equity interest in CQV Co. Ltd. ("CQV") upon the completion of (a) transfer of the CQV Sale Shares A for cash consideration of KRW25.0 billion and issue and allotment of 15,475,085 Consideration Shares pursuant to the CQV Sale Shares A Agreement, (b) transfer of the CQV Sale Shares B in consideration of the issue and allotment of 13,481,181 Consideration Shares pursuant to the CQV Sale Shares B Agreement, and (c) transfer of 1,175,576 CQV Treasury Shares in consideration of the issue and allotment of 18,150,280 Consideration Shares pursuant to the CQV Treasury Shares Agreement (the "Acquisition"), assuming the transaction had been completed as at 31 December 2022, might have affected the financial position of the Group and CQV (the "Enlarged Group").

The Statement is prepared based on the audited consolidated statement of financial position of the Group as at 31 December 2022 as extracted from the annual report of the Company for the year ended 31 December 2022 and the audited statement of financial position of CQV as at 31 December 2022 as extracted from the published annual business report of CQV for the year ended 31 December 2022, after making line-by-line reconciliations to address the differences in the CQV's financial statements had it been prepared in accordance with the Group's accounting policies under IFRS as set out in Appendix III of this circular after making certain proforma adjustments resulting from the Acquisition.

The Statement is prepared based on a number of assumptions, estimates, uncertainties and currently available information, and is provided for illustrative purposes only. Accordingly, as a result of the nature of the Statement, it may not give a true picture of the actual financial position of the Group that would have been attained had the Acquisition actually occurred on 31 December 2022. Furthermore, the Statement does not purport to predict the Group's future financial position.

The Statement should be read in conjunction with the financial information of the Group as set out in the annual report of the Company for the year ended 31 December 2022, the financial information of CQV as set out in Appendix II of this circular and other financial information included elsewhere in this circular.

For the purpose of presenting the Statement, the audited statement of financial position of CQV as at 31 December 2022 is translated at the exchange rate of RMB1 = KRW181.06.

The unaudited pro forma statement of assets and liabilities of the Enlarged Group as of 31 December 2022 is presented in Renminbi ("RMB") and all values are rounded to the nearest thousand ('000) except when otherwise indicated.

			Unaudited Pro forma adjustments				
	The Group as of 31 December 2022	CQV as of 31 December 2022	Recognition of unaudited pro forma fair value adjustment as of 31 December 2022	Elimination of intercompany balances between the Group and CQV as of 31 December 2022	Estimated costs and expenses in respect of the Acquisition	Elimination of unrealised profits on inventories	The Enlarged Group as of 31 December 2022
	(Audited)	*(Unaudited)*	*(Unaudited)*	*(Unaudited)*	*(Unaudited)*	*(Unaudited)*	*(Unaudited)*
	RMB'000	*RMB'000*	*RMB'000*	*RMB'000*	*RMB'000*	*RMB'000*	*RMB'000*
	Note 1	*Note 2*	*Note 3*	*Note 4*	*Note 5*	*Note 6*	*Note 7*
ASSETS							
Non-current assets							
Property, plant and equipment	759,364	177,790	68,091	—	—	—	1,005,245
Right-of-use assets	63,256	1,349	—	—	—	—	64,605
Goodwill	—	—	103,797	—	—	—	103,797
Intangible assets	—	28,852	18,187	—	—	—	47,039
Defined benefit assets, net	—	5,241	—	—	—	—	5,241
Financial assets at fair value through profit or loss	—	754	—	—	—	—	754
Deposits, prepayment and other receivables	—	903	—	—	—	—	903
Deposits paid for acquisition of property, plant and equipment	184	—	—	—	—	—	184
Deferred tax assets	1,190	9,939	—	—	—	—	11,129
Total non-current assets	823,994	224,828	190,075	—	—	—	1,238,897
Current assets							
Inventories	120,130	136,992	—	—	—	(106)	257,016
Trade receivables	308,119	53,731	—	(177)	—	—	361,673
Deposits, prepayments and other receivables	21,900	3,104	—	—	—	—	25,004
Bank and cash balances	1,882,727	59,811	(138,075)	—	—	—	1,804,463
Total current assets	2,332,876	253,638	(138,075)	(177)	—	(106)	2,448,156
Total assets	3,156,870	478,466	52,000	(177)	—	(106)	3,687,053
LIABILITIES							
Non-current liabilities							
Bank loans and other borrowings	130,940	44,184	—	—	—	—	175,124
Convertible loan	294,217	—	—	—	—	—	294,217
Lease liabilities	66	553	—	—	—	—	619
Deferred revenue	2,455	7,653	—	—	—	—	10,108
Deferred tax liabilities	4,703	—	16,278	—	—	—	20,981
Accruals and other payables	—	4,264	—	—	—	—	4,264
Total non-current liabilities	432,381	56,654	16,278	—	—	—	505,313
Current liabilities							
Bank loans and other borrowings	72,373	50,812	—	—	—	—	123,185
Derivative component of convertible loan	5,783	—	—	—	—	—	5,783
Lease liabilities	211	798	—	—	—	—	1,009
Trade payables	23,551	3,654	—	(177)	—	—	27,028
Accruals and other payables	74,178	8,298	—	—	3,810	—	86,286
Contract liabilities	13	293	—	—	—	—	306
Deferred revenue	1,448	3,320	—	—	—	—	4,768
Current tax liabilities	3,606	6,019	—	—	—	—	9,625
Total current liabilities	181,163	73,194	—	(177)	3,810	—	257,990
Total liabilities	613,544	129,848	16,278	(177)	3,810	—	763,303
NET ASSETS	2,543,326	348,618	35,722	—	(3,810)	(106)	2,923,750

Notes:

1. The amounts are extracted from the audited consolidated statement of financial position of the Group as set out in the published annual report of the Company for the year ended 31 December 2022.

2. The amounts are incorporated by reference to Appendix III to this circular, which are extracted from the audited statement of financial position of CQV as set out in the published annual business report of CQV for the year ended 31 December 2022, after making line-by-line reconciliations to address the differences in CQV's financial statements had it been prepared in accordance with the Group's accounting policies under IFRS and translated the amount into RMB.

3. Upon completion of the Acquisition, the identifiable assets acquired and liabilities assumed of CQV will be accounted for at their fair value under the acquisition method of accounting in accordance with IFRS 3 (Revised) Business Combinations.

   For the purpose of the preparation of the unaudited pro forma statement of assets and liabilities, the adjustment represents the inclusion of unaudited pro forma fair value adjustments resulted from the allocation of the unaudited pro forma purchase price allocation to CQV's identifiable assets acquired and liabilities assumed ("PPA Valuation"), as if the Acquisition had been taken place on 31 December 2022.

   The unaudited pro forma purchase price allocation to the identifiable assets and liabilities of CQV has been determined based on a valuation carried out by the management with the assistance from an independent firm of professional valuers not connected with the Group or CQV, with respect to the fair value of assets to be acquired and liabilities to be assumed as if the Acquisition had been taken place on 31 December 2022. For the purpose of preparing the unaudited pro forma statement of assets and liabilities, the directors of the Company assumed that apart from the assets and liabilities subject to the unaudited pro forma fair value adjustments stated in note (ii) and note (iii) below, the unaudited pro forma fair values of the remaining identifiable assets and liabilities of CQV are approximate to their respective carrying amounts as of 31 December 2022.

	RMB'000
Consideration[(i)]	304,268
Carrying amount of net assets acquired before fair value adjustments	(348,618)
Unaudited pro forma fair value adjustments to property, plant and equipment[(ii)]	(68,091)
Unaudited pro forma fair value adjustments to intangible assets[(iii)]	(18,187)
Deferred tax liabilities arising from unaudited pro forma fair value adjustment to land use rights and other intangible assets[(iv)]	16,278
Non-controlling interests[(v)]	218,147
Goodwill arising from the Acquisition[(vi)]	103,797

   (i) This amount represents total consideration for acquiring the CQV Sale Shares (represents approximately 30.85% issued shares of CQV) and CQV Treasury Shares (represents approximately 11.60% issued shares of CQV), which includes cash consideration of KRW25.0 billion (approximately RMB138,075,000) and market value of 47,106,546 Consideration Shares of approximately KRW30,091,077,000 (approximately RMB166,193,000) as at 31 December 2022.

   (ii) The unaudited pro forma fair value adjustment is to record the fair value adjustment of property, plant and equipment of approximately KRW12,328,586,000 (approximately RMB68,091,000) as of 31 December 2022. The pro forma fair values of land and buildings and other property, plant and equipment are estimated based on direct comparison method and depreciated replacement cost method respectively.

(iii) The unaudited pro forma fair value adjustments to intangible assets related to industrial property right and development cost, customer relationship and trademark.

Industrial property rights represent the acquired patents, and the development costs represent the capitalised development cost generated from the internal research and development activities. The unaudited pro forma fair value of industrial property rights and development cost of CQV is estimated at approximately KRW4,031,200,000 (approximately RMB22,264,000) based on relief-from royalty method, which resulted in fair value loss of approximately KRW1,180,150,000 (approximately RMB6,518,000).

By the end of 2022, CQV had approximately 30 contractual active customers, which accounted for approximately 90% of total revenue. The unaudited pro forma fair value of customer relationship of CQV is estimated at approximately KRW3,148,130,000 (approximately RMB17,387,000) based on multi-period excess earnings method.

CQV's trademark is recognisable within the industry. CQV has established a good brand image and reputation because it focuses on the importance of customer experience. The pro forma fair value is estimated at approximately KRW1,325,000,000 (approximately RMB7,318,000) based on relief-from royalty method.

The key assumptions used in the valuation are as follows:

	Industrial property rights and development cost	**Customer relationship**	**Trademark**
Useful Life [a]	5 years	15 years	10 years
Royalty Rate [b]	4.0%	N/A	0.5%
Discount Rate [c]	15.1%	18.1%	18.1%

(a) Useful lives of the intangible assets are based on the research on similar intangible assets for businesses in similar industry of CQV, the historical development of the intangible assets and management industry experience and insights.

(b) Royalty rates of 4.0% and 0.5% for industrial property rights & development cost and trademark respectively are based on the research on royalty rates applicable to pigment related industries as carried out by MARKABLES.

MARKABLES, which is an independent third party to the Group and CQV, is a reputable online database which provides intangible asset data services to valuation professionals all over the world. Its data is widely adopted by organisations engaged in valuation, transfer pricing, transaction advisory, corporate finance, dispute resolution, equity research, economic analysis, intellectual property transfer etc.

(c) The discount rate is based on the weighted average cost of capital (WACC) of CQV as determined by Avista Valuation Advisory Limited based on the following parameters:

Debt-to-equity ratio : 8.28% (being 7.6% debt and 92.4% equity) with reference to the capital structure of the comparable companies of CQV

The selection of the comparable companies was based on the comparability of the overall industry sector. Although no two companies are ever exactly alike, behind the differences there are certain business universals such as required capital investment and overall perceived risks and uncertainties that guided the market in reaching the expected returns for companies with certain similar attributes. The comparable public companies are selected with reference to the following selection criteria:

- The primary industry of the companies is "Chemicals", under Global Industry Classification Standard, as extracted from S&P Capital IQ (CQV is under same industry according to S&P Capital IQ);

- The companies are principally engaged in the pearlescent pigment business;

- The financial information of the companies is available to the public.

During the research process, as obtained on the best effort basis, there are 4 comparable companies that engaged in similar business as CQV had been identified.

Cost of debt : 4.88% (based on the applicable borrowing rates of CQV)

Cost of equity : 13.87% (developed using the Capital Asset Pricing Model (CAPM) with risk-free rate of 3.78%, equity risk premium of 6.70%, size premium of 3.31%, unlevered beta of 0.88 and company-specific risk premium of 0.50%)

Risk-free rate

The yield rates of bonds issued by a government or agency where the risks of default are so low as to be negligible are commonly applied as the risk-free rate. The yield rate of the 10-year South Korea Government Bond of 3.78% as of 31 December 2022, as extracted from the S&P Capital IQ terminal, was adopted as the risk-free rate in the analysis.

Equity risk premium

The equity risk premium is the expected return of the market in excess of the risk-free rate, estimated based on South Korea equity risk premium, based on research report published in July 2022 by Aswath Damodaran, who is a professor of Finance at the Stern School of Business at New York University and specialises in corporate finance and valuation.

Size premium

Size premium is the return in excess of CAPM estimation. The size premium adopted was referenced to Kroll Cost of Capital Navigator. Kroll is an independent provider of risk and financial advisory solutions based in New York. Considering the market capitalisation of CQV, the size premium of 3.31% as of 31 December 2022 of 10A decile company was adopted.

Unlevered beta

Beta is a measure of the relationship between industry risk and the aggregate market. The unlevered beta of 0.88 is based on the averaged of the betas of the selected comparable companies unlevered in all-equity scenario.

Company-specific risk premium

The company-specific risk premium is based on professional judgement with a number of qualitative factors being considered, including but not limited to the uncertainties on sustaining the future growth based on the forecasted financials throughout the forecast period.

Intangible asset risk premium : 5%-10% (being the risk profile of the respective intangible assets when compared with the business as a whole)

Risk profile of the intangible assets

The intangible asset premium is the additional rate of return demanded by investor by investing in the intangible asset only, but not the entire business. As a business is usually comprised of different categories of assets with varying risk profiles, an investor should rationally accept a lower rate of return on a less risky assets, but would require a higher rate of return on intangible assets. Considering the nature of the intangible assets separately, they are usually considered as riskier than the overall business (which consists of a mixture of tangible and intangible assets). Therefore, based on the corresponding risk profile of each individual asset, a risk premium was assigned towards each of the intangible assets based on the respective overall risk profile.

Avista Valuation Advisory Limited, which is an independent third party to the Group and CQV, is a leading professional business valuation firm which provides a full range of business valuation advisory services for various purposes, including mergers and acquisitions transactions, financial reporting, stock exchange listing rules compliance, tax planning and internal reference. It has a strong track record of business valuation services for companies listed in Hong Kong and the United States with experts containing globally recognised qualifications.

(iv) Deferred tax liabilities are recognised at 19% arising from the future taxable temporary differences in relation to the increase in fair value and recognition of CQV's property, plant and equipment and intangible assets upon completion of Acquisition.

(v) Fair value method is elected by the Group in measuring the non-controlling interests on the acquisition date, which is calculated based on the quoted share price of CQV at KOSDAQ as of 31 December 2022.

(vi) Goodwill is measured as the excess of the sum of the consideration transferred and the amount of non-controlling interests in CQV over the net amount of the identifiable assets acquired and the liabilities assumed as at acquisition date, had the Acquisition been completed on 31 December 2022.

In assessing impairment on goodwill arising from the Acquisition as of 31 December 2022, the Group has estimated the recoverable amount of CQV using the value-in-use calculation of the group of cash-generating units containing goodwill as of 31 December 2022, and have assessed that no impairment of goodwill is considered necessary as of 31 December 2022.

The estimation of the value-in-use calculation has been made based on future cash flows expected to arise from a group of cash-generating units and a suitable discount rate in order to calculate the present value. Due to the nature of the forecast and the subjectivity and uncertainty of certain assumptions and inputs adopted in the model, the value of the recoverable amounts may change subject to variation in these assumptions, for example, the revenue growth rate and discount rate. If actual future cash flows are less than expected, a material impairment loss may arise.

4. The adjustment represents the elimination of intercompany balances arising from sales of goods from the Group to CQV as of 31 December 2022.

5. The adjustment represents the recognition of estimated transaction expenses, such as legal and professional fees, of approximately RMB3,810,000 to be incurred that directly attributable to the Acquisition. The amount is expected to be remained as payable as of the Completion date, and is subject to change upon the actual completion of the Acquisition.

6. The adjustment represents the elimination of unrealised profits on inventories arising from sales of goods from the Group to CQV as of 31 December 2022.

7. Apart from the adjustments above, no other adjustments have been made to the unaudited pro forma financial information of the Enlarged Group to reflect any trading results or other transactions of the Enlarged Group entered into subsequent to 31 December 2022.

B. ACCOUNTANT'S REPORT ON UNAUDITED PRO FORMA FINANCIAL INFORMATION

The following is the text of a report, prepared for the sole purpose of inclusion in this circular, from the independent reporting accountant, RSM Hong Kong, Certified Public Accountants, Hong Kong.

RSM Hong Kong

29th Floor, Lee Garden Two, 28 Yun Ping Road
Causeway Bay, Hong Kong

T +852 2598 5123
F +852 2598 7230

www.rsmhk.com

羅申美會計師事務所

香港銅鑼灣恩平道二十八號
利園二期二十九字樓

電話 +852 2598 5123
傳真 +852 2598 7230

www.rsmhk.com

The Board of Directors
Global New Material International Holdings Limited

Dear Sirs,

We have completed our assurance engagement to report on the compilation of unaudited pro forma financial information of Global New Material International Holdings Limited (the "Company") and its subsidiaries (hereinafter collectively referred to as the "Group") by the directors of the Company (the "Directors") for illustrative purposes only. The pro forma financial information consists of the unaudited pro forma statement of assets and liabilities as at 31 December 2022 and related notes (the "Statement") as set out on pages IV-1 to IV-7 of the investment circular ("the Circular") issued by the Company. The applicable criteria on the basis of which the Directors have compiled the Statement are described in Section A of Appendix IV of the Circular.

The Statement has been compiled by the Directors to illustrate the impact of the proposed acquisition of certain shares in CQV Co. Ltd. ("CQV") and all treasury shares of CQV on the Group's financial position as at 31 December 2022 as if the transaction had been taken place at 31 December 2022. As part of this process, information about the Group's financial position has been extracted by the Directors from the Group's consolidated financial statements as included in the annual report for the year ended 31 December 2022, on which an independent auditor's report has been published.

Directors' Responsibility for the Pro Forma Financial Information

The Directors are responsible for compiling the Statement in accordance with paragraph 29 of Chapter 4 of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the "Listing Rules") and with reference to Accounting Guideline 7 "Preparation of Pro Forma Financial Information for Inclusion in Investment Circulars" ("AG 7") issued by the Hong Kong Institute of Certified Public Accountants (the "HKICPA").

Our Independence and Quality Management

We have complied with the independence and other ethical requirements of the Code of Ethics for Professional Accountants issued by the HKICPA, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

The firm applies Hong Kong Standard on Quality Management 1, which requires the firm to design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Reporting Accountant's Responsibilities

Our responsibility is to express an opinion, as required by paragraph 29(7) of Chapter 4 of the Listing Rules, on the Statement and to report our opinion to you. We do not accept any responsibility for any reports previously given by us on any financial information used in the compilation of the Statement beyond that owed to those to whom those reports were addressed by us at the dates of their issue.

We conducted our engagement in accordance with Hong Kong Standard on Assurance Engagements 3420 "Assurance Engagements to Report on the Compilation of Pro Forma Financial Information Included in a Prospectus" issued by the HKICPA. This standard requires that the reporting accountant plans and performs procedures to obtain reasonable assurance about whether the Directors have compiled the Statement in accordance with paragraph 29 of Chapter 4 of the Listing Rules and with reference to AG 7 issued by the HKICPA.

For purposes of this engagement, we are not responsible for updating or reissuing any reports or opinions on any historical financial information used in compiling the Statement, nor have we, in the course of this engagement, performed an audit or review of the financial information used in compiling the Statement.

The purpose of the Statement included in a Circular is solely to illustrate the impact of a significant event or transaction on unadjusted financial information of the Group as if the event had occurred or the transaction had been undertaken at an earlier date selected for purposes of the illustration. Accordingly, we do not provide any assurance that the actual outcome of the event or transaction at 31 December 2022 would have been as presented.

A reasonable assurance engagement to report on whether the Statement has been properly compiled on the basis of the applicable criteria involves performing procedures to assess whether the applicable criteria used by the Directors in the compilation of the Statement provide a reasonable basis for presenting the significant effects directly attributable to the event or transaction, and to obtain sufficient appropriate evidence about whether:

- The related pro forma adjustments give appropriate effect to those criteria; and
- The Statement reflects the proper application of those adjustments to the unadjusted financial information.

The procedures selected depend on the reporting accountant's judgement, having regard to the reporting accountant's understanding of the nature of the Group, the event or transaction in respect of which the Statement has been compiled, and other relevant engagement circumstances.

The engagement also involves evaluating the overall presentation of the Statement.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Opinion

In our opinion:

(a) the Statement has been properly compiled by the Directors on the basis stated;

(b) such basis is consistent with the accounting policies of the Group; and

(c) the adjustments are appropriate for the purposes of the Statement as disclosed pursuant to paragraph 29(1) of Chapter 4 of the Listing Rules.

Yours faithfully,

RSM Hong Kong
Certified Public Accountants
Hong Kong

13 June 2023

Financial information (including the management discussion and analysis) of CQV for the three years ended 31 December 2022 is disclosed in the annual reports of CQV, which are available at the website of Data Analysis, Retrieval and Transfer System under Financial Supervisory Services in Korea (https://dart.fss.or.kr).

The following management discussion and analysis are prepared based on the information disclosed in CQV's annual business reports and should be read in conjunction with the financial information of CQV for the three years ended 31 December 2022 set forth in Appendix II to this circular.

BUSINESS OVERVIEW

As set forth in the paragraphs under "Information on CQV" in the section headed "Letter from the Board" in this circular, CQV is a company incorporated in the Republic of Korea with limited liability on 20 October 2000 with its common shares listed on KOSDAQ (KOSDAQ: 101240). CQV is principally engaged in the production and sales of pearlescent pigments in the Republic of Korea. Following the Closing, CQV will become a non-wholly owned subsidiary of the Company and a member of the Group. There will be no change in the principal business activities of CQV following the Closing.

LIQUIDITY, FINANCIAL RESOURCES AND CAPITAL STRUCTURE

The following table sets forth a summary of CQV's financial position as of the dates indicated below:

	As of 31 December		
	2020	**2021**	**2022**
	(audited)	*(audited)*	*(audited)*
	KRW' million	*KRW' million*	*KRW' million*
Non-current assets	44,816.2	41,898.7	40,451.4
Current assets	40,237.1	41,739.0	45,924.0
Total assets	85,053.3	83,637.7	86,375.4
Non-current liabilities	7,955.1	6,000.1	8,872.2
Current liabilities	20,016.3	18,026.1	12,651.2
Total liabilities	27,971.4	24,026.2	21,523.4

OVERALL ASSET POSITION

As of 31 December 2020, 2021 and 2022, the total assets amounted to KRW85,053.3 million, KRW83,637.7 million and KRW86,375.4 million, respectively. In 2022, the increase in the total assets was due to the increase in certain items in the current assets, such as trade receivables and cash and bank balances, following the business growth of CQV. In 2021, the decrease was primarily due to the decreases in the tangible assets and the deferred tax assets.

As of 31 December 2020, 2021 and 2022, the net assets of CQV amounted to KRW57,081.9 million, KRW59,611.5 million and KRW64,852.0 million, respectively. The net assets increased by 8.79% as of 31 December 2022, as compared with the same as of 31 December 2021. Such increase was primarily due to the increase in the cash and bank balances by KRW5,021.3 million. The net assets of CQV increased by 4.4% as of 31 December 2021, as compared with the same as of 31 December 2020, as a result of the business growth and the increase in inventories and decrease in the short-term borrowings of CQV.

Overall, the financial position of CQV reflects its business growth during the three years ended 31 December 2022. The directors of CQV believe that CQV has a strong asset base for its business activities.

PRINCIPAL ITEMS OF THE FINANCIAL POSITION

Bank balances and cash

The amount of the total bank balances and cash as of 31 December 2020, 2021 and 2022 was KRW6,653.0 million, KRW5,808.2 million and KRW10,829.5 million, respectively. The increase in the bank balances and cash as of 31 December 2022, as compared with the same as of 31 December 2021, was primarily due to the increased efforts in the collection of trade receivables following the sales increase during the year. The decrease in the bank balances and cash as of 31 December 2021, as compared with the same as of 31 December 2020, was primarily due to repayment of bank borrowings in 2021 as an effort to achieve reduced bank borrowings.

Inventories

As of 31 December 2020, 2021 and 2022, the inventories amounted to KRW24,447.9 million, KRW27,078.1 million and KRW24,803.9 million, respectively. The decrease in the inventories as of 31 December 2022, as compared with the same as of 31 December 2021, was primarily due to (i) the decrease in inventories as in products, raw materials and auxiliary materials as a result of an increase in sales in 2022; and (ii) effective management of inventories by CQV. The increase in the inventories as of 31 December 2021, as compared with the same as of 31 December 2020, was primarily due to the increase in sales which had impact on the level of inventories of finished products, work-in-process and auxiliary materials.

Trade receivables

The aging analysis of trade receivables based on the invoice date (or date of revenue recognition, if earlier), and net of allowance, is as follows:

	As of 31 December		
	2020	**2021**	**2022**
	KRW' million	*KRW' million*	*KRW' million*
0 to 90 days	6,958.5	7,932.5	9,417.2
91 to 180 days	1,262.3	455.5	305.4
181 to 365 days	189.0	—	6.0
	8,409.8	8,388.0	9,728.6

As of 31 December 2020, 2021 and 2022, the trade receivables amounted to KRW8,409.8 million, KRW8,388.0 million and KRW9,728.6 million, respectively. The increase in trade receivables as of 31 December 2022, as compared with the same as of 31 December 2021, was primarily due to the increase in sales during the year. The balance of the trade receivables as of 31 December 2021, as compared with the same as of 31 December 2020, are at similar levels.

Property, plant and equipment

As of 31 December 2020, 2021 and 2022, the carrying amount of the property and equipment was KRW37,734.3 million, KRW35,372.7 million and KRW33,306.7 million, respectively. The decrease in the balance of the property, plant and equipment as of 31 December 2022, as compared with the same as of 31 December 2021 and 31 December 2020 was primarily due to the yearly depreciation and there was no major additions after the completion of CQV Plant 3 in 2020.

Intangible assets

As of 31 December 2020, 2021 and 2022, the intangible assets amounted to KRW3,933.9 million, KRW3,978.2 million and KRW3,851.9 million, respectively. Intangible assets represent software, industrial property rights and development cost. The decrease in intangible assets as of 31 December 2022, as compared with the same as of 31 December 2021, was primarily due to the decrease in development costs. The increase in intangible assets as of 31 December 2021, as compared with the same as of 31 December 2020, was primarily due to additional amount in industrial property rights and development cost offset by the amortization for the year.

Trade payables

The aging analysis of trade payables based on the date of receipt of goods, is as follows:

	As of 31 December		
	2020	**2021**	**2022**
	KRW' million	*KRW' million*	*KRW' million*
0 to 90 days	353.1	908.0	661.5

Bank and other borrowings

As of 31 December 2020, 2021 and 2022, the bank and other borrowings of CQV amounted to KRW23,000.0 million, KRW19,400.0 million and KRW17,200.0 million, respectively. All bank borrowings of CQV were dominated in KRW and interest-bearing. CQV has obtained the bank borrowings from banks in the Republic of Korea with security and collaterals given by CQV Plant 3 and personal guarantee by CQV's CEO. As of 31 December 2020 and 2021 and 2022, the current portion of the bank and other borrowings of CQV amounted to KRW17,600.0 million, KRW15,200.0 million and KRW9,200.0 million, respectively, the respective remaining balances of KRW5,400.0 million, KRW4,200.0 million, KRW8,000 million represent the long-term portion of the borrowings of the Group.

Bank	Account	Interest rate	Type	Amount	Expiry date	Security
		(%)		(KRW' million)		
Citibank	Short-term deposit	4.49	Trade Finance	2,000	21 June 2023	—
Kookmin Bank	Short-term deposit	4.40	Trade Finance	1,000	24 April 2024	—
Woori Bank	Short-term deposit	4.44	Trade Finance	2,000	12 May 2023 *(Note 1)*	—
Shinhan Bank	Short-term deposit	4.07	Trade Finance	3,000	27 June 2023	—
Shinhan Bank	Liquid Growth Train Deposit	5.26	Facility Fund	1,200	15 May 2026 *(Note 2)*	—
Shinhan Bank	Long-term loan deposit	5.26	Facility Fund	3,000	15 May 2026	Land, buildings and machineries, etc. in the aggregate amount of KRW10.8 million have been pledged as collateral
Shinhan Bank	Long-term loan deposit	4.56	General Fund	5,000	15 April 2025	—
Total				17,200		

Note 1: The short-term deposit of KRW2,000 million due to Woori Bank had been fully repaid as of the Latest Practicable Date.

Note 2: The liquid growth train deposit of KRW1,200 million must be repaid within one year (i.e. in 2023) which classified as current liabilities in accordance with Korean corporate accounting standards.

Gearing ratio

As of 31 December 2020, 2021 and 2022, the gearing ratio (calculated as a percentage of net borrowings to total equity) was 29%, 23% and 10%, respectively. The continuous decreases in the gearing ratio throughout the three years ended 31 December 2022 was primarily due to reduction in the bank borrowings and the increase in the cash and bank balances as a result of economic growth.

Current ratio

As of 31 December 2020, 2021 and 2022, the current ratio (calculated as a percentage of the current assets to current liabilities) was 201.02%, 231.55% and 363.00%, respectively. The increase in current ratio as of 31 December 2022, as compared with the same as of 31 December 2021, was primarily due to the repayment of short-term borrowings and the increase in cash and increase in accounts receivables. The increase in current ratio as of 31 December 2021, as compared with the same as of 31 December 2020, was primarily due to the increase in inventories.

Debt ratio

CQV manages its capital to ensure that it will be able to continue while maximising the return to shareholders through the optimization of the debt and equity balance. CQV uses the debt ratio as a capital management indicator. The debt ratio is calculated by dividing total liabilities by total shareholders' equity as follows:

	2022	**2021**	**2020**
	(KRW' 000)	*(KRW' 000)*	*(KRW' 000)*
Total liabilities (A)	21,523,372	24,026,207	27,971,409
Total shareholders' equity (B)	64,852,038	59,611,534	57,081,928
Cash and cash equivalents (C)	10,829,530	5,808,177	6,652,980
Borrowings (D)	17,200,000	19,400,000	23,000,000
Ratio of liabilities to the equity (A/B)	33%	40%	49%
Ratio of net borrowings to the equity ((D-C)/B)	10%	23%	29%

Funding and treasury policies

CQV has established funding and treasury policies with the following objectives: (1) financing at a low cost of capital; (2) securing stable liquidity; and (3) maximising corporate value by investing in highly profitable businesses. CQV manages its capital to ensure that it will be able to continue while maximising the return to shareholders through the optimisation of the debt and equity balance. CQV uses the debt ratio as a capital management indicator.

PRINCIPAL ITEMS IN THE STATEMENT OF COMPREHENSIVE INCOME

Revenue

During the three years ended 31 December 2022, the revenue amounted to KRW36,971.7 million, KRW40,002.3 million and KRW46,284.8 million, respectively. The table below sets for an analysis of the revenue during the years indicated:

	Year ended 31 December		
	2020	**2021**	**2022**
	KRW' million	*KRW' million*	*KRW' million*
Sales of merchandise	3,303.4	4,022.9	3,706.9
Sales of finished goods	33,463.8	35,654.1	42,196.8
Service revenue, etc.	204.5	325.3	381.1
Total	36,971.7	40,002.3	46,284.8

In 2022, the revenue increased by KRW6,282.5 million (15.71%), as compared with the same during the year ended 31 December 2021. Such increase was primarily due to the increase in the sales of alumina products in the automotive and cosmetic sector and due to the recovery from COVID-19. In 2021, the revenue increased by KRW3,030.6 million (8.20%), as compared with the same during the year ended 31 December 2020. The increase was primarily due to the increase of sales of finished goods of KRW2,190.3 million.

Details of the sales by region for the years indicated:

	Year ended 31 December		
	2020	**2021**	**2022**
	KRW' million	*KRW' million*	*KRW' million*
Korea	15,684.6	16,420.3	15,519.3
China	4,373.3	4,754.5	6,037.9
USA	2,807.5	2,994.1	5,025.9
Taiwan	3,157.5	2,796.6	3,677.6
Belgium	1,915.8	2,108.8	2,928.3
Japan	2,108.9	2,095.2	2,295.5
Italy	674.4	1,477.1	1,508.8
Thailand	1,482.1	1,426.6	1,631.8
Germany	1,035.9	1,087.7	1,719.0
Other	3,731.7	4,841.4	5,940.7
Total	36,971.7	40,002.3	46,284.8

Cost of sales

During the three years ended 31 December 2022, the cost of sales amounted to KRW22,491.1 million, KRW25,403.0 million and KRW28,753.0 million, respectively. In 2022, the cost of sales increased by 13.18%, as compared with the same during the year ended 31 December 2021. The increase was primarily due to increase raw materials cost and sales volume. In 2021, the cost of sales increased by 12.95%, as compared with the same during the year ended 31 December 2020. The increase was primarily due to increase in costs of raw materials and sale volume.

Gross profit and gross profit margin

During the three years ended 31 December 2022, the gross profit amounted to KRW14,480.6 million, KRW14,599.4 million and KRW17,531.7million, respectively.

During the three years ended 31 December 2022, the gross profit margin was 39.17% , 36.50% and 37.88%, respectively. The directors of CQV are of the view that the gross profit margins during the three years ended 31 December 2022 were maintained even though the sales revenue increased significantly.

Selling and administrative expenses

During the three years ended 31 December 2022, the amount of selling and administrative expenses, which included payroll, research and development, marketing and general and administrative expenses, amounted to KRW10,342.5 million, KRW10,509.8 million and KRW11,023.2 million, respectively. In 2022, the amount of selling and administrative expenses increased by 4.88%, as compared to the same for the year ended 31 December 2021, was primarily due to increase in payroll and research and development increased business trips due to the lifting of COVID-19 and the increases in the travel and advertising expenses due to promotional activities. In 2021, the amount of selling and administrative expenses increased by 1.62%, as compared to the same for the year ended 31 December 2020 mainly due to the increase in payroll.

Non-operating income and non-operating expenses

During the three years ended 31 December 2022, the non-operating income amounted to KRW553.7 million, KRW516.9 million and KRW1,416.8 million, respectively. The increase in non-operating income for the year ended 31 December 2022, as compared with the same as of 31 December 2021, was primarily due to increase in gain on foreign currency translation in receivable in foreign currency, foreign currencies obligations and the reduction for the payment of government subsidised technology fees. The decrease in non-operating income for the year ended 31 December 2021, as compared with the same as of 31 December 2020, was primarily due to the decrease in miscellaneous income.

During the three years ended 31 December 2022, the non-operating expenses amounted to KRW710.9 million, KRW174.8 million and KRW918.7 million, respectively. The increase in non-operating expenses for the year ended 31 December 2022, as compared with the same as of 31

December 2021, was primarily due the loss on foreign currency translation from foreign currencies receivable and foreign currencies obligations and loss on disposal of leasing vehicles. The decrease in non-operating expenses for the year ended 31 December 2021, as compared with the same as of 31 December 2020, was primarily due to loss of foreign currency translation.

Financial income

During the three years ended 31 December 2022, the financial income amounted to KRW107.8 million, KRW240.1 million and KRW339.5 million, respectively. In 2022, the financial income increased by 41.40%, as compared with the same in the year ended 31 December 2021. It was primarily because the increase in the gain on foreign currency transaction. In 2021, the financial income increased by 122.73% as compared to the year ended 31 December 2020. The increase in financial income in 2021 compared to 2020 was primarily due to the increase in foreign exchange gain. In 2021, about 70% exports from CQV were made in US dollars. The foreign exchange margin was generated by the difference between the won exchange rate at the time of export and the won exchange rate at the time of collection of accounts receivable.

Financial expenses

During the three years ended 31 December 2022, the financial expenses was KRW825.8 million, KRW389.4 million and KRW914.3 million, respectively. In 2022, the financial expenses increased by 134.78%, as compared with the year ended 31 December 2021. The increase was primarily due to the increase in the interest expenses on borrowings as a result the continuous in the bank interest rates and the increase in the loss on foreign currency transaction. In 2021, the financial expenses decreased by 52.84%, as compared with the year ended 31 December 2020. This was primarily due to the decrease in loss on foreign currency transaction and foreign currency conversion losses due to the valuation of the present value of financial assets.

Income tax expense

During the three years ended 31 December 2022, CQV's income tax expenses /(revenue) was KRW(383.4) million, KRW765.7 million and KRW1,046.0 million, respectively. During the three years ended 31 December 2022, the effective income tax rate was (11.74)%, 17.89% and 16.27%, respectively.

	Year ended 31 December		
	2020	**2021**	**2022**
	KRW' million	*KRW' million*	*KRW' million*
Income tax current payable	211.6	234.3	1,151.7
Deferred income tax expenses:			
Changes in temporary differences	(352.0)	506.5	142.1
Income tax reflected directly to the equity	(243.0)	24.9	(247.8)
Total	(383.4)	765.7	1,046.0

In 2022, the income tax expenses increased by 36.61%, as compared to the year ended 31 December 2021. This was primarily due to the increase in pre-tax income in 2022. CQV had a tax revenue of KRW383.4 million in 2020 as a result of the investment and research expenses in the CQV Plant 3.

Net income

CQV recorded pre-tax income of KRW3,264.7 million, KRW4,279.8 million and KRW6,429.8 million for the three years ended 31 December 2022. CQV recorded net income of KRW3,648.1 million, KRW3,514.1 million and KRW5,383.8 million for the three years ended 31 December 2022. The increases throughout the three years ended 31 December 2022 were due to the factors stated above.

SIGNIFICANT INVESTMENTS HELD AND MATERIAL INVESTMENTS

As of 31 December 2020, 2021 and 2022, CQV did not have any significant investments held and future plans for material investments.

FOREIGN EXCHANGE EXPOSURE

CQV is involved in sales and purchase transactions denominated in foreign currencies. As a result, CQV is exposed to foreign exchange risks, particularly for US dollar and Japanese yen. CQV currently does not have a foreign currency hedging policy in respect of foreign currency transactions, assets and liabilities. CQV did not have any foreign currency hedging policy in respect of foreign currency transactions, assets and liabilities and no financial instrument was used for hedging purpose. CQV monitors its foreign currency exposure closely and will consider hedging significant foreign currency exposure should the need arises.

SECURITY OVER ASSETS

As of 31 December 2020, 2021 and 2022, the carrying amount of CQV's assets pledged as security for bank and other borrowings of CQV amounted to KRW18,523.4 million, KRW17,313.1 million and KRW15,899.6 million, respectively.

MATERIAL CAPITAL COMMITMENTS AND INVESTMENT

As of 31 December 2020, 2021 and 2022, CQV did not have any material capital commitments.

CONTINGENT LIABILITIES

Information on a pending litigation against CQV as of 31 December 2022 is as follows (in thousands of KRW):

Description	Plaintiff	Defendant	Litigation value	Latest development
Lawsuit for injunction of patent infringement, etc. (2022 Ga-hap 560632)	Merck Patent GmbH	CQV	KRW200,000	Process of 1st trial

CQV anticipates that the impact of the pending litigation on its financial position would not be material. It is nonetheless impossible to predict the result of the lawsuit and the amount and the timing of outflow of resources are uncertain.

MATERIAL ACQUISITION OR DISPOSAL OF ASSETS AND BUSINESSES

As of 31 December 2020, 2021 and 2022, CQV was not involved in any material transaction in relation to acquisition or disposal of assets and businesses.

EMPLOYEES AND REMUNERATION POLICIES

As of 31 December 2020, 2021 and 2022, CQV had a total of 173, 173 and 172 employees, respectively. The total remuneration paid to CQV's employees for the three years ended 31 December 2020, 2021 and 2022 was KRW14,593.3 million, KRW15,089.0 million and KRW15,241.5 million, respectively.

The employees were remunerated based on their working performance and experience, with consideration to the prevailing market conditions. On-going training programme is also offered to all the employees.

CQV entered into stock option agreements with its executives, further information of those options is as follows:

(1) Type of stocks to be issued from the exercise of the stock options: registered common stock

(2) Method of grant: issuance of new shares of common stock

(3) Vesting requirements: employment for at least 3 years after grant date

(4) Exercisable date: within 4 years after 3 years from grant date

Changes in the number of stock options and weighted average exercise price for the three years ended 31 December 2022 are as follows (in shares and Korean won):

	Number of stock options			Weighted average exercise price		
	2022	**2021**	**2020**	**2022**	**2021**	**2020**
Beginning balance	200,000	200,000	200,000	₩ 7,575	₩ 7,575	₩ 7,575
Grant	—	—	—	—	—	—
Ending balance	200,000	200,000	200,000	₩ 7,575	₩ 7,575	₩ 7,575

The weighted average remaining maturity of valid stock options is 0.25 year, and their exercise price is ₩7,575 as of 31 December 2022.

I. RESPONSIBILITY STATEMENT

This circular, for which the Directors collectively and individually accept full responsibility, includes particulars given in compliance with the Listing Rules for the purpose of giving information with regard to the Company, CQV Sale Shares Agreements and CQV Treasury Shares Agreement. The Directors, having made all reasonable inquiries, confirm to the best of their knowledge and belief that the information contained in this circular is accurate and complete in all material respects and not misleading or deceptive and that there are no other matters the omission of which would make any statement herein or this circular misleading.

II. SHARE CAPITAL

The authorised and the issued share capital of the Company (a) as of the Latest Practicable Date and (b) immediately following the allotment and issue of the Consideration Shares (assuming that there is no other change to the share capital of the Company between the Latest Practicable Date and the Closing Date) will be as follows:

(a) As of the Latest Practicable Date

		HK$
Authorised:		
80,000,000,000	Shares of HK$0.10 each	8,000,000,000
Issued and fully paid or credited as fully paid:		
1,191,763,586	Shares of HK$0.10 each	119,176,358.6

(b) Immediately upon the allotment and issue of the Consideration Shares

		HK$
Authorised:		
80,000,000,000	Shares of HK$0.10 each	8,000,000,000
Issued and fully paid or credited as fully paid:		
1,191,763,586	Shares of HK$0.10 each	119,176,358.6
15,475,085	Shares to be allotted and issued to CQV Vendor A pursuant to the CQV Sale Shares A Agreement	1,547,508.5
13,481,181	Shares to be allotted and issued to CQV Vendor B pursuant to the CQV Sale Shares B Agreement	1,348,118.1
18,150,280	Shares to be allotted and issued to CQV pursuant to the CQV Treasury Shares Agreement	1,815,028
1,238,870,132	**Total**	123,887,013.2

The Consideration Shares, credited as fully paid and free from all encumbrances if and when issued, shall rank *pari passu* in all respects among themselves and with the Shares in issue on the date of such allotment and issue. The allotment and issue of the Consideration Shares will not result in a change of control of the Company (assuming that there is no other change to the share capital of the Company between the Latest Practicable Date and the Closing Date).

III. DISCLOSURE OF INTERESTS

(a) Director's and chief executive's interests and short positions in the Shares, underlying Shares or debentures of the Company

As of the Latest Practicable Date, the interests and short positions of the Directors and chief executives of the Company in the Shares, underlying Shares or debentures of the Company and its associated corporations (within the meaning of Part XV of the SFO) which were required to be (a) notified to the Company and the Stock Exchange pursuant to Divisions 7 and 8 of Part XV of the SFO (including interests and short positions in which they were taken or deemed to have taken under such provisions of the SFO); (b) entered in the register kept by the Company pursuant to section 352 of the SFO; or (c) notified to the Company and the Stock Exchange pursuant to the Model Code for Securities Transactions by Directors of Listed Issuers (the "**Model Code**") as set forth in Appendix 10 to the Listing Rules, were as follows:

Long position in the Shares

Name of Director	**Nature of interest and capacity**	**Number of the Shares or underlying Shares held**	**Approximate percentage of the total number of Shares in issue** *(Note 8)*
Mr. SU Ertian ("**Mr. SU**")	Interest in controlled corporation (1)	301,155,800	25.27%
	Interest in controlled corporation (2)	45,337,828	3.80%
	Interest in controlled corporation (3)	27,234,172	2.29%
	Interest in controlled corporation (4)	1,104,000	0.10%
	Interest in controlled corporation (5)	24,481,200	2.05%
	Interest in controlled corporation (6)	20,292,948	1.70%
Mr. JIN Zengqin ("**Mr. JIN**")	Interest in controlled corporation (5)	24,481,200	2.05%
	Interest in controlled corporation (6)	20,292,948	1.70%
Mr. BAI Zhihuan	Beneficial owner	694,000	0.06%
Mr. HU Yongxiang ("**Mr. HU**")	Interest in controlled corporation (7)	19,285,200	1.62%

Notes:

(1) The Shares are owned by Hongzun Int Investment Group Ltd. ("**Hongzun International**"), which is wholly owned by Guangxi Hongzun Investment Group Co., Ltd. ("**Hongzun Investment**"). Hongzun Investment is owned as to 99.0% and 1.0% by Mr. SU and Ms. WANG Huan, the spouse of Mr. SU, respectively. Therefore, Mr. SU is deemed to be interested in all the Shares held by Hongzun International for the purpose of the SFO. Mr. SU is the director of Hongzun Investment and Hongzun International, respectively.

(2) Ertian International Investment Limited ("**Ertian International**") is wholly-owned by Mr. SU. Therefore, Mr. SU is deemed to be interested in all the Shares held by Ertian International for the purpose of the SFO. Mr. SU is the sole director of Ertian International.

(3) Seven Color Pearl Investment Limited ("**Seven Color Pearl Investment**") is wholly-owned by Mr. SU. Therefore, Mr. SU is deemed to be interested in all the Shares held by Seven Color Pearl Investment for the purpose of the SFO. Mr. SU is the sole director of Seven Color Pearl Investment.

(4) The general partner of Liuzhou Lianrun Enterprise Management Partnership Enterprise (Limited Partnership) ("**Liuzhou Lianrun LP**") is Mr. SU who owns 11,000 shares of Liuzhou Lianrun LP. The original 22 individual equity holders of Guangxi Chesir Pearl Material Co., Ltd. ("**Chesir Pearl**"), who are limited partners and independent third parties, own 173,000 shares of Liuzhou Lianrun LP. Therefore, Mr. SU is deemed to be interested in all the Shares held by Liuzhou Lianrun LP for the purpose of the SFO. For the avoidance of doubt, there is no individual limited partner contributed more than one-third of the capital contribution of Liuzhou Lianrun LP.

(5) The general partner of Liuzhou Qise Enterprise Management Partnership Enterprise (Limited Partnership) ("**Liuzhou Qise LP**") is Mr. SU who owns 10,000 shares of Liuzhou Qise LP. Mr. JIN, being one of the limited partners, owns 1,565,200 shares of Liuzhou Qise LP and the original 13 individual equity holders of Chesir Pearl, who are limited partners and independent third parties, own 2,505,000 shares of Liuzhou Qise LP. Therefore, Mr. SU and Mr. JIN are deemed to be interested in all the Shares held by Liuzhou Qise LP for the purpose of the SFO. For the avoidance of doubt, there is no individual limited partner (except Mr. JIN) contributed more than one-third of the capital contribution of Liuzhou Colorful LP.

(6) The general partner of Liuzhou Colorful Enterprise Management Partnership Enterprise (Limited Partnership) ("**Liuzhou Colorful LP**") is Mr. SU who owns 10,000 shares of Liuzhou Colorful LP. Mr. JIN, being one of the limited partners, owns 1,500,000 shares of Liuzhou Colorful LP and the original 12 individual equity holders of Chesir Pearl, who are limited partners and independent third parties, own 1,872,158 shares of Liuzhou Colorful LP. Therefore, Mr. SU and Mr. JIN are deemed to be interested in all the Shares held by of Liuzhou Colorful LP for the purpose of the SFO. For the avoidance of doubt, there is no individual limited partner (except Mr. JIN) contributed more than one-third of the capital contribution of Liuzhou Colorful LP.

(7) Mr. HU is the sole director of China Banyan Capital INT Holdings Limited who owns 50 shares of China Banyan Capital INT Holdings Limited. The original 12 individual equity holders of Chesir Pearl, who are independent third parties, hold 49,950 shares of China Banyan Capital INT Holdings Limited. Therefore, Mr. HU is deemed to be interested in the Shares held by China Banyan Capital INT Holdings Limited.

(8) The total number of issued Shares was 1,191,763,586 as of the Latest Practicable Date.

Save as disclosed above, as of the Latest Practicable Date, none of the Directors and chief executive of the Company had or was deemed to have any interests or short positions in the Shares, underlying Shares or debentures of the Company and its associated corporations (within the meaning of Part XV of the SFO) which was required to be (a) notified to the Company and the Stock Exchange pursuant to Divisions 7 and 8 of Part XV of the SFO (including interests and short positions which they were taken or deemed to have taken under such provisions of the SFO); (b) entered in the register kept by the Company pursuant to section 352 of the SFO; or (c) notified to the Company and the Stock Exchange pursuant to the Model Code.

(b) Directorship or employment in a company which has an interest or short position which is discloseable under divisions 2 and 3 of Part XV of the SFO

So far as is known to the Directors and the chief executives of the Company, as of the Latest Practicable Date, the following Director(s) is a director or employee of the following entities which had, or was deemed to have, interests or short positions in the Shares or underlying Shares which would fall to be disclosed to the Company under the provisions of Divisions 2 and 3 of Part XV of the SFO:

Name of Director	Name of companies which had such discloseable interest or short position	Position within such company
Mr. SU	Hongzun International	Director
Mr. SU	Hongzun Investment	Director
Mr. SU	Ertian International	Director
Mr. SU	Seven Color Pearl Investment	Director
Mr. HU	China Banyan Capital INT Holdings Limited	Director

Except as disclosed above, as of the Latest Practicable Date, none of the Directors or proposed Directors (if any) is a director or employee of any person or corporation who had interests or short positions in the Shares or underlying Shares which would fall to be disclosed to the Company under the provision of Divisions 2 and 3 of Part XV of the SFO.

IV. DIRECTORS' INTERESTS

(a) Interest in service contracts

As of the Latest Practicable Date, none of the Directors had entered, or was proposing to enter, into any service contract with any member of the Group which is not determinable by such member of the Group within one year without payment of compensation (other than statutory compensation).

(b) Interest in competing business

As of the Latest Practicable Date, none of the Directors or their respective close associate is or was interested in any business apart from the Group's business, that competes or is likely to compete, either directly or indirectly, with the Group's business.

(c) Interest in assets

As of the Latest Practicable Date, none of the Directors had any direct or indirect interests in any assets which had been, since 31 December 2022, being the date to which the latest published audited consolidated financial statements of the Group were made up, acquired or disposed of by or leased to any member of the Group, or were proposed to be acquired or disposed of by or leased to any member of the Group.

(d) Interests in contract or arrangement

As of the Latest Practicable Date, there is no contract or arrangement subsisting in which any of the Directors is materially interested and which is significant in relation to the business of the Group.

V. LITIGATION

As of the Latest Practicable Date, save as disclosed in the paragraphs under "Indebtedness statement of the Enlarged Group" in Appendix I to this circular, no member of the Enlarged Group was or is engaged in any litigation or arbitration of material importance and no litigation or claim of material importance was or is known to the Directors to be pending or threatened by or against any members of the Enlarged Group.

VI. MATERIAL CONTRACTS

As of the Latest Practicable Date, save as disclosed in paragraphs under "B. Further information about the business of our group — 1. Summary of material contracts" in Appendix V to the prospectus of the Company dated 30 June 2021, the following contracts (not being contracts in the ordinary course of business) have been entered into by members of the Enlarged Group within the two years immediately preceding the date of this circular and are or may be material:

(a) the subscription agreement dated 28 December 2022 entered into between the Company and Hong Kong Boyue International Investment Fund Co., Limited (香港博約國際按貸基金有限公司) ("**Boyue**") in relation to the Convertible Bond Issue;

(b) the fund monitoring agreement entered into among the Company, Boyue and Essence International Financial Holdings Limited (安信國際金融控股有限公司) (the "**Fund Monitoring Agent**"), on 28 December 2022, pursuant to which the Fund Monitoring Agent shall monitor the use of the proceeds from the Convertible Bond Issue;

(c) the CQV Sale Shares A Agreement;

(d) the CQV Sale Shares B Agreement;

(e) the CQV Treasury Shares Agreement; and

(f) the supplemental deed dated 31 March 2023 on the extension of time for completion of the Tranche B Convertible Bond (as defined therein) by Boyue.

VII. EXPERT AND CONSENT

The following is the qualification of the expert or professional adviser who has given opinion or advice contained in this circular:

Name	Qualification
RSM HK	Certified Public Accountant and Registered Public Interest Entity Auditor

RSM HK has given and has not withdrawn its written consent to the issue of this circular with the inclusion of its letter and/or report and references to its name in the form and context in which they respectively appear.

As of the Latest Practicable Date, RSM HK (a) did not have any shareholding in any member of the Enlarged Group or any right (whether legally enforceable or not) to subscribe for or to nominate persons to subscribe for securities in any member of the Enlarged Group and (b) was not interested, directly or indirectly, in any assets which have been or are proposed to be acquired or disposed of by or leased to any member of the Enlarged Group since 31 December 2022, being the date to which the latest published audited consolidated financial statements of the Company were made up.

VIII. DOCUMENTS ON DISPLAY

Copies of the below documents will be available on the websites of the Hong Kong Stock Exchange (http://www.hkexnews.hk) and the Company (www.chesir.net) from the date of this circular up to 14 days thereafter:

(a) the prospectus of the Company dated 30 June 2021;

(b) the annual reports of the Company for each of the two years ended 31 December 2022;

(c) the financial reports of CQV, the text of which is set forth in Appendix II to this circular;

(d) the reconciliation and the report on the unaudited pro forma financial information of the Enlarged Group as set forth in Appendix III and IV to this circular, respectively;

(e) the letter of consent from RSM HK referred to in the paragraphs under “VII. Expert and consent” in this appendix;

(f) copies of the material contracts referred to in the paragraphs under ”VI. Material contracts” in this appendix; and

(g) this circular.

IX. GENERAL

(a) The registered office of the Company is situated at Cricket Square, Hutchins Drive, PO Box 2681, Grand Cayman KY1-1111, Cayman Islands.

(b) The principal place of business of the Company in Hong Kong is situated at Unit A, 10th Floor, Neich Tower, 128 Gloucester Road, Wanchai, Hong Kong.

(c) The branch share registrar and transfer office of the Company in Hong Kong is Tricor Investor Services Limited, 17/F, Far East Finance Centre, 16 Harcourt Road, Hong Kong.

(d) The joint company secretaries of the Company are Mr. ZHOU Fangchao and Ms. CHEUNG Ka Lun Karen. Ms. CHEUNG Ka Lun Karen is a chartered secretary, a chartered governance professional and an associate of The Hong Kong Chartered Governance Institute and The Chartered Governance Institute in the United Kingdom.

(e) This circular is both English and Chinese. If there is any inconsistency, the English text shall prevail over the Chinese text for the purpose of interpretation.

GLOBAL NEW MATERIAL INTERNATIONAL HOLDINGS LIMITED
环球新材国际控股有限公司

(Incorporated in the Cayman Islands with limited liability)

(Stock code: 06616)

NOTICE OF EXTRAORDINARY GENERAL MEETING

NOTICE IS HEREBY GIVEN that an extraordinary general meeting (the "**EGM**") of Global New Material International Holdings Limited (the "**Company**") will be held at 10:30 a.m. on Friday, 30 June 2023 at 6th Floor, Guangxi Chesir Pearl Material Co., Ltd., Pearlescent Industrial Park, No. 380, Feilu Road, Luzhai Town, Luzhai County, Liuzhou City, Guangxi, China, for the purpose of considering and, if thought fit, passing (with or without amendments) the following resolutions as ordinary resolutions of the Company. Unless the context requires otherwise, the capitalised terms used in this notice of the EGM and the following ordinary resolution shall have the same meanings as those defined in the circular of the Company dated 13 June 2023 (the "**Circular**"):

ORDINARY RESOLUTION

"**THAT:**

(a) the CQV Sale Shares A Agreement, a copy of which is marked "A" and initialed by the chairman of the EGM for identification purpose and tabled at the EGM, and the transactions contemplated thereunder, be and are hereby approved, confirmed and ratified;

(b) the CQV Sale Shares B Agreement, a copy of which is marked "B" and initialed by the chairman of the EGM for identification purpose and tabled at the EGM, and the transactions contemplated thereunder, be and are hereby approved, confirmed and ratified;

(c) the CQV Treasury Shares Agreement, a copy of which is marked "C" and initialed by the chairman of the EGM for identification purpose and tabled at the EGM, and the transactions contemplated thereunder, be and are hereby approved, confirmed and ratified; and

(d) any one Director be and is hereby authorised to do all such acts and things (including, but without limitation, issuing the Consideration Shares by the Company to CQV Vendor A, CQV Vendor B and CQV under the CQV Sale Shares A Agreement, CQV Sale Shares B Agreement and the CQV Treasury Shares Agreement, respectively, pursuant to the Proposed General Mandate, signing, executing (under hand or under seal), perfecting and delivering all agreements, documents amendments, variations, waivers or other instruments; and attending all such other acts or matters in the capacity as a Director) which are in his or her opinion, necessary, appropriate, desirable or expedient to implement or give effect to the transactions contemplated under the CQV Sale Shares A Agreement, CQV Sale Shares B Agreement and CQV Treasury Shares Agreement and all other matters incidental thereto or in connection therewith."

By order of the Board
Global New Material International Holdings Limited
SU Ertian
Chairman and Chief Executive Officer

Hong Kong, 13 June 2023

Notes:

1. The resolutions at the EGM will be taken by poll (except where the chairman decides to allow a resolution relating to a procedural or administrative matter to be voted on by a show of hands) pursuant to the articles of association of the Company and the Listing Rules. The results of the poll will be published on the websites of the Stock Exchange and the Company in accordance with the Listing Rules.

2. Any Shareholder entitled to attend and vote at the EGM is entitled to appoint any number of proxies (who must be individuals) to attend and vote instead of him or her. A proxy need not be a Shareholder. If more than one proxy is appointed, the number of Shares in respect of which each such proxy so appointed must be specified in the relevant form of proxy.

3. Where there are joint Shareholders, any one of such joint Shareholders may vote at the EGM, either personally or by proxy, in respect of such share as if he were solely entitled thereto; but if more than one of such joint Shareholders be present at the EGM personally or by proxy, that one of the said joint Shareholders so present being the most or, as the case may be, the more senior shall alone be entitled to vote in respect of the relevant joint holding. For this purpose, seniority shall be determined by reference to the order in which the names of the joint shareholders stand on the register of members of the Company in respect of the relevant joint shareholding.

4. In order to be valid, the form of proxy together with a power of attorney or other authority, under which it is signed or a notarially certified copy of that power of attorney or authority, must be deposited at the Company's branch share registrar in Hong Kong, Tricor Investor Services Limited, at 17/F, Far East Finance Centre, 16 Harcourt Road, Hong Kong not less than 48 hours before the time appointed for the EGM, i.e. before 10:30 a.m. on Wednesday, 28 June 2023, or any adjournment thereof (as the case may be). Completion and return of the form of proxy shall not preclude a Shareholder from attending and voting in person at the EGM and in such event, the instrument appointing a proxy shall be deemed to be revoked.

5. In determining the entitlement to attend and vote at the EGM, the register of members of the Company will be closed from Tuesday, 27 June 2023 to Friday, 30 June 2023, both days inclusive, during which period no transfer of Shares will be registered. In order to be eligible to attend and vote at the EGM, all Share transfer documents accompanied by the relevant Share certificates must be lodged with the Company's branch share registrar in Hong Kong, Tricor Investor Services Limited, at 17/F, Far East Finance Centre, 16 Harcourt Road, Hong Kong for registration not later than 4:30 p.m. on Monday, 26 June 2023.

6. As of the date of this notice, the executive Directors are Mr. SU Ertian (Chairman and Chief Executive Officer), Mr. JIN Zengqin, Mr. ZHOU Fangchao, Mr. BAI Zhihuan (Vice President) and Ms. ZENG Zhu, the non-executive Director is Mr. HU Yongxiang and the independent non-executive Directors are Mr. HUI Chi Fung, Professor HAN Gaorong and Mr. LEUNG Kwai Wah Alex.