中國石化上海石油化工股份有限公司

SINOPEC SHANGHAI PETROCHEMICAL COMPANY LIMITED

(A joint stock limited company incorporated in the People's Republic of China)

Stock code: 00338 Hong Kong 600688 Shanghai

2022 ANNUAL REPORT

Contents

IMPORTANT MESSAGE

I. The Board of Directors and the Supervisory Committee of Sinopec Shanghai Petrochemical Company Limited (the "Company" or "SPC") as well as its Directors, Supervisors and senior management warrant the truthfulness, accuracy and completeness of the information contained in the 2022 annual report, and warrant that there are no false representations or misleading statements contained in, or material omissions from, the 2022 annual report of the Company, and accept legal responsibility.

II. Director(s) who has/have not attended in person the Board meeting for approving the 2022 Annual Report is/are:

Name of Director	Position	Reasons for Absence	Name of Proxy
Peng Kun	Non-executive Director	Business Engagement	Wan Tao

III. The financial statements for the year ended 31 December 2022 (the "Reporting Period"), prepared under the People's Republic of China ("PRC" or "China")'s Accounting Standards ("CAS") as well as the International Financial Reporting Standards ("IFRS"), were audited by KPMG Huazhen LLP and KPMG, respectively, and both firms have issued unqualified opinions on the financial statements in their auditors' reports.

IV. Mr. Wan Tao, Chairman and the responsible person of the Company; Mr. Du Jun, Director, Vice President and Chief Financial Officer in charge of the accounting work; and Ms. Yang Yating, person in charge of the Accounting Department (Accounting Chief) and General Manager of Finance Department hereby warrant the truthfulness, accuracy and completeness of the financial statements contained in the 2022 annual report.

V. Plan for Profit Appropriation or Capital Reserve Capitalisation reviewed by the Board

In 2022, the net loss attributable to equity shareholders of the parent company amounted to RMB2,872,072 thousand under CAS (net loss of RMB2,846,156 thousand attributable to shareholders of the Company under IFRS). The Board did not recommend the distribution of profit for the year nor Capital Reserve Capitalisation.

VI. Declaration of Risks Involved in the Forward-looking Statements

Forward-looking statements such as future plans and development strategies contained in this report do not constitute any substantive commitments of the Company to investors. The Company has alerted investors on the relevant investment risks.

VII. There was no appropriation of funds by the controlling shareholder of the Company and its connected parties for non-operation purposes.

VIII. The Company did not provide any external guarantees in violation of the required decision-making procedures.

IX. Material Risk Warning

Potential risks are elaborated in this report. Please refer to Section II "Management Discussion and Analysis" under "Report of the Directors" for details of the potential risks arising from the future development of the Company.

X. The Annual Report is published in both Chinese and English. In the event of any discrepancy between the Chinese and English versions, the Chinese version shall prevail.

Definitions

In this report, unless the context otherwise specifies, the following terms shall have the following meanings:

"Company" or "the Company" or "SPC"	Sinopec Shanghai Petrochemical Company Limited
"Board"	the board of directors of the Company
"Director(s)"	the director(s) of the Company
"Supervisory Committee"	the supervisory committee of the Company
"Supervisor(s)"	the supervisor(s) of the Company
"PRC" or "China" or "State"	the People's Republic of China
"Reporting Period"	the year ended 31 December 2022
"Hong Kong Stock Exchange"	The Stock Exchange of Hong Kong Limited
"Shanghai Stock Exchange"	The Shanghai Stock Exchange
"Group"	the Company and its subsidiaries
"Sinopec Group"	China Petrochemical Corporation
"Sinopec Corp."	China Petroleum & Chemical Corporation
"Hong Kong Listing Rules"	The Rules Governing the Listing of Securities on the Hong Kong Stock Exchange
"Shanghai Listing Rules"	The Rules Governing the Listing of Securities on the Shanghai Stock
"Model Code for Securities Transactions"	the Model Code for Securities Transactions by Directors of Listed Issuers set out in Appendix 10 to the Hong Kong Listing Rules
"Securities Law"	the PRC Securities Law
"Company Law"	the PRC Company Law
"CSRC"	China Securities Regulatory Commission
"Articles of Association"	the articles of association of the Company
"Hong Kong Stock Exchange website"	www.hkexnews.hk
"Shanghai Stock Exchange website"	www.sse.com.cn
"website of the Company"	www.spc.com.cn
"HSE"	Health, Safety and Environment
"LDAR"	Leak Detection and Repair
"COD"	Chemical Oxygen Demand
"VOCs"	Volatile Organic Compounds
"SFO"	the Securities and Futures Ordinance of Hong Kong (Chapter 571 of the Laws of Hong Kong)
"Corporate Governance Code"	the Corporate Governance Code set out in Appendix 14 to the Hong Kong Listing Rules
"Share Option Incentive Scheme"	the A Share Option Incentive Scheme of the Company

Company Profile

As one of the major integrated petrochemical enterprises in China with an integrated refinery and petrochemical capacity, the Company possesses competitive business scale and strength, which have made it a major manufacturer of refined oil, intermediate petrochemical products, synthetic resins and synthetic fibres. It also has self-owned utilities and environmental protection systems, as well as sea transport, inland shipping, rail transport and road transport ancillary facilities.

Located at Jinshanwei in the southwest of Shanghai, the Company is a highly integrated petrochemical enterprise which mainly processes crude oil into a broad range of petroleum products, intermediate petrochemical products, resins and plastics and synthetic fibers. The Company sells most of its products within the PRC domestic market and derives most of its revenues from customers in Eastern China, one of the fastest growing regions in the PRC.

The Company's high-quality development is supported by the ever-increasing demand in the PRC for petrochemical products. Relying on the competitive advantage of its high degree of integration, the Company is optimizing its product mix, improving the quality and variety of its existing products, upgrading technology and increasing the capacity of its key upstream plants.

In July 1993, the Company became the first company incorporated under the laws of the PRC to make a global equity offering, and its shares were listed on the Shanghai Stock Exchange, the Hong Kong Stock Exchange and the New York Stock Exchange.

Since the listing of its shares, the Company has strived to continuously improve and enhance its operation and management efficiency with an aim to become a domestic leading and world-class energy, chemical and new materials company.

Main Financial Indicators

(I) Financial information prepared under IFRS (for the past five years)

Unit: RMB million

Year ended 31 December	**2022**	2021	2020	2019	2018
Net sales	**72,654.6**	75,888.8	61,560.9	88,055.7	95,613.5
(Loss)/profit before taxation	**(3,573.7)**	2,721.1	590.8	2,656.1	6,808.1
(Loss)/profit after taxation	**(2,842.3)**	2,076.6	656.4	2,227.2	5,336.2
(Loss)/profit attributable to equity shareholders of the Company	**(2,846.2)**	2,073.4	645.1	2,215.7	5,336.3
Basic (losses)/earnings per share (RMB/share)	**(0.263)**	0.192	0.060	0.205	0.493
Diluted (losses)/earnings per share (RMB/share)	**(0.263)**	0.192	0.060	0.205	0.493
As at 31 December					
Total equity attributable to equity shareholders of the Company	**26,227.7**	30,242.1	29,198.0	29,863.3	30,346.1
Total assets	**41,136.7**	46,920.6	44,619.1	45,494.1	44,385.9
Total liabilities	**14,781.4**	16,543.2	15,284.2	15,500.2	13,923.5

* After the implementation of share capital increase from the capital reserve in December 2013, total shares of the Company increased from 7.2 billion shares to 10.8 billion shares.

After the first exercise of the Company's Share Option Incentive Scheme in August 2017, the total number of issued shares of the Company increased by 14,176,600 shares.

After the second exercise of the Company's Share Option Incentive Scheme in January 2018, the total number of issued shares of the Company increased by 9,636,900 shares.

(II) Main accounting data and financial indicators in the past three years (Prepared under CAS)

Unit: RMB'000

Major accounting data	2022	2021	Increase/decrease compared to the previous year (%)	2020
Revenue	82,518,315	89,280,415	-7.57	74,705,183
Total (loss)/profit	(3,599,570)	2,648,161	-235.93	573,816
Net (loss)/profit attributable to equity shareholders of the Company	(2,872,072)	2,000,506	-243.57	628,110
Net (loss)/profit attributable to equity shareholders of the Company excluding non-recurring items	(2,790,773)	1,908,105	-246.26	493,350
Net cash flow from operating activities	(7,337,499)	4,060,026	N/A	1,751,217
	End of 2022	End of 2021	Increase/decrease compared to the previous year (%)	End of 2020
Net assets attributable to equity shareholders of the Company	26,243,705	30,260,172	-13.27	29,218,033
Total assets	41,242,740	47,038,622	-12.32	44,749,173

Major financial indicators	**2022**	2021	Increase/decrease compared to the previous year (%)	2020
Basic (losses)/earnings per share (RMB/Share)	**(0.265)**	0.185	N/A	0.059
Diluted (losses)/earnings per share (RMB/Share)	**(0.265)**	0.185	N/A	0.059
Basic (losses)/earnings per share excluding non-recurring items (RMB/Share)	**(0.258)**	0.176	N/A	0.047
(Loss)/return on net assets (weighted average) (%)*	**(10.163)**	6.727	Decreased by 16.89 percentage points	2.127
(Loss)/return on net assets excluding non-recurring items (weighted average) (%)*	**(9.875)**	6.416	Decreased by 16.29 percentage points	1.709
Net cash flow per share (used in)/ generated from operating activities (RMB/Share)	**(0.678)**	0.375	N/A	0.162
	End of 2022	End of 2021	Increase/decrease compared to the previous year (%)	End of 2020
Net assets per share attributable to equity shareholders of the Company (RMB/Share)*	**2.426**	2.796	-13.23	2.699
Gearing ratio (%)	**36.058**	35.382	Increased by 0.68 percentage points	34.401

* The above-mentioned net assets do not include non-controlling shareholders' interests.

(III) Differences between financial statements prepared under CAS and IFRS

Unit: RMB'000

	Net (loss)/profit		**Net asset**	
	The Reporting Period	Corresponding period of the previous year	**End of the Reporting Period**	Opening of the Reporting Period
Prepared under CAS	**(2,868,216)**	2,003,681	**26,371,386**	30,395,431
Prepared under IFRS	**(2,842,300)**	2,076,606	**26,355,363**	30,377,398

For detailed differences between the financial statements prepared under CAS and IFRS, please refer to supplements to the financial statements prepared under CAS.

(IV) Major quarterly financial data in 2022 (Prepared under CAS)

Unit: RMB'000

	First Quarter (January to March)	Second Quarter (April to June)	Third Quarter (July to September)	Fourth Quarter (October to December)
Operating income	26,006,070	19,894,285	11,878,206	24,739,754
Net profit/(loss) attributable to equity shareholders of the Company	213,510	(649,519)	(1,566,776)	(869,287)
Net profit/(loss) attributable to equity shareholders of the Company excluding non-recurring items	241,668	(644,222)	(1,529,113)	(859,106)
Net cash flow (used in)/generated from operating activities	(1,785,568)	(4,619,554)	1,670,792	(2,603,169)

(V) Non-recurring items (Prepared under CAS)

Unit: RMB'000

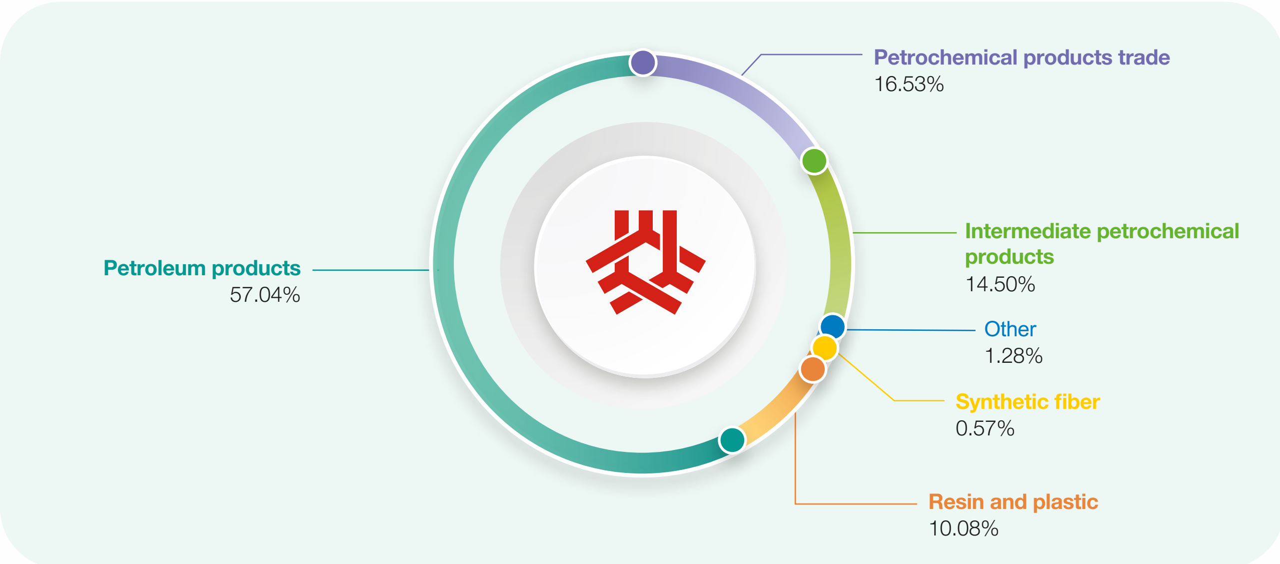
Non-recurring items	**2022**	2021	2020
(Losses)/gains on disposal of non-current assets	**(26,767)**	48,671	72,296
Government grants recognised through profit or loss (excluding government grants pursuant to the State's unified standard sum and quota closely related to the corporate business)	**43,055**	45,944	71,296
Employee reduction expenses	**(33,739)**	(12,232)	(20,060)
(Losses)/gains from changes in fair value of financial assets and liabilities	**(8,987)**	8,987	(17,871)
Income from structured deposits	**11,124**	97,921	132,690
(Losses)/gains on disposal of derivative financial instruments	**(18,864)**	9,859	(912)
Discount loss of receivables	**(3,148)**	(4,685)	(9,513)
Gains from entrusted loans	**2,704**	–	–
Other non-operating income and expenses other than those mentioned above	**(60,087)**	(57,733)	(42,968)
Income tax effect amount	**12,692**	(44,887)	(51,339)
Effect on non-controlling interests (after tax)	**718**	556	1,141
Total	**(81,299)**	92,401	134,760

Principal Products

The Group produces more than 60 different products, including various specifications of synthetic fibers, resins and plastics, intermediate petrochemical products and petroleum products.

The Company is a highly vertically integrated petrochemical company. Most of the petroleum products and intermediate petrochemical products produced by the Company are used in the production of the Company's downstream products.

The following table sets forth the net sales of the Group's major products in 2022 as a percentage of total net sales and their typical uses.



Major products sold by the Group	% of 2022 net sales	Typical use
Manufactured products		
Synthetic Fibres		
Polyester staple	–	Textiles and apparel
Acrylic staple	0.45	Cotton type fabrics, wool type fabrics
Others	0.12	
Subtotal:	0.57	
Resins and Plastics		
Polyester chips	0.95	Polyester fibres, films and containers
PE pellets	4.58	Films, ground sheeting, wire and cable compound and other injection moulding products such as housewares and toys
PP pellets	4.16	Films or sheets, injection moulding products such as housewares, toys and household electrical appliances and automobile parts
PVA	–	PVA fibres, building coating materials and textile starch
Others	0.39	
Subtotal:	10.08	

Major products sold by the Group	% of 2022 net sales	Typical use
Intermediate Petrochemical Products		
Ethylene	–	Feedstock for PE, EG, PVC and other intermediate petrochemical products which can be further processed into resins and plastics and synthetic fibre
Ethylene Oxide	1.73	Intermediate for chemical and pharmaceutical industry, dyes, detergents and adjuvant
Benzene	2.82	Intermediate petrochemical products, styrene, plastics, explosives, dyes, detergents, epoxies and polyamide fibre
PX	5.97	Intermediate petrochemical, polyester
Butadiene	0.76	Synthetic rubber and plastics
Ethylene Glycol	0.35	Fine chemicals
Others	2.87	
Subtotal:	14.50	
Petroleum Products		
Gasoline	23.50	Transportation fuels
Diesel	20.05	Transportation and agricultural machinery fuels
Jet fuel	5.90	Transportation fuels
Others	7.59	
Subtotal:	57.04	
Trading of petrochemical products	16.53	Import and export trade of petrochemical products (purchased from domestic and overseas suppliers)
Others	1.28	
TOTAL:	100	

Change in Share Capital of Ordinary Shares and Shareholders

(I) Changes in share capital of ordinary shares during the Reporting Period

Save as disclosed below, the Company had no changes in share capital of ordinary shares during the Reporting Period.

(II) Issue of shares

1. Issue of shares during the Reporting Period

Please refer to Chapter VII for details of the Group's issuance of non-financial enterprise debt financing instruments during the Reporting Period. Apart from that, the Company issued no shares during the Reporting Period.

2. Changes in the Company's total number of ordinary shares, shareholding structure and the Company's assets and liabilities

The Company had no changes in the Company's total number of ordinary shares, shareholding structure and the Company's assets and liabilities resulted in reasons such as stock dividend and dividends distribution during the Reporting Period.

On 17 February 2023, the Company canceled 24,528,000 H shares repurchased from the Hong Kong Stock Exchange during the Reporting Period. With this cancellation, the total number of shares issued by the Company has been reduced to 10,799,285,500, including 7,328,813,500 A shares and 3,470,472,000 H shares.

3. Employees shares

The Company had no employees' shares as at the end of the Reporting Period.

(III) Shareholders and de facto controller

1. Total number of shareholders

Number of shareholders of ordinary shares as at the end of the Reporting Period	99,231
Number of shareholders of ordinary shares as at the end of the month immediately preceding the publication date of the annual report	96,469

2. Shareholding of the top ten shareholders as at the end of the Reporting Period

Shareholding of the top ten shareholders

Full name of shareholder	Class of shares	Increase/decrease of shareholding during the Reporting Period (Shares)	Number of shares held at the end of the Reporting Period (Shares)	Percentage of shareholding (%)	Number of shares held with selling restrictions (Shares)	Pledged/Marked/Frozen		Nature of shareholder
						Status of shares	Number of Shares	
China Petroleum & Chemical Corporation	A Shares	0	5,459,455,000	50.44%	0	None	0	State-owned legal person
HKSCC (Nominees) Limited	H Shares	-1,324,000	3,452,515,030	31.90%	0	Unknown	-	Overseas legal person
HKSCC Limited	A Shares	-18,603,920	96,545,788	0.89%	0	None	0	Overseas legal person
Wang Lei	A Shares	-21,535,500	46,120,300	0.43%	0	None	0	Domestic natural person
GF Fund – Agricultural Bank of China – GF CSI Financial Asset Management Plan	A Shares	-19,179,415	45,222,300	0.42%	0	None	0	Others
Dacheng Fund – Agricultural Bank of China – Dacheng CSI Financial Asset Management Plan	A Shares	-1,690,831	43,531,469	0.40%	0	None	0	Others
Southern Fund – Agricultural Bank of China – Southern CSI Financial Asset Management Plan	A Shares	0	43,083,700	0.40%	0	None	0	Others
Yinhua Fund – Agricultural Bank of China – Yinhua CSI Financial Asset Management Plan	A Shares	-31,984	43,051,716	0.40%	0	None	0	Others
E Fund Fund – Agricultural Bank of China – E Fund CSI Financial Asset Management Plan	A Shares	-45,050	43,038,700	0.40%	0	None	0	Others
Bosera Fund – Agricultural Bank of China – Bosera CSI Financial Asset Management Plan	A Shares	-855,769	42,675,700	0.39%	0	None	0	Others

Note on connected relations or acting in concert of the above shareholders

Among the above-mentioned shareholders, China Petroleum & Chemical Corporation ("Sinopec Corp."), a State-owned legal person, does not have any connected relationship with the other shareholders, and does not constitute an act-in-concert party under the Administrative Measures on Acquisition of Listed Companies. Among the above-mentioned shareholders, HKSCC (Nominees) Limited is a nominee. Apart from the above, the Company is not aware of any connected relationship among the other shareholders, or whether any other shareholder constitutes an acting-in-concert party under the Administrative Measures on Acquisition of Listed Companies.

(IV) Details of the controlling shareholder and the de facto controller

1. Details of the controlling shareholder

(1) Legal person

Name	China Petroleum & Chemical Corporation
Responsible person or legal representative	Ma Yongsheng
Date of incorporation	25 February 2000
Major business operations	Bottled gas operation (limited to branches with licenses); hazardous chemical production, oil and gas exploration, safety management of development and production (limited to branches with safety production licenses); railway transportation; port operation; edible salt production, wholesale and retail (limited to branches with licenses and not in this city); food additive manufacturing (limited to branches in other cities); insurance agency business (limited to branches in other cities); insurance brokerage business (limited to branches in other cities); accommodation (limited to branches in other cities); catering services (limited to branches in other cities); thermal power generation (not operated in this city); power supply (limited to branches); power production, transmission and supply; operation of hazardous chemicals (limited to branches with hazardous chemicals operation license); oil and gas exploration; oil exploitation (the exploitation area and validity period shall be subject to the license); retail of prepackaged food, bulk food, dairy products (including infant formula milk powder) (limited to branches with food circulation license), health food (limited to branches with food circulation license); retail of cigarettes and cigars (limited to branches with tobacco monopoly retail license); retail of books, newspapers, periodicals, electronic publications and audio-visual products; road transportation (limited to branches, and the business scope shall be subject to the road transportation business license); petroleum refining; production, sales and storage of heavy oil, rubber and other petrochemical raw materials (excluding hazardous chemicals) and products; daily necessities and convenience stores; retail of textile, clothing, daily necessities, hardware, household appliances and electronic products and recharge cards;

	lottery agent sales, entrusted agents to collect water and electricity fees and ticket agency services; designing, producing, acting and publishing advertisements; car cleaning service; manufacturing, supervision and installation of petroleum and petrochemical machinery and equipment; procurement and sales of petroleum and petrochemical raw and auxiliary materials, equipment and parts; technology and information, research, development, application and consulting services of alternative energy products; contracting overseas electromechanical and petrochemical industry projects and domestic international bidding projects; automobile maintenance and decoration services; auxiliary operation of coastal engineering; oil spill emergency, safety guard and ship pollution removal; quality inspection technical services, environmental and ecological testing services in professional and technical services; freight forwarding agent; exploration, development, storage and transportation, pipeline transportation and sales of shale gas, coalbed methane, shale oil, combustible ice and other resources (not operating in this city); power technology development and service; installation and maintenance of power facilities (limited to branches); sales of furniture and building decoration materials (limited to branches in other cities); family labor services (limited to branches in other cities); warehousing services (limited to branches in other cities); leasing of gas storage facilities (limited to branches in other cities); rental of commercial and office buildings; car rental (excluding buses with nine seats or more); mechanical equipment leasing; import and export of goods; import and export agency; import and export of technology. Sales of lubricating oil, fuel oil, asphalt, textiles, clothing, daily necessities, hardware, household appliances and electronic products, recharge cards, cultural and sporting goods and equipment, automobiles, motorcycles and spare parts, motor vehicle charging, batteries, new energy vehicle power exchange facilities. (Market entities shall independently choose business projects and carry out business activities according to law; power generation, transmission and power supply as well as other projects subject to approval according to law shall be conducted as approved after the approval by relevant authorities; market entities shall not engage in business activities of the projects prohibited and restricted by national and municipal industrial policies.)
Details of controlling interests and investments in other domestic and overseas-listed companies during the Reporting Period	Details of shareholding of Sinopec Corp. in other listed companies:

Company name	Number of shares held	Percentage of shareholding
Sinopec Shandong Taishan Petroleum Co., Ltd.	118,140,120	24.57%

2. Details of the de facto controller

(1) Legal person

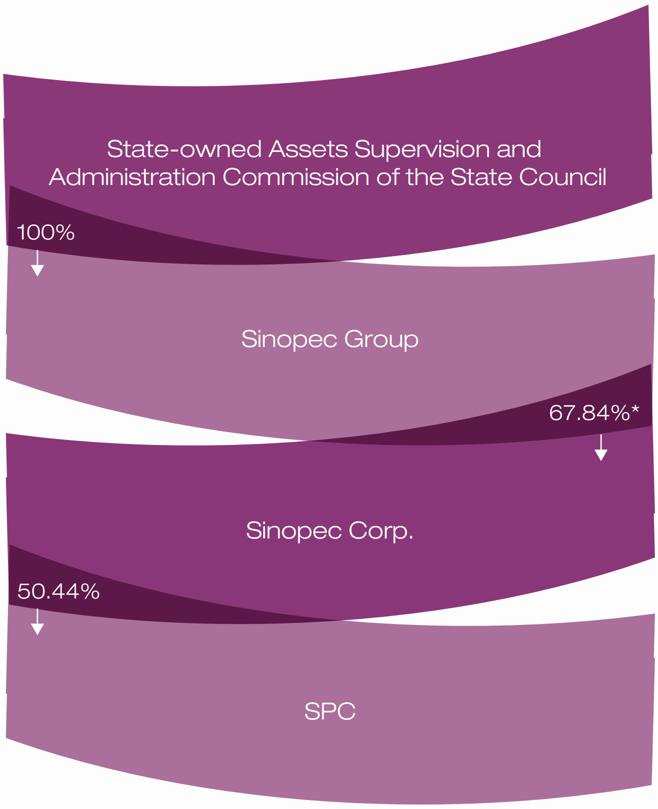
Name	China Petrochemical Corporation
Responsible person or legal representative	Ma Yongsheng
Date of incorporation	24 July 1998
Principal business	Organize the exploration, exploitation, storage and transportation (including pipeline transportation), sales and comprehensive utilization of oil and natural gas of affiliated enterprises; Organize the petroleum refining of affiliated enterprises; Organize the wholesale and retail of refined oil products of affiliated enterprises; Organize the production, sales, storage and transportation of petrochemical and other chemical products of affiliated enterprises; Industrial investment and investment management; Exploration design, construction, construction and installation of petroleum and petrochemical engineering; Maintenance of petroleum and petrochemical equipment; Mechanical and electrical equipment manufacturing; Technology and information, research, development, application and consulting services of alternative energy products; Import and export business.
Details of controlling interests and investments in other domestic and overseas-listed companies during the Reporting Period	Details of shareholding of Sinopec Group in other listed companies:

Company name	Number of shares held	Percentage of shareholding
China Petroleum & Chemical Corporation[Note 1]	80,572,167,393	67.20%
Sinopec Engineering (Group) Co., Ltd.	2,907,856,000	65.67%
Sinopec Oilfield Service Corporation[Note 2]	10,727,896,364	56.51%
Sinopec Oilfield Equipment Corporation	456,756,300	48.54%
China Merchants Energy Shipping Co., Ltd.	1,095,463,711	13.48%
PetroChina Company Limited	1,830,210,000	1.00%

Note 1: In addition, the 767,916,000 H shares are held by Sinopec Century Bright Capital Investment Limited, an overseas wholly-owned subsidiary of Sinopec Group.

Note 2: In addition, the 2,595,786,987 H shares are held by Sinopec Century Bright Capital Investment Limited, an overseas wholly-owned subsidiary of Sinopec Group.

3. The ownership and controlling relationship between the Company and the controlling shareholder and the de facto controller



* Including 767,916,000 H shares in Sinopec Corp. held by Sinopec Century Bright Capital Investment Limited, an overseas wholly-owned subsidiary of Sinopec Group, through HKSCC (Nominees) Limited.

(V) Specific implementation of share repurchase during the Reporting Period

Unit: HKD Currency: HKD

Name of share repurchase plan	Proposal to the shareholders at the general meeting to authorize the Board of Directors to repurchase domestic shares and/or overseas-listed foreign shares of the Company
Time of disclosure of share repurchase plan	22 June 2022
Number of shares to be repurchased and its percentage of total share capital (%)	Not exceeding 10% of the total capital of H share issued
Amount to be repurchased	–
Period of proposed repurchase	From 22 June 2022 until the 2022 Annual General Meeting
Repurchase purpose	Safeguard corporate value
Number of shares repurchased (shares)	24,528,000 H shares
Percentage of the repurchased number of shares to the underlying shares involved in the equity incentive plan (%) (if any)	–
Progress of the Company's share repurchase reduction by means of centralized bidding transactions	–

(VI) Other legal person shareholders holding more than 10% of the Company's shares

As at 31 December 2022, HKSCC (Nominees) Limited held 3,452,515,030 H shares of the Company, representing 31.90% of the total number of issued shares of the Company.

(VII) Public float

Based on the public information available to the Board, as at 22 March 2023, the Company had a public float which is in compliance with the minimum requirement under the Hong Kong Listing Rules.

(VIII) Interests and short positions of the substantial shareholders of the Company in shares and underlying shares of the Company

As at 31 December 2022, so far as was known to the Directors or chief executive of the Company, the interests and short positions of the Company's substantial shareholders (being those who are entitled to exercise or control the exercise of 5% or more of the voting power at any general meeting of the Company but excluding the Directors, chief executive and Supervisors) in the shares and underlying shares of the Company who are required to disclose their interests pursuant to Divisions 2 and 3 of Part XV of the SFO or as recorded in the register of interests required to be kept under section 336 of the SFO were as set out below:

Interests in ordinary shares of the Company

Name of shareholders	Interests held or deemed as held (shares)	Note	Percentage of total issued shares of the Company (%)	Percentage of total issued shares of the relevant class (%)	Capacity
China Petroleum & Chemical Corporation	5,459,455,000 A shares (L) Shares of legal person	(1)	50.44	74.49	Beneficial owner
The Bank of New York Mellon Corporation	205,747,637 H shares (L)	(2)	1.90	5.89	Interests of controlled corporation
	182,599,000 H shares (S)		1.69	5.22	
	23,145,637 H shares (P)		0.21	0.66	
Corn Capital Company Ltd	211,008,000 H shares (L)	(3)	1.95	6.04	Interests of controlled corporation
	200,020,000 H shares (S)		1.85	5.72	
Hung Hin Fai	211,008,000 H shares (L)	(3)	1.95	6.04	Beneficial owner
	200,020,000 H shares (S)		1.85	5.72	
Yardley Finance Limited	200,020,000 H shares (L)	(4)	1.85	5.72	Secured equity holders
Chan Kin Sun	200,020,000 H shares (L)	(4)	1.85	5.72	Interests of controlled corporation

(L): Long position; (S): Short position; (P): Lending Pool

Note:

(1) Based on the information obtained by the Directors from the website of the Hong Kong Stock Exchange and as far as the Directors are aware, Sinopec Group directly and indirectly owned 67.84% of the issued share capital of Sinopec Corp. as at 31 December 2022. By virtue of such relationship, Sinopec Group is deemed to have an interest in the 5,459,455,000 A shares of the Company directly owned by Sinopec Corp.

(2) All the 205,747,637 H shares (long position) and 182,599,000 H shares (short position) are deemed to be held by The Bank of New York Mellon Corporation, due to control of multiple companies (among which 182,599,000 H shares (short position) are held through physical settlement unlisted derivatives). Below are the companies indirectly or wholly owned by The Bank of New York Mellon Corporation:

(2.1) All the 3,000 H shares (long position) are held by BNY Mellon, National Association. Since BNY Mellon, National Association is wholly owned by The Bank of New York Mellon Corporation, The Bank of New York Mellon Corporation is deemed to have an interest in the 3,000 H shares (long position) of the Company held by BNY Mellon, National Association.

(2.2) All the 205,744,637 H shares (long position) and 182,599,000 H shares (short position) are held by The Bank of New York Mellon. Since The Bank of New York Mellon is wholly owned by The Bank of New York Mellon Corporation, The Bank of New York Mellon Corporation is deemed to have an interest in the 205,744,637 H shares (long position) and 182,599,000 H shares (short position) of the Company held by The Bank of New York Mellon.

(3) These shares were held by Corn Capital Company Limited. Hung Hin Fai held 100% interests in Corn Capital Company Limited. Pursuant to the SFO, Hung Hin Fai was deemed to be interested in the shares held by Corn Capital Company Limited.

(4) These shares were held by Yardley Finance Limited. Chan Kin Sun held 100% interests in Yardley Finance Limited. Pursuant to the SFO, Chan Kin Sun was deemed to be interested in the shares held by Yardley Finance Limited.

Save as disclosed above, as at 31 December 2022, the Directors have not been notified by any person (other than the Directors, chief executive and Supervisors) who had interests or short positions in the shares and underlying shares of the Company which would fall to be disclosed to the Company pursuant to Divisions 2 and 3 of Part XV of the SFO or as recorded in the register of interests required to be kept by the Company under section 336 of the SFO.

Report of the Directors

Section I Business Overview

(I) Description of the principal business, operating model and industry in which the Company operated during the Reporting Period

Located at Jinshanwei in the southwest of Shanghai, the Company is a highly integrated petrochemical enterprise which mainly processes crude oil into a broad range of petroleum products, intermediate petrochemical products, resins and plastics and synthetic fibers. The Company sells most of its products within the PRC domestic market and derives most of its revenues from customers in Eastern China, one of the fastest growing regions in the PRC.

The Company's high-quality development is supported by the ever-increasing demand in the PRC for petrochemical products. Relying on the competitive advantage of its high degree of integration, the Company is optimizing its product mix, improving the quality and variety of its existing products, upgrading technology and increasing the capacity of its key upstream plants.

For details on the industry in which the Company operates its business, please refer to Section III of this chapter "Analysis of Operational Information in Chemical Industry".

(II) Analysis of Core Competitiveness During the Reporting Period

As one of the major integrated petrochemical enterprises in China with an integrated refinery and petrochemical capacity, the Group possesses competitive business scale and strength, which have made it a major manufacturer of refined oil, intermediate petrochemical products, synthetic resins and synthetic fibres. It also has self-owned utilities and environmental protection systems, as well as sea transport, inland shipping, rail transport and road transport ancillary facilities.

The Company's major competitive advantages include quality, geographical location and its vertically integrated production. The Company has 51 years of petrochemical production and management experience, and has accumulated extensive resources in the petrochemical industry, which has garnered multiple quality product awards from the central and local governments. Located at the core region of Yangtze River Delta, the most economically active region in China with a strong demand for petrochemical products, the Company built a comprehensive logistics system and supporting facilities to tap its geographic proximity with most of its clients and the convenient coastal and inland shipping. This gave it a competitive edge in terms of transportation costs and timely delivery. The Company has leveraged its advantages in integrated refinery and petrochemical capacity to actively strengthen product structure, while continuously developing new products and improving products quality and variety. It has also improved production technology to maximize the use and the efficiency in the utilisation of its corporate resources, and is therefore able to achieve strong and sustainable development.

Section II Management Discussion and Analysis

(I) Management Discussion and Analysis

(Unless otherwise specified, the financial information included in this "Management Discussion and Analysis" section was extracted from the financial statements prepared under IFRS.)

1. General – Review of the Company's operations during the Reporting Period

In 2022, the change in domestic and international situations surpassed expectations, the momentum of global economic growth decayed, geopolitical fluctuations intensified, oil and gas prices fluctuated wildly, and market demand slumped. The severe and complicated situations posed unprecedented huge challenges for the Company's production and operation. Facing the highly volatile energy market, the Group coordinated the production and operation, scientific and technological innovation, reform and management and project construction in a well-coordinated way, basically completing the annual target. The total volume of crude oil processed for the year was 10.4453 million tons, representing a year-on-year decrease of 24.11%; the volume of refined oil produced for the year was 5.9080 million tons, representing a year-on-year decrease of 25.86%; the total volume of goods within the main commodities categories was 9.7062 million tons, representing a year-on-year decrease of 27.82%. The Company's turnover was RMB82,443 million, representing a year-on-year decrease of 7.57%. The Group's product sale rate was 99.83% and the payment return rate was 100%, signaling premium and stable product quality.

(1) Rising prices of petroleum and petrochemical products driven by high crude oil prices and other factors

In 2022, the global economy plunged. As a result, commodity prices fluctuated significantly, international crude oil prices stayed high, and petroleum and petrochemical product prices oscillated at high. As of 31 December 2022, the weighted average prices (excluding tax) of synthetic fibers, resins and plastics, major intermediate petrochemical products and major petroleum products of the Group increased by 36.31%, 3.58%, 13.97% and 31.94% year on year respectively.

(2) *Reduced crude oil processing due to the market demand and unit accidents*

International oil prices were basically upward in the first half of 2022 but on the downward trend in the second half, with sluggish oil demand.

For the year ended 31 December 2022, the Group processed a total of 10.4453 million tons of crude oil (including 378,300 tons of processing on order), representing a decrease of 24.11% year on year, mainly due to the poor market demand and the Company's device accidents. In 2022, the annual crude oil processing cost was RMB4,682.50 per ton, representing an increase of RMB1,450.21 per ton or 44.87% over the same period of the previous year. The total crude oil processing cost for the year increased by RMB3,956 million or 9.16%, accounting for 61.81% of the total cost of sales.

(3) *Steady recovery of production operation*

Following the explosion of the Company's 1# glycol devices, the Group, overcoming unfavorable factors such as the extreme high temperature and typhoon, steadily and orderly pushed forward the emergency disposal of the accident, the investigation and elimination of risks and hidden dangers, restorative maintenance, and resumption of work and production. We strengthened organizational leadership and coordination with the focus on key links, and implemented safety upgrading management. At the end of September, the whole industry chain resumed normal operation, among which, the catalytic cracking units (CCUs) achieved zero flare discharging, and ethylene units set the fastest start-up record in the industry. We reinforced the fulfillment of production safety responsibilities, cemented site management, and maintained stable production run.

(4) *Breakthrough in science and technology innovation*

Adhering to the combination of independent innovation and collaborative innovation, the Company has stepped up efforts to tackle key problems in science and technology, applying for 120 patents and authorizing 59 of them. The Company completed the R&D, mass production and service support tasks of "flying" torches of the Beijing 2022 Winter Olympic Games, and awarded as an "Outstanding Contribution Group for the Beijing Winter Olympic Games and the Winter Paralympic Games". Carbon fiber and its composite materials and other research tasks basically achieved the annual target and the general requirements of the three-year task. We promoted the research of carbon fiber composites in key application fields, and expanded the demonstration applications of carbon fiber composites in rail transportation, construction bridges and new energy. We successfully applied them in the hydrogen-powered trams of Lin-gang T2 public tram and Qingdao Haikou Road Cross-Wind River Bridge. We strengthened information technology efforts, and continuously improved the information level.

(5) Continuous deepening of reform management

Focusing on the three-year action of deepening reform, we aligned our efforts in this respect with the first-class management standard and continued increasing our efforts in this respect. We comprehensively promoted the tenure system and contractual management of management members, and launched the tenure system and contractual reform of the middle management cadres. We optimized the organizational setup and improved the organizational operation efficiency and professional management capability. We formulated a work plan for improving the quality of listed companies, initiated the delisting of the Company's ADR (American Depositary Receipts) from the U.S., and implemented the first H-share buyback. We comprehensively promoted 5S (SEIRI, SEITON, SEISO, SEIKETSU and SHITSUKE) management and carried out the "compliance management enhancement year" activity, to advance a law-based enterprise.

(6) Vigorous impetus to transformation and development

We promoted the transformation and upgrading to green development through project construction, to build a green enterprise. We passed the review of environment-friendly enterprises. We expedited the construction of key projects. Projects of 24,000 tons/year of raw silk and 12,000 ton/year of 48K large-tow carbon fiber were put into operation. The 250,000 tons/year thermoplastic elastomer project, which is a key project in Shanghai, steadily progressed. We pressed ahead with hidden danger management and environmental protection projects as well as new energy projects such as photovoltaic projects. We delivered the second phase of the hydrogen supply center of hydrogen cells, and completed the construction of the first megawatt-class photovoltaic power plant project. We promoted coupled biomass power generation, and achieved a "double 10,000" in terms of tons of biomass fuel blended and tons of CO_2 emissions reduced. We participated in the market-based trading of "green certificates" for the first time and purchased 10,000 "green certificates".

2. Accounting judgments and estimates

The Group's financial conditions and the results of its operations are susceptible to accounting methods, assumptions and estimates applied in preparing the financial statements. Such assumptions and estimates are based on the historical experience of the management of the Group and on various other assumptions that the management believes to be reasonable, and form the basis for the management to make judgments about matters that cannot be confirmed by other sources. On an on-going basis, the management evaluates its estimates. Actual results may differ from those estimates as the actual circumstances, environment and conditions change.

The selection of accounting policies, judgments and other uncertainties in the course of applying of those policies and the sensitivity of reported results to changes in conditions and assumptions are factors to be considered when reviewing the financial statements. The principal accounting policies are set forth in the financial statements. The Company's management has made the following judgments and estimates in the preparation of the financial statements.

(1) Classification of financial assets

The classification depends on the Group's business model for managing the financial assets and the contractual terms of the cash flows. The Group determines the business model for managing financial assets at the level of the financial asset portfolio. The factors considered include the way to evaluate and report the performance of financial assets to key management personnel, the risks affecting the performance of financial assets and their management methods, and the way for relevant business management personnel to obtain remuneration, etc.

When evaluating whether the contractual cash flow of financial assets is consistent with the basic lending arrangements, the Group has the following main judgments: whether the time distribution or amount of the principal may change in the duration due to prepayment and other reasons; whether the interest only includes the time value of money, credit risk, other basic lending risks and the consideration of cost and profit. For example, whether the amount of prepayment only reflects the outstanding principal and the interest based on the outstanding principal, as well as the reasonable compensation paid for the early termination of the contract.

(2) *Net realizable value ("NRV") of inventories*

Inventories are valued at the lower of cost and net realizable value. The net realizable value is determined based on the estimated selling prices in the ordinary course of business less the estimated costs to completion, and other costs necessary to make the sale. These estimates are based on the current market condition and historical experience of selling products of similar nature. It could change significantly as a result of competitor actions in response to changes in market conditions.

Management reassesses these estimations at the end of each reporting period to ensure inventory is measured at the lower of cost and net realizable value.

(3) *Impairments for non-current assets*

At the end of each reporting period, the Group estimates the recoverable amount of an asset or a cash-generating unit ("CGU") (a portion of which related to certain production facilities), at the higher of its fair value less costs of disposal and its value in use, to determine the impairment losses. If circumstances indicate that the carrying amount of the asset or CGU may not be recoverable, the asset or CGU may be considered "impaired", and an impairment loss may be recognized.

The recoverable amount of assets or CGUs is the higher of the fair value less costs of disposal and value in use. As the fair value of certain assets or CGUs may not be publicly available, the Group uses all readily available information in determining an amount that is a reasonable approximation of recoverable amount, including estimates based on reasonable and supportable assumptions for projections of product sales and operating costs and discount rate. In particular, in determining the value in use of the Group's specific CGUs, significant judgements are required on the accounting estimates which are based on the assumptions relating to product sales growth rates, related costs growth rates and discount rate applied.

(4) *Useful life and residual value of property, plant and equipment*

Property, plant and equipment, are depreciated on a straight-line basis over the estimated useful lives of the assets, after taking into account its residual value. Management reviews the estimated useful lives and estimated residual value of the assets annually in order to determine the amount of depreciation expense to be recorded during any reporting period. The estimated useful lives are based on the Group's historical experience with similar assets, taking into account anticipated technological changes. The depreciation expense for future periods is adjusted if there are significant changes from previous estimates.

3. Comparison and analysis of results of the Company's operations (Prepared under IFRS)

3.1 Summary

The following table sets forth the Group's sales volumes and net sales (net of sales taxes and surcharges) for the years indicated:

	For the years ended 31 December								
	2022			2021			2020		
	Sales volume ('000 tons)	Net sales (RMB million)	%	Sales volume ('000 tons)	Net sales (RMB million)	%	Sales volume ('000 tons)	Net sales (RMB million)	%
Synthetic fibres	22.4	412.5	0.6	101.9	1,374.8	1.8	151.4	1,472.4	2.4
Resins and plastics	889.3	7,321.2	10.1	1,254.9	9,962.7	13.1	1,365.4	9,419.7	15.3
Intermediate petrochemical products	1,544.2	10,537.7	14.5	1,989.1	10,780.5	14.2	2,168.0	8,205.8	13.3
Petroleum products	7,211.4	41,444.7	57.0	10,065.0	41,884.4	55.2	10,347.7	30,139.6	49.0
Trading of petrochemical products	–	12,007.6	16.5	–	11,051.4	14.6	–	11,577.3	18.8
Others	–	930.9	1.3	–	835.0	1.1	–	746.1	1.2
Total	9,667.3	72,654.6	100.0	13,410.9	75,888.8	100.0	14,032.5	61,560.9	100.0

The following table sets forth a summary of the Group's consolidated statement of profit or loss for the years indicated (prepared under IFRS):

	For the years ended 31 December					
	2022		2021		2020	
	RMB million	% of net sales	RMB million	% of net sales	RMB million	% of net sales
Synthetic fibres						
Net sales	412.5	0.6	1,374.8	1.8	1,472.4	2.4
Cost of sales and operating expenses	(1,427.8)	(2.0)	(2,228.9)	(2.9)	(1,836.6)	(3.0)
Segment loss from operations	(1,015.3)	(1.4)	(854.1)	(1.1)	(364.2)	(0.6)
Resins and plastics						
Net sales	7,321.2	10.1	9,962.7	13.1	9,419.7	15.3
Cost of sales and operating expenses	(8,573.7)	(11.8)	(9,910.5)	(13.1)	(8,157.6)	(13.3)
Segment (loss)/profit from operations	(1,252.5)	(1.7)	52.2	0.1	1,262.1	2.0
Intermediate petrochemical products						
Net sales	10,537.7	14.5	10,780.5	14.2	8,205.8	13.3
Cost of sales and operating expenses	(11,994.3)	(16.5)	(11,415.6)	(15.0)	(7,624.2)	(12.4)
Segment (loss)/profit from operations	(1,456.6)	(2.0)	(635.1)	(0.8)	581.6	0.9
Petroleum products						
Net sales	41,444.7	57.0	41,884.4	55.2	30,139.6	49.0
Cost of sales and operating expenses	(41,443.7)	(57.0)	(38,917.4)	(51.3)	(32,338.3)	(52.5)
Segment profit/(loss) from operations	1.0	0.0	2,967.0	3.9	(2,198.7)	(3.5)
Trading of petrochemical products						
Net sales	12,007.6	16.5	11,051.4	14.6	11,577.3	18.8
Cost of sales and operating expenses	(11,994.8)	(16.5)	(11,007.7)	(14.5)	(11,535.3)	(18.7)
Segment profit from operations	12.8	0.0	43.7	0.1	42.0	0.1

	For the years ended 31 December					
	2022		2021		2020	
	RMB million	% of net sales	RMB million	% of net sales	RMB million	% of net sales
Others						
Net sales	930.9	1.3	835.0	1.1	746.1	1.2
Cost of sales and operating expenses	(1,063.7)	(1.5)	(976.5)	(1.3)	(535.1)	(0.9)
Segment (loss)/profit from operations	(132.8)	(0.2)	(141.5)	(0.2)	211.0	0.3
Total						
Net sales	72,654.6	100.0	75,888.8	100.0	61,560.9	100.0
Cost of sales and operating expenses	(76,498.0)	(105.3)	(74,456.6)	(98.1)	(62,027.1)	(100.8)
Operating (loss)/profit	(3,843.4)	(5.3)	1,432.2	1.9	(466.2)	(0.8)
Net finance income	443.3	0.6	414.6	0.5	332.3	0.5
Share of (loss)/profit of associates and joint ventures	(173.6)	(0.2)	874.3	1.2	724.7	1.2
(Loss)/profit before tax	(3,573.7)	(4.9)	2,721.1	3.6	590.8	0.9
Income tax	731.4	1.0	(644.5)	(0.9)	65.6	0.1
(Loss)/profit for the year	(2,842.3)	(3.9)	2,076.6	2.7	656.4	1.0
Attributable to:						
Equity shareholders of the Company	(2,846.2)	(3.9)	2,073.4	2.7	645.1	1.0
Non-controlling interests	3.9	0.0	3.2	0.0	11.3	0.0
(Loss)/profit for the year	(2,842.3)	(3.9)	2,076.6	2.7	656.4	1.0

3.2 Comparison and analysis

Comparison between the year ended 31 December 2022 and the year ended 31 December 2021 is as follows:

3.2.A Operating results

(1) Net sales

In 2022, the net sales of the Group amounted to RMB72,654.6 million, a decrease of 4.26% from the previous year's RMB75,888.8 million. Analysis by products is as follows:

(i) Synthetic fibers

In 2022, the Group's net sales of synthetic fiber products amounted to RMB412.5 million, representing a decrease of 70.00% from the previous year's RMB1,374.8 million. This was mainly due to the reduction in production resulting from the price hike of main raw materials and the perennial loss of acrylic fiber, and due to the lower sales during the Reporting Period resulting from the decrease of sales volume of synthetic fiber products. The sales volume of synthetic fibers decreased by 78.02% year on year, while the weighted average sales price increased by 36.31%. Meanwhile, the sales volume of acrylic fibers, the main product of the synthetic fibers segment, decreased by 71.92% year on year. The net sales of acrylic fibers and other products accounted for 78.47% and 21.53% of the total sales of the synthetic fibers segment respectively.

The net sales of synthetic fibers accounted for 0.60% of the Group's net sales in the current year, representing a decrease of 1.2 percentage points from the previous year.

(ii) Resins and plastics

In 2022, the Group's net sales of resins and plastics products amounted to RMB7,321.2 million, a decrease of 26.51% from the previous year's RMB9,962.7 million. This was mainly due to the decrease in production resulting from the downturn in the domestic market and the shutdown of production during the year. The weighted average sales price of resins and plastics increased by 3.58%, while the sales volume of resins and plastics products decreased by 29.13% year on year. Among them, the weighted average sales price of polyethylene and polypropylene decreased by 0.11% and 5.48%, respectively, and that of polyester chips increased by 14.17% year on year. The sales of polyethylene, polypropylene, polyester chips and other products accounted for 45.36%, 41.31%, 9.47% and 3.86% of the total sales of the resins and plastics segment respectively.

The net sales of resins and plastics accounted for 10.08% of the Group's net sales in the current year, representing a decrease of 3 percentage points from the previous year.

(iii) Intermediate petrochemical products

In 2022, the Group's net sales of intermediate petrochemical products amounted to RMB10,537.7 million, a decrease of 2.25% from the previous year's RMB10,780.5 million. This was mainly due to the rise in the unit price of intermediate petrochemical products driven by the sharp rise in international crude oil prices and due to the decrease in the sales volume resulting from the stagnant market. The weighted average sales price of major intermediate petrochemical products increased by 13.97% year on year, and its sales volume decreased by 11.43% year on year. The sales of p-xylene, ethylene oxide, pure benzene, ethylene glycol and other products accounted for 41.16%, 11.93%, 19.44%, 2.44% and 25.03% of the total sales of intermediate petrochemical products respectively.

The net sales of intermediate petrochemical products accounted for 14.50% of the Group's net sales in the current year, an increase of 0.3 percentage points from the previous year.

(iv) Petroleum products

In 2022, the Group's net sales of petroleum products amounted to RMB41,444.7 million, a decrease of 1.05% from the previous year's RMB41,884.4 million. This was mainly due to the increase in petroleum product prices resulting from the downturn in the domestic market and the hike in international crude oil prices. The weighted average sales price of major petroleum products increased by 31.94% year on year, and its sales volume decreased by 30.06% year on year.

The net sales of petroleum products accounted for 57.04% of the Group's net sales in the current year, an increase of 1.8 percentage points from the previous year.

(v) Trading of petrochemical products

In 2022, the Group's net sales of trading of petrochemical products amounted to RMB12,007.6 million, an increase of 8.65% from the previous year's RMB11,051.4 million. This was mainly due to the increase in sales of our second-level subsidiary, Shanghai Jinshan Trading Corporation, by RMB1,439 million.

The net sales of trading of petrochemical products accounted for 16.53% of the Group's net sales in the current year, an increase of 1.9 percentage points from the previous year.

(vi) Others

In 2022, the Group's net sales of other products amounted to RMB930.9 million, an increase of 11.48% from the previous year's RMB835.0 million.

The net sales of other products accounted for 1.28% of the Group's net sales in the current year, an increase of 0.2 percentage points from the previous year.

(2) Cost of sales and operating expenses

Cost of sales and operating expenses consist of cost of sales, sales and administrative expenses, other operating expenses and other operating income, etc.

In 2022, the Group's cost of sales and operating expenses amounted to RMB76,498.0 million, an increase of 2.74% from RMB74,456.6 million in 2021. Cost of sales and expenses of synthetic fibers, resins and plastics, intermediate petrochemical products, petroleum products, trading of petrochemical products and other products amounted to RMB1,427.8 million, RMB8,573.7 million, RMB11,994.3 million, RMB41,443.7 million, RMB11,994.8 million and RMB1,063.7 million respectively, representing a decrease of 35.94%, a decrease of 13.49%, an increase of 5.07%, an increase of 6.49%, an increase of 8.97% and an increase of 8.93% year on year respectively.

Compared with the last year, the cost of sales and operating expenses of intermediate petrochemical products, petroleum products, trading of petrochemical products and others increased this year, which was mainly due to the hike in crude oil prices and thus the increase in corresponding costs.

– Cost of sales

  In 2022, the Group's cost of sales amounted to RMB76,265.9 million, an increase of 2.65% from previous year's RMB74,298.0 million, which was mainly due to the increase in cost resulting from the rise in crude oil prices as well as the lower NRV of most inventories than the cost. The cost of sales accounted for 104.97% of the net sales this year.

– Selling and administrative expenses

  In 2022, the Group's sales and administrative expenses amounted to RMB288.7 million, a decrease of 21.59% from the previous year's RMB368.2 million. This was mainly due to the overall sales volume drop in the year.

– Other operating income

In 2022, the Group's other operating income amounted to RMB110.6 million, a decrease of 11.73% from previous year's RMB125.3 million, which was mainly due to the drop in rental income.

– Other operating expenses

In 2022, the Group's other operating expenses amounted to RMB25.8 million, a decrease of 42.28% from previous year's RMB44.7 million. This was mainly due to the decrease of RMB23.2 million for the purchases of rights of carbon emission during the year.

(3) Operating profit

In 2022, the Group's operating loss amounted to RMB3,843.4 million, a decrease of RMB5,275.6 million from the operating profit of RMB1,432.2 million in the previous year. In 2022, the operating profit declined significantly from the previous year due to the rising cost resulting from higher crude oil prices, the increase in the selling price of products not as high as the rising cost, and a sluggish domestic market.

(i) Synthetic fibres

In 2022, the operating loss of synthetic fibers amounted to RMB1,015.3 million, an increase of RMB161.2 million from the operating loss of RMB854.1 million in the previous year. The increase was mainly due to the poor market demand of the textile industry, the downstream market of the synthetic fibers segment, together with temporary plant shutdown. Due to a number of production facilities were idle or obsolete, the provision for impairment of long-term assets of RMB49.2 million was made for the synthetic fiber segment.

(ii) Resins and plastics

In 2022, the operating loss of resins and plastics amounted to RMB1,252.5 million, a decrease of RMB1,304.7 million from the operating profit of RMB52.2 million in the previous year. The decrease in operating profit in the year was mainly because the rise in international crude oil prices resulted in the sharp rise in costs while the demand in the downstream market was weak, and thus the increase in sales price was lower than that in cost price.

(iii) Intermediate petrochemical products

In 2022, the operating loss of intermediate petrochemical products amounted to RMB1,456.6 million, an increase of RMB821.5 million from the operating loss of RMB635.1 million in the previous year. The increase in operating loss in the year was mainly because the rise in international crude oil prices resulted in the sharp rise in costs while the demand in the downstream market was weak, and thus the increase in sales price was lower than that in cost price. In 2022, the provision for impairment of long-term assets of RMB212.4 million was made for some devices as the increasing production and operation cost is not expected to be covered by the estimated sales price of the devices due to deteriorating market conditions.

(iv) Petroleum products

In 2022, the operating profit of petroleum products amounted to RMB1.0 million, a decrease of RMB2,966.0 million from the operating profit of RMB2,967.0 million in the previous year. The decrease in operating profit in the year was mainly because the rise in international crude oil prices resulted in the sharp rise in costs, and thus the increase in sales price was lower than that in cost price.

(v) Trading of petrochemical products

In 2022, the Group's operating profit of trading of petrochemical products amounted to RMB12.8 million, a decrease of RMB30.9 million from the operating profit of RMB43.7 million in the previous year, which was mainly due to the decrease in the gross profit from trading of petrochemical products during the period.

(vi) Others

In 2022, the Group's other operating loss amounted to RMB132.8 million, a decrease of RMB8.7 million from the other operating profit of RMB141.5 million in the previous year, which was no significant change compared with the previous year.

(4) Net finance income

In 2022, the Group's net financial income amounted to RMB443.3 million, an increase of RMB28.7 million from the net financial income of RMB414.6 million in the previous year, mainly due to the increase in interest income from time deposits during the Reporting Period, resulting in an increase of our interest income by RMB33 million from RMB508.8 million in 2021 to RMB541.8 million in 2022.

(5) Loss before taxation

In 2022, the Group's loss before taxation amounted to RMB3,573.7 million, a decrease of RMB6,294.8 million from the profit before taxation of RMB2,721.1 million in the previous year.

(6) Income tax

The income tax benefit of the Group amounted to RMB731.4 million in 2022 and the income tax expenses amounted to RMB644.5 million in 2021. This is mainly due to the recognition of deferred income tax assets as a result of the Company's loss for the year.

In accordance with The Enterprise Income Tax Law of the PRC (amended in 2018), the income tax rate applicable to the Group in 2022 is 25% (2021: 25%).

(7) Loss for the year

In 2022, the Group's loss after tax amounted to RMB2,842.3 million, a decrease of RMB4,918.9 million from the profit after tax of RMB2,076.6 million in the previous year.

3.2.B Liquidity and capital sources

The Group's primary sources of capital are cash inflows from investing activities arising from the maturity of time deposits. The Group's primary uses of capital are costs of sales, other operating expenses and capital expenditure.

(1) Capital sources

(i) Net cash flow generated from operating activities

In 2022, the Group's net cash outflows generated from operating activities amounted to RMB7,459.4 million, representing a decrease of RMB11,409.4 million from the net cash inflows of RMB3,950.0 million in the previous year. During the Reporting Period, with the operating loss, the Group's cash outflows generated from operating activities in 2022 amounted to RMB6,960.7 million, representing a decrease of RMB11,372.4 million from the cash inflows generated from operating activities before interest and tax of RMB4,411.7 million in the previous year.

(ii) Borrowings

By the end of 2022, the Group's total borrowings decreased by RMB9.8 million to RMB2,250 million as compared to the end of last year, mainly due to the decrease of long-term borrowings due within one year by RMB19.8 million as well as the increase of short-term borrowings due within one year by RMB10 million.

The Group managed to maintain its gearing ratio at a safe level by strengthening its management of liabilities (such as borrowings) and enhancing its control over financial risks. The Group generally does not experience any seasonality in borrowings. However, due to the fact that the Group's capital expenditure is, by nature, planned in advance, long-term bank loans can be suitably arranged in advance of expenditures, while short-term borrowings are used to meet operational needs. The terms of the Group's existing borrowings do not restrict its ability to distribute dividends for its shares.

(2) Gearing ratio

As of 31 December 2022, the Group's gearing ratio was 35.93% (2021: 35.26%). The ratio is calculated using this formula: total liabilities/total assets multiply by 100%.

3.2.C Research and development, patents and licenses

Research and development expenses refer to various expenditures incurred in the process of research and development or commissioned development of new products, technologies and processes.

The Group owns various technology development departments, including the Advanced Materials Innovation Research Institute, Petrochemical Research Institute, Plastic Research Institute and Environmental Protection Research Institute, which are responsible for the research and development of new technologies, products, processes, equipment and environmental protection. The Group's research and development expenses for 2020, 2021 and 2022 amounted to RMB110.6 million, RMB94.3 million and RMB130.5 million, respectively. The increase was mainly due to the increase in material cost for research and development of technology in equipment and products.

The Group does not rely on any patents, licenses, industrial, commercial or financial contracts or new production processes in any material respect.

3.2.D Off-Balance Sheet Arrangements

Please refer to note 34 to the financial statements prepared under IFRS in the full text of the 2022 Annual Report for details of the Group's capital commitments. The Group did not provide any guarantee to external parties during the Reporting Period.

3.2.E Contractual obligations

The following table sets forth the Group's obligations to repay loan principal in future as at 31 December 2022:

	Payment due and payable by the following period as at 31 December 2022				
	Total RMB'000	Within one year RMB'000	After one year but within two years RMB'000	After two years but within five years RMB'000	Over five years RMB'000
Contractual obligations					
Short-term borrowings	1,550,000	1,550,000	–	–	–
Long-term borrowings	700,000	–	700,000	–	–
Total contractual obligations	2,250,000	1,550,000	700,000	–	–

3.2.F Analysis of operation and results of major controlled companies and invested companies during the Reporting Period

As at 31 December 2022, the Company had more than 50% equity interest in the following principal subsidiaries:

Company name	Place of registration	Principal business	Place for principal activities	Type of legal person	Percentage of equity held by the Company (%)	Percentage of equity held by the Group (%)	Paid-in capital (RMB'000)	Net profit/(loss) for the year 2022 (RMB'000)
Shanghai Petrochemical Investment Development Company Limited ("Shanghai Investment Development")	China	Investment management	China	Limited company	100.00	100.00	RMB1,000,000	18,330
China Jinshan Associated Trading Corporation ("Jinshan Associated Trading")	China	Import and export of petrochemical products and equipment	China	Limited company	67.33	67.33	RMB25,000	22,314
Shanghai Jinchang Engineering Plastics Company Limited ("Shanghai Jinchang")	China	Production of polypropylene compound products	China	Limited company	–	74.25	USD9,154	(27,804)
Shanghai Golden Phillips Petrochemical Company Limited ("Shanghai Golden Phillips")	China	Production of polypropylene products	China	Limited company	–	100.00	RMB415,623	1,695
Shanghai Jinshan Trading Corporation ("JMGJ")	China	Import and export of petrochemical products and equipment	China	Limited company	–	67.33	RMB100,000	11,401
Zhejiang Jinlian Petrochemical Storage and Transportation Co., Ltd. ("Jinlian")	China	Trading of petrochemical products	China	Limited company	–	100.00	RMB400,000	(21,495)

Note: None of the subsidiaries have issued any debt securities.

The Group's share of interests in associates comprises a 38.26% interest in Shanghai Chemical Industry Park Development Co., Ltd. ("Chemical Industrial Park") established in the PRC in the amount of RMB2,115.1 million, and a 20% interest in Shanghai SECCO Petrochemical Company Limited ("Shanghai SECCO") established in the PRC in the amount of RMB333.9 million. The principal activities of Chemical Industrial Park, include the planning, development and operation of a chemical industrial park located in Shanghai of the PRC. The principal activities of Shanghai SECCO are the production and distribution of petrochemical products.

(1) Explanation of profits of major controlled companies and invested companies affecting more than 10% of the net profit of the Group

In 2022, Shanghai SECCO recorded a revenue of RM24,096.8 million, and its loss after tax reached RMB1,947.6 million, among which RMB382.0 million was attributed to the Company.

(2) Analysis of operational performance of major controlled companies and invested companies with a 30% or more year-on-year change

a) The operating results of Shanghai Investment Development decreased by 85.5% in 2022 as compared with the previous year. The decrease was mainly due to the decrease of RMB67.5 million in dividends declared by the subsidiary Shanghai Golden Phillips in 2022 as compared with 2021, as well as the significant decrease in the net profit of major associates and joint ventures, resulting in a sharp fall of RMB130.3 million in the investment income in 2022.

b) The operating results of Jinshan Associated Trading decreased by 30.69% in 2022 as compared with the previous year. The decrease was mainly due to the decrease in dividends declared by the subsidiary in 2022.

c) The operating results of Shanghai Golden Phillips decreased by 94.29% in 2022 as compared with the previous year, which was mainly due to the fact that the price increase of polyethylene, the product of Shanghai Golden Phillips, was lower than the price increase of ethylene, the major raw material of Shanghai Golden Phillips.

3.2.G Major suppliers and customers

The Group's top five suppliers in 2022 were China International United Petroleum & Chemical Co., Ltd., East China Branch of Sinopec Chemical Commercial Holding Company Limited, Materials and Equipment Department of China Petroleum and Chemical Corporation, Shanghai SECCO and Shanghai Gas Co., Ltd. Total procurement costs involving these five suppliers, which amounted to RMB53,719.8 million, accounted for 74.29% of the total procurement costs of the Group for the year. Among the top five suppliers, the purchase amount of related parties was RMB52,304.9 million, accounting for 72.33% of the total annual purchase amount. The total procurement from the largest supplier amounted to RMB45,666.4 million, representing 63.15% of the total costs of purchases by the Group for the year.

The Group's top five customers in 2022 were East China Branch of Sinopec Sales Co., Ltd., China International United Petroleum & Chemical Co., Ltd., Sinopec Chemical Commercial Holding Company Limited, Shanghai SECCO and Zhejiang Dushan Energy Co., Ltd. Total sales to these five customers amounted to RMB54,719.9 million, representing 66.37% of the Group's total turnover for the year. Among the sales of the top five customers, the sales of related parties was RMB52,363.1 million, accounting for 63.51% of the total annual sales. Sales to the Group's largest customer amounted to RMB40,337.0 million, representing 48.93% of the Group's total turnover for the year.

To the knowledge of the Board, among the suppliers and customers listed above, shareholders and Directors of the Company and their close associates have no interest in Shanghai Gas Co., Ltd. and Zhejiang Dushan Energy Co., Ltd.; Shanghai SECCO is an associate of the Company; China International United Petroleum & Chemical Co., Ltd., East China Branch of Sinopec Chemical Commercial Holding Company Limited, Materials and Equipment Department of China Petroleum and Chemical Corporation, East China Branch of Sinopec Sales Co., Ltd. and Sinopec Chemical Commercial Holding Company Limited are subsidiaries of Sinopec Corp., the controlling shareholder of the Company.

(II) Principal Operations of the Company during the Reporting Period

Discussion and analysis of the Company's operation (prepared under CAS)

1. Analysis of the Company's principal activities

1.1 Analysis of changes in the consolidated income statement and the consolidated cash flow statement

Unit: RMB'000

Item	Amount for the year ended 31 December 2022	Amount for the year ended 31 December 2021	Percentage change (%)
Operating income	82,518,315	89,280,415	-7.57
Operating cost	73,518,024	71,675,646	2.57
Selling and distribution expenses	282,841	362,334	-21.94
General and administrative expenses	1,795,867	1,842,087	-2.51
Financial expenses ("–" for financial income)	-459,437	-406,799	12.94
Research and development expenditure	130,516	94,295	38.41
Net cash inflow generated from operating activities ("–" for net outflow)	-7,337,499	4,060,026	Outflow increased by 280.73%
Net cash inflow generated from investing activities ("–" for net outflow)	4,390,350	-2,359,421	N/A
Net cash inflow generated from financing activities ("–" for net outflow)	-1,290,768	-3,503,142	N/A

Analysis of major changes in the consolidated income statement

Unit: RMB'000

Item	For the years ended 31 December 2022	2021	Increase/ Decrease amount	Increase/ Decrease (%)	Major reason for change
Investment income ("–" for loss)	**-191,800**	967,380	-1,159,180	-119.83	Investment loss resulting from the operating loss of associates.
Income tax expenses ("–" for profit)	**-731,354**	644,480	-1,375,834	-213.48	Deferred income tax benefit for deductible losses resulting from the loss for the year.
Net profit attributable to owners of the parent ("–" for loss)	**-2,872,072**	2,000,506	-4,872,578	-243.57	The price of petrochemical products did not increase as much as that of crude oil this year, resulting in an operating loss.

Analysis of major changes in the cash flow statement

Unit: RMB'000

Item	For the years ended 31 December 2022	2021	Increase/ Decrease amount	Increase/ Decrease (%)	Major reason for change
Net cash inflow generated from operating activities ("–" for net outflow)	**-7,337,499**	4,060,026	Outflow increased by 11,397,525	Outflow increased by 280.73%	The price increase of petrochemical products in the year was less than that of crude oil, resulting in a decrease in cash received from the sale of goods and services as compared with the previous year, while the cash paid for the purchase of goods and services increased as compared with the previous year.
Net cash inflow generated from investing activities ("–" for net outflow)	**4,390,350**	-2,359,421	Inflow increased by 6,749,771	N/A	The net cash inflow of time deposits increased in the year as compared with the previous year.
Net cash inflow generated from financing activities ("–" for net outflow)	**-1,290,768**	–3,503,142	Outflow decreased by 2,212,374	N/A	The net cash outflow from the acquisition and repayment of Short-term bond decreased by RMB3,001 million and the net cash outflow from the acquisition and repayment of loans increased by RMB722 million as compared with the previous year.

1.2 Operating income

(1) Analysis of factors causing the changes in revenue in the Reporting Period

The sales volume of the Group's synthetic fibres, resins and plastics, intermediate petrochemical products and petroleum products decreased by 78.02%, 29.13%, 22.37% and 28.35% respectively, bringing a lower revenue in 2022 compared with the previous year.

(2) Major customers

Please refer to 3.2.G for details of major customers of the Group.

1.3 Operating cost

(1) Analysis of operating cost

In 2022, the Group's operating cost was RMB73,518.0 million, an increase of 2.57% from the previous year's RMB71,675.6 million. This was mainly due to the rise in international crude oil price in the year, resulting in an increase in operating cost.

The following table sets forth the details of the operating cost of the Group during the Reporting Period:

	For the years ended 31 December				
	2022		2021		
	Amount (RMB million)	**% of the total operating cost**	Amount (RMB million)	% of the total operating cost	Increase/ Decrease (%)
Cost of raw materials					
Crude oil	**47,139.0**	**64.12**	43,182.3	60.25	9.16
Other raw materials, auxiliary materials and power	**8,858.7**	**12.05**	11,275.3	15.73	-21.43
Depreciation and amortisation	**1,606.8**	**2.18**	1,779.1	2.48	-9.68
Employee wage	**2,425.5**	**3.30**	2,357.5	3.29	2.88
Trading cost	**11,910.5**	**16.20**	10,929.1	15.25	8.98
Others	**1,577.5**	**2.15**	2,152.3	3.00	-26.71
Total	**73,518.0**	**100.00**	71,675.6	100.00	2.57

(2) Major suppliers

Please refer to 3.2.G for details of major suppliers of the Group.

1.4 Expenses

Please refer to "Analysis of changes in the consolidated income statement and the consolidated cash flow statement" under the "Analysis of the Company's principal activities" set forth in the "Principal Operations of the Company during the Reporting Period" for details of the changes in expenses of the Group.

1.5 Research and development ("R&D") expenditure

(1) R&D expenditure

Unit: RMB'000

Expensed R&D expenditure during the Reporting Period	130,515.5
Capitalised R&D expenditure during the Reporting Period	–
Total R&D expenditure	130,515.5
% of R&D expenditure to revenue	0.16
% of capitalised R&D expenditure	–

(2) R&D personnel

Number of R&D personnel	179
% of number of R&D personnel to total number of staff	2.24
Educational structure of R&D personnel	
Education structure category	Education structure number
Doctor	12
Master	51
Undergraduate	66
Junior college graduate	26
High school and below	24
Age structure of R&D personnel	
Age structure category	Age structure number
Under 30 years old (excluding 30 years old)	26
30-40 years old (including 30 years old and excluding 40 years old)	38
40-50 years old (including 40 years old and excluding 50 years old)	47
50-60 years old (including 50 years old and excluding 60 years old)	68
Over 60 years old	0

Please refer to 3.2.C for details of R&D, patents and licenses of the Group.

1.6 Cash flow

Please refer to "Analysis of changes in the consolidated income statement and the consolidated cash flow statement" under the "Analysis of the Company's principal activities" set forth in the "Principal Operations of the Company during the Reporting Period" for details of changes in the consolidated cash flow statement.

2. Analysis of business operations by industry, product or geographical location segment

2.1 Principal activities by industry or product

Unit: RMB'000

By industry	Operating income	Operating cost	Gross profit/(loss) margin (%)	Increase/ Decrease of operating income as compared to the previous year	Increase/ Decrease of operating cost as compared to the previous year	Change of gross profit margin as compared to the previous year (percentage point)
Petroleum products [Note]	51,153,867	41,092,010	19.67	-7.12%	7.35%	Decreased by 10.83 percentage points
Intermediate petrochemical products	10,575,905	10,831,360	-2.42	-2.39%	4.55%	Decreased by 6.80 percentage points
Trading of petrochemical products	12,016,586	11,910,488	0.88	8.65%	8.98%	Decreased by 0.30 percentage points
Resins and plastics	7,345,052	7,914,497	-7.75	-26.59%	-14.23%	Decreased by 15.53 percentage points
Synthetic fibres	413,883	831,846	-100.99	-70.03%	-56.49%	Decreased by 62.56 percentage points
Others	542,892	620,800	-14.35	24.71%	7.50%	Increased by 18.31 percentage points

Note: The gross profit margin is calculated according to the price of petroleum products, which includes consumption tax. The gross profit margin of petroleum products after deducting the consumption tax amounted to 2.89%.

2.2 Operating income by geographical location

Unit: RMB'000

Geographical location	Operating income	Increase/Decrease of operating income compared with the previous year (%)
East China	71,940,917	-9.82%
Other regions in China	970,563	-22.89%
Export	9,606,835	16.55%

3. Analysis of assets and liabilities

Unit: RMB'000

Item	As at 31 December 2022		As at 31 December 2021		Change of amount on 31 December 2022 compared to 31 December 2021 (%)	Major reason for change
	Amount	% of total assets	Amount	% of total assets		
Cash at bank and on hand	3,998,332	9.69	12,498,617	26.57	-68.01	Time deposits with maturity less than one year decreased.
Accounts receivable	2,512,362	6.09	1,169,405	2.49	114.84	Trade receivable increased by RMB1,400 million.
Receivables under financing	582,354	1.41	1,072,690	2.28	-45.71	Decrease in settlement of bills during the year.
Other current assets	1,121,187	2.72	17,329	0.04	6,370.00	VAT recoverable increased significantly.

Item	As at 31 December 2022 Amount	% of total assets	As at 31 December 2021 Amount	% of total assets	Change of amount on 31 December 2022 compared to 31 December 2021 (%)	Major reason for change
Deferred tax assets	991,850	2.40	184,143	0.39	438.63	Deferred tax assets for deductible losses increased.
Other non-current assets	3,439,559	8.34	5,581,435	11.87	-38.38	Time deposits with maturity more than one year decreased.
Bills payable	40,951	0.10	830,006	1.76	-95.07	Major bills payable were due for acceptance before the end of the year in 2022.
Accounts payable	9,144,554	22.17	5,888,879	12.52	55.29	Increase in crude oil purchase price at the end of the year.
Taxes payable	889,856	2.16	4,070,663	8.65	-78.14	The main reason is the consumption tax payable decreased by RMB2,500 million in the end of 2022.
Other current liabilities	44,750	0.11	1,441,320	3.06	-96.90	The amount due to related parties measured at fair value decreased by RMB1,400 million.

Overseas assets

During the Reporting Period, the overseas assets held by the Company were RMB15,165 thousand, accounting for 0.037% of the total assets.

4. Others

(1) Directors, Supervisors, senior management and employees

Please refer to the Chapter 5 “Directors, Supervisors, Senior Management and Employees” in this annual report.

(2) Acquisition, sale and investment

Save and except as disclosed in the 2022 annual report, there was no material acquisition or sale of the Group’s subsidiaries, associates or joint ventures or any other material investments in 2022.

(3) Pledge of assets

As of 31 December 2022, no fixed assets were pledged by the Group (31 December 2021: Nil).

(4) Material events after the Reporting Period

The Board has not noticed any significant events affecting the Group since the end of the Reporting Period.

5. Financial assets and financial liabilities held in foreign currencies

As at 31 December 2022, cash at bank and on hand, trade receivables, other receivables, trade payables and other payables, and other financial asset and liabilities denominated in foreign currencies held by the Group were equivalent to RMB46,683 thousand of net liabilities.

6. Investment of the Company–

6.1 Entrusted wealth management and entrusted loans

(1) Entrusted wealth management

The Company did not engage in any entrusted wealth management during the Reporting Period.

(2) Entrusted loans

During the Reporting Period, the Company provided an entrusted loan to Shanghai Jinshan Baling New Material Co., Ltd. (“Baling New Materials”) through Sinopec Finance Co., Ltd., with a total loan amount of RMB300 million, which was used for styrene thermoplastic elastomer project. The loan term is 6 months and the annual interest rate is 3.80%. In fact, the entrusted loan of RMB150 million were issued. As of 31 December 2022, the entrusted loan was recovered.

6.2 *Analysis of major subsidiaries and investing companies*

Please refer to "3.2.F Analysis of operation and results of major controlled companies and invested companies during the Reporting Period" contained in "Management Discussion and Analysis" of this chapter for the analysis of major subsidiaries and investing companies.

6.3 *Non-fundraising projects*

In 2022, the capital expenditures of the Group amounted to RMB3,452 million, representing a decrease of 2.29% as compared with RMB3,533 million in 2021. Major projects include the following:

Major project	Total amount of project investment RMB'000	Amount of project investment during the Reporting Period RMB'000	Project progress as at 31 December 2022
Shanghai Jinshan Baling New Material Co., Ltd.	400,000	200,000	Paid in RMB200 million
Sinopec Shanghai 24000 T/A precursor fiber and 12000 T/A 48K large tow carbon fiber project	3,489,638	1,099,999	Under construction
100 ton high performance carbon fiber test plant	566,183	326,739	Under construction
Improvement transformation project of clean water and sewage separation of Sinopec Shanghai	155,293	80,000	Under construction
Third circuit 220kV incoming power line project of Sinopec Shanghai	507,120	75,000	Under construction
The compliance transformation project plus the hidden danger rectification project of the control system in the control room of 1#, 2#, 3#, 4# refining combined unit of oil refining department	97,689	70,000	Interim delivery
Compliance transformation project of control room of the synthetic resin department (the former plastics department)	121,991	60,000	Under construction
Compliance transformation project of energy consumption of 2xCC100 Turbine (No.5 and No.6) for coal power units	93,260	53,000	Put into operation

Note: In addition to the major capital expenditure items disclosed in the above table, the total capital expenditure of other projects of the Company is RMB1,487 million.

The Group's capital expenditures for 2023 are estimated at approximately RMB3,700 million.

(III) Discussion and analysis on future development of the Company

1. Industry competition and development trends

From the macroeconomic situation, the crisis in Ukraine is still ravaging the world. The global monetary tightening cycle persists, and the downward risk of the world economy is mounting. It is the norm that the external environment becomes unstable, uncertain, unpredictable. China's economy is under "triple pressure" exacerbated by "more than expected changes". In such case, it is a daunting task to stabilize growth, employment and prices. Although the market demand rebounds and the economy is expected to pick up, there are still interference factors. From the energy price trend, the geopolitical risk premium stays high, the OPEC restricts production and prices, Russian export restrictions intensify the international oil price fluctuation, gas replenishment in Europe remains uncertain, and prices may surge in the replenishment season and heating season. It is expected that a medium-high price of international oil and gas will be maintained throughout the year. From the industrial competition landscape, the domestic oil refining and processing volume reaches its peak. Refined oil consumption hits a plateau. The overcapacity in tandem with sluggish demand only intensify market competition. The resource agglomeration and competition effect of leading enterprises of main units will be more prominent. The penetration rate of the new energy vehicle market jumps faster, the substitution effect also demonstrates itself faster, and the competitive advantage is significantly enhanced.

A comprehensive analysis of the annual production and operation shows that the Company will encounter the following four challenges: First, the wild fluctuation in oil prices challenge the control over the production rhythm. High oil and gas prices, high discount of freight charges, and the refined oil pricing mechanism lead to the decline in refining margins, which significantly hinder the operation of the industry chain. With the regulation over processing volume arrangements skipping cycles, synergies among different segments become more difficult. Second, market uncertainties challenge the optimal regulation of resources. The recovery of refined oil consumption is slow, the chemical market space narrows, the incremental scale of new business is limited, and the pressure to expand market and sales is more pronounced. Third, the continued transmission of inflation challenges the control over investment cost. The rising rigid cost of investment indicates an even greater impact on the completion of free cash flow, asset-liability ratio, cost margin and other indicators. It also means a much greater test for securing the financial position and debt credit stability. Fourth, external risk pooling challenges the prevention and control of operational risks. Geopolitical turmoil, economic downturn, and oil price fluctuations increase the input of external risks. Oil refining and chemical engineering segments are under the pressure of operating losses. The reduction in inventory profit and the greater risk of price drop add to the challenge in maintaining efficiency and steady growth.

2. Development strategies of the Company

The Group's development objectives are to evolve itself into a "leading domestically, first-class globally" energy and chemical and new material enterprise. The key components of the Group's development strategy are as follows: to take into account both low cost and differentiation, and to focus on both scale and refinement. The Company focuses on value and market orientation, creativity, talents as the backbone of the Company, the emphasis of environment and low carbon emissions and integrated development, to realize low cost and large scale of the upstream, and high value-added and refinement of the downstream. The Company will give full play to its advantages of sound product chain, diversified products and close monitoring of the market to enhance competitiveness. Under the guidance of the development strategy, according to the requirements of North-South Transformation raised by Shanghai Government, the Company will actively promote the transformation of oil refining to chemical industry, chemical industry to materials, materials to high-end products, and parks to ecology, will carry out comprehensive technological transformation and quality upgrades, and will further optimize refining product structure to better meet the market needs. The Company will strengthen the core industries of mid-to-high-end new materials such as carbon fiber, and take polyester, polyolefin, elastomer, and C-5 downstream fine chemical new materials as breakthrough and extension for the mid-to-high-end new materials which will help the North-South transformation and the construction of Carbon Valley Green Bay and local industrial parks in Jinshan District. The Company will develop wind, light, fire, and biological integrated power generation and green hydrogen production technology, and will realize the energy structure transformation from fossil energy to fossil energy combined with renewable energy to achieve energy saving. Through diversified industrial linkage development and cluster agglomeration, the Company will build an industrial base with green energy, fine chemical, and high-end material on the north bank of Hangzhou Bay with world-scale and first-class competitiveness.

3. Management Plan

In 2023, the Company will, adhering to the principle of prioritizing stability while pursuing progress, integrate into the new development landscape and coordinate development and safety in a better way, to lay a solid foundation for its high-quality development on all fronts. In 2023, the Company plans to process a total of 13.6 million tons of crude oil, produce a total of 8.001 million tons of refined oil products, 756,000 tons of ethylene, 680,000 tons of p-xylene, and 698,700 tons of new synthetic resin products and special materials annually. In order to achieve the business objectives for 2023, the Group will focus on the following five areas of work:

(1) *Strengthen safety and environmental protection and improve the level of intrinsic safety*

Learning from accidents, we exercise full and strict management over the Company, and strengthen the fulfillment of responsibilities. We strictly control risks and ensure safety and environmental protection. We strengthen the control over contractors, promote the review of contractors' QHSE system, and strengthen the supervision over direct work safety. While enhancing the basic skills training, we optimize the training mode and process. We push forward the effective operation of the HSE management system, improve environmental protection KPI indicators, and meet basic emission standards. In addition, we strictly implement the principles of solid waste reduction, recycling and harmlessness, and advance the construction of waste-free factories.

(2) *Strengthen efficiency and reduce costs to improve production and operation*

We implement the target of efficiency improvement and cost reduction throughout production and operation. We put equal emphasis on both process and equipment, to ensure the stable and efficient operation of equipment. We optimize crude oil procurement, transportation and distribution, production operation and maintenance, energy saving and "three new business" (new energy, new materials and new economy), strictly control costs and expenses, and improve cost control. These efforts aim to maximize the overall efficiency of the Company.

(3) *Strengthen management to improve efficiency and enhance endogenous momentum*

We keep optimizing the management system and mechanism, further optimize the organizational setup, and improve management efficiency and level. We strengthen organizational performance management by improving assessment, incentives and constraints, and refining the internal management market-oriented working mechanism.

(4) *Focus on transformation and development and promote the development of key projects*

We accelerate transformation and upgrading. We go all out to create a more resilient and higher-value integrated industrial chain, and build an industrial base featuring green energy, fine chemical and high-end materials. We speed up the breakthroughs in core technologies in key fields and the implementation of key projects. During the year, the first phase of 48K large-tow carbon fiber went into commercial operation. We carried out the second phase of equipment construction, made available 100-ton test devices for high-performance carbon fiber and pilot plants for aeronautical composite materials, and accelerated the construction of 250,000 tons/year thermoplastic elastomer projects. We strengthen the construction of platforms of sci-tech innovation and our innovation capability. We promote the application of new technologies and processes in production units. Furthermore, we strengthen the operation and management of joint laboratories with universities to integrate production, learning, research and application.

(5) *Strengthen team building and consolidate the foundation for corporate development*

We enhance cadres' ability to perform their duties and continuously promote the construction of cadre management system. We also further better the talent system. Specifically, we provide the basic skills training for skilled operators, and continue with the business competition themed "big drills and big game". We refine the plan for training and introducing talents, and improve the management plus assessment and incentive of cutting-edge and urgently-needed talents. These efforts will enable us to maintain the personal interests, long-term interests and fundamental interests of the employees, and enhance the satisfaction and sense of gain of the grass-roots employees.

4. Possible Risks

(i) *The cyclical characteristics of the petroleum and petrochemical products market and price volatility in crude oil and petrochemical products may have an adverse impact on the Group's operations.*

A large part of the Group's operating income is derived from the sales of refined oil and petrochemical products. Historically, such products have been cyclical in nature and relatively sensitive to macroeconomic changes. Additionally, changes in regional and global economic conditions, productivity and output, prices and supply of raw materials, consumer demand and prices and supply of substitutes also have an effect. From time to time, these factors have a material impact on the prices of the Group's products in regional and global markets. Given the reduction of tariffs and other import restrictions as well as the relaxation of control by the PRC government over the distribution and pricing of products, a substantial number of the Group's products will increasingly be subject to the cyclical impact in the regional and global markets. In addition, the prices of crude oil and petrochemical products will remain volatile, and uncertain. Higher crude oil prices and lower petrochemical products prices are likely to have an adverse impact on the Group's business, operating results and financial condition.

(ii) *The Group may be exposed to risks associated with the procurement of imported crude oil and may not be able to pass on all increased costs due to rising crude oil price.*

At present, the Group consumes a significant amount of crude oil for the production of petrochemical products. More than 95% of the crude oil consumption is imported. In recent years, crude oil prices have been subject to significant fluctuations due to a variety of factors, and the Group cannot rule out the possibility of any major unexpected event which may cause a suspension in crude oil supply. The Group has attempted to mitigate the effects of increased costs from rising crude oil prices by passing them on to the customers, but the ability to do so is limited because of market conditions and government control over the pricing of refined oil products. Since there is a time-lag between increases in crude oil prices and increases in petrochemical product prices, higher costs cannot be totally offset by raising the sales prices. In addition, the State also imposes control over the distribution of some petroleum products within China. For instance, some of the Group's petroleum products are required to be sold to designated customers (such as subsidiaries of Sinopec Corp). Hence, when crude oil prices are high, the higher costs cannot be totally offset by raising the sales prices of the Group's petroleum products.

(iii) *Substantial capital expenditures and financing requirements are required for the Group's development plans, presenting a number of risks and uncertainties.*

The petrochemical industry is a capital-intensive industry. The Group's ability to maintain and raise income, net income and cash flows is closely connected with ongoing capital expenditures. The Group's estimated capital expenditures is estimated to amount to approximately RMB3,700.0 million in 2023, which will be met by financing activities and certain of own funds. The Group's effective capital expenditures may vary significantly due to the Group's ability to generate sufficient cash flows from operations, investments and other factors that are beyond control. Furthermore, there is no assurance as to the completion, cost or outcome of the Group's fundraising projects.

The Group's ability to secure external financing in the future is subject to a number of uncertainties which include the Company's operating results, financial conditions and cash flow in the future; China's economic conditions and the market conditions for the Group's products; financing costs and conditions of the financial market, and issuance of government approval documents, as well as other risks associated with the development of infrastructure projects in China and so forth. The Group's failure to secure sufficient financing required for its operations or development plans may have an adverse impact on the Group's business, operating results and financial condition.

(iv) *The Group's business operations may be affected by existing or future environmental protection regulations.*

The Group is subject to a number of environmental protection laws and regulations in China. Waste products (waste water, waste gas and waste residue) are generated during the Group's production operations. Currently the Group's operations fully comply with all applicable Chinese environmental protection laws and regulations. However, the Chinese government may further enforce stricter environmental standards, and the Group cannot assure that the central or local governments will not issue more regulations or enforce stricter regulations which may cause the Group to incur additional expenses on environmental protection measures.

(v) *Changes in the monetary policy and fluctuations in the value of Renminbi may have an adverse impact on the Group's business and operating results.*

The exchange rate of the Renminbi against the US Dollar and other foreign currencies may fluctuate and is subject to alterations due to changes on the Chinese political and economic situations. In July 2005, the PRC government overhauled its policy of pegging the value of the Renminbi to the US dollar by permitting the Renminbi to fluctuate within a certain band against a basket of foreign currencies. Since the adoption of this new policy, the value of the Renminbi against the US dollar fluctuates daily. In addition, the Chinese government has been under international pressure to further ease its exchange rate policy, and may as a result further change its currency policy. A small portion of our cash and cash equivalents are denominated in foreign currencies, including the US dollar. Any increase in the value of Renminbi against other currencies, including the US dollar, may decrease the Renminbi value of our cash and cash equivalents that are denominated in foreign currencies. On the other hand, most of our revenue is denominated in Renminbi, but a major part of our procurement of crude oil, certain equipment and certain debt repayments are denominated in foreign currencies. Any devaluation of Renminbi in the future will increase our costs and jeopardize profitability. Any devaluation of Renminbi may also have an adverse impact on the value of dividends payable in foreign currencies by the Group for H shares and ADR.

(vi) *Connected transactions may have an adverse impact on the Group's business and economic efficiency.*

The Group will, from time to time, continue to conduct transactions with the Group's controlling shareholder Sinopec Corp. and Sinopec Corp.'s controlling shareholder Sinopec Group as well as their connected parties (subsidiaries or associates). These connected transactions include the provision of the following services by such connected parties to the Group: raw materials purchases, agency sale of petrochemical products, construction, installation and engineering design services, petrochemical products industry insurance services and financial services, and the sale of petroleum and petrochemical products by the Group to Sinopec Corp. and its connected parties. These connected transactions and services conducted by the Group are carried out under normal commercial terms and in accordance with the relevant agreements. However, if Sinopec Corp. and Sinopec Group refuse to conduct such transactions or revise the agreements between the Group and itself in a manner unfavorable to the Group, the Group's business and business efficiency will be adversely impacted. Furthermore, Sinopec Corp. has an interest in certain sectors that are directly or indirectly competing with or which may compete with the Group's business. Since Sinopec Corp. is the controlling shareholder of the Group and its own interests may conflict with those of the Group, it may act for its own benefit regardless of the Group's interests.

(vii) Risks associated with control by the substantial shareholder

Sinopec Corp., the controlling shareholder of the Company, owns approximately 5,459 million shares of the Company, which represents 50.44% of the total number of shares of the Company and gives it an absolute controlling position. Sinopec Corp. may, by using its controlling position, exercise influence over the Group's production operations, fund allocations, appointment or removal of senior staff and so forth, thereby adversely affecting the Group's production operations as well as minority shareholders' interests.

Section III Analysis of Operating Information in Chemical Industry

(I) Basic information of the industry

1. Industry policy and changes

In 2022, the National Development and Reform Commission, the Ministry of Industry and Information Technology and other relevant ministries and commissions promulgated a number of industrial policies closely related to the petrochemical industry, including the "Implementation Guidelines for Transformation and Upgrade of Energy Conservation and Carbon Reducing in Key Sectors of Energy-intensive Industries (2022 Edition)" promulgated in February, the "Guidance on Promoting High-quality Development of Petrochemical and Chemical Industry in the 14th Five-Year Plan" promulgated in March, the "Implementation Plan for Carbon Peaking in the Industrial Sector" promulgated in August, as well as the "Guidelines for Development and Construction of Chemical Parks", the "Guidance Catalogue for Industrial Restructuring", the "National Catalogue of Advanced Technologies in Cleaner Production" and other new industrial policies. In November, the "Notice on Further Improving the Control of Energy Use from Raw Materials Not Included in Total Energy Consumption" was issued, specifying that "Coal, petroleum, natural gas and their products used for the production of olefins, aromatics, alkynes, alcohols, synthetic ammonia and other products for non-energy purposes belong to the category of raw material energy." This policy will free up certain space and potential for high-quality development of petrochemical industry, especially for new chemical materials, high-end fine chemicals, medical chemicals, high-purity reagents and other high-performance materials and specialty chemicals used in high-end manufacturing and strategic emerging industries supporting, providing new opportunities.

In terms of security and environmental protection and addressing climate change, in January, the Ministry of Ecology and Environment and the National Development and Reform Commission issued the “14th Five-Year Plan for Marine Ecological and Environmental Protection”, the Ministry of Industry and Information Technology and the National Development and Reform Commission issued the “Implementation Plan on Accelerating the Comprehensive Utilization of Industrial Resources”, and the General Office of the State Council issued the “Implementation Opinions on Strengthening the Supervision and Management of Sewage Discharge Outlets into Rivers and the Sea”. In March, the National Development and Reform Commission and the National Energy Administration issued the “Medium- and Long-term Plan for the Development of Hydrogen Energy Industry (2021-2035)”. In April, the Ministry of Ecology and Environment issued the “Implementation Plan for Environmental Impact Assessment and Discharge Permitting for the 14th Five-Year Plan”, and the Ministry of Ecology and Environment and the National Development and Reform Commission issued the “Work Plan for Strengthening the Construction of the Personnel Training System for Higher Education in Carbon Peak and Carbon Neutrality”. In May, the Ministry of Ecology and Environment and the National Development and Reform Commission issued the “Strategy 2035 for Climate Change Adaptation” and the General Office of the State Council issued the “Implementation Plan for Promoting High-quality Development of New Energy in the New Era”. In June, the Ministry of Science and Technology and the National Development and Reform Commission issued the “Implementation Plan for Achieving Carbon Peaking and Carbon Neutrality through Science and Technology (2022-2030)”. In August, the Ministry of Ecology and Environment and the Development and Reform Commission issued the “Action Plan for Strengthening Protection and Restoration of the Yangtze River”. In October, the General Administration for Market Supervision and the National Development and Reform Commission issued the “Plan for Establishing and Improving a Standard Measurement System for Carbon Peaking and Carbon Neutrality”, etc., which provide strong policy support or constraint for the petrochemical industry to do a good job in safety and environmental protection, carbon peaking and carbon neutrality.

2. Basic situation of major segments and the Company’s industry status

In 2022, downstream production demand for petroleum and chemicals is generally weak due to macroeconomic slowdown, higher energy prices, and continued decline in real estate.

Production. Crude oil processing declined for the first time after years of growth, with a cumulative processing volume of 676 million tons for the year, representing a decrease of 3.4% year-on-year. Production of refined oil products achieved growth in the face of reduced crude oil processing, with a large differentiation among varieties. The total output of refined oil products (gasoline, kerosene and diesel) was 366 million tons, representing an increase of 3.2% year-on-year, compared with a decrease of 8.1% in the previous year. Among them, diesel oil increased by 17.9% year-on-year; gasoline decreased by 5.1% year-on-year; and kerosene decreased by 24.9% year-on-year. The annual capacity utilization rate of the chemical industry was 76.7%, representing a decrease of 1.4 percentage points year-on-year, and the total production of major chemicals decreased by 0.4% year-on-year. Among them, ethylene production was 28.975 million tons, representing a decrease of 1% year-on-year. The total output of synthetic materials declined, with the output of synthetic resin increasing slightly by 1.5% and the output of synthetic fiber monomer (polymer) decreasing by 6.5%.

Consumption. According to the statistics from the National Bureau of Statistics and the China Petroleum and Chemical Industry Federation, the total annual apparent consumption of crude oil and natural gas was 1.039 billion tons (oil equivalent), representing a decrease of 0.3% year-on-year; the total apparent consumption of major chemicals decreased by 1.4% year-on-year, among which the apparent consumption of ethylene was 30.888 million tons, representing a decrease of 0.8% year-on-year; the total apparent consumption of synthetic materials was about 217 million tons, representing a decrease of 4.8% year-on-year, of which synthetic resins decreased by 1.5%; and the synthetic fiber monomer (polymer) decreased by 10.5%.

Trade. In 2022, domestic imports of crude oil was 508 million tons, representing a slight decrease of 1.0% year-on-year, the second consecutive year of decline since 2021, and the foreign-trade dependence of imports was 71.2%, representing a fall of 0.8 percentage points year-on-year. Annual imports of natural gas was 152.07 billion cubic meters, representing a decrease of 10.4% year-on-year, and the foreign-trade dependence of imports was 40.2%, representing a fall of 4.4 percentage points year-on-year. In 2022, exports of refined oil products have declined for three consecutive years, with exports of 34.428 million tons, a sharp decline of 14.6%. Imports of organic chemicals and synthetic materials declined for the second consecutive year, while exports surged, and net imports declined significantly. In 2022, imports of organic chemicals decreased by 26.6% year-on-year, while exports increased by 11.3% year-on-year, and the net imports was 22.804 million tons, representing a sharp decrease of 45.7%; and imports of synthetic materials decreased by 9.7% year-on-year, while exports increased by 12.3% year-on-year, and the net imports was 21.304 million tons, representing a decrease of 24.5%.

The profitability of chemicals declined. As upstream raw materials run at high levels, and downstream demand is insufficient, the industry-wide revenue margin was 6.8% in 2022, representing a decrease of 1.2 percentage points year-on-year; the loss of loss-making enterprises rose 71.8% year-on-year; and the loss of the whole industry was 19.4%, representing an increase of 3.9 percentage points year-on-year.

The Group is one of the major large-scale refining and chemical integration enterprises in China. As the production capacity of the Group’s main products has not increased in recent years, while other domestic enterprises are expanding their capacity, coupled with the impact of plant failures and maintenance during the year, the output of ethylene, p-xylene, ethylene glycol and other products produced by the Group continues to decline in the market share of similar products in China in 2022. In 2022, the output of the Group’s main products accounted for 1.0%-2.0% of the national output of corresponding products.

(II) Products and production

1. Main operating model

The Company's main operating models are: crude oil procurement; processing and production of synthetic fibre, resin, plastic, intermediate petrochemical products and petroleum products; realizing profit through product sales.

2. Main products

Product	Industry segment	Primary upstream raw material	Transport/storage method	Primary downstream application fields	Key price-influencing factors
Diesel	Petroleum products	Petroleum	Pipeline transportation and shipping/storage tank	Transportation fuel, agricultural machinery fuel	International crude oil price, government control
Gasoline	Petroleum products	Petroleum	Pipeline transportation and shipping/storage tank	Transportation fuel	International crude oil price, government control
Jet Fuel	Petroleum products	Petroleum	Pipeline transportation and shipping/storage tank	Transportation fuel	International crude oil price, supply-demand balance
PX	Intermediate petrochemicals	Naphtha	Road transportation/ storage tank	Intermediate petrochemical products and polyester	Raw material price, supply-demand balance
Benzene	Intermediate petrochemicals	Naphtha	Road transportation, shipping, rail transportation/storage tank	Intermediate petrochemical products, styrene, plastic, explosive, dye, detergent, epoxy resin, chinlon	International crude oil price, market supply-demand condition
Ethylene Glycol	Intermediate petrochemicals	Naphtha	Road transportation/ storage tank	Fine Chemicals engineering	International crude oil price, market supply-demand condition
Ethylene Oxide	Intermediate petrochemicals	Naphtha	Road transportation, pipeline transportation/ storage tank	Chemical and medical industry intermediate products, including dyes, detergents and auxiliary	International crude oil price, market supply-demand condition

Product	Industry segment	Primary upstream raw material	Transport/storage method	Primary downstream application fields	Key price-influencing factors
Ethylene	Intermediate petrochemicals	Naphtha	Road transportation, pipeline transportation, shipping/storage tank	PE, EG, PVC and other raw material for further processing of intermediate petrochemical products such as resins, plastics and synthetic fibres	International crude oil price, supply-demand balance
PE	Resins and plastics	Ethylene	Road transportation, shipping and rail transportation/ warehousing	Film, mulching film, cable insulation material and housewares, toys injection moulding products	Raw material price and market supply-demand condition
PP	Resins and plastics	Propylene	Road transportation, shipping and rail transportation/ warehousing	Film, mulching film, housewares, toys, household appliances and auto parts injection moulding products	Raw material price and market supply-demand condition
Polyester chips	Resins and plastics	PTA, EG	Road transportation, shipping and rail transportation/ warehousing	Polyester fibre or film, container	Raw material price and market supply-demand condition
Acrylics	Synthetic fibres	Acrylonitrile	Road transportation, shipping and rail transportation/ warehousing	Simple spinning or blend with other material for texture or acrylic top	Raw material price and market supply-demand condition
Fine chemical products	Intermediate petrochemicals	C-5	Road transportation, shipping and rail transportation/ warehousing	Resin, adhesive, traffic paint, building and ornament material, packaging material, printing ink, rubber processing, etc.	Raw material price and market supply-demand condition

Product	Production			Sales		
	2022 (10,000 tons)	2021 (10,000 tons)	Year-on-year change	**2022 (10,000 tons)**	2021 (10,000 tons)	Year-on-year change
Diesel Note1	**252.02**	338.80	-25.61%	**251.84**	338.10	-25.51%
Gasoline	**257.08**	339.64	-24.31%	**255.84**	340.23	-24.80%
Jet Fuel Note1	**81.70**	118.45	-31.03%	**66.24**	99.57	-33.48%
Paraxylene	**58.59**	49.63	18.05%	**58.54**	46.53	25.82%
Benzene Note2	**30.32**	30.67	-1.14%	**29.70**	29.99	-0.97%
Ethylene Glycol	**9.57**	15.07	-36.50%	**6.24**	4.14	50.72%
Ethylene Oxide	**19.67**	33.56	-41.39%	**19.23**	32.78	-41.34%
Ethylene Note2	**59.81**	71.28	-16.09%	**–**	–	–
Polyethylene	**39.12**	49.62	-21.16%	**38.28**	49.63	-22.87%
Polypropylene	**39.70**	45.59	-12.92%	**37.07**	42.26	-12.28%
Polyester Pellet Note2	**10.75**	34.34	-68.70%	**10.89**	30.24	63.99%
Acrylic	**1.96**	7.10	-72.39%	**2.06**	7.32	-71.86%
Polyester Staple	**0**	2.62	-100.00%	**0**	2.73	-100.00%

Note 1: Excludes sales volume on a sub-contract basis.

Note 2: The difference between production and sales are internal sales.

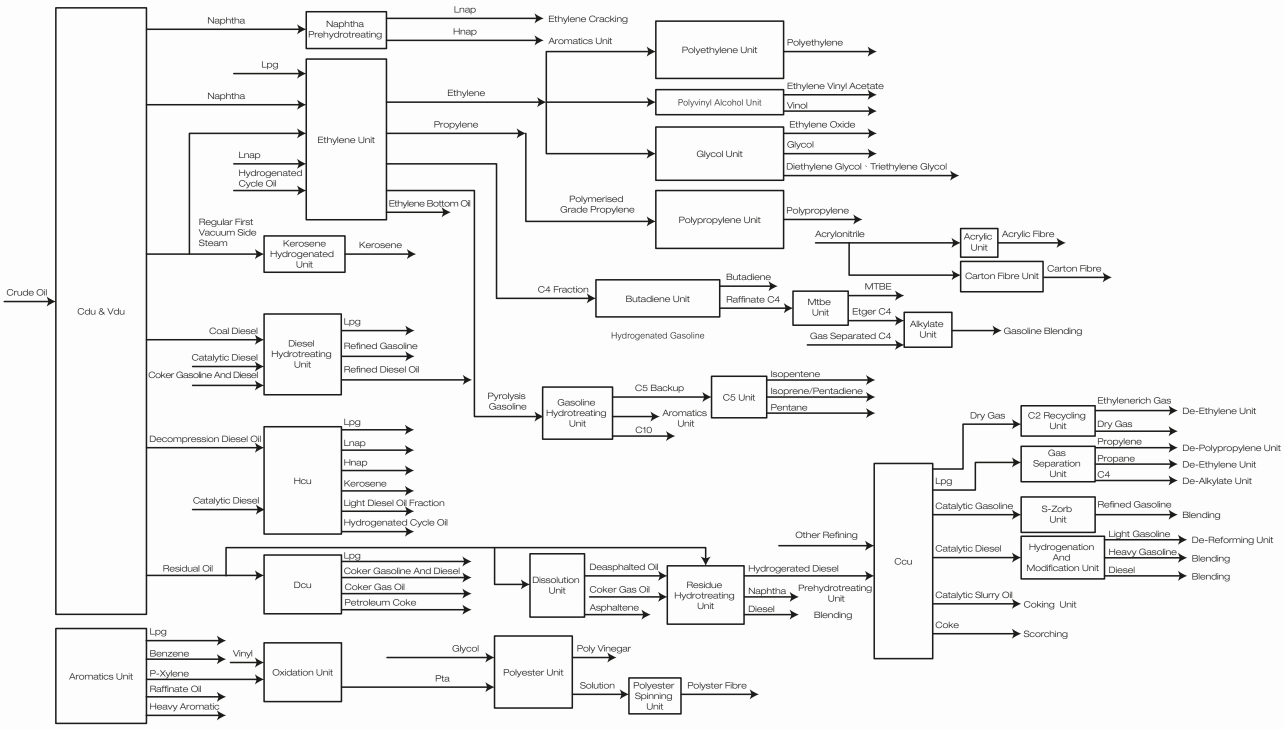
The above-mentioned sales volume and sales revenue do not include the trading of petrochemical products of the Group.

3. R&D and Innovation

Please refer to 3.2.C of the section Management Discussion and Analysis in this chapter for details of the R&D and innovation of the Group.

4. Production techniques and processes

The key component of the vertically integrated production facility of the Company is the ethylene facility producing ethylene and propylene and aromatics facility mainly producing paraxylene and benzene. Ethylene is the main raw material for the production of polyethylene and ethylene glycol, while ethylene glycol and PTA polymerization produces polyester. Propylene is the main raw material for the production of acrylics and polypropylene. The above-mentioned products all use crude oil as raw material and are processed through a series of petrochemical facilities. The chart below illustrates in brief the production processes of the Company.



5. Capacity and operation status

Key production facilities (number of sets)	Designed capacity (tons)	Capacity Utilization (%)
Crude oil distillation facility (2)	14,000,000	89.52
Hydrocracking facility (2)	3,000,000	88.88
Ethylene facility	700,000	97.06
* Aromatics facility (2)	835,000	96.86
PTA facility	400,000	–
Ethylene oxide/Ethylene glycol facility (2)	525,000	77.48
Catalytic cracking	3,500,000	92.19
Delayed coking (2)	2,200,000	88.60
** Diesel hydrogenation (2)	3,850,000	83.31
** Acrylonitrile facility	650,000	100.35
C-5 Separation (2)	185,000	123.25
*** Polyester facility (3)	550,000	87.31
**** Polyester staple fibre facility (2)	158,000	–
**** Polyester filament facility	21,000	–
***** Acrylics staple fibre facility (3)	140,800	93.03
Polyethylene facility (3)	408,000	93.33
Polypropylene facility (3)	400,000	95.13
Vinyl acetate facility	86,100	104.41

* No.1 PX facility (235,000 tons/year) was suspended for the whole year.

** No.2 Diesel hydrogenation facility (1,200,000 tons/year) was revamped into acrylonitrile facility by the end of 2016. Annual production is 650,000 tons/year.

*** No.2 polyester fibre facility (300,000 tons/year) and No.3 polyester fibre facility (100,000 tons/year) were suspended for the whole year.

**** Polyester staple fibre facility and polyester filament facility were suspended for the whole year.

***** Acrylic south unit (46,800 tons/year) and the Acrylic north unit (66,000 tons/year) were suspended for the whole year.

For capital expenditure items, please refer to “Non-fundraising projects” in the section headed “Principal Operations of the Company during the Reporting Period” in Section II Management Discussion and Analysis of this chapter.

(III) Raw material procurement

1. Basic information of major raw materials

Major raw materials	Procurement mode	Settlement method	Year on year change rate of price (%)	Purchase quantity	Consumption
Crude oil	Agency procurement	Agreement settlement	39.03%	9,737.8 thousand tons	10,067.1 thousand tons

Impact of price changes of major raw materials on the Company's operating costs

The rise in the market price of crude oil led to a year-on-year increase in the unit processing cost of the company's crude oil by 44.87% and an increase in the company's operating cost by 23.70%.

2. Basic information of major energy sources

Major energy sources	Procurement mode	Settlement method	Year on year change rate of price (%)	Purchase quantity	Consumption
Coal	Entrusted procurement	Conduct monthly assessment and settlement according to the benchmark price	14.29%	1,767.1 thousand tons	1,735.2 thousand tons

Impact of major energy sources price changes on the Company's operating costs

The rise of coal market price led to a year-on-year increase of 15.38% in the unit cost of coal and an increase of 0.39% in the operating cost of the company.

3. Measures to deal with the risk of raw material price fluctuation

A Brief account of holding derivatives and other financial products

In 2022, the price of international crude oil market fluctuated and rose. The Company carried out crude oil (lending and return) hedging business in August and December 2021 respectively, and bought 2.15 million barrels of DUBAI SWAP; and positions were closed at the end of May and October 2022. In July, September, November 2021, and February and March 2022, the Company conducted crude oil (high sulfur price difference) hedging business, selling 2.7 million barrels of DTD SWAP and buying 2.7 million barrels of DUBAI SWAP. The position was closed at the end of the second quarter of 2022. The Company is engaged in the hedging business of refined oil products (crack spread of refined oil products), selling 1.653 million barrels of Gasoil 10 ppm Sin and buying 1.653 million barrels of DUBAI SWAP by the end of December; selling 604,000 barrels of Kerosene Sin and buying 604,000 barrels of DUBAI SWAP; and all positions were closed by the end of the fourth quarter. The commodity derivative business carried out belongs to hedging business. The implementation of the above businesses has no risk exposure, and the maximum amount of possible loss is RMB50,000 thousand. In 2022, the Company delivered USD57,876,800 in commodity financial derivatives, equivalent to RMB398,661,800, and the position at the end of the year was USD0. The combination of financial derivatives is matched by the hedged project as a whole, played the role of hedging real price risk.

For the accounting policies related to hedge accounting of the Company, please refer to Note III.9 to the financial statements prepared in accordance with the CAS in this annual report.

(IV) Sales of products

1. Sales model

The Company's sales models are mainly direct sales and agency sales. The products are mostly sold to large trading companies and industrial users, including Sinopec Group and its designated clients. The Company has established long-term relationships with these clients.

2. Pricing strategy and change in prices of major products

Most of the products of the Company are sold at market price. However, sales of the Company's major petroleum products (gasoline, diesel and jet fuel) are also subject to different extent of government pricing (guided-price).

The prices of products of the Company that are not subject to price control are fixed with reference to the market price in the main chemical products market of Shanghai and other places in China. The Company keeps monitoring major international commodity markets, especially the price trend in Asian markets. In most cases, the Company revises product prices monthly while more frequent price revisions will be made during periods of intense price fluctuations.

3. **Basic information of main businesses of the Company by industry segment**

Please refer to "Comparison and analysis of results of the Company's operations" in Management Discussion and Analysis of this chapter for basic information of main business of the Group by industry segment.

4. **Basic information of main businesses of the Company by sales channel**

Unit: RMB'000

Sales channel	Revenue	Year-on-year increase/decrease in revenue (%)
Direct sales	49,938,358	-8.28%
Agency sales	20,488,212	-13.51%
Trading	12,016,586	8.65%

5. **Basic information of joint products, side products, semi-finished products, waste, residual heat utilization products during the production process of the Company**

The Company owns a power plant which provides power and steam resources mainly to the Company while the surplus is sold to external parties. In 2022, the Company sold 1,122.2 thousand giga joules of steam, generating revenue of RMB111 million.

(V) Environmental protection and safety

1. **Major safety production accident of the Company during the Reporting Period**

Nil.

2. **Major environmental violations**

Nil.

Section IV Major Events

(I) Plan for profit distribution of ordinary shares or capital reserve capitalization

1. Cash Dividend Policy and its formulation, implementation or adjustment

In 2016, the Company made amendments to its cash dividend policy in the Articles of Association. The proposed amendments to the Articles of Association and its appendices were considered and approved at the annual general meeting of 2015 held on 15 June 2016. According to Article 206 of the Articles of Association:

1. The Company should place emphasis on delivering reasonable return on investments to the investors. The Company shall pay due attention to the opinions of minority shareholders through various channels when allocating its profits. The profits distribution policy of the Company shall be consistent and stable, taking into account the long-term interests of the Company, the overall interests of all shareholders and the Company's sustainable development.

2. The Company may distribute dividends in the following forms: cash, shares or other forms permitted by laws, administrative rules, regulations of competent authorities and regulatory provisions in the place where the Company's shares are listed. The Company shall give priority to the distribution of dividends in cash. The Company may make interim dividends distribution.

3. The Company shall distribute cash dividends when the Company's net profit and retained earnings, are positive and the Company has adequate cash inflows over the requirements of cash flows for its operation and sustainable development. The cash dividends per annum should not be less than thirty (30) percent of the net profit of the Company in the current year.

4. The Company may adjust its profits distribution policy referred to in sub-paragraphs 2 and 3 of this Article in case of war, natural disasters or other force majeure, or where changes to the external environment of the Company result in material impact on the production and operation of the Company, or where there are significant changes in the Company's own operations or financial conditions, or where the Board considers it necessary. Independent directors shall issue independent opinions on the adjustment of the profits distribution policy whilst the Board shall discuss the rationality of such adjustment in detail and form a resolution which shall be submitted to shareholders' meeting for approval by way of special resolution. The convening of the shareholders' meeting shall comply with regulatory provisions in the place where the Company's shares are listed.

5. The management of the Company shall formulate the annual profits distribution plan and submit such plan to the Board for consideration. Independent directors shall issue independent opinions on such plan and the Board shall form a resolution which shall be submitted for approval by shareholders' meeting. If the conditions for the distribution of cash dividends have been satisfied and the Company does not propose a cash dividends distribution plan or does not propose such plan in compliance with the sub-paragraph 3 of this Article, independent directors shall issue independent opinions whilst the Board shall give specific explanation regarding such arrangement and form a resolution which shall be submitted to shareholders' meeting for approval and make relevant disclosures. The plan for half-yearly dividends distribution of the Company shall comply with Article 214 of the Articles of Association.

2. Plan for profit distribution or capitalization of capital reserves for the Reporting Period

In 2022, the net loss attributable to equity shareholders of the Company amounted to RMB2,872,072 thousand under CAS (net loss of RMB2,846,156 thousand under IFRS). The Board does not recommend distribution of annual dividends, and will not conduct capitalization of capital reserves.

3. Plan or scheme of dividends distribution of ordinary shares, plan or scheme of capitalization of capital reserves of the Company in the past three years (including the Reporting Period)

Unit: RMB'000

Year of dividend payment	Amount of bonus shares for every 10 shares (share)	Amount of dividend for every 10 shares (RMB) (including tax)	Amount of capitalization for every 10 shares (share)	Amount of cash dividend by other means (e.g. share repurchase)	Total amount of cash dividend (including other means) (including tax)	Net profit attributable to shareholders of ordinary shares of the listed company in the consolidated statement for the year	Percentage of net profit attributable to shareholders of ordinary shares of the listed company in the consolidated statement (%)
2022	0	0	0	25,688.59	25,688.59	-2,872,072	N/A
2021	0	1.0	0	0	1,082,381.35	2,000,506	54.11
2020	0	1.0	0	0	1,082,381.35	628,110	172.32

(II) Fulfilment of undertakings

1. Undertakings made by the de facto controller, shareholders, connected parties and purchasers of the Company and the Company itself during the Reporting Period or continuing up to the Reporting Period

Undertakings about share reform

The Company disclosed The Explanatory Memorandum for the Share Reform Scheme of the Company (the Revised Draft) on 20 June 2013, in which the Company's controlling shareholder, Sinopec Corp., made the following major undertakings that continued up to the Reporting Period:

Sinopec Corp. shall continue to support the development of the Company upon the completion of the share reform scheme, and shall use the Company as a platform for the development of related businesses in the future.

For details, please refer to "The Explanatory Memorandum for the Share Reform Scheme of the Company" (the Revised Draft) (Full Version) published in Shanghai Securities News and China Securities Journal on 20 June 2013, as well as the relevant announcements uploaded to the websites of the Shanghai Stock Exchange, the Hong Kong Stock Exchange and the Company.

The share reform scheme was reviewed and approved at the A shares shareholders' meeting held on 8 July 2013. After the implementation of the share reform scheme on 20 August 2013, the Company's A shares resumed trading, and non-circulating shares previously held by non-circulating shares shareholders attained the right of circulation. For details of the implementation of the share reform scheme, please refer to the "Implementation Report of Sinopec Shanghai Petrochemical Company Limited Share Reform Scheme" published in China Securities Journal and Shanghai Securities News on 14 August 2013 and the relevant announcement uploaded to the websites of the Shanghai Stock Exchange and the Hong Kong Stock Exchange on 13 August 2013.

With regard to the aforementioned undertakings, the Company did not notice any violation in fulfilling the above undertakings by Sinopec Corp.

(III) Events regarding capital occupation and repay during the Reporting Period

Nil.

(IV) Explanation on the reasons and impact for the Company's changes in accounting policies, accounting estimates, or correction of previous significant accounting errors

1. New standards adopted by the Group and revision and explanation of the standards

The Group has applied the following standards and amendments for the first time for their annual Reporting Period commencing 1 January 2022:

- CAS Bulletin No.15 (Caikuai [2021] No.35) ("Bulletin No.15") "About the accounting treatment of external sales of products or by-products produced by enterprises before the fixed assets are ready for their intended use or during the research and development process" ("Accounting treatment of trial operation sales")
- "Judgment regarding onerous contracts" in Bulletin No.15
- Notice on the Adoption of the Accounting Treatment of COVID-19-Related Rent Concessions (Caikuai [2022] No.13)
- Amendments to IAS No.16 "Property, Plant and Equipment: Proceeds before Intended Use"
- Amendments to IAS No.37 "Projected Liabilities, Contingent Liabilities and Contingent Assets: Onerous Contracts – Cost of Fulfilling a Contract"
- Annual Improvements to IFRS Standards 2018-2020
- Amendments to IFRS 3, Reference to the Conceptual Framework

The adoption of the above new standards does not have a significant impact on the financial position and operating results of the Group.

No other standards or interpretation revisions with impact on the Group's combined financial statements was first effective for the financial year started on 1 January 2022.

(V) Appointment and dismissal of auditors

During the Reporting Period, the original accounting firm of the company has served for the audit period. The Company held a general meeting of shareholders on 22 June 2022 and approved the appointment of KPMG Huazhen LLP as the domestic auditor of the Company in 2022 and KPMG as the overseas auditor of the Company in 2022.

Details of the auditors appointed by the Company during the Reporting Period and the appointment details are as below:

Unit: RMB Yuan

	Current
Name of the domestic auditors	KPMG Huazhen LLP
Duration of audit of the domestic auditors	2 years
Name of the international auditors	KPMG Public Interest Entity Auditor registered in accordance with the Financial Reporting Council Ordinance
Duration of audit of the international auditors	2 years
Remuneration of the domestic and international auditors	6,837,000

During the Reporting Period, KPMG Huazhen LLP and KPMG and its member firms provided tax consulting services to the Group at a service fee of RMB129 thousand.

(VI) Material litigation or arbitration

The Company was not involved in any material litigation or arbitration during the year.

(VII) Punishment and reprimand of the listed company and its Directors, Supervisors, senior management, controlling shareholder, de facto controller and purchasers

During the Reporting Period, the Company and its Directors, Supervisors, senior management, controlling shareholder, de facto controller and purchasers had not been investigated or taken administrative regulatory measures by the CSRC, nor have been subject to any compulsory measures according to law, criminal liability, administrative penalties or disciplinary sanctions by the stock exchange due to reasons attributable to the Company.

(VIII) Credit status of the Company and its controlling shareholder and de facto controller during the Reporting Period

During the Reporting Period, the Company and its controlling shareholder and de facto controller of the Company were not involved in any events regarding failure to perform obligations under a judgement of courts, nor have they had any relatively large amount of debts which have become due and outstanding.

(IX) The Share Option Incentive Scheme of the Company

The Share Option Incentive Scheme of the Company took effect from 23 December 2014, with a validity period of 10 years until 22 December 2024. The first grant of A-share share options under the Share Option Incentive Scheme was on 6 January 2015. For details, please refer to the relevant announcements uploaded on the websites of Shanghai Stock Exchange, Hong Kong Stock Exchange and the Company on 6 January 2015. All the exercise periods of the first grant have ended on 28 December 2018. For details, please refer to the relevant announcements uploaded on the websites of Shanghai Stock Exchange, Hong Kong Stock Exchange and the Company on 28 December 2018. At present, the Company has no other granting scheme.

During the Reporting Period, the Company did not grant A-share share options under the Share Option Incentive Scheme, nor did the grantees exercise any A-share share options, and no A-share share options were cancelled or lapsed.

(X) Major connected transactions

1. Connected transactions in relation to daily operations

Continuing connected transactions under chapter 14A of the Hong Kong Listing Rules

The Board of Directors of the Company considered and approved on 10 November 2022 the entering into a new Mutual Product Supply and Sales Services Framework Agreement and a new Comprehensive Services Framework Agreement between the Company and Sinopec Group and Sinopec Corp., which are valid for three years until 31 December 2025; and the Financial Services Framework Agreement signed with Sinopec Group is valid for one year until 31 December 2023. The Company has disclosed three agreements and the continuing connected transactions thereunder in the announcement dated 10 November 2022, and considered and approved the new Mutual Product Supply and Sales Services Framework Agreement, the new Comprehensive Services Framework Agreement and the continuing connected transactions thereunder, as well as the annual caps for the years 2023 to 2025 at the third extraordinary general meeting of the Company in 2022.

The Company entered into a storage service agreement with Sinopec Commercial Reserve Co., Ltd., a wholly-owned subsidiary of Sinopec Group, the actual controller of the Company, and its subsidiary Baishawan branch ("Baishawan branch") on 31 December 2020. Accordingly, Baishawan branch provides storage services to the Company, with the service period from 1 January 2021 to 31 December 2023, and the maximum annual storage service fee is RMB114 million (including value-added tax). For details, please refer to the announcements of the company on the websites of the Shanghai Stock Exchange and the Hong Kong Stock Exchange dated 8 December 2020.

The table below sets out the transaction amounts of the Company's continuing connected transactions with Sinopec Corp. and Sinopec Group during the Reporting Period:

Unit: RMB'000

Type of connected transaction	Connected person	Annual cap for 2022	Transaction amount during the Reporting Period	Percentage of the transaction amount of the same type of transaction (%)
Mutual Product Supply and Sales Services Framework Agreement				
Purchases of raw materials	Sinopec Group, Sinopec Corp. and their associates	78,591,000	58,502,366	80.89%
Sales of petroleum products and petrochemicals	Sinopec Group, Sinopec Corp. and their associates	71,274,000	51,288,425	67.66%
Property leasing	Sinopec Group, Sinopec Corp. and their associates	37,000	33,866	45.06%
Agency sales of petrochemical products	Sinopec Corp. and its associates	169,000	90,341	100.00%
Comprehensive Services Framework Agreement				
Construction, installation and engineering design services	Sinopec Group, Sinopec Corp. and their associates	1,074,000	812,516	48.79%
Petrochemical industry insurance services	Sinopec Group and its associates	130,000	109,597	100.00%
Financial services	Associate of Sinopec Group (Sinopec Finance)	200,000	2,917	0.54%
Storage services agreement				
Storage services	Associate of Sinopec Group (Baishawan Branch)	114,000	114,000	83.28%

The prices of continuing connected transactions between the Company and Sinopec Group, Sinopec Corp. and their associates are based on: 1) national pricing; or 2) national guidance price; or 3) the market price is determined by both parties through negotiation, and the conclusion of the connected transaction agreement is based on the needs of the Company's production and operation. Therefore, the above continuing connected transactions do not have a significant impact on the independence of the Company.

The independent non-executive director of the Company has reviewed the continuing connected transactions of the Group and confirmed that: The above continuing connected transactions have been entered into: 1) in the ordinary and usual course of business of the Company; 2) on normal commercial terms or better; 3) according to the agreement governing them on terms that are fair and reasonable and in the interests of the shareholders as a whole; and 4) have not exceeded the annual cap.

KPMG, the Company's overseas auditor, has carried out the test work on the continuing connected transactions of the company during the Reporting Period in accordance with the Hong Kong assurance business Standards No. 3000 "assurance business other than the audit or review of historical financial information" issued by the Hong Kong Institute of certified public accountants and with reference to the "auditor's letter on Continuing Connected Transactions described in the Hong Kong Listing Rules" No. 740 of the practice notes. The auditor has complied with Rule 14A.56 of the Hong Kong Listing Rules and provided a confirmation letter on the disclosure of continuing connected transactions.

Connected transactions under Chapter 14A of the Hong Kong Listing Rules

On 15 June, 2022, Shanghai Petrochemical Investment Development Company Limited ("Shanghai Petrochemical Investment"), a wholly-owned subsidiary of the Company, entered into the Forward Equity Transfer Agreement and the Entrusted Operation Management Agreement with Sinopec Capital Co., Ltd. ("Sinopec Capital"). According to the transaction arrangements, Sinopec Capital will entrust Shanghai Petrochemical Investment to exercise its management and operation rights in the Langfang Feize Composites Technology Limited (the "Target Company") on its behalf. On the basis of this, Shanghai Petrochemical Investment proposes to acquire 49.91% equity interest of the Target Company held by Sinopec Capital (the "Target Equity Interests") on the basis of entrusted operation within 19 months from the next day after the completion of Sinopec Capital's investment in the Target Company. The consideration will be determined based on the appraised value of the Target Equity Interests and confirmed by way of a supplementary agreement to be entered between Sinopec Capital and Shanghai Petrochemical Investment then. The transaction will help develop the Company's product market and increase profitability after the 12,000 tons/year 48K large-tow carbon fiber project is put into production, and can create better conditions for the development of the hydrogen energy industry. Sinopec Capital is a subsidiary of Sinopec Group, the controlling shareholder of the Company. Thus, Sinopec Capital is a connected person of the Company. Related announcements were published on the official websites of the Shanghai Stock Exchange and Hong Kong Stock Exchange on 24 March 2022 and 23 March 2022, respectively.

The Company entered into the Technology Development Contract with Sinopec Corp. on 15 December 2022, according to which Sinopec Corp. entrusted the Company to research and develop the 100 ton level high-performance carbon fiber related devices. The total consideration of the Technology Development Contract is RMB44,400,000, and Sinopec Corp. will pay RMB5,010,000 and RMB39,390,000 in 2022 and 2023 respectively. Sinopec Corp. is the controlling shareholder of the Company and is therefore a connected person of the Company. Related announcements were published on the official websites of the Shanghai Stock Exchange and the Hong Kong Stock Exchange on 20 December 2022 and 19 December 2022, respectively.

The connected transactions between the Group and Sinopec Group, and Sinopec Corp. and their associates, as disclosed in Note 32 to the financial statements prepared under IFRS in the 2022 annual report of the Company constituted connected transactions under Chapter 14A of the Hong Kong Listing Rules. The relevant connected transactions have been disclosed in accordance with Chapter 14A of the Hong Kong Listing Rules.

2. Connected parties' liabilities

Unit: RMB'000

		Funds provided to connected parties			Funds provided by connected parties to the listed company		
Connected party	Connected relationship	Balance as at the beginning of the period	Transaction amount	Balance as at the end of the period	Balance as at the beginning of the period	Transaction amount	Balance as at the end of the period
Sinopec Corp., its subsidiaries, joint ventures and associates & Sinopec Group and its subsidiaries	Controlling shareholder, de facto controller and their related parties	61,131	76,345	137,476	981,669	253,553	1,235,222

Note 1: The period-end balance of the funds provided by the Group to the connected parties was mainly the receivables from the closed derivative gains and losses that have not been settled between the Group and Sinopec Corp. and its subsidiaries.

Note 2: The period-end balance of the funds provided by the connected parties to the Group was mainly unsettled payables arising from the provision of construction, installation and engineering design services by Sinopec Group and its subsidiaries as well as the long-term borrowings generated by the Group's acceptance of loans from Sinopec Corp. and its subsidiaries.

(XI) Material contracts and their performance

1. Entrustments, sub-contracts and lease arrangements

During the Reporting Period, the Company had no entrustments, sub-contracts or lease arrangements that generated 10% or more (including 10%) of the gross profit of the Company for the period.

2. Guarantees

There were no guarantees provided by the Company during the Reporting Period.

3. Entrusting others to conduct wealth management

Please refer to "Investment of the Company" in the section headed "Principal Operations of the Company during the Reporting Period" in Section II "Management Discussion and Analysis" of this chapter.

4. Other major contracts

There were no major contracts of the Company during the Reporting Period.

(XII) The Company's disclosure on the fulfillment of its corporate social responsibility

1. Fulfillment of corporate social responsibility

For the Company's performance of corporate social responsibility in 2022 and the Company's 2022 Environment, Social and Governance Report, please refer to the "2022 Environmental, Social and Governance Report of Sinopec Shanghai Petrochemical Company Limited" ("2022 ESG Report") published by the Company on the websites of the Shanghai Stock Exchange, the Hong Kong Stock Exchange and the Company.

2. Environmental protection situation of key pollutant-discharging companies and their subsidiaries as announced by the Ministry of Environmental Protection

The Company is one of the polluting enterprises under Intensive Monitoring and Control by the State proclaimed by the Ministry of Environmental Protection. According to the Measures for Self-Monitoring and Information Disclosure of the Enterprises subject to Intensive Monitoring and Control by the State (Trial Implementation), the Company has disclosed to the public on the website of the Shanghai Municipal Bureau of Ecology and Environment about the sites of the pollution sources, the types and concentration of pollutants which are subject to intensive monitoring and control by the State.

The Company, as a manufacturing enterprise in the petrochemical industry, consistently places environmental protection as its priority. It has continually received ISO14001 Environmental Management System Certification. In January 2013, it obtained the certifications from the Shanghai Audit Center of Quality, including quality (GB/T19001: 2008), environment (GB/T24001: 2004) and occupational health and safety (GB/T28001: 2011). In December 2022, the Company was awarded the title "Sinopec Green Enterprise for 2022"; and continued to use the title "All-China Environmentally Friendly Enterprise" through the review of China's environmentally friendly enterprises.

In 2022, the Company kept well prepared for the worst scenarios, enhanced its "red line" consciousness, practiced the HSE concept and system thinking, and implemented the HSE system. We kept in mind that "Out of limits equals to accidents and being punished is a disgrace" and strengthened source control. We implemented a "dual prevention mechanism" to prevent and address major security and environmental protection risks and improve the essential security and environmental protection level; in addition, we strove for excellence in HSE performance, and helped in achieving the vision of building a "domestic leading and world-class" energy, chemical and new materials company.

In 2022, the Company formulated the "Implementation Plan of SPC for Deepening the Battle Against Pollution Prevention and Control", planned prevention and control of water pollution, air pollution, solid waste pollution, soil and groundwater pollution, noise pollution and radiation pollution, environmental risk prevention and control, ecological protection, environmental monitoring and other key tasks. In 2022, the emissions of ammonia nitrogen, sulfur dioxide and nitrogen oxide decreased by 57.64%, 23.90%, 10.56%, respectively, and COD emissions increased by 7.19% year-on-year.

In 2022, the Company achieved a 100% comprehensive standard rate of effluents, a 99.99% standard rate of controlled exhaust gas discharge, and a 100% rate of proper disposal of hazardous waste.

The Company continued to progress the LDAR related work. In 2022, we tested a total of 2,902,476 sealing points of production units, detected 8,374 leak points and repaired 8,245 points, with a repair rate of 98.50%.

In 2022, we paid environmental tax totaling RMB11,416,500 to Jinshan District Tax Bureau.

3. Administrative penalties for environmental problems during the Reporting Period

In 2022, the Company received no administrative penalties for environmental problems.

4. Construction and operation of pollution prevention facilities

Main pollution facilities	Pollutant	Emission limits (mg/m^3)	Actual in 2022 (mg/m^3)	Reach (or not reach) the standard
Thermoelectric boiler	SO_2	35	6.51	Reach
	NO_X	50	16.61	Reach
	Particulate matter	10	0.89	Reach
2#sulfur	SO_2	100	21.48	Reach
3#sulfur	SO_2	100	1.33	Reach
4#sulfur	SO_2	100	27.73	Reach
Catalytic cracking	SO_2	50	4.06	Reach
	NO_X	100	13.91	Reach
	Particulate matter	30	6.77	Reach
Process heating furnace	SO_2	50	1.22	Reach
	NO_X	100	36.30	Reach
	Particulate matter	20	1.17	Reach
Sewage treatment plant	COD mg/l	60	27.82	Reach
	Ammonia nitrogen mg/l	8	0.15	Reach

5. Environmental impact assessment and other environmental protection administrative licensing of construction projects

According to the requirements of laws and regulations such as the Environmental Impact Assessment Law, the Classified Management Directory of Environmental Impact Assessment of Construction Projects and the Implementation Specifications on Classified Management Directory of Environmental Impact Assessment of Construction Projects in Shanghai (2021), the Company implemented classification management in consideration of the impact of Company's construction projects on the environment. The Company also strictly verified the implementation of environmental protection measures during different stages such as feasibility study, design, construction and confirmation of trial production conditions etc.

In 2022, seven projects, including the SPC Thermoplastic Elastomer Project, received EIA approval. Four projects, such as the project of hidden danger control and management in T-104 tank intrinsic safety and environmental protection in the Storage and Transportation Department, the project of T-763 and T-764 tanks renovation storage of ethyl coke in the Storage and Transportation Department, and the energy saving and improvement project of kerosene unit of No. 3 combined refinery unit in the Refining Department were completed and accepted.

In 2022, the Company completed the change of emission permit in August, October and December respectively.

6. Emergency response plan for emergent environmental incidents

In 2022, the Company organized the revision of the "Emergency Response Plan for Emergent Environmental Incidents" in accordance with Sinopec Group's "Guidelines for the Preparation of Enterprise Emergency Plans for Environmental Emergencies" (for trial implementation), formulated annual drill plans, equipped emergency materials as needed, and organized regular environmental emergency drills to improve emergency response and disposal capabilities.

On 6 May 2022, the Company conducted the drill for leakage and fire emergency at reflux pump E-GA-406B seal of propylene distillation column in 2# olefin complex. The emergency plan applied the "On-site Emergency Plan for Leakage of Reflux Pump E-GA-406B of Propylene Distillation Column at Olefin Complex", the "Comprehensive Emergency Response Plan of SPC", the "Specific Emergency Plan for Fire and Explosion Accidents", the "Specific Emergency Plan for Hazardous Chemicals (with major hazard sources) Accidents", the "SPC's Comprehensive Emergency Response Plan for Environmental Emergencies" and other emergency plans. The drill proved that the aforementioned emergency plans were sufficient and effective. The drill process meets the requirements.

On 7 December 2022, the Company conducted the "Emergency Response Drill for Leakage of SPC to SECCO Mutual Supply Pipeline". This drill was based on the "Comprehensive Emergency Response Plan of SPC", the "Specific Emergency Plan for Long-Distance Pipeline Leakage of SPC", and the "SECCO Specific Emergency Plan for External Pipelines". The incident handling procedure was rehearsed through a simulated pipeline leak under realistic scenarios, combining with the experience and achievements of the desktop drill, so as to improve the decision making and execution ability of relevant personnel to deal with emergencies quickly, which prove that the above-mentioned emergency plans are sufficient and effective.

7. Environmental self-monitoring programme

According to the environmental monitoring plan for 2022 formulated by the Company, the environmental monitoring station basically organized to complete a number of daily monitoring tasks such as clearing water, atmospheric environment, exhaust gas, and noise.

In 2022, a total of 20,857 water quality monitoring data was collected, including 1,713 outsourced projects; a total of 6,234 air and exhaust gas monitoring data was collected, including 5,465 outsourced projects; and a total of 404 noise monitoring data was collected.

8. **Measures taken to reduce carbon emissions and its effects during the Reporting Period**

Whether to take carbon reduction measures	Yes
Emission reduction of CO_2 equivalent (in tons)	108,433
Type of carbon reduction measures (such as using clean energy to generate electricity, using carbon reduction technologies in the production process, developing and producing new products that help reduce carbon emissions, etc.)	1. Photovoltaic power generation of 480,000 kWh, reducing carbon emissions from purchased electricity by 273 tons. 2. Conducting biomass fuel-blended combustion and coupled power generation to achieve the number of biomass fuel and carbon dioxide emission reduction over “doube 10,000 tons”. 3. In 2022, we formulated 82 actions for energy conservation and carbon reduction, including energy efficiency improvement projects and energy saving measures, so as to have a grasp of energy conservation and carbon reduction. In 2022, a total of 57 actions was completed, which saved 36,600 tons of standard coal and reduced about 95,000 tons of carbon dioxide equivalent.

9. **Consolidate and expand the poverty alleviation and Rural Revitalization**

Poverty alleviation and rural revitalization projects	Quantity/content	Explanation
Total investment (RMB10 thousand)	125.55	
Number of people benefited (person)	1,754	
Forms of assistance (e.g. poverty alleviation by developing industries, poverty alleviation through increasing employment, poverty alleviation through education, etc.)	Poverty alleviation through education	–

(XIII) Inter-bank bond market non-financial enterprise debt financing instruments

1. Basic information of debt financing instruments of financial enterprises

Bond name	Abbreviation	Code	Issue date	Value date	Due date	Bond balance	Interest rate (%)	Repayment of principal and interest	Trading place	Investor suitability arrangements (if any)	Trading mechanism	Is there any risk of termination of listing
Phase I ultra short term financing bonds of Sinopec Shanghai Petrochemical Co., Ltd. in 2022	22 Sinopec Shanghai Petrochemical SCP001	012280265	17 January 2022	18 January 2022	18 May 2022	0	2.35%	One time repayment of principal and interest upon maturity	Inter bank market clearing house	The investors who subscribe for the current ultra short-term financing bonds are domestic qualified institutional investors (unless otherwise stipulated by national laws, regulations and departmental rules)	The current ultra short-term financing bonds can be circulated and transferred in the national inter-bank bond market on the working day next to the creditor's right registration date. It is conducted in accordance with the relevant provisions promulgated by the National Interbank Funding Center.	No
Phase II ultra short term financing bonds of Sinopec Shanghai Petrochemical Co., Ltd. in 2022	22 Sinopec Shanghai Petrochemical SCP002	012280834	3 March 2022	7 March 2022	5 July 2022	0	2.01%	One time repayment of principal and interest upon maturity	Inter bank market clearing house	The investors who subscribe for the current ultra short-term financing bonds are domestic qualified institutional investors (unless otherwise stipulated by national laws, regulations and departmental rules)	The current ultra short-term financing bonds can be circulated and transferred in the national inter-bank bond market on the working day next to the creditor's right registration date. It is conducted in accordance with the relevant provisions promulgated by the National Interbank Funding Center.	No
Phase III ultra short term financing bonds of Sinopec Shanghai Petrochemical Co., Ltd. in 2022	22 Sinopec Shanghai Petrochemical SCP003	012282420	7 July 2022	11 July 2022	8 December 2022	0	1.98%	One time repayment of principal and interest upon maturity	Inter bank market clearing house	The investors who subscribe for the current ultra short-term financing bonds are domestic qualified institutional investors (unless otherwise stipulated by national laws, regulations and departmental rules)	The current ultra short-term financing bonds can be circulated and transferred in the national inter-bank bond market on the working day next to the creditor's right registration date. It is conducted in accordance with the relevant provisions promulgated by the National Interbank Funding Center.	No

2. Bond interest payment and cashing during the Reporting Period

Bond name	Description of interest payment
Phase I ultra short term financing bonds of Sinopec Shanghai Petrochemical Co., Ltd. in 2022	One time repayment of principal and interest upon maturity
Phase II ultra short term financing bonds of Sinopec Shanghai Petrochemical Co., Ltd. in 2022	One time repayment of principal and interest upon maturity
Phase III ultra short term financing bonds of Sinopec Shanghai Petrochemical Co., Ltd. in 2022	One time repayment of principal and interest upon maturity

3. Intermediaries providing services for bond issuance and duration business

Name of intermediary	Office address	Name of signing accountant	Contact person	Contact number
Industrial Bank Co., Ltd	15/F, Xingye building, 20 Chaoyangmen North Street, Chaoyang District, Beijing	–	Lin Chen Geng Ruizi	010-89926551 010-62677777
Beijing Haiwen law firm	20th floor, fortune financial center, No. 5, Middle East Third Ring Road, Chaoyang District, Beijing	–	Gao Wei	010-85606888
Zhongchengxin international credit rating Co., Ltd	Building 6, Galaxy SOHO, No. 2, nanzhuxuan interchange, chaoyangmennei street, Dongcheng District, Beijing	–	Liu Yang	010-66428877
Inter-bank market clearing house Co., Ltd	33rd floor, Oriental International Financial Plaza, 318 south Zhongshan Road, Shanghai	–	Issue post	021-63326662
Beijing Financial Assets Exchange Co., Ltd	17 B Financial Street, Xicheng District, Beijing	–	Issue department	010-57896722 010-57896516

4. Use of raised funds at the end of the reporting period

Unit: RMB Currency: RMB

Bond name	Total amount of proceeds	Used amount	Unused amount	Operation of special account for proceeds (if any)	Rectification of irregular use of proceeds (if any)	Whether the use of proceeds was in line with that mentioned in the prospectus, the plan for use and other agreements
Phase I ultra short term financing bonds of Sinopec Shanghai Petrochemical Co., Ltd. in 2022	1,500,000,000.00	1,500,000,000.00	0	–	–	Yes
Phase II ultra short term financing bonds of Sinopec Shanghai Petrochemical Co., Ltd. in 2022	1,500,000,000.00	1,500,000,000.00	0	–	–	Yes
Phase III ultra short term financing bonds of Sinopec Shanghai Petrochemical Co., Ltd. in 2022	2,000,000,000.00	2,000,000,000.00	0	–	–	Yes

5. Accounting data and financial indicators of the Company in recent 2 years as of the end of the reporting period (Prepared under CAS)

Unit: RMB'000 Currency: RMB

Main indicators	2022	2021	Increase/decrease compared to the previous year (%)	Reason for change
Net (loss)/profit after deducting non-recurring profit and loss	-2,790,773	1,908,105	-246.26	In 2022, the price of crude oil rose sharply, the market for chemical products continued to be depressed, the price increase was less than that of raw materials, and the Company suffered losses.
Current ratio (%)	112.63	132.52	Decreased by 19.91 percentage points	Decrease in current assets
Quick ratio (%)	60.52	94.63	Decreased by 34.11 percentage points	Decrease in quick assets
Gearing ratio (%)	36.06	35.38	Increased by 0.68 percentage points	
EBITDA total debt ratio	-0.11	0.28	-140.05	In 2022, the price of crude oil rose sharply, the market for chemical products continued to be depressed, the price increase was less than that of raw materials, and the Company suffered losses.
Interest cover	-35.54	29.12	-222.05	In 2022, the price of crude oil rose sharply, the market for chemical products continued to be depressed, the price increase was less than that of raw materials, and the Company suffered losses.

Main indicators	2022	2021	Increase/decrease compared to the previous year (%)	Reason for change
Cash interest cover	-74.46	45.85	-262.40	In 2022, the price of crude oil rose sharply, the market for chemical products continued to be depressed, the price increase was less than that of raw materials, and the Company suffered losses.
EBITDA interest cover	17.11	(50.01)	-134.21	In 2022, the price of crude oil rose sharply, the market for chemical products continued to be depressed, the price increase was less than that of raw materials, and the Company suffered losses.
Loan repayment rate (%)	100%	100%	–	No change
Interest coverage rate (%)	100%	100%	–	No change

(XIV) Equity-linked agreements

Apart from the Share Option Incentive Scheme disclosed in item (9) under Chapter IV, Section IV "Major Events" of this Report, the Company does not have any equity-linked agreements during the year.

(XV) Tax rate

The income tax rate currently applicable to the Group is 25% (2021: 25%).

(XVI) Deposits

The Company did not have any entrusted deposits during the Reporting Period. As at 31 December 2022, the Group did not have any term deposits which could not be collected upon maturity.

(XVII) Reserves

Details of changes in reserves are set out in note 31 to the consolidated financial statements prepared under IFRS.

On 31 December 2022, the Company's reserves available for distribution to shareholders of the Company (including share capital premium and undistributed profits) were RMB7,339,125 thousand (2021: RMB11,240,259 thousand).

(XVIII) Financial summary

A summary of the results, total assets, total liabilities and shareholders' equity of the Group as at 31 December 2022 are set out on page 6-9 of this annual report.

(XIV) Bank loans and other borrowings

Details of bank loans and other borrowings of the Company and the Group for the year ended 31 December 2022 are set out in note 26 to the consolidated financial statements prepared under IFRS.

(XX) Interest capitalized

Details of interest capitalized during the year are set out in note 9 to the consolidated financial statements prepared under IFRS.

(XXI) Property, plant and equipment

Changes in property, plant and equipment during the year are set out in note 16 to the consolidated financial statements prepared under IFRS.

(XXII) Purchase, sale and redemption of the Company's securities

On 22 June 2022, SPC's 2021 Annual General Meeting, the Second A Shareholders Class Meeting for 2022 and the Second H Shareholders Class Meeting for 2022 considered and approved the "Proposal to the Shareholders at the General Meeting to Authorize the Board of Directors to Repurchase the Domestic Shares and/or Overseas listed Foreign Shares of the Company", authorizing the Board of Directors to repurchase not more than 10% of the issued H shares of the Company. During the Reporting Period, the Company repurchased a total of 24,528,000 H shares from the Hong Kong Stock Exchange for a consideration of RMB25,689,000, all of which were cancelled on 17 February 2023. For details, please refer to the relevant announcements on the websites of the Shanghai Stock Exchange, the Hong Kong Stock Exchange and the Company. The Board considers that the H share buyback has increased the net asset value per share and/or earnings per share of the Company, which is beneficial to the Company and its shareholders. The monthly report of share repurchases are as follows:

		Price Paid per Share		Total Consideration	
Repurchase month	Number of shares repurchased	Highest price (HK $)	Lowest price (HK $)	(Hong Kong dollars)	(RMB in thousand)
2022					
October	4,956,000	1.10	1.03	5,315,529.60	4,883
November	15,866,000	1.26	1.04	17,741,300.20	16,299
December	3,706,000	1.39	1.25	4,905,361.20	4,507
Total	24,528,000	–	–	27,962,191.00	25,689

Save as disclosed in this report, neither the Company nor the Group has purchased, sold or redeemed any of the Company's listed securities.

(XXIII) Pre-emptive rights

According to the Articles of Association and the laws of the PRC, there is no pre-emptive right which requires the Company to offer new shares to the existing shareholders of the Company in proportion to their shareholdings.

(XXIV) Donations

During the Reporting Period, the Company donated RMB400,000 to Shanghai Donghua University Education Development Foundation to establish the "Donghua University Shanghai Petrochemical Scholarship"; RMB100,000 to 2022 "SCIP+" Green Chemical Innovation and Entrepreneurship Competition to fund the competition; RMB1.9 million to Shanghai Jinshan District Education Development Foundation to support local schools in Jinshan District in awards for education and teaching achievements; and RMB500,000 to the middle school of Bangor County in Nagqu, Tibet to promote education and help rural revitalization.

(XXV) Tax relief

During the Reporting Period, the holders of listed securities of the Company were not entitled to tax relief due to the holding of listed securities of the Company in accordance with the PRC laws.

(XXVI) Delisting of the Company's ADSs from the New York Stock Exchange

During the Reporting Period, the Company voluntarily delisted its ADSs from the New York Stock Exchange which has taken effect on 6 September 2022 (U.S. Eastern time). For further details, please refer to the announcements dated 12 August 2022 and 8 December 2022 published on the official websites of the Shanghai Stock Exchange and Hong Kong Stock Exchange, respectively.

Section V Business Review and Outlook

Please refer to Section II "Management Discussion and Analysis" of this chapter for the business review of the Group for the year ended 31 December 2022 and the outlook for 2023.

Directors, Supervisors, Senior Management and Employees

(I) Changes in shareholdings and remuneration

1. Changes in shareholdings and remuneration of Directors, Supervisors and senior management who hold the position currently or left the office during the Reporting Period

Name	Used name/ alias	Position	Gender	Age	Date of commencement of service term	Date of end of service term	Number of shares held at the beginning of the Reporting Period (ten thousand shares)	Number of shares held at the end of the Reporting Period (ten thousand shares)	Change in number of shares during the Reporting Period (ten thousand shares)	Reasons of change	Total Remuneration received from the Company during the Reporting Period (before taxation) (RMB ten thousand)	Whether received remuneration from connected person(s) of the Company
Wan Tao	None	Executive Director & Chairman	M	55	September 2022	June 2023	0	0	0	-	29.09	No
Guan Zemin	None	Executive Director, Vice Chairman & President	M	59	June 2020	June 2023	0	0	0	-	145.91	No
Du Jun	Ma Jun	Executive Director, Vice President & Chief Financial Officer	M	52	June 2021	June 2023	0	0	0	-	132.21	No
Huang Xiangyu	None	Executive Director & Vice President	M	55	June 2020	June 2023	14	14	0	-	112.11	No
Xie Zhenglin	None	Non-executive Director	M	58	June 2020	June 2023	0	0	0	-	0	Yes
Peng Kun	None	Non-executive Director	M	57	June 2020	June 2023	0	0	0	-	88.59	No
Li Yuanqin	None	Independent Non-executive Director	F	50	June 2020	June 2023	0	0	0	-	15.00	No
Tang Song	None	Independent Non-executive Director	M	43	June 2020	June 2023	0	0	0	-	15.00	No
Chen Haifeng	None	Independent Non-executive Director	M	49	June 2020	June 2023	0	0	0	-	15.00	No
Yang Jun	None	Independent Non-executive Director	M	66	June 2020	June 2023	0	0	0	-	15.00	No

Name	Used name/ alias	Position	Gender	Age	Date of commencement of service term	Date of end of service term	Number of shares held at the beginning of the Reporting Period (ten thousand shares)	Number of shares held at the end of the Reporting Period (ten thousand shares)	Change in number of shares during the Reporting Period (ten thousand shares)	Reasons of change	Total Remuneration received from the Company during the Reporting Period (before taxation) (RMB ten thousand)	Whether received remuneration from connected person(s) of the Company
Gao Song	None	Independent Non-executive Director	M	53	June 2020	June 2023	0	0	0	-	15.00	No
Ma Yanhui	None	Supervisor, Chairman of the Supervisory Committee	M	52	June 2020	June 2023	0	0	0	-	129.73	No
Zhang Feng	None	Supervisor	M	54	June 2020	June 2023	1	1	0	-	78.04	No
Chen Hongjun	None	Supervisor	M	52	June 2020	June 2023	3.14	3.14	0	-	83.38	No
Zhang Xiaofeng	None	Supervisor	M	53	June 2020	June 2023	0	0	0	-	0	Yes
Zheng Yunrui	None	Independent Supervisor	M	58	June 2020	June 2023	0	0	0	-	10.00	No
Choi Ting Ki	None	Independent Supervisor	M	69	June 2020	June 2023	0	0	0	-	10.00	No
Jin Qiang*	None	Vice President	M	58	June 2020	June 2023	30.1	30.1	0	-	133.43	No
Jin Wenmin*	None	Vice President	M	58	June 2020	June 2023	17.5	17.5	0	-	112.57	No
Zhou Jijun**	None	Vice President	M	58	January 2023	June 2023	0	0	0	-	0	No
Huang Fei*	None	Vice President	M	46	June 2020	June 2023	0	0	0	-	110.94	No
Liu Gang	None	Board Secretary	M	51	April 2021	June 2023	0	0	0	-	92.03	No
Wu Haijun***	None	Former Executive Director & Chairman	M	61	June 2020	September 2022	0	0	0	-	87.63	No
Total	/	/	/	/	/	/	65.74	65.74	0	/	1,430.66	/

* On 15 February 2022, Mr. Jin Qiang, Mr. Jin Wenmin and Mr. Huang Fei proposed request to the Board that they would no longer serve as executive Directors due to job change. Mr. Jin Qiang, Mr. Jin Wenmin and Mr. Huang Fei's resignation took effect when the resignation reports were delivered to the Board of the Company on 15 February 2022.

** Mr. Zhou Jijun was appointed as the Vice President of the Company by the Board of the Company on 18 January 2023.

*** On 8 September 2022, Mr. Wu Haijun proposed request to the Board that he would no longer serve as Chairman, executive Director, Chairman of the Strategy Committee and member of the Nomination Committee of the Company due to job change. Mr. Wu Haijun's resignation took effect when the resignation report was delivered to the Board of the Company on 8 September 2022.

(II) Profiles of Directors, Supervisors and senior management

Directors:

Wan Tao, born in January 1968, currently serves as the Company's Chairman, Executive Director, Chairman of the Strategy Committee and member of the Nomination Committee, director of Shanghai SECCO and Chairman of Chemical Industry Park. From August 2012 to January 2017, he served as deputy director of the Chemical Department of Sinopec Corp. From March 2013 to January 2017, he served as supervisor of Sinopec Catalyst Co., Ltd. From March 2014 to January 2017, he served as director of Sinopec Great Wall Energy & Chemical (Guizhou) Co. Ltd. From January 2017 to December 2019, he served as general manager of Sinopec Yizheng Chemical Fibre Limited Liability Company and general manager of Yizheng Branch at Sinopec Assets Management Co, Ltd. From January 2017 to January 2018, he served as deputy secretary of the CPC Committee of Sinopec Yizheng Chemical Fibre Limited Liability Company. From January 2018 to July 2022, he served as executive director and secretary of the CPC Committee of Sinopec Yizheng Chemical Fibre Limited Liability Company. In July 2022, he was appointed as secretary of the CPC Committee of the Company and director of Shanghai SECCO. In September 2022, he was appointed as Chairman, Executive Director, Chairman of the Strategy Committee and member of the Nomination Committee of the Company. In October 2022, he was appointed as Chairman of Chemical Industry Park. Mr. Wan graduated from Tianjin University in 1992 with an engineering master's degree in chemical engineering. He is a senior engineer.

Guan Zemin, born in December 1964, is serving as Vice Chairman, Executive Director, Vice Chairman of the Strategy Committee and President of the Company. Mr. Guan started to work in 1990, and he has successively served as Section Manager of Technology Development Section, Technology Development Department, and Deputy Chief Engineer of Wuhan Petrochemical Works, and Director of Catalyzing Workshop, Deputy Director and Director of Production Scheduling Department, and Deputy Chief Engineer of the Wuhan branch of Sinopec Corp. ("Wuhan Branch"). From December 2012 to December 2018, he served as Deputy General Manager of Wuhan Branch. From May 2016 to December 2019, he served as General Manager and Director of Sinopec-SK (Wuhan) Petrochemical Company Limited. From December 2018 to December 2019, he served as the Director and Deputy Party Secretary and General Manager of Wuhan Branch. In December 2019, he was appointed as Deputy Secretary of the Company. From February 2020, he served as the President of the Company. From June 2020, he served as the Executive Director, Vice Chairman and Vice Chairman of the Strategy Committee of the Company. Mr. Guan graduated from the Fine Chemical Major of School of Chemical Engineering, East China University of Science and Technology with a Master's degree in Engineering in July 1990. He is a senior engineer by professional title.

Du Jun, born in March 1970, is currently the Executive Director, member of the Strategy Committee, Vice President and Chief Financial Officer of the Company, chairman of Jinshan Associated Trading, and director of Chemical Industry Park. Mr. Du stared the work in 1990 and successively served as the chief of the second section of the Secretary of the general manager's office of Yangzi Petrochemical Co., Ltd., the deputy director of the finance department and the deputy director of the Finance Department of Yangzi Petrochemical Co., Ltd. From August 2004 to July 2007, he served as the director of the Finance Department of Yangzi Petrochemical Co., Ltd. From July 2007 to August 2012, he served as the director of the Finance Department of Yangzi Petrochemical Co., Ltd. From August 2012 to August 2016, he served as the chief accountant of Yangzi Petrochemical Co., Ltd. From December 2015 to September 2020, he served as the supervisor of Yangzi Petrochemical BASF Co., Ltd. From June 2016 to September 2020, he served as a director of Yangzi Petrochemical Co., Ltd. From August 2016 to September 2020, he served as the chief accountant of Yangzi Petrochemical Co., Ltd. From September 2020, he served as the deputy general manager and chief financial officer of the Company. He has been the chairman of Jinshan Associated Trading since December 2020. He has been a director of Chemical Industry Park since December 2020. He has been an Executive Director of the Company since June 2021. He has been a member of the Company's Strategy Committee since March 2022. Mr. Du graduated from Southeast University in 1990, majoring in industrial enterprise management, and obtained a master's degree in Business Administration from Southeast University in 2004. He has the title of senior accountant.

Huang Xiangyu, born in March 1968, is the Executive Director and Vice President of the Company. Mr. Huang started his career in 1990 and joined Shanghai Petrochemical Complex in 1992. He served as the Deputy Director of the chemical workshop of Shanghai Jinyang Acrylic Plant, Deputy Director of Jinyang Equipment, Director and Deputy Director of Jinyang Acrylic Equipment of Acrylic Business Unit and Chief Engineer of Acrylic Business Unit. From July 2011 to January 2020, he served as the Director of the Acrylic Fiber Research Institute of the Company. From November 2011 to January 2020, he served as the Chief Engineer of the Acrylic Fiber Department of the Company. From February 2019 to January 2020, he served as Deputy Chief Engineer of the Company. From February 2020, he served as the Vice President of the Company. He has been an Executive Director of the Company since June 2020. Mr. Huang graduated from the Organic Chemical Major of the School of Chemical Engineering, East China University of Science and Technology with a Bachelor's degree in Engineering in July 1990. He obtained a Master's degree in Engineering from Donghua University in May 2004. He graduated from Polymeric Chemistry and Physics Major of Fudan University with a doctor's degree in Science in June 2013. He is a professorate senior engineer by title.

Xie Zhenglin, born in February 1965, is a Non-Executive Director, member of the Strategy Committee of the Company, Vice President of Chemical Service Department of the Sinopec Corp., General Manager of Sinopec Group Assets Management Co., Ltd., a director of Chongqing Yangzijiang Acetyl Chemical Co., Ltd., Chairman of Tianjin Jinpuli Environmental Protection Technology Co., Ltd., and a director of Sinopec Shanghai Gaoqiao Petrochemical Co. Ltd. Mr. Xie started his work in 1989, served as Principal Staff Member of State Price Control Bureau and State Development Planning Commission. After joined Sinopec Group in September 1995, he successively served as Deputy Director of the Comprehensive Division of the Finance Department, Deputy Director of Capital Management Department, Director of the Capital Management Division of the Finance and Assets Department, Director of the Capital Management Division of the Financial Planning Department, Deputy Director of the Financial Planning Department of Sinopec Corp., Deputy Director of General Accounting Department of Sinopec Assets Management (presided over the work), Deputy Director of Assets Management Department of Sinopec Corp., Deputy General Manager of Sinopec Assets Management, Acting Director of Assets Management Department of Sinopec Corp., and Deputy Executive Director and Deputy General Manager of Sinopec Assets Management. From April 2014 to October 2020, he served as the Vice Chairman and director of China Merchants Energy Shipping Co., Ltd. (listed on the Shanghai Stock Exchange, stock code: 601872). From April 2014 to December 2019, Mr. Xie served as Director of Assets Management Department of Sinopec Group, and Executive Director and General Manager of Sinopec Assets Management. He has been the Deputy President of Chemical Service Department of Sinopec Corp. and General Manager of Sinopec Assets Management since December 2019. From June 2020, he served as the Executive Director and a member of the Strategy Committee of the Company. Mr. Xie obtained a Master's degree in Economics from Graduate School of Chinese Academy of Social Science in August 1989. He obtained a Master's degree in Business Administration from University of Houston in May 2007. He is a Senior Accountant by professional title.

Peng Kun, born in December 1966, is currently a Non-executive Director, the General Manager of Human Resource Department, Minister of Party Committee Organization Department, Director of the CPC United Front Work Department and Director of the Office of Veteran Cadres of the Company. Mr. Peng joined the Shanghai Petrochemical Complex in 1986 and served as Deputy Director of General Affairs Office, Department of Chemical Engineering, General Research Institute of the Company, assistant manager of the life logistics subsidiary of Easy-Art Design, section manager of Coordination Section of Chemical Engineering Institute, section manager of Administration Department, Secretary of Party General Branch and Deputy Director of Quality Center, Deputy Party Secretary and Secretary of Commission for Discipline Inspection of Quality Management Center, Director of Labor Union, and Chairman, Secretary of the Communist Party Committee and Deputy Manager of Labor Union. He served as Director of Human Resources Department of the Company from February 2016 to April 2018, the Head of Human Resources Division of the Company from April 2018 to May 2019, and the Head of Organization and Personnel Division of the Company from May 2019 to March 2020. He was appointed as Director of CPC United Front Work Department and Director of Retired Cadres Office in May 2019, and General Manager of Human Resources Department and Director of CPC Organization Department of the Company from March 2020. From June 2020, he served as the Non-executive Director of the Company. Mr. Peng graduated from East China University of Science and Technology in Engineering Management Major in July 2004 and obtained senior professional and technical title.

Li Yuanqin, born in July 1973, is an Independent Non-executive Director, Chairman of the Audit Committee of the Company, Professor of the School of Management and the associate head of the Department of Accountancy at Shanghai University. Ms. Li has been appointed as an Independent Non-executive Director of the Company since August 2017. She is currently the independent director of Yunsai Zhilian Co., Ltd. (listed on Shanghai Stock Exchange, stock code: 600602, 900901) and Hengtian Kaima Co., Ltd. (listed on Shanghai Stock Exchange, stock code: 900953). Ms. Li served as an independent director of Shanghai New World Co., Ltd. (listed on Shanghai Stock Exchange, stock code: 600628) from June 2014 to December 2021. From April 2000 to March 2003, Ms. Li served at the Settlement Department at the headquarters of ICBC. From June 2006 to September 2009, she was a lecturer of the School of Management of Shanghai University. From September 2009 to March 2020, she was the associate professor of the School of Management of Shanghai University. She has been the professor of the School of Management of Shanghai University since March 2019, and the associate head of the Department of Accountancy of Shanghai University since May 2011. During that period, she was also a visiting scholar at Foster School of Business, University of Washington in the United States between February 2012 and February 2013. She also serves as a member of the eighth and ninth session of the Shanghai Baoshan Committee of the Chinese People's Political Consultative Conference and a non-practicing member of the Chinese Institute of Certified Public Accountants. She received a PhD in Management from Antai College of Economics and Management (ACEM) at Shanghai Jiao Tong University.

Tang Song, born in December 1980, is serving as the Independent Non-executive Director and a member of the Audit Committee and Remuneration and Appraisal Committee of the Company, Dean Assistant of School of Accountancy, Shanghai University of Finance and Economics, Professor and PH. D and graduate student supervisor. Mr. Tang obtained a bachelor's degree in management (accountancy) in June 2003 from the School of Accountancy of the Shanghai University of Finance and Economics, and obtained a doctor's degree from a successive postgraduate and doctoral program in management (accountancy) in June 2008. Mr. Tang worked in the School of Accounting and Finance, Hong Kong Polytechnic University for collaborative research from August 2008 to August 2009. He worked in China Europe International Business School for collaborative research from August 2009 to June 2010. Mr. Tang served as a lecturer of School of Accountancy, Shanghai University of Finance and Economics from June 2010 to July 2012. He served as associate professor of the School of Accountancy, Shanghai University of Finance and Economics from August 2012 to June 2019. Mr. Tang served as Dean Assistant of Shanghai University of Finance and Economics from January 2019, and as a Professor of the School of Accountancy of the University since August 2019. Mr. Tang served as an independent director of the Shanghai Qifan Cable Co. Ltd. (listed on Shanghai Stock Exchange, stock code: 605222) from July 2019 to July 2022, served as an independent director of Tibet Dongcai Fund Management Co., Ltd since August 2019, and as an Independent Director for the Shanghai Universal Biotech Co., Ltd. (listed on Shenzhen Stock Exchange, stock code: 301166) since April 2020. Mr. Tang served as the Independent Non-executive Director, member of the Audit Committee and the Strategy Committee of the Company since June 2020 and served as an independent director for Wuxi Commercial Mansion Grand Orient Co., Ltd. (listed on Shanghai Stock Exchange, stock code: 600327) since November 2020. He served as an independent director for Shanghai Shine-Link International Logistics Co., Ltd. (listed on Shanghai Stock Exchange, stock code: 603648) since September 2022.

Chen Haifeng, born in January 1974, is serving as an Independent Non-executive Director, member of the Audit Committee and the Nomination Committee of the Company, and a Senior Director of the Shanghai MindMotion Microelectronics Co., Ltd. Mr. Chen graduated from Fudan University with a Bachelor's degree in applied physics in July 1997. He served as clerk, project supervisor, and project manager of Investment Banking Department of CITIC Securities from July 1997 to August 2001. Mr. Chen served as Senior Manager of Strategic Investment Department of SVT Group from September 2002 to February 2006. He served as Senior Manager of Investment Banking Department of Orient Securities from August 2006 to March 2008. Mr. Chen served as senior vice president and Sponsor Deputy of Investment Banking Department of China Jianyin Investment Securities from April 2008 to May 2012. He served as CEO and Sponsor Deputy of Investment Banking Department of Caida Securities from June 2012 to June 2015. Mr. Chen served as an independent director of Cnnc Hua Yuan Titanium Dioxide Company Limited (listed on Shenzhen Stock Exchange, stock code: 002145) from February 2015 to October 2018. He served as CEO and Sponsor Deputy of Investment Banking Department in Dongxing Securities from July 2015 to September 2017. Mr. Chen has been a non-independent director of Zhejiang Yueling Wheels Corporation from October 2017 to December 2020 (listed on the Shenzhen Stock Exchange, Stock Code: 002725). He served as an Independent Non-executive Director, member of the Audit Committee and member of the Nomination Committee of the Company since June 2020. He served as a senior director of Shanghai MindMotion Microelectronics Co., Ltd. since January 2021.

Yang Jun, born in August 1957, is serving as an Independent Non-executive Director, Chairman of the Nomination Committee and the Remuneration and Appraisal Committee of the Company, a director (vice president level) of Gansu Gangtai Holding (Group) Co., Ltd., and the chief supervisor of Shanghai Aoqi Science and Technology Development Foundation. Mr. Yang graduated from East China University of Political Science and Law with a degree in Law in September 1979 and from Peking University with a Master's degree in Civil Law in July 1991. He worked in Shanghai Intermediate Court and Supreme Court from July 1983 to July 2005. He served as an assistant to the president and general legal officer of Shanghai United Assets and Equity Exchange, general manager of Beijing Headquarter of Central Enterprise Equity Exchange, operation director of Equity Exchange and general manager of Financial Equity Exchange from July 2005 to September 2017. He has served as an arbitrator of China International Economic and Trade Arbitration Commission from March 2007 to March 2015 and served as an arbitrator of Shanghai International Economic and Trade Arbitration Commission and Shanghai Arbitration Commission since March 2007. He served as independent non-executive director of China Merchants Securities Co., Ltd. (listed on the Hong Kong stock exchange, stock code: 06099) from June 2011 to January 2018. He has served as independent director of Shanghai Zhenhua Heavy Industries Co., Ltd. (listed on Shanghai Stock Exchange, stock code: 600320) from April 2015 to March 2021 and a director (Vice President level) of Gansu Gangtai Holding (Group) Co., Ltd. since September 2017. He served as Independent Non-executive Director, Chairman of the Nomination Committee and Chairman of the Remuneration and Appraisal Committee of the Company since June 2020. He served as the chief supervisor of Shanghai Aoqi Science and Technology Development Foundation since January 2022.

Gao Song, born in June 1970, is serving as an Independent Non-executive Director, member of Remuneration and Appraisal Committee and Strategy Committee of the Company, Professor of Business School of East China University of Science and Technology and Director of China's Institute for action learning. Mr. Gao graduated from Shandong University with a degree in Computer Software in 1992, from the School of Management of Fudan University with a Master's degree in Corporate Management in 1998 and from the Antai College of Economics & Management of Shanghai Jiao Tong University with a doctorate in Corporate Management in 2006. He served as a director of Marketing Department of Shanghai Guanshengyuan Group Co., Ltd. from March 1998 to May 2002 and the general manager of Shanghai Aichu Food Co., Ltd. from May 2002 to March 2007. He has served as a professor of Business School of East China University of Science and Technology and a director of China's Institute for Action Learning since May 2009. He was a visiting scholar at the University of Illinois at Urbana-Champaign from 2014 to 2015. From June 2020, he served as the Independent Non-executive Director, member of the Remuneration and Appraisal Committee and member of the Strategy Committee of the Company.

Supervisors:

Ma Yanhui, born in February 1971, is a Supervisor, the Chairman of Supervisory Committee, Secretary of the Communist Party Discipline Supervisory Committee and Chairman of the Labour Union of the Company. Mr. Ma started his career in 1996. He served as the secretary of Office of Yanhua Refinery, office secretary and deputy director of Yanhua Branch of Great Wall Lubricant Oil, supervisor and acting director and deputy director of Integrated Corporate Reform Department of China Petrochemical Corporation, and deputy director and director of Structure Reform Sector, Corporate Reform Department of Sinopec Assets Management Co., Ltd., etc. From June 2008 to August 2017, Mr. Ma was the director of Integrated Corporate Reform Department of China Petrochemical Corporation (Sinopec Group). From August 2017, Mr. Ma was the Deputy Secretary of the Communist Party Committee and Secretary of the Communist Party Discipline Supervisory Committee of the Company. He was appointed as Supervisor, Chairman of Supervisory Committee and Chairman of the Labour Union of the Company in October 2017. Mr. Ma graduated from East China University of Science and Technology in July 1996, majoring in petroleum processing, and obtained a Bachelor's degree in engineering. In June 2006, he obtained a Master's degree in corporate management from Renmin University of China. Mr. Ma is a senior economist by professional title.

Zhang Feng, born in June 1969, is currently a Supervisor and the Auditing Director of the Company. Mr. Zhang started his career in Shanghai Petrochemical Complex in 1991. He served as Assistant of Chief and Deputy Chief of Finance Section of Polyester II Factory, Deputy Chief of Finance Section of Polyester Department, Deputy Chief and Chief of Cost Section of Finance Division of Polyester Department, Deputy Chief and Chief of Finance Division, Director Assistant, Deputy Director, Deputy Director (Hosting Work), Director of Finance Department, and Chief of Finance Division, etc. He worked as Auditing Director of the Company from December 2018 to March 2020, and as Supervisor in October 2019. From March 2020, he worked as the Auditing Director of the Company. Mr. Zhang graduated from Shanghai University of Finance and Economics in 1991, majoring in accounting, and obtained a Bachelor's degree in Economics. Mr. Zhang is a senior accountant by professional title.

Chen Hongjun, born in January 1971, is currently a Supervisor, Vice-President of Labour Union, Director of the Public Affairs Department, and Vice President of the Association of Science and Technology of the Company. Mr. Chen started his career in Shanghai Petrochemical Complex in 1996. He served as Vice Party Branch Secretary of Fibre Polymer Office, Deputy Director of Spinning Office, Director of Simulation Office, Section Manager of Scientific Research Management Department, Deputy Secretary and Secretary of Youth League Committee of the Company, Party Secretary and Deputy Director of the Chemical Engineering Department, Party Secretary and Assistant Manager of Fine Chemicals Department and Director of Public Affairs Department. Mr. Chen was appointed as Vice President of Labour Union of the Company in November 2013. He was appointed as Vice President of the Association of Science and Technology in December 2017. He served as Director of the Public Affairs Department of the Company from April 2018 to March 2020, and he was elected as Supervisor of the Company in October 2019. He was the Director of Public Affairs of the Company since March 2020. In November 2021, he served as the executive director, general manager and secretary of the general Party branch of Sinopec Shanghai Training Center, general manager of Shanghai Petrochemical training center, executive vice president of the Party school, general manager of Shanghai Convention Center and President of Jinshan Community College. In 1993, Mr. Chen graduated from Chengdu University of Science and Technology, majoring in Dyeing and Finishing Engineering, and obtained a Bachelor's degree in engineering. In 1996, he obtained a Master's degree in Chemical Fibre from Sichuan Unite University. Mr. Chen is a senior engineer by professional title.

Zhang Xiaofeng, born in March 1970, is serving as currently an External Supervisor of the Company, deputy general manager of the Enterprise Reform and Legal Department of Sinopec Group. Mr. Zhang currently holds the positions of supervisor of Sinopec Insurance Limited, Sinopec Oilfield Equipment Corporation, Sinopec Petroleum Reserve Company Limited and a director of Sinopec International Energy Investment Co., Ltd. Starting his career in 1995, Mr. Zhang has served as deputy chief of the Office Management Division of the Legal Department of Sinopec Group, deputy chief and chief of the Contract Project Division, chief of the Dispute Management Division, and chief of the General Management Division of Legal Department of Sinopec Group. He served as the deputy director of Legal Department of Sinopec Group from January 2018 to December 2019. He served as the supervisor of Sinopec Insurance Limited from June 2019 to May 2021. He has also served as the deputy general manager of the Enterprise Reform and Legal Department of Sinopec Group since December 2019. In June 2021, he served as a director of Sinopec International Energy Investment Co., Ltd. Mr. Zhang, majoring in international economic law, graduated from China University of Political Science and Law with a Bachelor's degree in law in July 1995. Mr. Zhang is a senior economist by professional title and the lawyer of the Company.

Zheng Yunrui, born in December 1965, is an Independent Supervisor of the Company, a professor in civil and commercial law at the Faculty of Law of the East China University of Political Science. He has served as the Company's Independent Supervisor since December 2014. He is currently an independent director of Fuxin Dare Automotive Parts Co, Ltd. (listed on the Shenzhen Stock Exchange, stock code: 300473) and Wuxi New Hongtai Electrical Technology Co., Ltd. (listed on Shanghai Stock Exchange, stock code: 603016). Mr. Zheng graduated from the Shangrao Normal University in Jiangxi Province, majoring in English. Mr. Zheng obtained a Master's degree in law and a doctorate's degree in law from the Faculty of Law of Peking University in July 1993 and July 1998, respectively. Mr. Zheng previously worked at the Education Bureau of Shangrao County, Jiangxi Province, Hainan Airport Limited, China Township Enterprise Investment and Development Company Limited and the Legal Affairs Office of the Shanghai Municipal People's Government. He has been teaching at East China University of Political Science and Law since August 2001. He was a visiting scholar at the Faculty of Law of National University of Singapore between July 2002 and December 2002. From April 2013 to May 2019, he served as independent director of Hangzhou Xianfeng Electronic Technology Co., Ltd. (listed on Shenzhen Stock Exchange, stock code: 002767). From 2019 to February 2020, he served as the external supervisor of Zhejiang Weihai Construction Group Co., Ltd. (listed on Shenzhen Stock Exchange, stock code: 002586). From December 2015 to June 2021, he was an independent director of Jiangxi Xinyu Guoke Technology Co., Ltd. (listed on Shenzhen Stock Exchange, stock code: 300722). From April 2019 to March 2022, he served as an independent director of Dalian Electric Porcelain Group Co., Ltd. (listed on Shenzhen Stock Exchange, stock code: 002606). In November 2019, he served as a member of the second Shareholding Exercise Expert Committee of China Securities Small and Medium Investors Service Center. In September 2020, he was appointed as a legal consultant of Wuxi Intermediate People's Court. Mr. Zheng has been engaged in trials, teaching and research relating to civil law, property law, contract law, company law, insurance law, social insurance law and government procurement law. He is experienced in the legal affairs on corporate governance and has great academic achievements. He is also an arbitrator at the Arbitration Commission of Shenzhen, Xuzhou, Wuxi and Suzhou. Mr. Zheng was appointed as an advisory expert on civil and administrative cases of the Supreme People's Procuratorate and the Zhejiang People's Procuratorate, a member of the second shareholding exercise Committee of CSI small and medium-sized investment service center, a news, public opinion and legal advisory expert of Wuxi intermediate people's court, a member of the expert advisory Committee of Shanghai Yangpu District People's Procuratorate and a mediator of Shanghai Second Intermediate People's court.

Choi Ting Ki, born in September 1954, is an Independent Supervisor of the Company and a Fellow of the Hong Kong Institute of Certified Public Accountants. He joined the Company in June 2011. Mr. Choi served as Independent Non-executive Director of the Company from June 2011 to June 2017 and has been Independent Supervisor of the Company since June 2017. Mr. Choi has been an independent non-executive director of Yangtzekiang Garment Limited (listed on the Main Board of the Hong Kong Stock Exchange, stock code: 00294) and YGM Trading Limited (listed on the Main Board of the Hong Kong Stock Exchange, stock code: 00375) since December 2012. Mr. Choi graduated from the Department of Accounting, Hong Kong Polytechnic in 1978 and joined KPMG in the same year. He has held various positions, including the Partner of the Audit Department of KPMG Hong Kong Office, Executive Partner of KPMG Shanghai Office, Senior Partner of KPMG Huazhen Shanghai Office, as well as Senior Partner of KPMG Huazhen in Eastern and Western China. Mr. Choi retired from KPMG Huazhen in April 2010.

Senior Management:

Jin Qiang, born in May 1965, is serving as Vice President of the Company. Mr. Jin joined Zhenhai General Petrochemical Works in 1986 and has held various positions, including deputy chief of the Utilities Department, deputy director and director of the Machinery and Power Division of Sinopec Zhenhai Refining & Chemical Co., Ltd., and director of the Machinery and Power Division of Sinopec Zhenhai Refining & Chemical Co., Ltd. Mr. Jin was the deputy chief engineer of Sinopec Zhenhai Refining & Chemical Co., Ltd. from March 2007 to October 2011, and was appointed as the Vice President of the Company in October 2011. From June 2014 to February 2022, Mr. Jin served as an Executive Director of the Company. Mr. Jin graduated from the East China Institute of Chemical Technology in 1986 majoring in chemical machinery and graduated from the Graduate School of Central Party School in 2007 majoring in economic management. He is a professorate senior engineer by title.

Jin Wenmin, born in February 1965, is serving as Vice President of the Company. Mr. Jin joined Shanghai Petrochemical Complex in 1985 and served as the Secretary of the Communist Party Committee of the Company's No.1 Oil Refining Device of Refining Unit, Head of Butadiene Device, Manager of the Storage and Transportation Branch, Manager and Deputy Secretary of the Communist Party Committee of Storage and Transportation Department, Manager and Deputy Secretary of the Communist Party Committee of Oil Refining Department etc. From April 2013 to February 2017, Mr. Jin was appointed as the Head of Production Department of the Company. From May 2013 to August 2016, Mr. Jin was appointed as the Assistant to the General Manager of the Company and was appointed as the Vice President of the Company in September 2016. He served as the Executive Director of the Company from June 2018 to February 2022. Mr. Jin graduated from the Shanghai Second Polytechnic University in July 2003. He is a senior engineer by professional title.

Zhou Jijun, born in May 1965, is the Vice President of the Company. Mr. Zhou started his career in 1987 and served as the deputy director, chief engineer and director of Olefins Department of Sinopec Zhenhai Refining & Chemical Co., Ltd. From January 2015 to August 2016, he served as the deputy chief engineer and director of Olefins Department and secretary of Party General Branch of Sinopec Zhenhai Refining & Chemical Co., Ltd. From August 2016 to January 2019, he served as the deputy general manager and member of the Party Committee of Shanghai Gaoqiao Petrochemical Co., Ltd. From January 2019 to November 2022, he served as the vice general manager and member of the Party Committee of Shanghai SECCO. From February 2023, he served as the Vice President of the Company. Zhou Jijun graduated from Zhejiang Institute of Technology in 1987, majoring in inorganic chemical engineering, and obtained a master's degree in engineering from East China University of Science and Technology in 1998. He is a senior engineer by professional title.

Huang Fei, born in January 1977, is serving as Vice President of the Company. Mr. Huang joined Sinopec Shanghai Petrochemical in 2000, and he has successively served as Polyolefin Plant Deputy Director of Plastic Business Unit and Manager Assistant and Polyolefin Plant Director of Plastic Department. From August 2012 to June 2014, he served as Deputy Manager of the Plastic Department. From June 2014 to February 2017, he served as Director of Statistical Center and Vice Party Secretary. From February 2017 to December 2018, he served as Manager of Olefin Department and Deputy Party Secretary. From December 2018 to January 2019, he served as President's Assistant and the Director of Production Department. From January 2019 to December 2019, Mr. Huang served as President's Assistant and Manager of Production Department of Shanghai SECCO. From February 2020, he served as the Vice President of the Company. From June 2020 to April 2021, he served as the Secretary to the Board and Joint Company Secretary. From June 2020 to February 2022, he served as the Executive Director and member of the Strategy Committee of the Company. Mr. Huang graduated from the polymer materials and engineering major of East China University of Science and Technology with a bachelor's degree of engineering in July 2000. He graduated from chemical engineering major of East China University of Science and Technology with a master's degree in April 2008. He is a senior engineer by professional title.

Liu Gang, born in September 1972, is currently the Secretary to the Board, the Joint Company Secretary, the Assistant to the General Manager, the General Counsel, and the general manager of the Capital Operation Department and Shanghai Petrochemical Investment Development Co., Ltd. Mr. Liu Gang joined the work in 1995 and successively served as the deputy director and director of the supply management department of the Company's material supply company and the business operation manager of the Commercial Department of Shanghai SECCO. From November 2015 to August 2018, he served as the Deputy Director of the Company's Material Procurement Center. From August 2018 to April 2019, he served as the Deputy Director (presiding over the work) of the Company's Material Procurement Center. From April 2019 to January 2021, he served as the General Manager of the Material Procurement Center of the Company. He has been the Assistant to the General Manager of the Company since December 2019. He has been the General Counsel of the Company since March 2021. He has been the Secretary of the Board and Joint Company Secretary of the Company since April 2021. He has been the General Manager of the Company's Capital Operation Department and Shanghai Petrochemical Investment Development Co., Ltd. since August 2021. Mr. Liu Gang graduated from China Textile University in 1995, majoring in mechatronics, and obtained a master's degree in power engineering from East China University of technology in 2007, with the title of senior economist.

(III) Share options held by the Directors, Supervisors and senior management during the Reporting Period

There were no share options held by the Directors, Supervisors and senior management during the Reporting Period.

(IV) Positions held in the Company's shareholders during the Reporting Period

Name	Name of shareholder	Position held	Commencement of term of service	End of term of service
Xie Zhenglin	Sinopec Corp.	Deputy general manager of chemical business department	December 2019	May 2024
Xie Zhenglin	Sinopec Asset Management Co., Ltd.	General manager	December 2019	May 2024
Zhang Xiaofeng	Sinopec Group	Deputy general manager of enterprise reform and law department	December 2019	May 2024

(V) Positions held in other companies during the Reporting Period

Name	Name of other company	Position held	Commencement of term of service	End of term of service
Wan Tao	Shanghai SECCO	Director	July 2022	July 2025
Wan Tao	Chemical Industry Park	Chairman	October 2022	June 2025
Wu Haijun	Shanghai SECCO	Director	August 2019	July 2022
Wu Haijun	Chemical Industry Park	Chairman	January 2018	October 2022
Du Jun	Jinshan Associated Trading	Chairman	December 2020	July 2023
Du Jun	Chemical Industry Park	Director	December 2020	June 2025

Apart from the information set out in the tables above and in section (2) "Profile of Directors, Supervisors and senior management", no Director, Supervisor or senior management of the Company holds any other position at any other company.

(VI) Remuneration of Directors, Supervisors and senior management during the Reporting Period

Procedures for determining the remuneration of Directors, Supervisors and senior management	Remuneration for Independent Non-executive Directors are determined in accordance with the Remuneration System for Independent Directors approved at the 2007 Annual General Meeting. Remuneration for Independent Supervisors are determined in accordance with the Remuneration Payment Method for Independent Supervisors approved at the 2016 Annual General Meeting. Remuneration of the other Directors, Employee Representative Supervisors and External Supervisors and senior management are determined in accordance with the Remuneration System for Directors, Supervisors and Senior Management approved at the 2002 Annual General Meeting. For details of the remuneration of the Directors and Supervisors of the Company, please refer to Note 11 and Note 36 to the consolidated financial statements prepared under IFRS.
Basis for determining the remuneration of Directors, Supervisors and senior management	The remuneration of Directors, Supervisors and senior management of the Company is determined on the principles of "efficiency, motivation and fairness" and in accordance with the Remuneration System for Directors, Supervisors and Senior Management.
Remuneration paid to Directors, Supervisors and senior management	Please refer to item (1) "Changes in shareholdings and remuneration" of this chapter.
Total remuneration received by all Directors, Supervisors and senior management for the Reporting Period	RMB14.3066 million
The five highest paid individuals	Please refer to note 36(a) to the consolidated financial statements prepared under IFRS. The five individuals are the Directors, Supervisors and senior management of the Company.
Pension scheme	Please refer to Notes 2.24 and 36(b) to the consolidated financial statements prepared under IFRS.

(VII) Changes in Directors, Supervisors, and senior management during the Reporting Period

Name	Position held	Change	Reason
Wu Haijun	Executive Director, Chairman	Resigned	Job change
Jin Qiang	Executive Directors	Resigned	Job change
Jin Wenmin	Executive Directors	Resigned	Job change
Huang Fei	Executive Directors	Resigned	Job change
Wan Tao	Executive Director, Chairman	Elected	–

(VIII) Interests and short positions of Directors, chief executives and Supervisors in the shares, underlying shares and debentures of the Company or associated corporations

As at 31 December 2022, the interests and short positions of the Directors, chief executive and Supervisors of the Company in the shares, underlying shares and debentures of the Company or its associated corporations (within the meaning of Part XV of the SFO) which were required to be notified to the Company and the Hong Kong 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 under such provisions of the SFO); or to be recorded in the register of interests required to be kept under section 352 of the SFO; or as otherwise notified to the Company and the Hong Kong Stock Exchange pursuant to the Model Code for Securities Transactions set out in Appendix 10 to the Hong Kong Listing Rules were as follows:

Interests in the shares and underlying shares of the Company:

Name	Position held	Number of shares held (Shares)	Percentage of total issued shares of the Company (%)	Percentage of the total issued A shares (%)	Capacity
Huang Xiangyu	Executive Director and Vice President	140,000 A shares (L)	0.001293	0.001910	Beneficial owner
Zhang Feng	Supervisor	10,000 A shares (L)	0.000092	0.00014	Beneficial owner
Chen Hongjun	Supervisor	31,400 A shares (L)	0.000290	0.00043	Beneficial owner

(L): Long position

Save as disclosed above, as at 31 December 2022, so far as was known to the Directors, chief executives and Supervisors of the Company, none of the Directors, chief executives or Supervisors of the Company had any interests or short positions in the shares, underlying shares or debentures of the Company or its associated corporations which were required to be disclosed or recorded pursuant to the SFO and the Hong Kong Listing Rules as mentioned above.

(IX) Changes in Directors' and Supervisors' information

Save as disclosed in the 2022 interim report, disclosure of changes in Directors' and Supervisors' information pursuant to Rule 13.51B(1) of the Hong Kong Listing Rules during the Reporting Period are set out as below:

(1) Mr. Tang Song, an Independent Non-executive Director, has served as an independent director of Shanghai Shine-Link International Logistics Co., Ltd. (listed on Shanghai Stock Exchange, stock code: 603648) since September 2022.

(2) Mr. Zheng Yunrui, a supervisor, has served as a consultant expert in civil administrative cases of Zhejiang Provincial People's Procuratorate since November 2022, and as an arbitrator of the Arbitration Commission in Suzhou since February 2023.

(X) Transactions, arrangements or interests of Directors and Supervisors

None of the Directors or Supervisors of the Company and the entities associated with each Director and Supervisor had any material interests, either directly or indirectly, in any material contract which was entered into by the Company or any of its subsidiaries and subsisted during the year or at the end of the year.

None of the Directors or Supervisors in this year and as at the end of this year had any interests in any businesses (other than the Group's businesses) that competed directly or indirectly with the Group's business.

None of the Directors or Supervisors of the Company has entered into any service contracts with the Company which are not terminable by the Company within one year without payment of compensation other than statutory compensation.

(XI) Directors' rights to acquire shares or debentures

During the Reporting Period, the Company did not grant the Directors the rights to acquire shares or debentures.

(XII) Compliance of Model Code for Securities Transactions

The Company has adopted and implemented the Model Code for Securities Transactions to regulate securities transactions of the Directors and Supervisors. After making specific enquiries with all the Directors and Supervisors, the Company obtained written confirmations from each Director and Supervisor that they have fully complied with the Model Code for Securities Transactions during the Reporting Period.

The Model Code for Securities Transactions is also applicable to the senior management of the Company who are in possession of unpublished inside information of the Company. No incident of non-compliance of the Model Code for Securities Transaction by the senior management was noted by the Company.

(XIII) Management contracts

During the Reporting Period, the Company did not enter into any management and administration contract regarding the whole or any substantial part of its businesses (other than the service contracts with the Directors or any full-time employee of the Company).

(XIV) Permitted indemnity provision

Appropriate Directors' liability insurance which is currently in force has been arranged to indemnify the Directors for liabilities arising out of corporate activities.

(XV) Punishment by securities regulatory authorities in the recent three years

Nil.

(XVI) Employees

1. Employees of the Group — Number (Person)

Employees of the Group	Number (Person)
Number of employees of the Company	7,937
Number of employees of the subsidiaries	70
Total number of employees of the Group	8,007
Number of retired workers whose retirement costs are borne by the Group	19,454
Professionals	
Production personnel	5,077
Sales staff	73
Technical staff	1,765
Financial staff	84
Administrative staff	1,008
Total	8,007
Education level	
Technical secondary school graduate and below	5,321
Bachelor's degree	2,194
Master's degree and above	492
Total	8,007

2. Remuneration policy

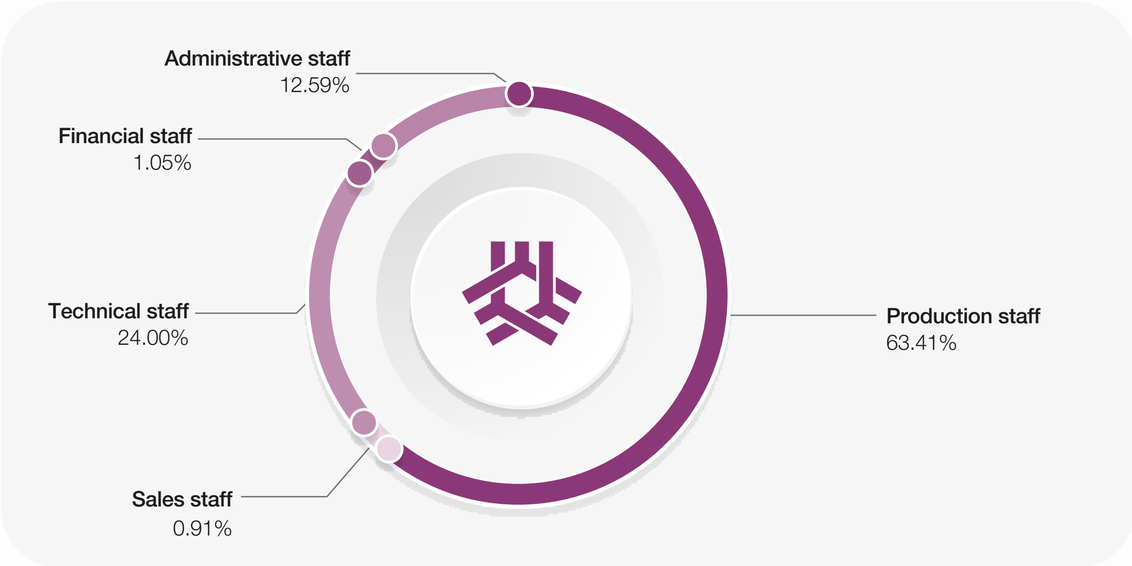
Remuneration packages of the Company's staff include salary, share options and allowances. In accordance with the relevant regulations of the PRC, the Company participates in the social security scheme implemented by the relevant government authorities, and makes contribution for the employees in proportion to their monthly salary. Employees of the Company can also enjoy supplementary medical insurance, enterprise annuity, retirement and other benefits.

During the Reporting Period, the staff remuneration of the Company amounted to RMB3,542,397.38 thousand.

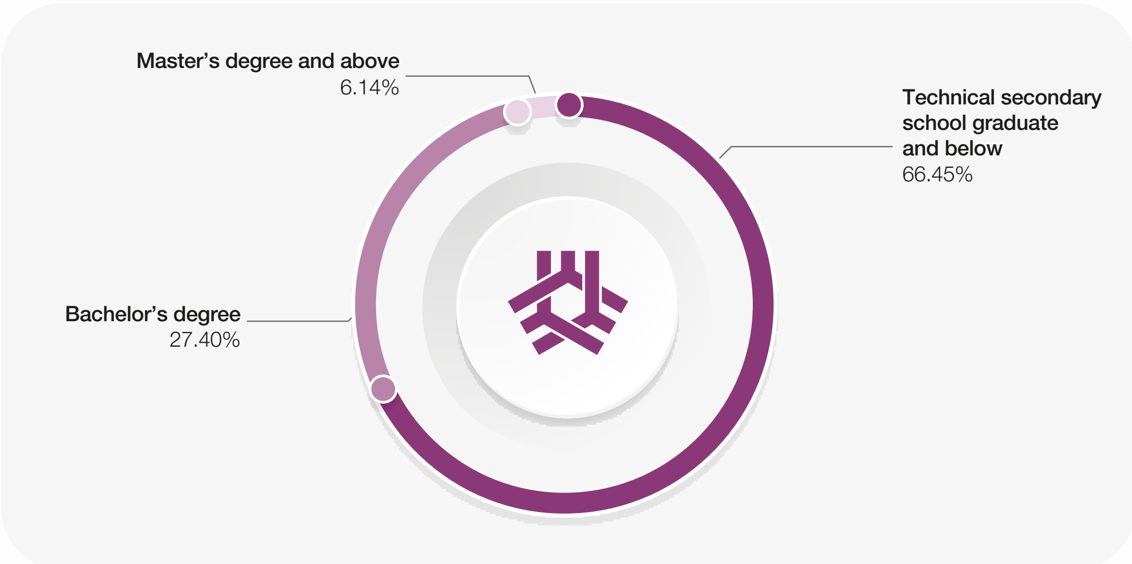
3. Training programs

According to the SPC Staff Training Management Measures, Notice on Adjusting the Grading Management of Training Programs, Notice on Further Strengthening Basic Skills Training and Improving the Learning Work of Shift Deputies and other requirements, we considered the curriculum evaluation results of the 2022 training program and insisted on "goal-led and problem-oriented", so as to identify the capability gaps, focus on the shortcomings of the training program, and improve the skills of the Company's staff in safety production; we adhered to the "effective training on a case-by-case basis", focused on the effectiveness of training programs, and carried out trainings by level, classification, and specialty; we adhered to the "detailed customization from the bigger picture", strictly controlled the number of training programs and time of off-job training, and vigorously promoted the "online training + online examination" method to resolve the contradiction between working and learning. From the company, the unit and the dispatched personnel, we have built a scientific, precise and efficient training program system to serve the needs of the Company's high-quality talent team construction.

4. Professional structure chart



5. Statistics on the education level



6. Outsourcing services

The total remuneration paid for outsourcing services of the Company during the Reporting Period was RMB121,332.6 thousand.

(I) Notes for corporate governance and insider registration management

1. Corporate governance

In 2022, the Company strictly complied with the regulatory legislation such as Company Law, Securities Law and the Corporate Governance Principles for Listed Companies issued by the CSRC, as well as the relevant provisions and requirements of the Shanghai Stock Exchange, the Hong Kong Stock Exchange and the New York Stock Exchange. It continued to improve its corporate governance structure, developed its corporate system, standardized the corporate operations and enhanced its overall corporate image.

Accomplishing appropriately specific corporate governance activities for listed companies: During the Reporting Period, the Company was committed to ensuring the compliance of relevant regulatory rules regarding corporate governance and continued to consolidate its achievements in specific areas of corporate governance. None of the Company, its Directors, Supervisors, senior management, shareholders and de facto controllers of the Company has been investigated by the CSRC, or punished or publicly criticized by the CSRC, the Securities and Futures Commission of Hong Kong or the U.S. Securities and Exchange Commission, or publicly censured by the Shanghai Stock Exchange, the Hong Kong Stock Exchange or the New York Stock Exchange.

Through continuous conduction of specific corporate governance activities and improvements of its governance system, the Company further enhanced its corporate governance level. The Company's internal system also became more robust and standardized. Under the guidance of the relevant regulatory authorities, the Company will operate in strict compliance with the relevant laws and regulations and will further strengthen the establishment of standardized and institutionalized corporate governance so as to ensure the lawful, robust and sustainable development of the Company.

2. Registration and management of persons with access to inside information

In order to administer the registration and management of persons with access to the Company's inside information, strengthen confidentiality of inside information and safeguard fairness of information disclosure, during the Reporting Period, the Company enhanced the confidentiality of inside information and the registration, management and reporting of the persons with access to the Company's inside information according to "System for the Registration and Management of Inside Information", so as to prevent the Company from suffering unusual stock price fluctuations due to leakage of inside information and the resulting legal risks, and further standardize the Company's operation.

(II) Brief introduction of Board meeting

Session of the meeting	Convening date	Title of the motions	Status of the resolutions	Designated websites for publication of resolutions	Date of publication of resolutions
The 13th meeting of the 10th Board	4 January 2022	1. Proposal on Provision of the Shareholder's Loan for Shanghai Jinshan Baling New Material Co., Ltd.	Passed	Websites of the Shanghai Stock Exchange, the Hong Kong Stock Exchange and the Company	5 January 2022
The 14th meeting of the 10th Board	10 February 2022	1. Proposal on Provision for Asset Impairment and Disposal of Assets in 2021	Passed	Websites of the Shanghai Stock Exchange, the Hong Kong Stock Exchange and the Company	11 February 2022
The 15th meeting of the 10th Board	7 March 2022	1. Proposal on Waiver of the Pre-emptive Right over the Equity Transfer of Non-controlled Company and the Connected Transaction 2. Proposal on Authorization to the Board to Repurchase the Company's Domestic Shares and/or Overseas-listed Foreign Shares by the General Meeting 3. Proposal on the Appointment of Huang Xiangyu as a Member of the Strategy Committee of the Company 4. Proposal on the Convening of the First Extraordinary General Meeting for 2022, the First A Shareholders Class Meeting for 2022 and the First H Shareholders Class Meeting for 2022	Passed	Websites of the Shanghai Stock Exchange, the Hong Kong Stock Exchange and the Company	8 March 2022

Session of the meeting	Convening date	Title of the motions	Status of the resolutions	Designated websites for publication of resolutions	Date of publication of resolutions
The 16th meeting of the 10th Board	23 March 2022	1. The 2021 Work Report of the President 2. The 2021 Work Report of the Board 3. Continuous Risk Assessment Report on the Connected Transaction with Sinopec Finance Co., Ltd. 4. The 2021 Audited Financial Statements 5. The 2021 Profit Distribution Plan 6. The 2021 Annual Report 7. The 2021 Internal Control Evaluation Report 8. The 2021 Corporate Social Responsibility Report 9. The 2022 Financial Budget Report 10. The 2022 Financial Derivatives Plan 11. Proposal on the Appointment of Domestic and International Accounting Firms for 2022 and the Recommendation of Authorizing the Board to Determine Their Remuneration 12. Forward Equity Transfer Agreement and Other Agreements and the Connected Transaction	Passed	Websites of the Shanghai Stock Exchange, the Hong Kong Stock Exchange and the Company	24 March 2022

Session of the meeting	Convening date	Title of the motions	Status of the resolutions	Designated websites for publication of resolutions	Date of publication of resolutions
The 17th meeting of the 10th Board	27 April 2022	1. Form 20F to be filed with the U.S. Securities and Exchange Commission 2. 2022 First Quarter Report 3. Proposal on the Board's Decision to Register and Issue Ultra Short-term Financing Bonds 4. Proposal on Matters Related to the Tenure System and Contractual Management of the Management Members 5. Measures for Business Performance Assessment of Management Members of Sinopec Shanghai Petrochemical 6. Measures for the Management of Remuneration of Management Members of Sinopec Shanghai Petrochemical 7. Internal Control Manual of the Company (2022 Edition) 8. Authorization Management Measures of the Board of Shanghai Petrochemical 9. Rules of Procedure of the Special Meeting of the Chairman of Shanghai Petrochemical 10. Rules of Procedures of the General Manager's Meeting of Shanghai Petrochemical 11. Proposal on Authorization to the Board to Repurchase the Company's Domestic Shares and/or Overseas-listed Foreign Shares by the General Meeting 12. Proposal on the Convening of the Company's Annual General Meeting for 2021, the Second A Shareholders Class Meeting for 2022 and the Second H Shareholders Class Meeting for 2022	Passed	Websites of the Shanghai Stock Exchange, the Hong Kong Stock Exchange and the Company	28 April 2022

Session of the meeting	Convening date	Title of the motions	Status of the resolutions	Designated websites for publication of resolutions	Date of publication of resolutions
The 18th meeting of the 10th Board	22 June 2022	1. Regulations Governing the Shares Held by Directors, Supervisors and Senior Management of Shanghai Petrochemical and the Changes Thereto 2. Work System of the Secretary of the Board of Shanghai Petrochemical (2022 Edition) 3. Work System of Independent Directors of Shanghai Petrochemical (2022 Edition) 4. Registration System of Insider of Shanghai Petrochemical (2022 Edition) 5. Work System of Investor Relations of Shanghai Petrochemical (2022 Edition) 6. Information Disclosure Management System of Shanghai Petrochemical (2022 Edition) 7. Annual Business Performance Appraisal Responsibility of Managers 8. Proposal on the Specific Implementation of Matters Relating to the Repurchase of the Company's Domestic Shares and/or Overseas-listed Foreign Shares by the Chairman of the Board or a Director Designated by the Chairman of the Board	Passed	Websites of the Shanghai Stock Exchange, the Hong Kong Stock Exchange and the Company	23 June 2022
The 19th meeting of the 10th Board	12 August 2022	1. Proposal on the nomination of Wan Tao as a candidate for Non-independent Director of the 10th Board of Directors of the Company 2. Decided to hold the Second Extraordinary General Meeting of the Company for 2022 at 14:00 on 8 September 2022 at the North Building, Jinshan Hotel, No. 1 Jinyi East Road, Jinshan District, Shanghai 3. Proposal on the Proposed Delisting of the ADS from the NYSE	Passed	Websites of the Shanghai Stock Exchange, the Hong Kong Stock Exchange and the Company	13 August 2022

Session of the meeting	Convening date	Title of the motions	Status of the resolutions	Designated websites for publication of resolutions	Date of publication of resolutions
The 20th meeting of the 10th Board	25 August 2022	1. Resolution on Interim Report for 2022 (Full Text and Summary) 2. Continuous Risk Assessment Report on the Connected Transaction with Sinopec Finance Co., Ltd. 3. Report on Internal Control System in the First Half of 2022	Passed	Websites of the Shanghai Stock Exchange, the Hong Kong Stock Exchange and the Company	26 August 2022
The 21st meeting of the 10th Board	8 September 2022	1. To confirm Wan Tao as the Executive Director of the Company 2. To elect Wan Tao as the Chairman of the 10th Board of Directors of the Company 3. To elect Wan Tao as the Chairman of the Strategy Committee of the 10th Board of Directors of the Company 4. To elect Wan Tao as a member of the Nomination Committee of the 10th Board of Directors of the Company 5. To appoint Wan Tao as the authorized representative of the Company on the Hong Kong Stock Exchange	Passed	Websites of the Shanghai Stock Exchange, the Hong Kong Stock Exchange and the Company	9 September 2022
The 22nd meeting of the 10th Board	23 September 2022	1. To establish the Independent Board Committee of the Company 2. To engage Shenwan Hongyuan Capital (H.K.) Limited as the independent financial advisor to the Independent Board Committee	Passed	Websites of the Shanghai Stock Exchange, the Hong Kong Stock Exchange and the Company	24 September 2022

Session of the meeting	Convening date	Title of the motions	Status of the resolutions	Designated websites for publication of resolutions	Date of publication of resolutions
The 23rd meeting of the 10th Board	26 October 2022	1. Report for the Third Quarter of 2022	Passed	Websites of the Shanghai Stock Exchange, the Hong Kong Stock Exchange and the Company	27 October 2022
The 24th meeting of the 10th Board	10 November 2022	1. Mutual Product Supply and Sales Services Framework Agreement (2023-2025) 2. Comprehensive Services Framework Agreement (2023-2025) 3. Financial Services Framework Agreement 4. Continuous Risk Assessment Report on the Connected Transaction with Sinopec Finance Co., Ltd. 5. Risk Response Plan on Deposit and Loan Business in Sinopec Finance Co., Ltd. 6. Proposal on the Investment in the Renovation Project for Power Units Cleaning and Efficiency Improving 7. Proposal on Convening the Third Extraordinary General Meeting for 2023	Passed	Websites of the Shanghai Stock Exchange, the Hong Kong Stock Exchange and the Company	11 November 2022
The 25th meeting of the 10th Board	19 December 2022	1. Proposal on Entering into a Technology Development Contract with a Related Party 2. Proposal on further Improvement of the Tenure System and Contractual Management of the Management Members	Passed	Websites of the Shanghai Stock Exchange, the Hong Kong Stock Exchange and the Company	20 December 2022

(III) Brief introduction of general meeting

Session of the meeting	Convening date	Title of the motions	Status of the resolutions	Designated websites for publication of resolutions	Date of publication of resolutions
The First Extraordinary General Meeting for 2022, the First A Shareholders Class Meeting for 2022 and the First H Shareholders Class Meeting for 2022	30 March 2022	1. Proposal on Waiver of the Pre-emptive Right over the Equity Transfer of Non-controlled Company and the Connected Transaction 2. Proposal on Authorization to the Board to Repurchase the The Company's Domestic Shares and/or Overseas-listed Foreign Shares	Passed	Websites of the Shanghai Stock Exchange, the Hong Kong Stock Exchange and the Company	31 March 2022
The Annual General Meeting for 2021, the Second A Shareholders Class Meeting for 2022 and the Second H Shareholders Class Meeting for 2022	22 June 2022	1. The 2021 Work Report of the Board 2. 2021 Work Report of the Supervisory Committee 3. The 2021 Audited Financial Statements 4. The 2021 Profit Distribution Plan 5. The 2022 Financial Budget Report 6. To re-engage KPMG Huazhen LLP as the domestic auditor of the Company in 2022 and KPMG as the overseas auditor of the Company in 2022, and to authorize the Board to fix their remuneration 7. Proposal on Authorization to the Board to Decide on the Registration and Issuance of Ultra Short-term Financing Bonds 8. Proposal on Authorization to the Board to Repurchase the The Company's Domestic Shares and/or Overseas-listed Foreign Shares	Passed	Websites of the Shanghai Stock Exchange, the Hong Kong Stock Exchange and the Company	23 June 2022
The Second Extraordinary General Meeting for 2022	8 September 2022	1. To elect Wan Tao as a Non-independent Director of the 10th Board of Directors of the Company	Passed	Websites of the Shanghai Stock Exchange, the Hong Kong Stock Exchange and the Company	8 September 2022
The Third Extraordinary General Meeting for 2022	20 December 2022	1. Proposal on the continuing connected transactions of the Mutual Product Supply and Sales Services Framework Agreement (2023-2025) and caps contemplated thereunder 2. Proposal on the continuing connected transactions of the Comprehensive Services Framework Agreement (2023-2025) and caps contemplated thereunder 3. Proposal on the Investment in the Renovation Project for Power Units Cleaning and Efficiency Improving	Passed	Websites of the Shanghai Stock Exchange, the Hong Kong Stock Exchange and the Company	21 December 2022

(IV) Performance of duties by the directors

1. Directors' attendance at the Board meetings and general meetings

Name of Director	Independent director or not	Information on participating in the Board Meeting: Attendance at the Board meetings during the year (number of times)	Attendance in person (number of times)	Attendance by correspondence (number of times)	Attendance by proxy (number of times)	Absence (number of times)	Failure to attend the meeting in person for two consecutive times or not	Information on participating in General Meetings: Attendance at general meetings (number of times)
Wan Tao	No	4	4	3	0	0	No	1
Guan Zemin	No	13	13	10	0	0	No	4
Du Jun	No	13	13	10	0	0	No	4
Huang Xiangyu	No	13	13	10	0	0	No	3
Xie Zhenglin	No	13	12	12	1	0	No	2
Peng Kun	No	13	13	10	0	0	No	3
Li Yuanqin	Yes	13	13	11	0	0	No	4
Tang Song	Yes	13	13	12	0	0	No	3
Chen Haifeng	Yes	13	13	12	0	0	No	3
Yang Jun	Yes	13	13	12	0	0	No	4
Gao Song	Yes	13	13	12	0	0	No	4

Number of Board meetings held during the year	13
including: number of meetings held on site	0
number of meetings held by correspondence	10
number of meetings held on site and by correspondence concurrently	3

2. Disagreements of the Directors on relevant issues of the Company

During the Reporting Period, none of the Directors of the Company raised any disagreements on any Board resolutions or other issues of the Company.

(V) Major comments and recommendations put forward by the special committees under the Board while discharging their duties during the Reporting Period

Please refer to Chapter 8, Corporate Governance Report, for the membership of the special committees under the Board and the meetings held.

(VI) Information on Supervisory Committee's identification of risks in the Company

The Company's Supervisory Committee had no disagreements to the matters under their supervision during the Reporting Period.

(VII) Information on whether the Company fails to guarantee independence from its controlling shareholder or maintain autonomous operational ability in respect of business, personnel, assets, organization and finances, etc.

The Company is independent of the controlling shareholder with regard to its business, personnel, assets, organizations and finances. The Company has full ability to conduct its business independently and has the ability to operate autonomously.

(VIII) Description of the situation where the Company's controlling shareholders, actual controllers and other units under their control are engaged in the same or similar business as the Company, as well as the impact of horizontal competition or major changes in horizontal competition on the Company, the solution measures taken, the solution progress and the subsequent solution plan

The Company's main business is to process petroleum into a variety of petroleum products, intermediate petrochemical products, resins, plastics and synthetic fibers. This kind of business is the same as or similar to some businesses engaged in by the Company's controlling shareholders, actual controllers and other units under their control. The Company adheres to legal and compliant operation. At present, the Company is actively committed to transformation and upgrading, focusing on the development of high-end chemicals, new materials and new energy, and striving to achieve differentiated development. The foregoing situation will not have a significant adverse impact on the production and operation of the Company, or damage the independence of the listed company.

(IX) Evaluation mechanism for senior management as well as the establishment and implementation of incentive mechanism during the Reporting Period

On 30 September 2021, the Board of the Company deliberated, adopted and implemented the Measures for Business Performance Assessment of Management Members of Shanghai Petrochemical and the Measures for Salary Management of Management Members of Shanghai Petrochemical, according to which the performance evaluation and incentive of senior managers of the Company were carried out. On 27 April 2022, the Board of the Company deliberated and adopted the Amendment to the Measures for Business Performance Assessment of Management Members of Shanghai Petrochemical and the Amendment to the Measures for Salary Management of Management Members of Shanghai Petrochemical.

(X) Rectification of problems in self inspection of special actions for governance of listed companies

The problems of the Company's self-inspection in the special action of governance of listed companies were all rectified in 2022.

(I) Statement of responsibility for internal control and the establishment of the internal control system

1. Statement of responsibility for internal control

The Board of the Company is responsible for establishing and maintaining a comprehensive internal control system pertinent to financial reporting.

The objectives of internal control pertinent to financial reporting are to ensure that the financial information reported is true, complete and reliable and to prevent the risk of material misstatements. However, due to inherent limitations of the internal control, the Company can only provide reasonable level of assurance for the achievement of the objectives mentioned above.

The Board has evaluated the internal controls pertinent to financial reporting in accordance with the requirements under the Basic Standards for Enterprise Internal Control, and is of the view that such internal control was effective in the year 2022.

2. Establishment of internal control system

Overall plan of internal control establishment	Since 2004, the Company has established and implemented a comprehensive internal control system which covers aspects such as production, operations, finance, investment, human resources and information disclosure, and amends the Internal Control Manual annually in accordance with domestic and overseas regulatory requirements, risk prevention needs and recommendations by external auditors on internal control review. The Company's internal control system has been established primarily for the following basic objectives: ① to standardize the enterprise's business operation, prevent operational and managerial risks, ensure that financial statements and relevant information are truthful and complete, improve operational efficiency and effectiveness, and facilitate the achievement of the Company's development strategy; ② to plug loopholes and eliminate potential hazards so as to prevent, detect and correct mistakes and fraudulent acts in a timely manner, thereby ensuring that the Company's assets are secure and integral; and ③ to ensure that the relevant state laws and regulations, the Articles of Association and internal rules and regulations are thoroughly enforced so as to fulfill the regulatory requirements for listed companies in both domestic and overseas capital markets.

Work plan on establishing and improving the internal control system and implementation thereof	The Company's internal control manual (2022 Edition) consists of 22 categories and 58 risk control matrices with 1,633 controls. The monitoring scope mainly involves the main aspects of the Company's production and operation development and important links of related businesses, such as financial management, accounting, material procurement, product sales, capital expenditure, human resources, information management, etc. In 2022, the Company conscientiously implemented the Internal Control Manual approved by the Board, and conducted comprehensive self-examination, process walk through test and annual evaluation of internal control in accordance with the regulations. KPMG Huazhen LLP, an external auditor, audited the Company's internal control. The management of the Company believes that the internal control of the Company was effective during the Reporting Period.
Establishment of the department inspecting and supervising internal control	The Company has established an internal control task force, with the Chairman, the President and the Chief Financial Officer as its chief and deputy chief, respectively. As the leading organ of the Company's overall internal control system, the task force's main duty includes organizing the formulation and revision of the Company's internal control manual, organizing the self-inspection of the internal control of the Company's own level and the inspection of its subordinate enterprises, and guiding and coordinating the Company's internal control management. The internal control office under the task force is the centralized management department of the comprehensive supervision of the Company's internal control risk management, which is responsible for the daily supervision and special supervision of the Company's internal control risk management, and the Enterprise Management Department is responsible for the daily work. The Company has established an internal control supervisor working network which is in charge of each department (unit) in the Company. These internal control supervisors, representing their respective departments, and administrative heads of second-tier units, conduct internal control work and activities within their respective supervisory scope and functionally report to the internal control office of the Company.

The Board's work arrangements for internal control	The Audit Committee reports to the Board on the establishment of the internal control system of the Company and the findings of the implementation and inspection of the internal control on a regular basis. The Board also considers and publishes a self-assessment report on the internal control of the Company on an annual basis, and considers and approves the revised Internal Control Manual of the Company annually. KPMG Huazhen LLP, the Company's external auditor, issued an auditor's report on internal control over financial reporting according to the Sarbanes-Oxley Act. KPMG Huazhen LLP, the Company's external auditor, issued an auditor's report on internal control over financial reporting according to "Audit Guidelines for Enterprise Internal Control" in 2022.
Improvements in the internal control system in relation to financial audit	The Company took the lead for the assessment of the rules and regulations and fully assessed the compliance and effectiveness of each system. A total of 133 amendments were made and published, and 27 systems were added.
Deficiencies in internal control and the relevant rectification	The Company conducted a self-assessment on its internal control work in 2022. The results of the assessment are: no material deficiencies were detected in the design or implementation of the internal control of the Company from 1 January 2022 to 31 December 2022.

(II) Disclosure of the self-assessment report on internal control

The Company has disclosed the self-assessment report of the Board on the Company's internal control.

(III) Auditor's report on internal control

The Auditor's report on internal control is disclosed or not: Disclosed

The Company has engaged KPMG Huazhen LLP to conduct an audit on the effectiveness of the internal control over financial reporting of the Company for the year ended 31 December 2022 pursuant to the requirements of the Audit Guidelines for Enterprise Internal Control and an auditor's report on internal control has been issued.

(IV) The Company's establishment of an accountability system for major errors in the disclosure of information in annual reports

The Company's Information Disclosure Management System (2021 Revision) sets out specific regulations for the accountability of major errors in the disclosure of information in its annual reports. During the Reporting Period, there were no major errors in the disclosure of information in the Company's annual report, which required amendments to major accounting errors, supplements to material omission of information or amendments to results forecasts.

The Company is committed to operating in compliance with corporate governance standards by implementing stringent corporate governance measures and enhancing accountability and transparency to deliver higher returns to shareholders. It is the Board's belief that maintaining a good corporate governance system and a world-class governance model are essential in providing a framework for the Company to safeguard the interests of shareholders, enhance corporate value, formulate its business strategies and policies and to develop the Company into a competitive international petrochemical enterprise.

(1) Corporate Governance Practices

The Company has applied the principles set out in part 2 of the Corporate Governance Code.

In the opinion of the Directors, throughout the Reporting Period, the Company has complied with all applicable code provisions set out in the part 2 of the Corporate Governance Code.

In the opinion of the Directors, throughout the Reporting Period, the Company has complied with all reporting principles and "comply or explain" provisions set out in the Environmental, Social and Governance Reporting Guide, details of which are set out in the Company's "2022 ESG Report".

(2) Securities Transactions by Directors and Supervisors

The Company has adopted the Model Code for Securities Transactions as set out in Appendix 10 to the Hong Kong Listing Rules.

Specific enquiry has been made with all the Directors and Supervisors and the Directors and Supervisors have confirmed that they have fully complied with the Model Code for Securities Transactions throughout the Reporting Period.

The Model Code for Securities Transactions is also applicable to all employees of the Company, its subsidiaries or holding companies, who are in possession of unpublished price sensitive information of the Company. No incident of non-compliance of the Model Code for Securities Transactions by the senior management was noted by the Company.

(3) Board of Directors

1. Composition of the Board

The Board currently consists of 11 Directors, including 4 Executive Directors, 2 Non-executive Directors and 5 Independent Non-executive Directors, among whom there is 1 Chairman, 1 Vice Chairman, 1 President and 2 Vice Presidents. Details of the current Board composition are as follows:

Executive Directors:
Wan Tao, *Chairman, Chairman of the Strategy Committee and member of the Nomination Committee*
Guan Zemin, *Vice Chairman and President, Vice Chairman of the Strategy Committee*
Du Jun, *Vice President, Chief Financial Officer, member of Strategy Committee*
Huang Xiangyu, *Vice President, member of Strategy Committee*

Non-executive Directors:
Xie Zhenglin, *member of the Strategy Committee*
Peng Kun

Independent Non-executive Directors:
Li Yuanqin, *Chairman of the Audit Committee*
Tang Song, *members of the Audit Committee and the Remuneration and Appraisal Committee*
Chen Haifeng, *members of the Audit Committee and the Nomination Committee*
Yang Jun, *Chairmen of the Remuneration and Appraisal Committee and the Nomination Committee*
Gao Song, *members of the Remuneration and Appraisal Committee and the Strategy Committee*

During the Reporting Period, Mr. Jin Qiang, Mr. Jin Wenmin and Mr. Huang Fei resigned as Executive Directors on 15 February 2022. Mr. Wu Haijun resigned as Chairman and Executive Director on 8 September 2022 and Mr. Wan Tao was appointed as Chairman and Executive Director on 8 September 2022.

The biographical information of the Directors is set out in the section headed "Profiles of Directors, Supervisors and senior management" on pages 98 to 105 of this annual report. The Directors (including the Chairman and the President (equivalent to the chief executive officer) have no financial, business, family or other material relationship with each other.

2. Attendance Records of the Directors

The Board meets at least once per quarter. In 2022, the Board held 13 meetings. Most of the Directors entitled to attend the meetings had actively attended the 13 meetings held during the year in person or by alternates. Before each Board meeting, the joint company secretary would consult each Director on matters to be tabled at the Board meeting. Any matters raised by the Directors would be included in the agenda of the Board meeting. During the Reporting Period, notices and draft agenda of Board meetings were sent to all Directors at least 14 days before the date of the meeting.

To facilitate the Directors in performing their duties effectively and obtaining relevant information to make informed decisions, the agenda of all meetings of the Board or Board committees, together with all relevant documents, are sent to each Board member at least five days before the date of the relevant meetings. The Directors may hold formal or informal meetings with the senior management before any Board meeting.

The Directors and members of the Board committees have access to the papers and minutes of meetings of the Board or the Board committees.

The attendance records of each Director at the Board meetings and the general meetings of the Company held during the Reporting Period are set out in the table below:

	Board Meeting				Annual General Meeting	Extraordinary General Meeting
Name of Director	Number of Meetings	Attendance in Person	Attendance by Communication Method	Attendance by Alternate	Attendance/ Number of Meetings	Attendance/ Number of Meetings
Executive Directors:						
Wan Tao(1)	4	4	3	0	0/0	1/1
Wu Haijun(2)	9	8	7	1	1/1	2/2
Guan Zemin	13	13	10	0	1/1	3/3
Du Jun	13	13	10	0	1/1	3/3
Huang Xiangyu	13	13	10	0	1/1	2/3
Jin Qiang(3)	2	2	2	0	0/0	0/0
Jin Wenmin(3)	2	2	2	0	0/0	0/0
Huang Fei(3)	2	2	2	0	0/0	0/0
Non-executive Directors:						
Xie Zhenglin	13	12	12	1	1/1	1/3
Peng Kun	13	13	10	0	1/1	2/3
Independent Non-executive Directors:						
Li Yuanqin	13	13	11	0	1/1	3/3
Tang Song	13	13	12	0	1/1	2/3
Chen Haifeng	13	13	12	0	1/1	2/3
Yang Jun	13	13	12	0	1/1	3/3
Gao Song	13	13	12	0	1/1	3/3

Notes:

(1) Mr. Wan Tao was appointed as Chairman and Executive Director on 8 September 2022.

(2) Mr. Wu Haijun resigned as Chairman and Executive Director on 8 September 2022.

(3) Mr. Jin Qiang, Mr. Jin Wenmin and Mr. Huang Fei resigned as Executive Directors on 15 February 2022.

Apart from the abovementioned Board meetings, the Chairman also held 1 meeting with the Non-executive Directors (including independent Non-executive Directors) without the presence of the Executive Directors during the Reporting Period to discuss the Board's annual work plan and the implementation of such plans and to review the state of the Company's productions and operations and its development prospects.

3. Chairman and President (equivalent to Chief Executive Officer)

The duties and responsibilities of the Chairman and the President are separated and the scope of their respective duties and responsibilities is set out in the Articles of Association.

The Chairman of the Company is responsible for providing to all Directors all information concerning the performance of Board duties. He is also committed to improving the quality of the information and timeliness of the delivery of information to the Directors. The Chairman of the Company plays an important role in promoting good corporate governance within the Company. He is to lead the Board, encourage the Directors to carry out their duties in good faith with mutual support and close cooperation, and make an active contribution to the production, operations, reform and development of the Company. The President is accountable to the Board. With the authorization of the Board, the President shall have the power to fully manage the Company's business, deal with all internal and external affairs of the Company including presiding over the management of the Company's production and operations, developing basic rules and regulations of the Company, organizing and implementing the annual business plan and investment proposals of the Company, etc.

Code provision C.2.1 of the Corporate Governance Code stipulates that the roles of chairman and chief executive should be separate and should not be performed by the same individual.

During the Reporting Period, the position of the Chairman is held by Mr. Wu Haijun (resigned on 8 September 2022) and Mr. Wan Tao (appointed on 8 September 2022; and the position of the President is held by Mr. Guan Zemin, respectively.

4. Independent Non-executive Directors

During the Reporting Period, the Board at all times has five Independent Non-executive Directors representing one-third of the Board, meeting the requirements of the Hong Kong Listing Rules relating to the appointment of at least three Independent Non-executive Directors representing at least one-third of the Board with one of whom possessing appropriate professional qualifications, or accounting or related financial management expertise.

The Independent Non-executive Directors possess extensive experience as well as academic and professional qualifications in various areas that include management, accounting and finance thereby ensuring the Board's ability to protect the interests of the Company's shareholders as a whole. During the Reporting Period, the Independent Non-executive Directors contributed significantly in improving the Company's corporate governance structure and protecting the interests of the Company's minority shareholders.

The Company has received written annual confirmation from each of the Independent Non-executive Directors in respect of his independence in accordance with the independence guidelines set out in Rule 3.13 of the Hong Kong Listing Rules. The Company considers all Independent Non-executive Directors independent.

5. Board Independence Evaluation

The Company has established a Board Independence Evaluation Mechanism in 2022 which sets out the processes and procedures to ensure a strong independent element on the Board, which allows the Board effectively exercises independent judgment to better safeguard Shareholders' interests.

The objectives of the evaluation are to improve Board effectiveness, maximise strengths, and identify the areas that need improvement or further development. The evaluation process also clarifies what actions of the Company need to be taken to maintain and improve the Board performance, for instance, addressing individual training and development needs of each Director.

Pursuant to the Board Independence Evaluation Mechanism, the Board will conduct annual review on its independence. The Board will collectively discuss the results and the action plan for improvement, if appropriate.

All Directors has completed the independence evaluation for the year ended 2022 in the form of a questionnaire individually and presented to the Board. The Board discussed and assessed the Board independence during the Board meeting, the evaluation results for the year ended 2022 were satisfactory. The Board Independence Evaluation Report was presented to the Board and the evaluation results for the year ended 2022 were satisfactory.

6. Appointment and Re-election of Directors

All Directors (including Non-executive Directors and Independent Non-executive Directors) are appointed for a specific term. According to the Articles of Association, Directors shall be elected by shareholders at a general meeting for a term of three years, and shall be eligible for re-election upon expiry of their term of office. However, the term of an Independent Non-executive Director may not exceed a total of six years.

7. Responsibilities of the Directors

The Board is primarily responsible for formulating and supervising the strategic development of the Company, setting the objectives, strategies, policies and business plans of the Company, reviewing and monitoring the Company's operations and financial performance directly and indirectly through its committees, as well as devising the appropriate risk management and internal control policies and systems, thereby ensuring the achievement of the Company's strategic objectives.

All Directors, including Non-executive Directors and Independent Non-executive Directors, have brought a wide spectrum of valuable business experience, knowledge and professionalism to the Board for its efficient and effective functioning. The functions of the Non-executive Directors include participating in Board meetings to provide independent opinions, taking a lead at Board meetings where potential conflict of interests arises, serving as members of the Board committees when invited, scrutinizing the Company's performance and providing a balance in the Board for bringing effective independent judgement on corporate actions and operations.

All Directors have full and timely access to all the information of the Company and may, upon request, seek independent professional advice in appropriate circumstances, at the Company's expenses for discharging their duties to the Company. When the Directors are required to give opinions on matters such as external guarantees, financing and connected transactions, the Company will appoint relevant independent professionals such as auditors, financial advisers and lawyers to provide independent opinions to help the Directors discharging their duties.

The Board reserves the power to make decisions relating to all major matters including policy matters, strategies and budgets, internal control and risk management, material transactions (in particular those that may involve conflict of interests), financial information, appointment of directors and other significant operational matters of the Company. Responsibilities relating to implementing decisions of the Board, directing and co-ordinating the daily operation and management of the Company are delegated to the management.

The Rules of Procedures for the Board, an appendix to the Articles of Association, contains detailed provisions on the terms of reference, authorization, meeting policies and rules of discussion of the Board. The Company has also developed the Work Rules for the President which contains detailed provisions on the duties and responsibilities as well as the rules of procedure for the management.

The Directors shall disclose to the Company details of other offices held by them and the Board regularly reviews the contribution required from each Director to perform his responsibilities to the Company.

The Company has purchased Directors' and officers' liabilities insurance in respect of any possible legal action against its Directors and officers arising out of corporate activities.

8. Continuous Professional Development of Directors & Company Secretary

Directors shall keep abreast of regulatory developments and changes in order to effectively perform their responsibilities and to ensure that their contribution to the Board remains informed and relevant.

To ensure that the Directors adequately understand the operations and businesses of the Company, every newly-appointed Director will receive a comprehensive set of introductory materials after his/her appointment which includes an introduction to the Group's business, the duties and responsibilities of a Director and other legal requirements. Relevant on-going professional training sessions will also be organized for newly-appointed Directors to help them fully understand the duties that a Director should fulfill as stipulated in the relevant requirements of the laws and regulations, including the Hong Kong Listing Rules, and to enable them to have a timely and comprehensive understanding of the operations of the Company.

In addition, all Non-executive Directors will receive updated information from the management regularly, including strategic plans, business reports and analyses on economic activities etc. with a view to assist them to perform their duties effectively.

All Directors should participate in continuous professional development to upgrade their expertise and skills and to refresh their knowledge to ensure that they perform their duties better in contributing to the Board. Each of the Directors has provided to the Company records of their participation in the relevant training in 2022. The Company has also committed to organizing training programs for its Directors. Internally-facilitated briefings for Directors would be arranged and reading material on relevant topics would be provided to Directors where appropriate.

During the Reporting Period, Directors: Mr. Wan Tao attended the training for new directors and the training on corporate governance of listed companies organized by the China Listed Companies Association, Mr. Guan Zemin attended the training on the presentation of results of listed companies organized by the China Listed Companies Association and the training on the reduction of shareholdings by shareholders, directors, supervisors and senior management of listed companies organized by the Shanghai Stock Exchange, Mr. Du Jun attended the training on the presentation of results of listed companies organized by the China Listed Companies Association and the joint training on A+H share independent directors/finance directors/board secretaries organized by the Hong Kong Corporate Governance Association. Mr. Du Jun has attended the special training on earnings presentation of listed companies organized by the China Listed Companies Association and the joint training on A+H share independent directors/finance directors/board secretaries organized by the Hong Kong Corporate Governance Association, Ms. Li Yuanqin has attended the joint training on A+H share independent directors/finance directors/board secretaries organized by the Hong Kong Corporate Governance Association, Mr. Tang Song, Mr. Chen Haifeng and Mr. Yang Jun have attended the joint training on A+H share independent directors/finance directors/board secretaries organized by the Hong Kong Corporate Governance Association and the Shanghai Stock Exchange. Mr. Tang Song, Mr. Chen Haifeng and Mr. Yang Jun attended the joint training for independent directors/finance directors/board secretaries of A+H shares organized by the Hong Kong Institute of Corporate Governance and the follow-up training for independent directors of main board listed companies in the 5th session of 2022 organized by the Shanghai Stock Exchange, and Mr. Gao Song attended the follow-up training for independent directors of main board listed companies in the 5th session of 2022 organized by the Shanghai Stock Exchange. Supervisors: Mr. Cai Tingji attended the online training of the Hong Kong Institute of Certified Public Accountants and the 2022 training course for directors and supervisors of listed companies in Shanghai held by Shanghai Listed Companies Association and Mr. Zhang Xiaofeng attended the training on corporate governance and directors and supervisors' ability to perform their duties held by Sinopec Management Institute and the training on corporate governance held by Hubei Listed Companies Association.

During the Reporting Period, Mr. Liu Gang and Ms. Chan Sze Ting, joint company secretaries of the Company, has received no less than 15 hours of relevant professional training respectively.

(4) Board Committees

The Board has established four committees, namely, the Audit Committee, the Remuneration and Appraisal Committee, the Nomination Committee and the Strategy Committee, for overseeing particular aspects of the Company's affairs. All Board committees stipulate their terms of reference. The Rules of Procedures of the Board committees are posted on the websites of the Hong Kong Stock Exchange, the Shanghai Stock Exchange and the Company and are available to shareholders upon request. The Board committees submit minutes, resolutions and reports to the Board subsequent to their meetings in respect of the progress of work and results of discussion.

1. The Remuneration and Appraisal Committee

(i) Role and Functions of the Remuneration and Appraisal Committee

The principal duties of the Remuneration and Appraisal Committee are to formulate and review the remuneration policies and proposals for the Directors and senior management of the Company, to set performance appraisal standards and conduct performance appraisals of the Directors and senior management of the Company, and to establish transparent procedures for developing such remuneration policy and structure to ensure that no Director or any of his directly interested parties is involved in deciding his own remuneration.

The committee may seek advice from independent professionals if required in accordance with the applicable procedures at the expense of the Company.

(ii) Members of the Remuneration and Appraisal Committee

The Remuneration and Appraisal Committee of the Board comprises three Independent Non-executive Directors.

Members of the Remuneration and Appraisal Committee during the Reporting Period are as follows:

Chairman: Yang Jun, *Independent Non-executive Director*

Members: Tang Song, *Independent Non-executive Director*
Gao Song, *Independent Non-executive Director*

(iii) Meetings of the Remuneration and Appraisal Committee

The Remuneration and Appraisal Committee convenes at least one meeting each year. In 2022, the Remuneration and Appraisal Committee held 4 meetings with a record of attendance as follows:

Name of Director	Attendance in Person/ Number of Meetings	Attendance by Alternate/ Number of Meetings
Yang Jun	4/4	0
Tang Song	4/4	0
Gao Song	4/4	0

(iv) Procedures and Basis for the Determination of Remuneration of Directors, Supervisors and Senior Management

The remuneration of Independent Non-executive Directors is determined in accordance with the "Remuneration System for Independent Directors" amended at the 2007 annual general meeting held in June 2008. The remuneration of other Directors, Staff Supervisors, External Supervisors and senior management is determined according to the "Remuneration System for Directors, Supervisors and Senior Management" passed at the 2002 annual general meeting held in June 2003. The remuneration of Independent Supervisors is determined in accordance with the "Remuneration Payment Method for Independent Supervisors" approved at the 2016 annual general meeting held in June 2017.

The Remuneration and Appraisal Committee reviews the implementation of the remuneration evaluation every year. It also appraises the annual performance of the Directors and senior management of the Company, and makes recommendations to the Board on their remuneration according to the results of the appraisal.

(v) The Work of the Remuneration and Appraisal Committee during the Reporting Period

During the Reporting Period, the Remuneration and Appraisal Committee reviewed the remuneration policy of the Directors and conducted annual appraisals with the Directors and the senior management. The committee also reviewed the remuneration structure of the Directors, Supervisors and senior management. The Remuneration and Appraisal Committee also considered and reviewed "Responsibility Letter for the Management on the Assessment of Business Performance of Sinopec Shanghai", "Resolution on Further Strengthening the Tenure System and Contractual Management of the Members of the Company's Manager", "Measures for Evaluation the Business Performance of the Management of Sinopec Shanghai", "Measures for Manage the Remuneration of Management of Sinopec Shanghai" during the Reporting Period.

2. The Audit Committee

(i) Role and Functions of the Audit Committee

The Audit Committee is principally responsible for advising the Board on the appointment, dismissal, remuneration and terms of engagement of external auditors, reviewing the effectiveness of the Company's internal audit function, supervising the internal audit system and its implementation, reviewing the financial information of the Company and its disclosure including verifying the completeness of financial statements, annual reports and interim reports of the Company, reviewing the major opinions stated in the financial statements and reports of the Company, reviewing the financial control, internal control and risk management systems of the Company, reviewing arrangements to enable employees of the Company to raise concerns about possible improprieties in financial reporting, internal control or other matters of the Company and examining connected transactions of the Company.

The establishment of the Audit Committee reflects the Company's determination to improve the transparency of its financial reporting system and its financial arrangements. The Company pays close attention to the minutes and reports prepared by the Audit Committee. The committee may seek advice from independent professionals in accordance with the applicable procedures at the expense of the Company.

(ii) Members of the Audit Committee

The Audit Committee of the Board comprises three Independent Non-executive Directors.

Members of the Audit Committee during the Reporting Period are as follows:

Chairman: Li Yuanqin, *Independent Non-executive Director*

Members: Tang Song, *Independent Non-executive Director*
Chen Haifeng, *Independent Non-executive Director*

(iii) Meetings of the Audit Committee

The Audit Committee should convene at least two meetings each year. In 2022, the Audit Committee held 5 meetings without the presence of the Executive Directors with a record of attendance as follows:

Name of Director	Attendance in Person/Number of Meetings	Attendance by Alternate/Number of Meetings
Li Yuanqin	5/5	0
Tang Song	5/5	0
Chen Haifeng	5/5	0

(iv) The Work of the Audit Committee during the Reporting Period

During the Reporting Period, the Audit Committee reviewed the accounting principles and standards adopted by the Company, the interim and annual financial results and reports and significant issues on the financial reporting, operational and compliance controls, the effectiveness of the risk management and internal control systems, appointment of external auditors and relevant scope of works, and continuing connected transactions of the Company. The Audit Committee also considered and approved the "Resolution on providing Shareholders' Loan to Shanghai Jinshan Baling New Material Co., Ltd.", "Resolution on waived the Pre-emptive Right over the Equity Transfer of the Non-controlled Company" and "Amendments to the Internal Control Manual (2022 Edition)" during the Reporting Period.

3. The Nomination Committee

(i) Role and Functions of the Nomination Committee

The Nomination Committee is accountable to the Board, and is mainly responsible for reviewing the Board composition, making recommendations to the Board on the procedures and criteria for the selection and appointment of Directors and senior management of the Company and on their qualifications to hold office, and assessing the independence of Independent Non-executive Directors.

In assessing the Board composition, the Nomination Committee would take into account various aspects as well as factors concerning Board diversity as set out in the Company's Board Diversity Policy, including but not limited to gender, age, cultural and educational background, professional qualifications, experience, skills, knowledge, length of service, etc. The Nomination Committee would discuss and agree on measurable objectives for achieving diversity on the Board, where necessary, and recommend them to the Board for adoption.

In identifying and selecting suitable candidates for directorships, the Nomination Committee would consider the candidate's relevant criteria such as character, qualifications, experience, independence and other relevant criteria necessary to complement the corporate strategy and achieve Board diversity, where appropriate, before making recommendation to the Board.

The Company provides adequate resources to the Nomination Committee for the performance of its duties. The committee may seek independent professional advice during the performance of its duties at the Company's expense.

(ii) Members of the Nomination Committee

The Nomination Committee of the Board comprised one Executive Director and two Independent Non-executive Directors.

Members of the Nomination Committee during the Reporting Period are as follows:

Chairman: Yang Jun, *Independent Non-executive Director*

Members: Chen Haifeng, *Independent Non-executive Director*
Wan Tao, *Executive Director (served as member of the Nomination Committee from 8 September 2022)*
Wu Haijun, *Executive Director (resigned as member of the Nomination Committee from 8 September 2022)*

(iii) Meetings of the Nomination Committee

The Nomination Committee should convene at least one meeting each year. In 2022, the Nomination Committee held 2 meetings during the Reporting Period. The attendance record of the meetings of the Nomination Committee is set out in the table below:

Name of Director	Attendance in Person/ Number of Meetings	Attendance by Alternate/ Number of Meetings
Yang Jun	2/2	0
Chen Haifeng	2/2	0
Wan Tao[1]	0/0	0
Wu Haijun[2]	2/2	0

Notes:

(1) Mr. Wan Tao served as member of the Nomination Committee on 8 September 2022.

(2) Mr. Wu Haijun resigned as Chairman and Executive Director on 8 September 2022.

(iv) The Work of the Nomination Committee during the Reporting Period

During the Reporting Period, the Nomination Committee reviewed the structure, number and composition of the Board, and assessed the independence of the Independent Non-executive Directors.

The Nomination Committee also reviewed the composition of the Board from a diversity level. At present, the Board has a total of 11 Directors, including 4 Executive Directors, 2 Non-Executive Directors, and 5 Independent Non-executive Directors. The four Executive Directors are from state-owned enterprises and hold important positions such as chairman, general manager, deputy general manager or chief financial officer. They have rich experience in enterprise management. The two Non-executive Directors have senior professional and technical titles of comprehensive management and senior accountants, rich experience in enterprise management, finance, finance and investment development management, and have a deep understanding of the chemical industry. The five Independent Non-executive Directors are professors of accounting, researchers of law, financial professionals and scholars of business administration with rich professional experience. The Board has one female Director who provides professional advice for the Company in different areas. The diversified portfolio of the Board provides a wide range of professional advice to the Board, so as to ensure that the Board can effectively performs its duties, promotes the Company's corporate performance and sustainable development. The Nomination Committee considers that the Board is sufficiently diversified in terms of age, cultural and educational background, professional experience, skills, and knowledge. In selecting directors, the Nomination Committee will pay special attention to other aspects such as gender and race, so as to achieve the goal of diversification of the Board. For the gender, age and term of service of Board members, please refer to Chapter V "Directors, Supervisors, Senior Management and Employees".

(v) Board Diversity Policy

The Company has adopted a Board Diversity Policy which sets out the approach to achieve diversity of the Board. The Company recognizes and embraces the benefits of having a diverse Board and sees increasing diversity at the Board level as an essential element in maintaining the Company's competitive advantage.

According to the Diversity Policy of the Board and in order to achieve sustainable and balanced development, the Company regards the increasing diversity of the Board as the key element to support its strategic objectives and maintain sustainable development. When setting the composition of the Board members, the Board consider the diversity of Board members from many aspects, including but not limited to gender, age, cultural and educational background, professional experience, skills, knowledge and service tenure. All appointments of the Board are based on the principle of "talents are the only people to be appointed". According to specific needs and business model of the Company, the benefits of diversity of Board members are fully considered under objective conditions. The selection of directors will be based on a wide range of criteria, including but not limited to gender, age, cultural and educational background, race, professional experience, skills, knowledge and tenure of service. The final decision will be based on strengths of the candidates and the contribution they can make to the Board. The composition of the Board (including gender, age and term of service) will be disclosed in the Corporate Governance Report every year.

An analysis of the Board's current composition based on the measurable objectives is set out below:

Gender
Male: 10 Directors
Female: 1 Director

Age Group
31-40: 0 Directors
41-50: 3 Directors
51-60: 7 Directors
61-70: 1 Director

Designation
Executive Directors: 4 Directors
Non-executive Directors: 2 Directors
Independent Non-executive Directors: 5 Directors

Educational Background
Business Administration: 4 Directors
Account and Finance: 2 Directors
Legal: 1 Director
Other: 4 Directors

Nationality

Chinese: 11 Directors

Business Experience

Accounting & Finance: 4 Directors

Legal: 1 Directors

Petrochemical: 3 Directors

Business Administration: 3 Directors

The Nomination Committee and the Board are of the view that the current composition of the Board has achieved the objectives set in the Board Diversity Policy.

The Nomination Committee will report on the composition of the Board at the diversified level in the Corporate Governance Report every year and monitor the implementation of this policy.

Gender Diversity

The Company values gender diversity across all levels of the Group. The following table sets out the gender ratio in the workforce of the Group, including the Board and senior management as at the date of this Annual Report:

	Female	**Male**
Board	9.09% (1)	90.91% (10)
Senior Management	0% (0)	100% (5)
Other employees	18.28% (1462)	81.72% (6535)
Overall workforce	18.26% (1463)*	81.74% (6550)*

* Non-executive Directors and Independent Non-executive Directors are included.

The Board had targeted to achieve and had achieved at least 9.09% (1) of female Directors and 18.28% (1462) of female employees of the Group and considers that the above current gender diversity is satisfactory. When necessary, the Board or the Nomination Committee will hire an independent specialized institution to assist the selection of potential successors to female Directors so as to maintain gender diversity.

Details on the gender ratio of the Group together with relevant data can be found in the 2022 ESG Report.

(vi) Director Nomination Policy

The Board has delegated its responsibilities and authority for selection and appointment of Directors to the Nomination Committee of the Company.

The Company has adopted a Director Nomination Policy which sets out the selection criteria and process and the Board succession planning considerations in relation to nomination and appointment of Directors of the Company and aims to ensure that the Board has a balance of skills, experience and diversity of perspectives appropriate to the Company and the continuity of the Board and appropriate leadership at Board level.

The Director Nomination Policy sets out the factors for assessing the suitability and the potential contribution to the Board of a proposed candidate, including the following:

- Character and integrity;
- Qualifications including professional qualifications, skills, knowledge, experience and diversity aspects under the Board Diversity Policy that are relevant to the Company's business and corporate strategy;
- Any measurable objectives adopted for achieving diversity on the Board;
- Requirement for the Board to have independent non-executive directors in accordance with the Hong Kong Listing Rules and whether the candidate would be considered independent with reference to the independence guidelines set out in the Hong Kong Listing Rules;
- Any potential contributions the candidate can bring to the Board in terms of qualifications, skills, experience, independence and gender diversity;
- Willingness and ability to devote adequate time to discharge duties as a member of the Board and/or Board committee(s) of the Company;
- Such other perspectives that are appropriate to the Company's business and succession plan and where applicable, may be adopted and/or amended by the Board and/or the Nomination Committee from time to time for nomination of directors and succession planning;
- Other conditions asset out in the Company's articles of association (if any).

The Director Nomination Policy also sets out the procedures for the selection and appointment of new Directors and re-election of Directors at general meetings. During the Reporting Period and up to the date of this Annual Report, there were changes in the composition of the Board and details of the changes are set out in the section headed "Composition of the Board" of this Corporate Governance Report.

The Nomination Committee will review the Director Nomination Policy, as appropriate, to ensure its effectiveness.

4. The Strategy Committee

(i) Role and Functions of the Strategy Committee

The major duties of the Strategy Committee are to conduct researches and give recommendations to the Board on major investment decisions, projects and major issues that affect the Company's development, and to monitor the Company's long-term development strategic plan.

(ii) Members of the Strategy Committee

The Strategy Committee comprises four Executive Directors, one Non-executive Director and one Independent Non-executive Director.

Chairman: Wan Tao, *Executive Director*
Vice-chairman: Guan Zemin, *Executive Director*

Members: Du Jun, *Executive Director*
Huang Xiangyu, *Executive Director*
(appointed as a member of Strategy Committee on 7 March 2022)
Xie Zhenglin, *Non-executive Director*
Gao Song, *Independent Non-executive Director*
Huang Fei, *Executive Director (resigned on 15 February 2022)*

(iii) Meetings of the Strategy Committee

In 2022, the Strategy Committee held 0 meeting.

(iv) The Work of the Strategy Committee during the Reporting Period

The Strategy Committee should convene meeting when appropriate. During the Reporting Period, the Strategic Committee did not convene meeting.

5. Corporate Governance Functions

The Board is responsible for performing the functions set out in code provision A.2.1 of the Corporate Governance Code.

The Board reviewed the Company's corporate governance policies and practices, training and continuous professional development of Directors and senior management, the Company's policies and practices on compliance with legal and regulatory requirements, the compliance of the Model Code for Securities Transactions, and the Company's compliance with the Corporate Governance Code and disclosure in this Corporate Governance Report.

6. Supervisory Committee

The Company's tenth session of the Supervisory Committee comprises six members, including three Employee Representative Supervisors (one of whom had served as Chairperson of the committee), one External Supervisor and two Independent Supervisors.

The Supervisors are appointed for a fixed term of office and the term of office of each Supervisor during the Reporting Period are set out in the section headed "Directors, Supervisors, Senior Management and Employees" on pages 96 to 114 of this annual report.

In 2022, the Supervisory Committee convened 5 meetings with a record of attendance as follows:

Name of Supervisor	Position	Attendance in Person/ Number of Meetings	Attendance by Alternate/ Number of Meetings
Ma Yanhui	Employee Representative Supervisor and Chairperson	5/5	0
Zhang Feng	Employee Representative Supervisor	5/5	0
Chen Hongjun	Employee Representative Supervisor	5/5	0
Zhang Xiaofeng	External Supervisor	5/5	0
Zheng Yunrui	Independent Supervisor	5/5	0
Choi Ting Ki	Independent Supervisor	5/5	0

The Company's Supervisory Committee established and refined the check-and-balance system of the Company and promoted and regulated the corporate governance structure in accordance with the relevant laws and regulations, including the Company Law of the PRC and the Code of Corporate Governance for Listed Companies of the PRC. The Supervisory Committee diligently discharges its supervisory duties and exercises supervision over the management's compliance with the relevant laws and regulations, including the Company Law and the Code of Corporate Governance for Listed Companies of the PRC. It also supervises the enforcement of the resolutions passed at general meetings and Board meetings, compliance with decision-making procedures and the implementation of the internal control system. The Supervisory Committee also examines the financial system and the financial situation of the Company in a conscientious manner, thereby ensuring the orderly operations of the Company and safeguarding shareholders' interests.

(5) Risk Management and Internal Controls

The Board acknowledges its responsibility for the risk management and internal control systems and the review of their effectiveness. Such systems are designed to manage rather than eliminate the risk of failure to achieve business objectives, and can only provide reasonable and not absolute assurance against material misstatement or loss.

The Board ensures that risk management and internal control systems of the Company are sound and effective to safeguard the shareholders' interests and its assets. The Board has the overall responsibility for evaluating and determining the nature and extent of the risks it is willing to take in achieving the Company's strategic objectives, and establishing and maintaining appropriate and effective risk management and internal control systems.

The Audit Committee assists the Board in leading the management and overseeing their design, implementation and monitoring of the risk management and internal control systems.

The Company has developed and adopted various internal control and risk management procedures and guidelines including the Internal Control Manual, the SINOPEC Comprehensive Risk Management Procedures and SINOPEC Comprehensive Risk Management Implementation Programme with defined authority for implementation by key business processes and office functions, including project management, sales, financial reporting, human resources and information technology.

All divisions conducted internal control assessment regularly to identify risks that potentially impact the business of the Group and various aspects including key operational and financial processes, regulatory compliance and information security etc.

The management, in coordination with division heads, assessed the likelihood of risk occurrence, provided treatment plans, monitored the risk management progress, and reported to the Audit Committee and the Board on all findings and the effectiveness of the systems.

The Internal Audit Department is responsible for performing independent review of the adequacy and effectiveness of the risk management and internal control systems. The Internal Audit Department examined key issues in relation to the accounting practices and all material controls and provided its findings and recommendations for improvement to the Audit Committee. The Company has engaged KPMG Huazhen LLP to conduct an audit on the effectiveness of the internal control over financial reporting of the Company according to the guidelines set out in the Audit Guidelines for Enterprise Internal Control (the "Guidelines") and the Report on Internal Control over Financial Reporting was issued pursuant to the Guidelines.

The Company has developed its disclosure policy which provides a general guide to the Directors, officers, senior management and relevant employees in handling confidential information, monitoring information disclosure and responding to enquiries. The Company has in place a "System for the Registration and Management of Inside Information" and an "Information Disclosure Management System" which were regularly reviewed by the Board to administer the registration and management of persons with access to the Company's insider information including but not limited to the Directors, Supervisors and senior management, strengthen the confidentially of the flow of inside information, monitoring information disclosure to safeguard the leakage of inside information and responding to enquiries. Control procedures have been implemented to ensure that unauthorized access and use of inside information are strictly prohibited.

1. Implementation of internal control

Internal control task force is the leading unit of the internal control work of the Company with the President and the Chief Financial Officer as chief and deputy chief, respectively, and an internal control office was established under the task force. It is responsible for organizing and coordinating the establishment, implementation and daily operation of internal control, as well as the submission of work reports on the inspection and supervision of internal control to the Audit Committee on a regular basis. A supervisory working network consisting of special personnel of each department (unit) responsible for internal control function was established within the Company. The internal control supervisors, on behalf of their own departments, and administrative heads each carry out internal control work within their own scope.

Since the implementation of the internal control system of the Company in 2004, the Company has strictly complied with the requirements of internal control regulations of the CSRC. Combined with corporate management and internal controls, the Internal Control Manual was reviewed annually so as to improve the internal control business process, to specify responsibilities of different departments and positions in charge of the respective control processes, and to urge staff to perform internal control responsibility. The 2022 version of the Internal Control Manual specifies 22 categories, 58 risk control matrices and a total of 1,633 control points.

In 2011, the Company launched an internal control management information system and built a dynamic validation and correction system of system data to continuously improve the internal control management information system annually. At the same time, the internal control office actively guides the respective departments responsible for different processes and the secondary units for the online management of internal control and gradually enforces online enquiry and online quarterly testing under the Internal Control Manual.

2. Implementation of comprehensive risk management

In 2011, the Company set up a comprehensive risk management task force with key heads of the Company as leaders. The task force has set up an office in the Corporate Management Department of the Company and functions as the daily risk managing organ of the Company.

In 2013, based on the then "Integrated Management System" and other professional management systems, the Company extensively carried out risk management status research, arranged and analysed existing issues and learnt from the successful experience and typical practices of domestic and overseas advanced enterprises and prepared the SINOPEC Comprehensive Risk Management Procedures, which are included in the Integrated Management System. The risk management procedures specify five basic processes of comprehensive risk management, namely risk information collection, risk evaluation, risk response, monitoring and warning, and supervisory assessment and improvement. Through risk identification and assessment, the Company conducts analysis of the effectiveness of the existing internal control system and professional management and creates foundation system of the Company for the establishment of the risk warning system and risk response strategy and measures.

In 2016, the Company developed the SINOPEC Comprehensive Risk Management Implementation Programme according to control capability, management strength and company management conditions, and standardized assessment methods and standards. The Company launched resources management, interest rate and Forex rate special risk identification, and evaluation work to enhance the comprehensive risk management of the Company.

Pursuant to the planning and requirements of State-Owned Assets Supervision and Administration Commission of the State Council, the Company is focusing on its goal of establishing a refining and petrochemical enterprise which is "leading domestically, first-class globally". The Company vigorously implements annual risk assessment work, organizes some of the Company's leaders, key department heads to participate in the material and significant online risk identification evaluation to start and perform comprehensive risk management of the Company to provide foundation for the establishment of the risk warning system and risk response strategy and measures. On the basis of the revised Internal Control Manual, the Company organized the persons in charge of the business process to comprehensively identify, analyse and assess material and significant tier 3 risks and attend to tier 4 risks. The Company has preliminary set up the "SINOPEC Risk Database" and improved the key information maintenance of "Risk Level Rating" and "Risk Response Measures" in the system.

The Company set up a comprehensive risk management office which is responsible for collecting and organizing risk information regarding the Company as well as domestic and foreign industry. It sorts out, analyzes and summarizes, forms a risk list, and regularly completes and updates the risk list. The Company set up an internal control office to establish risk assessment work standards, procedures and management rules, formulate company risk assessment plans, and organize risk assessment task.

Through the implementation of effective supervision and evaluation and improved supervision, the Company effectively promotes the Company's overall risk management, and forms a closed-loop management mechanism for self-improvement and continuous optimization. Internal supervision of the Company is divided into daily supervision and special supervision. Daily supervision refers to the routine and continuous supervision and inspection of the Company's establishment and implementation of internal control; special supervision refers to the situation where the Company undergoes major adjustments or changes in its development strategy, organizational structure, business activities, business processes, and key positions, there will be a targeted supervision and inspection of one or more aspects of internal control. The scope and frequency of special supervision depends on the impact of the risk and the effectiveness of the control.

The Company has established a comprehensive internal inspection and evaluation mechanism, designating internal audit as the Company's responsible division to supervise and improve risk management, and the audit department is responsible for the independent supervision and evaluation of the setting up of the risk management system and the effectiveness of implementation, reporting according to prescribed procedures and monitoring the progress. The Board is responsible for the supervision of the Company's internal control evaluation work, identifies the Company's major internal control deficiencies, reviews the relevant rectification measures and oversees the management in the implementation of the measures, reviews and approves the internal control evaluation report. The Supervisory Committee supervises the Board's establishment and implementation of internal control.

The management has reported to the Board and the Audit Committee on the effectiveness of the risk management and internal control systems of the Group for the Reporting Period. The Board, as supported by the Audit Committee as well as the management report on the internal audit findings, reviewed the risk management and internal control systems, including the financial, operational and compliance controls, for the Reporting Period, and considered that such systems are effective and adequate. The annual review also covered the financial reporting and internal audit function and staff qualifications, experiences and relevant resources.

For further details of the risk management and internal controls of the Company, please refer to "Corporate Governance" and "Internal Control" on pages 115 to 128 of this annual report.

(6) Directors' Responsibilities in relation to the Financial Statements

The Directors acknowledge their responsibilities for preparing the financial statements of the Company for the year ended 31 December 2022.

The Directors are not aware of any material uncertainties relating to events or conditions that may cast significant doubt upon the Company's ability to continue as a going concern.

All Directors regularly receive comprehensive reports from the management covering strategic proposals, operations updates, financial objectives, plans and initiatives. The Board presents a balanced, clear and understandable assessment of the affairs and prospects of the Group in the Company's annual and interim reports, announcements relating to inside information and other financial disclosures as required under the Hong Kong Listing Rules.

During the Reporting Period, the management provided to members of the Board with monthly information on the Company's production and financial analysis, as well as Xinjinshan Post (《新金山報》), a newspaper published by the Company that covers recent developments in the Company's production and operations. In addition, Directors including Independent Non-executive Directors were also able to learn about the latest updates on the Company's business and information disclosure on the Company's website in a timely manner.

The statements of the independent auditor of the Company (both international and domestic) about their reporting responsibilities on the financial statements are set out in the respective Independent Auditor's Report and Report of the PRC Auditor on pages 157 to 162 and pages 297 to 302, respectively of this annual report.

(7) Auditors' Remuneration

An analysis of the remuneration paid to the international and domestic auditors of the Company, KPMG and KPMG Huazhen LLP, in respect of audit services and non-audit services for the Reporting Period is set out in the table below:

Auditor	Service Category	Fees Paid/Payable
KPMG and KPMG Huazhen LLP	– Audit services	RMB6,837,000
	– Non-audit services	
	– Tax consulting services	RMB129,000

(8) Company Secretary

Currently, Mr. Liu Gang and Ms. Chan Sze Ting are joint company secretaries of the Company. Mr. Liu Gang was appointed as secretary to the Board and joint company secretary on 28 April 2021. Ms. Chan Sze Ting of Tricor Services Limited, the external service provider is another joint company secretary of the Company. Ms. Chan's primary contact person in the Company is Mr. Liu Gang. They all report to the Chairman and/or the President.

All Directors have access to the advice and services of the company secretary on corporate governance and board practices and matters.

(9) Shareholders' Rights

The Company engages shareholders through various communication channels and the "Work System of Investor Relations" is in place to ensure that shareholders' views and concerns are appropriately addressed.

To safeguard shareholder interests and rights, separate resolution should be proposed for each substantially separate issue at general meetings, including the election of individual Director. All resolutions put forward at general meetings will be voted on by poll and poll results will be posted on the websites of the Hong Kong Stock Exchange, the Shanghai Stock Exchange and the Company after each general meeting.

The rights of shareholders holding ordinary shares of the Company are also set out in the Articles of Association. Upon written requests of the shareholders and verification of their identities and shareholding by the Company, they will be allowed to access to relevant information as permitted by law, administrative regulations and the Articles of Association.

1. Convening an Extraordinary General Meeting

Pursuant to Article 63(3) of the Articles of Association, the Board shall convene an extraordinary general meeting within two months upon written requisition by the shareholders individually or jointly holding 10% or more of the issued and outstanding voting shares of the Company.

2. Putting Forward Proposals at General Meeting

Pursuant to Article 65 of the Articles of Association, when the Company convenes a shareholders' general meeting, the Board, the Supervisory Committee and shareholders who individually or jointly hold shares with 3% or more of the total voting rights of the Company shall have the right to move motions in writing for shareholders' meetings. Shareholders who individually or jointly hold 3% or more of the shares of the Company may propose and submit in writing an extraordinary motion to the convener ten (10) days prior to the convening of the shareholders' general meeting. The convener shall issue a supplementary notice of the shareholders' general meeting within two (2) days upon receipt of such motion and shall make an announcement on the content of the extraordinary motion.

3. Putting Forward Enquiries to the Board

For putting forward any enquiries to the Board of the Company, shareholders may send written enquiries to the Company. The Company will not normally deal with verbal or anonymous enquiries.

4. Contact Details

Shareholders may send their enquiries or requests as mentioned above to the Company's registered address as follows:

48 Jinyi Road
Jinshan District
Shanghai
The People's Republic of China

For the attention of Mr. Liu Gang, Secretary of the Board

For the avoidance of doubt, shareholder(s) must deposit and send the original duly signed written requisition, notice or statement, or enquiry (as the case may be) to the above address and provide their full name, contact details and identification in order to give effect thereto. Shareholders' information may be disclosed as required by law.

(10) Investor Relations

The Company considers that effective communication with shareholders is essential for enhancing investor relations and investors' understanding of the Group's business performance and strategies. The Company maintains communications with its shareholders. The Company's major communication channels include annual general meeting, other general meetings, the Company's website, email, fax and telephone numbers of the Secretary Office of the Board. Through the above communication channels, shareholders may adequately express their opinions or exercise their rights.

The Company is committed to enhancing its relationship with investors. The Chairman presides over and participates in major investor relations activities (including general meetings, results presentations, press conferences, significant events and roadshows, important domestic and overseas capital market conferences, major financial media interviews, etc.) and maintains contact with shareholders to ensure that the views of the shareholders can be conveyed to the entire Board.

During the Reporting Period, the Company continued to strengthen the management of investor relations, amended and implement in good faith the "Work System of Investor Relations Management", engage in active interaction and communications with investors and submit investors' opinions and suggestions to the Company's management in a timely manner.

In principle, the Company convenes results briefings every six months after the release of its annual and interim results. In 2022, affected by the Covid-19, the Company held two large scale results briefings and press conferences via telephone conference. The Company has also actively replied to telephone queries and letters from investors, intermediaries and fund managers. In addition, the Directors and senior management also actively attended online capital market meetings organized by securities research companies and investment banks.

The information on the Company's website is updated regularly to keep the investors and the public informed of the Company's latest developments.

11. Relevant policies relating to Shareholders

The Company has formulated a shareholders' communication policy to ensure that the opinions and concerns of shareholders are properly addressed, and policy is regularly reviewed to ensure its effectiveness.

The Company has formulated a dividend policy. According to the Articles of Association, the Company's net profit attributable to the parent company was positive and the accumulated undistributed profit was positive. While the Company's cash flow can meet its normal operation and sustainable development, the Company shall carry out cash dividend distribution and shall not be less than 30% of the net profit attributable to the parent company realized in that year. For details, please refer to the formulation, implementation or adjustment of cash dividend policy in Chapter IV of the 2022 Annual Report.

Independent auditor's report to the shareholders of Sinopec Shanghai Petrochemical Company Limited

(incorporated in People's Republic of China with limited liability)

Opinion

We have audited the consolidated financial statements of Sinopec Shanghai Petrochemical Company Limited ("the Company") and its subsidiaries ("the Group") set out on pages 163 to 296, which comprise the consolidated statement of financial position as at 31 December 2022, the consolidated statement of profit or loss, the consolidated statement of profit or loss and other comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the year then ended and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the consolidated financial statements give a true and fair view of the consolidated financial position of the Group as at 31 December 2022 and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards ("IFRSs") issued by the International Accounting Standards Board ("IASB") and have been properly prepared in compliance with the disclosure requirements of the Hong Kong Companies Ordinance.

Basis for opinion

We conducted our audit in accordance with Hong Kong Standards on Auditing ("HKSAs") issued by the Hong Kong Institute of Certified Public Accountants ("HKICPA"). Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the consolidated financial statements* section of our report. We are independent of the Group in accordance with the HKICPA's *Code of Ethics for Professional Accountants* ("the Code") together with any ethical requirements that are relevant to our audit of the consolidated financial statements in the People's Republic of China, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matters *(continued)*

<table>
<tr><th colspan="2">Assessment of net realizable value of raw materials, work in progress and finished goods</th></tr>
<tr><td colspan="2">Refer to notes 2.14, 4.2(a) and 21 to the consolidated financial statements and the accounting policies.</td></tr>
<tr><th>The Key Audit Matter</th><th>How the matter was addressed in our audit</th></tr>
<tr><td>The Group is principally engaged in processing of crude oil into petroleum products and other chemical products. The crude oil can be processed into various finished goods by different processing procedures. Inventories are valued at the lower of cost and net realizable value.

The gross carrying amount of raw materials, work in progress and finished goods, and provision for diminution in value were RMB7,552,845 thousand and RMB446,485 thousand, respectively, as at 31 December 2022.

The net realizable value is determined based on the estimated selling prices in the ordinary course of business less the estimated costs to completion, and other costs necessary to make the sale.

We identified the assessment of net realizable value of raw materials, work in progress and finished goods as a key audit matter because evaluation of estimated selling prices of inventories, estimated costs to completion, and other costs necessary to make the sale involved a high degree of auditor judgements.</td><td>Our audit procedures to assess net realizable value of raw materials, work in progress and finished goods included the following:

• Evaluating the design, implementation and operating effectiveness of key internal controls over the process of determination of net realizable value of raw materials, work in progress and finished goods, including controls related to the determination of estimated selling prices, estimated costs to completion, other costs necessary to make the sale;

• Evaluating the estimated selling price at the reporting date for a sample of inventory items by comparison of the estimated selling price to the price from publicly available market data and the actual prices of sales transactions subsequent to the reporting date if available; and

• Evaluating the estimated costs to completion and other costs necessary to make the sale by comparing with the historical costs to completion and other costs necessary to make the sale for the same type of inventories on a sample basis.</td></tr>
</table>

Key audit matters *(continued)*

Assessment of value in use of certain production facilities	
Refer to notes 2.12(b), 4.2(b) and 16 to the consolidated financial statements and the accounting policies.	
The Key Audit Matter	**How the matter was addressed in our audit**
The carrying amount of property, plant and equipment was RMB12,179,504 thousand as of 31 December 2022. During the year ended 31 December 2022, the Group recognized impairment loss on property, plant and equipment in relation to certain production facilities under the intermediate petrochemicals segment of RMB212,410 thousand. At the end of each reporting period, if any indication of impairment exists, the Group estimates the recoverable amount of an asset, or a cash-generating unit, at the higher of its fair value less costs of disposal and its value in use, to determine the impairment losses. The Group's estimated value in use includes assumptions on product sales growth rates, related costs growth rates ("forecasted growth rates") and discount rate. We identified the assessment of value in use of certain production facilities as a key audit matter because high degree of subjectivity and auditor judgment was involved to evaluate the forecasted growth rates and the discount rate used to estimate value in use of these assets. The forecasted growth rates and the discount rate were challenging to test as minor changes to those assumptions would have a significant effect on the Group's assessment of value in use of these assets. In addition, specialized skills and knowledge were required to assess the discount rate used to estimate value in use of these assets.	Our audit procedures to assess value in use of certain production facilities included the following: • Evaluating the design, implementation and operating effectiveness of key internal controls related to the process in assessing the value in use of certain production facilities, including controls related to the determination of the forecasted growth rates and the discount rate; • Assessing the forecasted growth rates adopted in the Group's value in use assessment by comparing them with historical results, future operation plans and external market data; • Involving valuation professionals with specialized skills and knowledge assisted in evaluating the discount rate used by comparing it against discount rate that was independently developed using publicly available industry data; and • Performing sensitivity analysis over the forecasted growth rates and the discount rate assumptions to assess their impact on the certain production facilities' impairment assessment.

Information other than the consolidated financial statements and auditor's report thereon

The directors are responsible for the other information. The other information comprises all the information included in the annual report, other than the consolidated financial statements and our auditor's report thereon.

Our opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the directors for the consolidated financial statements

The directors are responsible for the preparation of the consolidated financial statements that give a true and fair view in accordance with IFRSs issued by the IASB and the disclosure requirements of the Hong Kong Companies Ordinance and for such internal control as the directors determine is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the directors are responsible for assessing the Group'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 the directors either intend to liquidate the Group or to cease operations, or have no realistic alternative but to do so.

The directors are assisted by the Audit Committee in discharging their responsibilities for overseeing the Group's financial reporting process.

Auditor's responsibilities for the audit of the consolidated financial statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. This report is made solely to you, as a body, and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the contents of this report.

Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with HKSAs 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 consolidated financial statements.

As part of an audit in accordance with HKSAs, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated 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 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 Group's internal control.

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

- Conclude on the appropriateness of the directors' 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 Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated 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 auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.

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

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

Auditor's responsibilities for the audit of the consolidated financial statements

(continued)

We communicate with the Audit Committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.
Auditor's responsibilities for the audit of the consolidated financial statements (continued)

We also provide the Audit Committee 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, actions taken to eliminate threats or safeguards applied.

From the matters communicated with the Audit Committee, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a 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 auditor's report is Au Yat Fo.

KPMG
Certified Public Accountants

8th Floor, Prince's Building
10 Chater Road
Central, Hong Kong

22 March 2023

Consolidated Income Statement

For the year ended 31 December 2022

	Note	Year ended 31 December 2022 RMB'000	2021 RMB'000
Revenue	5	82,443,156	89,198,492
Taxes and surcharges		(9,788,593)	(13,309,688)
Net sales		72,654,563	75,888,804
Cost of sales	10	(76,265,940)	(74,298,048)
Gross (loss)/profit		(3,611,377)	1,590,756
Selling and administrative expenses	10	(288,701)	(368,243)
Provision of impairment losses on financial assets	3.1(c)	(5,366)	(1,355)
Other operating income	6	110,641	125,305
Other operating expenses	7	(25,775)	(44,712)
Other (losses)/gains – net	8	(22,788)	130,481
(Loss)/profit from operations		(3,843,366)	1,432,232
Finance income	9	541,830	508,755
Finance expenses	9	(98,502)	(94,186)
Finance income – net		443,328	414,569
Share of net (losses)/profits of associates and joint ventures accounted for using the equity method	20	(173,616)	874,285
(Loss)/profit before taxation		(3,573,654)	2,721,086
Income tax benefits/(expenses)	12	731,354	(644,480)
(Loss)/profit for the year		(2,842,300)	2,076,606

For the year ended 31 December 2022

	Note	Year ended 31 December 2022 RMB'000	2021 RMB'000
(Loss)/profit attributable to:			
– Equity shareholders of the Company		(2,846,156)	2,073,431
– Non-controlling interests		3,856	3,175
(Loss)/profit for the year		(2,842,300)	2,076,606
(Losses)/earnings per share attributable to equity shareholders of the Company for the year (expressed in RMB per share)			
Basic (losses)/earnings per share	13(a)	RMB(0.263)	RMB0.192
Diluted (losses)/earnings per share	13(b)	RMB(0.263)	RMB0.192

The notes on pages 173 to 296 form part of these financial statements.

Consolidated Statement of Comprehensive Income

For the year ended 31 December 2022

	Note	Year ended 31 December 2022 RMB'000	Year ended 31 December 2021 RMB'000
(Loss)/profit for the year		(2,842,300)	2,076,606
Other comprehensive income			
Items that are or may be reclassified subsequently to profit or loss:			
Share of other comprehensive income of associates accounted for using the equity method	31	(23,771)	16,639
Cash flow hedges: net movement in hedging reserve	31	201,519	125,159
Other comprehensive income for the year, net of tax		177,748	141,798
Total comprehensive income for the year		(2,664,552)	2,218,404
Attributable to:			
– Equity shareholders of the Company		(2,668,408)	2,215,229
– Non-controlling interests		3,856	3,175
Total comprehensive income for the year		(2,664,552)	2,218,404

The notes on pages 173 to 296 form part of these financial statements.

Consolidated Balance Sheet

As at 31 December 2022

	Note	As at 31 December 2022 RMB'000	2021 RMB'000
Non-current assets			
Property, plant and equipment	16	12,179,504	11,310,032
Right-of-use assets	15	379,805	385,643
Investment properties	17	336,863	352,188
Construction in progress	18	3,748,461	3,293,177
Investments accounted for using the equity method	20	3,504,393	4,088,888
Financial assets at fair value through other comprehensive income	25	5,000	5,000
Time deposits with banks	24	3,389,559	5,581,435
Deferred tax assets	12	991,850	184,143
Other non-current assets	14	835,400	787,807
		25,370,835	25,988,313
Current assets			
Inventories	21	7,294,060	5,923,525
Financial assets at fair value through other comprehensive income	25	582,354	1,047,690
Derivative financial instruments	3.1 (a)	–	81,405
Trade receivables	22	69,351	77,425
Other receivables	22	107,507	47,597
Prepayments		17,832	30,364
Value added tax recoverable		1,057,463	13,322
Amounts due from related parties	22	2,638,983	1,212,331
Cash and cash equivalents	23	889,413	5,112,010
Time deposits with banks	24	3,108,919	7,386,607
		15,765,882	20,932,276
Total assets		41,136,717	46,920,589

As at 31 December 2022

	Note	As at 31 December 2022 RMB'000	2021 RMB'000
Equity and liabilities			
Equity attributable to equity shareholders of the Company			
Share capital	30	10,823,814	10,823,814
Reserves	31	15,403,868	19,418,325
		26,227,682	30,242,139
Non-controlling interests		127,681	135,259
Total equity		26,355,363	30,377,398
Liabilities			
Non-current liabilities			
Borrowings	26	700,000	700,000
Lease liabilities	15	7,513	1,384
Deferred tax liabilities	12	30,895	33,344
Deferred income	29	44,608	12,720
		783,016	747,448

As at 31 December 2022

	Note	As at 31 December 2022 RMB'000	As at 31 December 2021 RMB'000
Current liabilities			
Borrowings	26	1,550,000	1,559,800
Lease liabilities	15	8,738	3,229
Derivative financial instruments	3.1 (a)	–	23,804
Contract liabilities	28	372,760	424,607
Trade and other payables	27	2,926,534	3,095,694
Amounts due to related parties	27	7,887,809	6,304,816
Current tax liabilities		931,852	3,865,231
Staff salaries and welfares payable		317,891	260,096
Income tax payable	12	2,754	258,466
		13,998,338	15,795,743
Total liabilities		14,781,354	16,543,191
Total equity and liabilities		41,136,717	46,920,589

Approved and authorized for issue by the Board of Directors on 22 March 2023.

Wan Tao
Directors

Du Jun
Directors

The notes on pages 173 to 296 form part of these financial statements.

Consolidated Statement of Changes in Equity

For the year ended 31 December 2022

	Note	Share capital RMB'000 (note 30)	Other reserves RMB'000 (note 31)	Retained earnings RMB'000 (note 31)	Total RMB'000	Non-controlling interests RMB'000	Total equity RMB'000
		Attributable to equity shareholders of the Company					
Balance at 31 December 2021 and 1 January 2022		10,823,814	7,038,975	12,379,350	30,242,139	135,259	30,377,398
Changes in equity for 2022							
(Loss)/profit for the year		–	–	(2,846,156)	(2,846,156)	3,856	(2,842,300)
Other comprehensive income	31	–	177,748	–	177,748	–	177,748
Total comprehensive income for the year		–	177,748	(2,846,156)	(2,668,408)	3,856	(2,664,552)
Amounts transferred from hedging reserve to initial carrying amount of hedged items	3.1a(iii)	–	(237,979)	–	(237,979)	–	(237,979)
Dividends proposed and approved	33	–	–	(1,082,381)	(1,082,381)	–	(1,082,381)
Dividends paid by subsidiaries to non-controlling interests		–	–	–	–	(11,434)	(11,434)
Purchase of own shares	30(ii)	–	(25,689)	–	(25,689)	–	(25,689)
Appropriation of safety production fund	31	–	54,092	(54,092)	–	–	–
Balance at 31 December 2022		10,823,814	7,007,147	8,396,721	26,227,682	127,681	26,355,363

The notes on pages 173 to 296 form part of these financial statements.

For the year ended 31 December 2022

	Note	Share capital RMB'000 (note 30)	Other reserves RMB'000 (note 31)	Retained earnings RMB'000 (note 31)	Total RMB'000	Non-controlling interests RMB'000	Total equity RMB'000
		Attributable to equity shareholders of the Company					
Balance at 1 January 2021		10,823,814	4,446,339	13,927,837	29,197,990	136,985	29,334,975
Changes in equity for 2021:							
Profit for the year		–	–	2,073,431	2,073,431	3,175	2,076,606
Other comprehensive income	31	–	141,798	–	141,798	–	141,798
Total comprehensive income for the year		–	141,798	2,073,431	2,215,229	3,175	2,218,404
Transfer to other reserves		–	2,498,808	(2,498,808)	–	–	–
Amounts transferred from hedging reserve to initial carrying amount of hedged items		–	(88,699)	–	(88,699)	–	(88,699)
Dividends proposed and approved	33	–	–	(1,082,381)	(1,082,381)	–	(1,082,381)
Dividend paid by subsidiaries to non-controlling interests		–	–	–	–	(4,901)	(4,901)
Appropriation of safety production fund	31	–	40,729	(40,729)	–	–	–
Balance at 31 December 2021		10,823,814	7,038,975	12,379,350	30,242,139	135,259	30,377,398

The notes on pages 173 to 296 form part of these financial statements.

Consolidated Statement of Cash Flows

For the year ended 31 December 2022

	Note	Year ended 31 December 2022 RMB'000	2021 RMB'000
Operating activities			
Cash (used in)/generated from operations	23 (b)	(6,960,734)	4,411,653
Interest paid		(121,876)	(110,070)
Income tax paid		(376,765)	(351,627)
Net cash (used in)/generated from operating activities		(7,459,375)	3,949,956
Cash flows from investing activities			
Dividends received from joint ventures and associates		683,780	777,220
Interest received from entrusted loans		2,704	–
Interest received from structured deposits		11,124	97,921
Interest received from time deposits with maturity more than three months		330,216	398,937
(Payments)/proceeds from settlement of derivative financial instruments		(14,679)	5,674
Payment for the purchase of property, plant and equipment and construction in progress		(2,836,912)	(3,224,000)
Net proceeds from disposal of property, plant and equipment		13,937	55,254
Cash received from time deposits with maturity less than one year		7,350,000	3,800,000
Cash received from time deposits with maturity more than one year		1,800,000	–
Cash received from maturity of structured deposits		1,000,000	8,150,000
Cash payment for investment in structured deposits		(1,000,000)	(8,150,000)
Cash payment for investment in time deposits with maturity less than one year		–	(3,650,000)
Cash payment for investment in time deposits with maturity more than one year		(2,600,000)	(2,000,000)
Cash payment for investment in entrusted loans		(150,000)	–
Cash received from investment in entrusted loans		150,000	–
Cash payment for investment deposits		(50,000)	–
Payment for investment in associates and a joint venture	20	(296,672)	–
Payment for set up of an associate	20	–	(26,000)
Payment for set up of a joint venture	20	–	(50,000)
Proceeds from capital reduction of an associate		–	1,460,258
Payment for sales of financial assets at fair value through other comprehensive income		(3,148)	(4,685)
Net cash generated from/(used in) investing activities		4,390,350	(2,359,421)

For the year ended 31 December 2022

	Note	Year ended 31 December 2022 RMB'000	2021 RMB'000
Financing activities			
Proceeds from borrowings	23 (c)	19,485,000	14,163,132
Proceeds from short-term bonds	23 (c)	5,000,000	5,998,899
Repayments of borrowings	23 (c)	(19,494,800)	(13,451,332)
Repayments of short-term bonds	23 (c)	(5,000,000)	(9,000,000)
Principal elements of lease payments	23 (c)	(13,069)	(17,544)
Dividends paid by subsidiaries to non-controlling interests		(11,434)	(4,901)
Dividends paid to the Company's shareholders		(1,081,327)	(1,081,326)
Payment for repurchase of shares		(53,262)	–
Net cash used in financing activities		(1,168,892)	(3,393,072)
Net decrease in cash and cash equivalents		(4,237,917)	(1,802,537)
Cash and cash equivalents at the beginning of the year	23	5,112,010	6,916,408
Exchange gains/(losses) on cash and cash equivalents		15,320	(1,861)
Cash and cash equivalents at the end of the year	23	889,413	5,112,010

The notes on pages 173 to 296 form part of these financial statements.

(Expressed in Renminbi Yuan unless otherwise indicated)

1 General Information

Sinopec Shanghai Petrochemical Company Limited ("the Company"), formerly Shanghai Petrochemical Company Limited, was established in the People's Republic of China ("the PRC") on 29 June 1993 with registered capital of RMB4,000,000 thousand, invested by its holding company-China National Petrochemical Corporation ("Sinopec Group"); these shares were converted from assets of former Shanghai Petrochemical Complex.

H shares were listed on the Hong Kong Stock Exchange on 26 July 1993, and listed on the New York Stock Exchange in the form of American Depositary Shares at the same time; the A shares were listed on the Shanghai Stock Exchange on 8 November 1993.

Sinopec Group completed its reorganization on 25 February 2000. After the reorganization, China Petroleum & Chemical Corporation ("Sinopec Corp.") was established. As part of the reorganization, Sinopec Group transferred its 4,000,000,000 of the Company's state-owned legal shares, which represented 55.56 percent of the issued share capital of the Company, to Sinopec Corp.. Sinopec Corp. became the largest shareholder of the Company.

The Company changed its name to Sinopec Shanghai Petrochemical Company Limited on 12 October 2000.

Ordinary A shares of RMB14,177 thousand and RMB9,637 thousand were registered on 27 September 2017 and 12 January 2018.

As at 31 December 2022, total share capital of the Company were RMB10,823,814 thousand, 1 Yuan per share. Detailed changes to share capital refers to note 30. The Company and its subsidiaries ("the Group") is a highly integrated entity which processes crude oil into synthetic fibres, resins and plastics, intermediate petrochemicals and petroleum products.

Details of the Company's principal subsidiaries are set out in note 19.

(Expressed in Renminbi Yuan unless otherwise indicated)

2 Significant accounting policies

The principal accounting policies applied in the preparation of these consolidated financial statements are set out below. These policies have been consistently applied to all the years presented, unless otherwise stated.

2.1 Statement of compliance and basis of preparation

(a) Statement of compliance

These financial statements have been prepared in accordance with all applicable International Financial Reporting Standards (IFRSs), which collective term includes all applicable individual International Financial Reporting Standards, International Accounting Standards (IASs) and related Interpretations, promulgated by the International Accounting Standards Board (IASB), and the disclosure requirements of the Hong Kong Companies Ordinance. These financial statements also comply with the applicable disclosure provisions of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited. Significant accounting policies adopted by the Group are disclosed below.

The IASB has issued certain amendments to IFRSs that are first effective or available for early adoption for the current accounting period of the Group. Note 2.1 (c) provides information on any changes in accounting policies resulting from initial application of these developments to the extent that they are relevant to the Group for the current accounting period reflected in these financial statements.

(b) Basis of preparation

The consolidated financial statements for the year ended 31 December 2022 comprise the Company and its subsidiaries (together referred to as the "Group") and the Group's interest in associates and joint ventures.

The measurement basis used in the preparation of the financial statements is the historical cost basis except for certain financial assets and liabilities measured at fair value, including:

– derivative financial instruments (see note 2.13); and

– investment in debt and equity securities (see note 2.11).

(Expressed in Renminbi Yuan unless otherwise indicated)

2 Significant accounting policies *(continued)*

2.1 Statement of compliance and basis of preparation *(continued)*

(b) Basis of preparation *(continued)*

The preparation of financial statements in conformity with IFRSs requires management to make judgements, estimates and assumptions that affect the application of policies and reported amounts of assets, liabilities, income and expenses. The estimates and associated assumptions are based on historical experience and various other factors that are believed to be reasonable under the circumstances, the results of which form the basis of making the judgements about carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods.

Judgements made by management in the application of IFRSs that have significant effect on the financial statements and major sources of estimation uncertainty are discussed in note 4.

(c) Changes in accounting policies

The Group has applied the following amendments to IFRSs issued by the IASB to these financial statements for the current accounting period:

- Amendments to IAS 16, *Property, plant and equipment: Proceeds before intended use*
- Amendments to IAS 37, *Provisions, contingent liabilities and contingent assets: Onerous contracts — cost of fulfilling a contract*
- Amendments to IFRSs, Annual Improvements to IFRS Standards 2018-2020
- Amendments to IFRS 3, Reference to the Conceptual Framework

None of these developments have had a material effect on how the Group's results and financial position for the current or prior periods have been prepared or presented. The group has not applied any new standard or interpretation that is not yet effective for the current accounting period.

(Expressed in Renminbi Yuan unless otherwise indicated)

2 Significant accounting policies *(continued)*

2.2 Subsidiaries

2.2.1 Consolidation

Subsidiaries are all entities over which the Group has control. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power to direct the activities of the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the Group. They are deconsolidated from the date that control ceases.

Inter-company transactions, balances and unrealized gains on transactions between group companies are eliminated. Unrealized losses are also eliminated unless the transaction provides evidence of an impairment of the transferred asset. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the Group.

Non-controlling interests in the results and equity of subsidiaries are shown separately in the consolidated statement of financial position, consolidated statement of profit or loss, statement of comprehensive income and changes in equity respectively.

(a) Business combinations

The acquisition method of accounting is used to account for all business combinations by the Group, regardless of whether equity instruments or other assets are acquired. The consideration transferred for the acquisition of a subsidiary comprises the:

- fair values of the assets transferred;
- liabilities incurred to the former owners of the acquired business;
- equity interests issued by the Group;
- fair value of any asset or liability resulting from a contingent consideration arrangement;and
- fair value of any pre-existing equity interest in the subsidiary.

(Expressed in Renminbi Yuan unless otherwise indicated)

2 Significant accounting policies *(continued)*

2.2 Subsidiaries *(continued)*

2.2.1 Consolidation *(continued)*

(a) Business combinations (continued)

Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are, with limited exceptions, measured initially at their fair values at the acquisition date. The Group recognizes any non-controlling interest in the acquired entity on an acquisition-by-acquisition basis either at fair value or at the non-controlling interest's proportionate share of the acquired entity's net identifiable assets.

Acquisition-related costs are expensed as incurred.

The excess of the:

- consideration transferred
- amount of any non-controlling interest in the acquired entity, and
- acquisition-date fair value of any previous equity interest in the acquired entity

Over the fair value of the net identifiable assets acquired is recorded as goodwill. If those amounts are less than the fair value of the net identifiable assets of the business acquired, the difference is recognized directly in the statement of profit or loss as a bargain purchase.

Where settlement of any part of cash consideration is deferred, the amounts payable in the future are discounted to their present value as at the date of exchange. The discount rate used is the Group's incremental borrowing rate, being the rate at which a similar borrowing could be obtained from an independent financier under comparable terms and conditions.

If the business combination is achieved in stages, the acquirer's previously held equity interest in the acquiree is remeasured to fair value at the acquisition date. Any gains or losses arising from such remeasurement are recognized in the statement of profit or loss.

(Expressed in Renminbi Yuan unless otherwise indicated)

2 Significant accounting policies *(continued)*

2.2 Subsidiaries *(continued)*

2.2.1 Consolidation *(continued)*

(b) Changes in ownership interests

The Group treats transactions with non-controlling interests that do not result in loss of control as transactions with equity owners of the Group. A change in ownership interest results in an adjustment between the carrying amounts of the controlling and non-controlling interests to reflect their relative interests in the subsidiary. Any difference between the amount of the adjustment to non-controlling interests and any consideration paid or received is recognized in a separate reserve within equity attributable to owners of the Group.

When the Group ceases to consolidate or equity account for an investment because of a loss of control, joint control or significant influence, any retained interest in the entity is remeasured to its fair value, with the change in carrying amount recognized in the statement of profit or loss. This fair value becomes the initial carrying amount for the purposes of subsequently accounting for the retained interest as an associate, joint venture or financial asset. In addition, any amounts previously recognized in other comprehensive income in respect of that entity are accounted for as if the Group had directly disposed of the related assets or liabilities. This means that amounts previously recognized in other comprehensive income are reclassified to profit or loss.

2.2.2 Separate financial statements

Investments in subsidiaries are accounted for at cost less impairment. Cost includes direct attributable costs of investment. The results of subsidiaries are accounted for by the Company on the basis of dividend received and receivable.

Investments in joint ventures and associates are accounted for using the equity method of accounting.

(Expressed in Renminbi Yuan unless otherwise indicated)

2 Significant accounting policies *(continued)*

2.2 Subsidiaries *(continued)*

2.3 Associates

Associates are all entities over which the Group has significant influence but not control or joint control. Investments in associates are accounted for using the equity method of accounting. Under the equity method, the investment is initially recognized at cost, and the carrying amount is increased or decreased to recognize the investor's share of the profit or loss of the investee after the date of acquisition. The Group's investments in associates include goodwill identified on acquisition. Upon the acquisition of the ownership interest in an associate, any difference between the cost of the associate and the Group's share of the net fair value of the associate's identifiable assets and liabilities is accounted for as goodwill.

The Group's share of post-acquisition profit or loss is recognized in the statement of profit or loss, and its share of post-acquisition movements in other comprehensive income is recognized in other comprehensive income with a corresponding adjustment to the carrying amount of the investment. When the Group's share of losses in an associate equals or exceeds its interest in the associate, including any other unsecured receivables, the Group does not recognize further losses, unless it has incurred legal or constructive obligations or made payments on behalf of the associate.

The Group determines at each reporting date whether there is any objective evidence that the investment in the associate is impaired. If this is the case, the Group calculates the amount of impairment as the difference between the recoverable amount of the associate and its carrying value and recognizes the amount in the statement of profit or loss.

Profits and losses resulting from upstream and downstream transactions between the Group and its associates are recognized in the Group's financial statements only to the extent of unrelated investor's interests in the associates. Unrealized losses are eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of associates have been changed where necessary to ensure consistency with the policies adopted by the Group.

Gain or loss on dilution of equity interest in associates are recognized in the statement of profit or loss.

(Expressed in Renminbi Yuan unless otherwise indicated)

2 Significant accounting policies *(continued)*

2.4 Joint arrangements

Under IFRS 11 'Joint Arrangements' investments in joint arrangements are classified as either joint operations or joint ventures. The classification depends on the contractual rights and obligations of each investor, rather than the legal structure of the joint arrangement. The Group has assessed the nature of its joint arrangements and determined them to be joint ventures. Joint ventures are accounted for using the equity method.

Under the equity method of accounting, interests in joint ventures are initially recognized at cost and adjusted thereafter to recognize the Group's share of the post-acquisition profits or losses and movements in other comprehensive income. The Group's investments in joint ventures include goodwill identified on acquisition. Upon the acquisition of the ownership interest in a joint venture, any difference between the cost of the joint venture and the Group's share of the net fair value of the joint venture's identifiable assets and liabilities is accounted for as goodwill. When the Group's share of losses in a joint venture equals or exceeds its interests in the joint ventures, including any other unsecured receivables, the Group does not recognize further losses, unless it has incurred obligations or made payments on behalf of the joint ventures.

Unrealized gains on transactions between the Group and its joint ventures are eliminated to the extent of the Group's interest in the joint ventures. Unrealized losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of the joint ventures have been changed where necessary to ensure consistency with the policies adopted by the Group.

The carrying amount of equity-accounted investments is tested for impairment in accordance with the policy described in note 2.12.

2.5 Segment reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision-maker. The chief operating decision-maker, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as the Board of Directors that makes strategic decisions.

(Expressed in Renminbi Yuan unless otherwise indicated)

2 Significant accounting policies *(continued)*

2.6 Foreign currency translation

(a) Functional and presentation currency

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the entity operates ("the functional currency").

The consolidated financial statements are presented in RMB, which is the Company's functional and the Group's presentation currency.

(b) Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions, and from the translation of monetary assets and liabilities denominated in foreign currencies at year end exchange rates, are generally recognized in the statement of profit or loss. They are deferred in equity if they relate to qualifying cash flow hedges and qualifying net investment hedges.

2.7 Property, plant and equipment

Property, plant and equipment is stated at historical cost less depreciation and impairment losses. Historical cost includes expenditure that is directly attributable to the acquisition of the items.

Items may be produced while bringing an item of property, plant and equipment to the location and condition necessary for it to be capable of operating in the manner intended by management. The proceeds from selling any such items and the related costs are recognised in profit or loss.

Subsequent costs are included in the asset's carrying amount or recognized as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. The carrying amount of the replaced part is derecognized. All other repairs and maintenance are charged to the statement of profit or loss during the financial period in which they are incurred.

(Expressed in Renminbi Yuan unless otherwise indicated)

2 Significant accounting policies *(continued)*

2.7 Property, plant and equipment *(continued)*

Depreciation on property, plant and equipment is calculated using the straight-line method to allocate their cost to their residual values over their estimated useful lives, as follows:

–	Buildings	12 to 40 years
–	Plant and machinery	5 to 20 years
–	Vehicles and other equipment	4 to 20 years

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at the end of each reporting period.

An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount (note 2.12 (b)).

Gains and losses on disposals are determined by comparing the proceeds with the carrying amount and are recognized within Other gains – net in the statement of profit or loss.

2.8 Construction in progress

Construction in progress represents buildings, various plant and equipment under construction and pending installation, and is stated at cost less government grants that compensate the Company for the cost of construction, and impairment losses. Cost comprises direct costs of construction as well as interest charges, and foreign exchange differences on related borrowed funds to the extent that they are regarded as an adjustment to interest charges, during the period of construction. Construction in progress is transferred to property, plant and equipment when the asset is substantially ready for its intended use. No depreciation is provided in respect of construction in progress.

(Expressed in Renminbi Yuan unless otherwise indicated)

2 Significant accounting policies *(continued)*

2.9 Investment properties

Investment properties are properties which are owned either to earn rental income and/or for capital appreciation.

Investment properties are stated in the statement of financial position at cost less accumulated depreciation and impairment losses (note 2.12(b)). Depreciation is provided over their estimated useful lives on a straight-line basis, after taking into account their estimated residual values. Estimated useful lives of the Group's investment properties are 30-40 years.

2.10 Other non-current assets

Other non-current assets mainly represent intangible assets and long-term prepaid expense, which are amortized on a straight-line basis over the following periods:

Intangible assets – patents	2 to 28 years
Long-term prepaid expense – catalyst	1.5 to 10 years
Long-term prepaid expense – leasehold improvement	3 to 27 years

2.11 Other investments in debt and equity securities

The Group's policies for investments in debt and equity securities, other than investments in subsidiaries, associates and joint ventures, are set out below.

Investments in debt and equity securities are recognized/derecognized on the date the Group commits to purchase/sell the investment. The investments are initially stated at fair value plus directly attributable transaction costs, except for those investments measured at fair value through profit or loss (FVPL) for which transaction costs are recognized directly in profit or loss. For an explanation of how the Group determines fair value of financial instruments, see note 3.3. These investments are subsequently accounted for as follows, depending on their classification.

(Expressed in Renminbi Yuan unless otherwise indicated)

2 Significant accounting policies *(continued)*

2.11 Other investments in debt and equity securities *(continued)*

(a) Investments other than equity investments

Non-equity investments held by the Group are classified into one of the following measurement categories:

– amortized cost, if the investment is held for the collection of contractual cash flows which represent solely payments of principal and interest. Interest income from the investment is calculated using the effective interest method (see note 2.27).

– fair value through other comprehensive income (FVOCI) – recycling, if the contractual cash flows of the investment comprise solely payments of principal and interest and the investment is held within a business model whose objective is achieved by both the collection of contractual cash flows and sale. Changes in fair value are recognized in other comprehensive income, except for the recognition in profit or loss of expected credit losses, interest income (calculated using the effective interest method) and foreign exchange gains and losses. When the investment is derecognized, the amount accumulated in other comprehensive income is recycled from equity to profit or loss.

– fair value through profit or loss (FVPL) if the investment does not meet the criteria for being measured at amortized cost or FVOCI (recycling). Changes in the fair value of the investment (including interest) are recognized in profit or loss.

(b) Equity investments

An investment in equity securities is classified as FVPL unless the equity investment is not held for trading purposes and on initial recognition of the investment the Group makes an irrevocable election to designate the investment at FVOCI (non-recycling) such that subsequent changes in fair value are recognized in other comprehensive income. Such elections are made on an instrument-by-instrument basis, but may only be made if the investment meets the definition of equity from the issuer's perspective. Where such an election is made, the amount accumulated in other comprehensive income remains in the fair value reserve (non-recycling) until the investment is disposed of. At the time of disposal, the amount accumulated in the fair value reserve (non-recycling) is transferred to retained earnings. It is not recycled through profit or loss. Dividends from an investment in equity securities, irrespective of whether classified as at FVPL or FVOCI, are recognized in profit or loss as other income in accordance with the policy set out in note 2.28.

(Expressed in Renminbi Yuan unless otherwise indicated)

2 Significant accounting policies *(continued)*

2.12 Credit losses and impairment of assets

(a) Credit losses from financial instruments

The Group recognizes a loss allowance for expected credit losses (ECLs) on the following items:

– financial assets measured at amortized cost (including cash and cash equivalents, time deposits with banks, trade receivables and other receivables); and

– debt securities measured at FVOCI (recycling);

Other financial assets measured at fair value, including equity securities designated at FVOCI (non-recycling) and derivative financial assets, are not subject to the ECL assessment.

Measurement of ECLs

ECLs are a probability-weighted estimate of credit losses. Credit losses are measured as the present value of all expected cash shortfalls (i.e. the difference between the cash flows due to the Group in accordance with the contract and the cash flows that the Group expects to receive).

The expected cash shortfalls are discounted using the following discount rates where the effect of discounting is material:

– fixed-rate financial assets, trade and other receivables: effective interest rate determined at initial recognition or an approximation thereof;

– variable-rate financial assets: current effective interest rate.

(Expressed in Renminbi Yuan unless otherwise indicated)

2 Significant accounting policies *(continued)*

2.12 Credit losses and impairment of assets *(continued)*

(a) Credit losses from financial instruments *(continued)*

Measurement of ECLs (continued)

The maximum period considered when estimating ECLs is the maximum contractual period over which the Group is exposed to credit risk.

In measuring ECLs, the Group takes into account reasonable and supportable information that is available without undue cost or effort. This includes information about past events, current conditions and forecasts of future economic conditions.

ECLs are measured on either of the following bases:

– 12-month ECLs: these are losses that are expected to result from possible default events within the 12 months after the reporting date; and

– lifetime ECLs: these are losses that are expected to result from all possible default events over the expected lives of the items to which the ECL model applies.

Loss allowances for trade receivables are always measured at an amount equal to lifetime ECLs. ECLs on these financial assets are estimated using a provision matrix based on the Group's historical credit loss experience, adjusted for factors that are specific to the debtors and an assessment of both the current and forecast general economic conditions at the reporting date.

For all other financial instruments, the Group recognizes a loss allowance equal to 12-month ECLs unless there has been a significant increase in credit risk of the financial instrument since initial recognition, in which case the loss allowance is measured at an amount equal to lifetime ECLs.

(Expressed in Renminbi Yuan unless otherwise indicated)

2 Significant accounting policies *(continued)*

2.12 Credit losses and impairment of assets *(continued)*

(a) Credit losses from financial instruments *(continued)*

Significant increases in credit risk

In assessing whether the credit risk of a financial instrument has increased significantly since initial recognition, the Group compares the risk of default occurring on the financial instrument assessed at the reporting date with that assessed at the date of initial recognition.

In making this reassessment, the Group considers that a default event occurs when (i) the borrower is unlikely to pay its credit obligations to the Group in full, without recourse by the Group to actions such as realizing security (if any is held); or (ii) the financial asset is 90 days past due.

The Group 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.

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

– failure to make payments of principal or interest on their contractually due dates;

– an actual or expected significant deterioration in a financial instrument's external or internal credit rating (if available);

– an actual or expected significant deterioration in the operating results of the debtor; and

– existing or forecast changes in the technological, market, economic or legal environment that have a significant adverse effect on the debtor's ability to meet its obligation to the Group.

Depending on the nature of the financial instruments, the assessment of a significant increase in credit risk is performed on either an individual basis or a collective basis. When the assessment is performed on a collective basis, the financial instruments are grouped based on shared credit risk characteristics, such as past due status and credit risk ratings.

(Expressed in Renminbi Yuan unless otherwise indicated)

2 Significant accounting policies *(continued)*

2.12 Credit losses and impairment of assets *(continued)*

(a) Credit losses from financial instruments *(continued)*

Significant increases in credit risk (continued)

ECLs are remeasured at each reporting date to reflect changes in the financial instrument's credit risk since initial recognition. Any change in the ECL amount is recognized as an impairment gain or loss in profit or loss. The Group recognizes an impairment gain or loss for all financial instruments with a corresponding adjustment to their carrying amount through a loss allowance account, except for investments in debt securities that are measured at FVOCI (recycling), for which the loss allowance is recognized in other comprehensive income and accumulated in the fair value reserve (recycling).

Basis of calculation of interest income

Interest income recognized in accordance with note 2.27 is calculated based on the gross carrying amount of the financial asset unless the financial asset is credit-impaired, in which case interest income is calculated based on the amortized cost (i.e. the gross carrying amount less loss allowance) of the financial asset.

At each reporting date, the Group assesses whether a financial asset is credit-impaired. A financial asset is credit-impaired when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred.

Evidence that a financial asset is credit-impaired includes the following observable events:

– significant financial difficulties of the debtor;

– a breach of contract, such as a default or past due event;

– it is becoming probable that the borrower will enter into bankruptcy or other financial reorganization;

– significant changes in the technological, market, economic or legal environment that have an adverse effect on the debtor; or

– the disappearance of an active market for a security because of financial difficulties of the issuer.

(Expressed in Renminbi Yuan unless otherwise indicated)

2 Significant accounting policies *(continued)*

2.12 Credit losses and impairment of assets *(continued)*

(a) Credit losses from financial instruments *(continued)*

Write-off policy

The gross carrying amount of a financial asset is written off (either partially or in full) to the extent that there is no realistic prospect of recovery. This is generally the case when the Group determines that the debtor does not have assets or sources of income that could generate sufficient cash flows to repay the amounts subject to the write-off.

Subsequent recoveries of an asset that was previously written off are recognized as a reversal of impairment in profit or loss in the period in which the recovery occurs.

(b) Impairment of other non-current assets

Internal and external sources of information are reviewed at the end of each reporting period to identify indications that the following assets may be impaired or, except in the case of goodwill, an impairment loss previously recognized no longer exists or may have decreased:

– property, plant and equipment;

– right-of-use assets;

– investment properties;

– construction in progress

– other non-current assets; and

– investments in subsidiaries, associates and joint ventures in the Company's statement of financial position.

(Expressed in Renminbi Yuan unless otherwise indicated)

2 Significant accounting policies *(continued)*

2.12 Credit losses and impairment of assets *(continued)*

(b) Impairment of other non-current assets *(continued)*

At the end of each reporting period, if any indication of impairment exists, the Company estimates the recoverable amount of an asset, or a cash-generating unit, at the higher of its fair value less costs of disposal and its value in use, to determine the impairment losses.

– Calculation of recoverable amount

The recoverable amount of an asset is the greater of its fair value less costs of disposal and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. Where an asset does not generate cash inflows largely independent of those from other assets, the recoverable amount is determined for the smallest group of assets that generates cash inflows independently (i.e. a cash-generating unit). A portion of the carrying amount of a corporate asset (for example, head office building) is allocated to an individual cash-generating unit if the allocation can be done on a reasonable and consistent basis, or to the smallest group of cash-generating units if otherwise.

– Recognition of impairment losses

An impairment loss is recognized in profit or loss if the carrying amount of an asset, or the cash-generating unit to which it belongs, exceeds its recoverable amount. Impairment losses recognized in respect of cash-generating units are allocated first to reduce the carrying amount of any goodwill allocated to the cash-generating unit (or group of units) and then, to reduce the carrying amount of the other assets in the unit (or group of units) on a pro rata basis, except that the carrying value of an asset will not be reduced below its individual fair value less costs of disposal (if measurable) or value in use (if determinable).

– Reversals of impairment losses

An impairment loss is reversed if there has been a favourable change in the estimates used to determine the recoverable amount.

A reversal of an impairment loss is limited to the asset's carrying amount that would have been determined had no impairment loss been recognized in prior years.

Reversals of impairment losses are credited to profit or loss in the year in which the reversals are recognized.

(Expressed in Renminbi Yuan unless otherwise indicated)

2 Significant accounting policies *(continued)*

2.12 Credit losses and impairment of assets *(continued)*

(c) Interim financial reporting and impairment

Under the Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited, the Group is required to prepare an interim financial report in compliance with IAS 34, Interim financial reporting, in respect of the first six months of the financial year. At the end of the interim period, the Group applies the same impairment testing, recognition, and reversal criteria as it would at the end of the financial year (see notes 2.12(a) and (b)).

2.13 Derivative and hedging activities

Derivatives are initially recognized at fair value on the date a derivative contract is entered into, and they are subsequently remeasured to their fair value at the end of each reporting period. The accounting for subsequent changes in fair value depends on whether the derivative is designated as a hedging instrument and, if so, the nature of the item being hedged. The Group designates certain derivatives as hedges of a particular risk associated with the cash flows of recognized assets and liabilities and highly probable forecast transactions (cash flow hedges).

At inception of the hedge relationship, the Group documents the economic relationship between hedging instruments and hedged items, including whether changes in the cash flows of the hedging instruments are expected to offset changes in the cash flows of hedged items. The Group documents its risk management objective and strategy for undertaking its hedge transactions.

The fair values of derivative financial instruments designated in hedge relationships are disclosed in note 3.1(a). Movements in the hedging reserve in shareholders' equity are shown in note 32. The full fair value of a hedging derivative is classified as a non-current asset or liability when the remaining maturity of the hedged item is more than 12 months; it is classified as a current asset or liability when the remaining maturity of the hedged item is less than 12 months. Trading derivatives are classified as a current asset or liability.

(Expressed in Renminbi Yuan unless otherwise indicated)

2 Significant accounting policies *(continued)*

2.13 Derivative and hedging activities *(continued)*

Cash flow hedges that qualify for hedge accounting

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognized in the cash flow hedge reserve within equity. The gain or loss relating to the ineffective portion is recognized immediately in the statement of profit or loss, within Other gains – net.

When swap contracts are used to hedge forecast transactions the Group may designate the full change in fair value of the swap contract as the hedging instrument. The gains or losses relating to the effective portion of the change in fair value of the entire swap contract are recognized in the cash flow hedge reserve within equity.

Amounts accumulated in equity are reclassified in the periods when the hedged item affects the statement of profit or loss as follows:

Where the hedged item subsequently results in the recognition of a non-financial asset (such as inventory), the deferred hedging gains and losses are included within the initial cost of the asset. The deferred amounts are ultimately recognized in the statement of profit or loss as the hedged item affects profit or loss (for example through cost of sales).

When a hedging instrument expires, or is sold or terminated, or when a hedge no longer meets the criteria for hedge accounting, any cumulative deferred gain or loss and deferred costs of hedging in equity at that time remains in equity until the forecast transaction occurs, resulting in the recognition of a non-financial asset such as inventory. When the forecast transaction is no longer expected to occur, the cumulative gain or loss and deferred costs of hedging that were reported in equity are immediately reclassified to Other gains – net.

Derivatives that do not qualify for hedge accounting

Certain derivative instruments do not qualify for hedge accounting. Changes in the fair value of any derivative instrument that does not qualify for hedge accounting are recognized immediately in the statement of profit or loss and are included in Other gains – net.

(Expressed in Renminbi Yuan unless otherwise indicated)

2 Significant accounting policies *(continued)*

2.14 Inventories

Inventories are valued at the lower of cost and net realizable value. Cost is determined using the weighted average cost method. The cost of finished goods and work in progress comprises raw materials, direct labor, other direct costs and related production overheads (based on normal operating capacity). It excludes borrowing costs. The net realizable value is determined based on the estimated selling price in the ordinary course of business less the estimated costs to completion, and other costs necessary to make the sale.

2.15 Contract liabilities

A contract liability is recognized when the customer pays non-refundable consideration before the Group recognizes the related revenue (see note 2.26). A contract liability would also be recognized if the Group has an unconditional right to receive non-refundable consideration before the Group recognizes the related revenue. In such cases, a corresponding receivable would also be recognized (see note 2.16).

When the contract includes a significant financing component, the contract balance includes interest accrued under the effective interest method (see note 2.27).

2.16 Trade and other receivables

A receivable is recognized when the Group has an unconditional right to receive consideration. A right to receive consideration is unconditional if only the passage of time is required before payment of that consideration is due. If revenue has been recognized before the Group has an unconditional right to receive consideration, the amount is presented as a contract asset.

Trade receivables that do not contain a significant financing component are initially measured at their transaction price.

Receivables are subsequently stated at amortized cost using the effective interest method less allowance for credit losses (see note 2.12(a)).

(Expressed in Renminbi Yuan unless otherwise indicated)

2 Significant accounting policies *(continued)*

2.17 Cash and cash equivalents

In the consolidated statement of cash flows, cash and cash equivalents include cash in hand, deposits held at call with banks, other short-term, highly liquid investments with original maturities of three months or less that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value, and bank overdrafts. Bank overdrafts are presented within borrowings in current liabilities in the statement of financial position. Cash and cash equivalents are assessed for expected credit losses (ECL) in accordance with the policy set out in note 2.12(a).

2.18 Share capital

Ordinary shares are classified as equity.

Incremental costs directly attributable to the issue of new shares are shown in equity as a deduction, net of tax, from the proceeds.

2.19 Safety production fund

Under China's law and regulation, the Group is required to accrue safety production fund at a certain percentage of the sales of dangerous goods. The fund is earmarked for improving the safety of production. The fund is accrued from retained earnings to other reserves and converted back to retained earnings when used.

2.20 Trade and other payables

Trade and other payables are obligations to pay for goods or services that have been acquired in the ordinary course of business from suppliers. Trade and other payables are classified as current liabilities if payment is due within one year or less (or in the normal operating cycle of the business if longer). If not, they are presented as non-current liabilities.

Trade and other payables generally are financial liabilities and are recognized initially at fair value plus transaction costs and subsequently measured at amortized cost unless the effect of discounting would be immaterial, in which case they are stated at invoice amounts.

(Expressed in Renminbi Yuan unless otherwise indicated)

2 Significant accounting policies (continued)

2.21 Borrowings

Borrowings are initially recognized at fair value, net of transaction costs incurred. Borrowings are subsequently measured at amortized cost; any difference between the proceeds (net of transaction costs) and the redemption value is recognized in the statement of profit or loss over the period of the borrowings using the effective interest method.

Fees paid on the establishment of loan facilities are recognized as transaction costs of the loan to the extent that it is probable that some or all of the facility will be drawn down. In this case, the fee is deferred until the draw-down occurs. To the extent there is no evidence that it is probable that some or all of the facility will be drawn down, the fee is capitalized as a pre-payment for liquidity services and amortized over the period of the facility to which it relates.

Borrowings are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liability for at least 12 months after the end of the reporting period.

2.22 Borrowings costs

General and specific 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.

Other borrowing costs are expensed in the period in which they are incurred.

2.23 Current and deferred income tax

The tax expense for the period comprises current and deferred tax. Tax is recognized in the statement of profit or loss, except to the extent that it relates to items recognized in other comprehensive income or directly in equity. In this case, the tax is also recognized in other comprehensive income or directly in equity, respectively.

(a) Current income tax

The current income tax charge is calculated on the basis of the tax laws enacted or substantively enacted at the statement of financial position date in the countries where the Company's subsidiaries, associates and joint ventures operate and generate taxable income. Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation. It establishes provisions where appropriate on the basis of amounts expected to be paid to the tax authorities.

(Expressed in Renminbi Yuan unless otherwise indicated)

2 Significant accounting policies *(continued)*

2.23 Current and deferred income tax *(continued)*

(b) Deferred income tax

Inside basis differences

Deferred income tax is recognized, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements. However, deferred tax liabilities are not recognized if they arise from the initial recognition of goodwill, the deferred income tax is not accounted for if it arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss. Deferred income tax is determined using tax rates (and laws) that have been enacted or substantively enacted by the statement of financial position date and are expected to apply when the related deferred income tax asset is realized or the deferred income tax liability is settled.

Deferred income tax assets are recognized only to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilized.

Outside basis differences

Deferred income tax liabilities are provided on taxable temporary differences arising from investments in subsidiaries, associates and joint arrangements, except for deferred income tax liability where the timing of the reversal of the temporary difference is controlled by the Group and it is probable that the temporary difference will not reverse in the foreseeable future. Generally the Group is unable to control the reversal of the temporary difference for associates. Only when there is an agreement in place that gives the Group the ability to control the reversal of the temporary difference in the foreseeable future, deferred tax liability in relation to taxable temporary differences arising from the associate's undistributed profits is not recognized.

Deferred income tax assets are recognized on deductible temporary differences arising from investments in subsidiaries, associates and joint arrangements only to the extent that it is probable the temporary difference will reverse in the future and there is sufficient taxable profit available against which the temporary difference can be utilized.

(Expressed in Renminbi Yuan unless otherwise indicated)

2 Significant accounting policies *(continued)*

2.23 Current and deferred income tax *(continued)*

(c) Offsetting

Deferred income tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and when the deferred income tax assets and liabilities relate to income taxes levied by the same taxation authority on either the taxable entity or different taxable entities where there is an intention to settle the balances on a net basis.

2.24 Employee benefits

(a) Short-term employee benefits

Salaries, annual bonuses, paid annual leave and the cost of non-monetary benefits are accrued in the year in which the associated services are rendered by employees. Where payment or settlement is deferred and the effect would be material, these amounts are stated at their present values.

(b) Pension obligations

The PRC employees of the Group are covered by various PRC government-sponsored defined-contribution pension plans under which the employees are entitled to a monthly pension based on certain formulas. The relevant government agencies are responsible for the pension liability to these employees when they retire. The Group contributes on a monthly basis to these pension plans for the employees which are determined at a certain percentage of their salaries. Under these plans, the Group has no obligation for post-retirement benefits beyond the contribution made. Contributions to these plans are expensed as incurred and contributions paid to the defined contribution pension plans for a staff are not available to reduce the Group's future obligations to such defined-contribution pension plans even if the staff leaves the Group.

(c) Termination benefits

Termination benefits are payable when employment is terminated by the Group before the normal retirement date, or whenever an employee accepts voluntary redundancy in exchange for these benefits. The Group recognizes termination benefits at the earlier of the following dates: (a) when the Group can no longer withdraw the offer of those benefits; and (b) when the entity recognizes costs for a restructuring that is within the scope of IAS 37 and involves the payment of terminations benefits. In the case of an offer made to encourage voluntary redundancy, the termination benefits are measured based on the number of employees expected to accept the offer. Benefits falling due more than 12 months after the end of the reporting period are discounted to present value.

(Expressed in Renminbi Yuan unless otherwise indicated)

2 Significant accounting policies *(continued)*

2.25 Provisions and contingent liabilities

Provisions for environmental restoration, restructuring costs and legal claims are recognized when: the Group has a present legal or constructive obligation as a result of past events; it is probable that an outflow of resources will be required to settle the obligation; and the amount has been reliably estimated. Restructuring provisions comprise lease termination penalties and employee termination payments. Provisions are not recognized for future operating losses.

Where there are a number of similar obligations, the likelihood that an outflow will be required in settlement is determined by considering the class of obligations as a whole. A provision is recognized even if the likelihood of an outflow with respect to any one item included in the same class of obligations may be small.

Provisions are measured at the present value of the expenditures expected to be required to settle the obligation using a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the obligation. The increase in the provision due to passage of time is recognized as interest expense.

Where it is not probable that an outflow of economic benefits will be required, or the amount cannot be estimated reliably, the obligation is disclosed as a contingent liability, unless the probability of outflow of economic benefits is remote. Possible obligations, whose existence will only be confirmed by the occurrence or non-occurrence of one or more future events are also disclosed as contingent liabilities unless the probability of outflow of economic benefits is remote.

2.26 Revenue recognition

(a) Sales of petroleum and chemical products

The Group manufactures and sells petroleum and chemical products. Sales are recognized when control of the products has transferred, being when the products are delivered to or accepted by the customer. Delivery occurs when the products have been shipped to the specific location, the risks of obsolescence and loss have been transferred to the customer, and either the customer has accepted the products in accordance with the sales contract, or the Group has objective evidence that all criteria for acceptance have been satisfied. Advance from customers but goods not yet delivered is recorded as contract liabilities and is recognized as revenue when a customer obtains control over the relevant goods.

Revenue excludes value added tax and is after deduction of any estimated trade discounts.

The Group has elected to apply the practical expedient that contract costs incurred related to contracts with an amortization period of less than one year have been expensed as incurred. The Group also applies the practical expedient in paragraph 121 of IFRS 15 and does not disclose information about remaining performance obligations that have original expected durations of one year or less.

(Expressed in Renminbi Yuan unless otherwise indicated)

2 Significant accounting policies *(continued)*

2.26 Revenue recognition *(continued)*

(b) Overseas shipping services

The Group arranges overseas shipping services for the customer and revenue is recognized over time and based on the actual shipping service provided to the end of the reporting period as a proportion of the total services to be provided, because the customer receives and uses the benefits simultaneously. This is determined based on the actual passages of time (days) relative to the total expected shipping days.

2.27 Interest income

Interest income from financial assets at FVPL is included in Other gains – net, see note 8 below. Interest income on financial assets at amortized cost and financial assets at FVOCI calculated using the effective interest method is recognized in the consolidated statement of profit or loss as part of other income.

Interest income is calculated by applying the effective interest rate to the gross carrying amount of a financial asset except for financial assets that subsequently become credit-impaired. For credit-impaired financial assets the effective interest rate is applied to the net carrying amount of the financial asset (after deduction of the loss allowance).

Interest income is presented as Finance income where it is earned from financial assets that are held for cash management purposes, see note 9 below.

2.28 Dividend income

Dividend income is recognized when the right to receive payment is established.

2.29 Government grants

Grants from the government are recognized at their fair value where there is a reasonable assurance that the grant will be received and the Group will comply with all attached conditions.

Government grants relating to costs are deferred and recognized in the statement of profit or loss over the period necessary to match them with the costs that they are intended to compensate.

Grants that compensate the Group for the cost of an asset are deducted from the carrying amount of the asset and consequently are effectively recognized in the statement of profit or loss over the useful life of the asset by way of reduced depreciation expense.

(Expressed in Renminbi Yuan unless otherwise indicated)

2 Significant accounting policies *(continued)*

2.30 Leases

The Group leases various land, buildings, equipment, vehicles and others. Rental contracts of buildings, equipment, vehicles and others are typically made for fixed periods of 1 to 30 years. Rental contracts of land use rights are typically made for fixed periods of 30 to 50 years. Lease terms are negotiated on an individual basis and contain a wide range of different terms and conditions.

Leases are recognized as a right-of-use asset and a corresponding liability at the date at which the leased asset is available for use by the Group.

Assets and liabilities arising from a lease are initially measured on a present value basis. Lease liabilities include the net present value of the following lease payments:

- fixed payments (including in-substance fixed payments), less any lease incentives receivable,
- variable lease payment that are based on an index or a rate, initially measured using the index or rate as at the commencement date,
- amounts expected to be payable by the Group under residual value guarantees,
- the exercise price of a purchase option if the Group is reasonably certain to exercise that option, and
- payments of penalties for terminating the lease, if the lease term reflects the Group exercising that option.

The lease payments are discounted using the interest rate implicit in the lease. If that rate cannot be readily determined, which is generally the case for leases in the Group, the lessee's incremental borrowing rate is used, being the rate that the individual lessee would have to pay to borrow the funds necessary to obtain an asset of similar value to the right-of-use asset in a similar economic environment with similar terms, security and conditions.

(Expressed in Renminbi Yuan unless otherwise indicated)

2 Significant accounting policies *(continued)*

2.30 Leases *(continued)*

To determine the incremental borrowing rate, the Group:

- where possible, uses recent third-party financing received by the individual lessee as a starting point, adjusted to reflect changes in financing conditions since third party financing was received
- uses a build-up approach that starts with a risk-free interest rate adjusted for credit risk for leases held by the Group, which does not have recent third party financing, and
- makes adjustments specific to the lease, e.g., term, country, currency and security.

Lease payments are allocated between principal and finance cost. The finance cost is charged to profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period.

Right-of-use assets are measured at cost comprising the following:

- the amount of the initial measurement of lease liability,
- any lease payments made at or before the commencement date less any lease incentives received,
- any initial direct costs, and
- restoration costs.

Right-of-use assets are generally depreciated over the shorter of the asset's useful life and the lease term on a straight – line basis, as follows:

Land use rights	20 – 50 years
Buildings	2 – 8 years
Equipment	2 – 3 years
Others	2 – 4 years

(Expressed in Renminbi Yuan unless otherwise indicated)

2 Significant accounting policies *(continued)*

2.30 Leases *(continued)*

Payments associated with short-term leases of equipment and vehicles are recognized on a straight-line basis as an expense in the statement of profit or loss. Short-term leases are leases with a lease term of 12 months or less. A single discount rate was applied to the portfolio of the leases with reasonably similar characteristics.

Lease income from operating leases where the Group is a lessor is recognized as income on a straight-line basis over the lease term. Initial direct costs incurred in obtaining an operating lease are added to the carrying amount of the underlying asset and recognized as expense over the lease term on the same basis as lease income. The respective leased assets are included in the statement of financial position based on their nature.

2.31 Dividend distribution

Dividend distribution to the Company's shareholders is recognized as a liability in the Group's financial statements in the period in which the dividends are approved by the Company's shareholders.

2.32 Research and development costs

Research and development costs comprise all costs that are directly attributable to research and development activities or that can be allocated on a reasonable basis to such activities. Research and development costs are recognized as intangible assets when the following criteria are met:

- it is technically feasible to complete the research and development project so that it will be available for use or sale;
- management intends to complete the research and development project, and use or sell it;
- it can be demonstrated how the research and development project will generate economic benefits;
- there are adequate technical, financial and other resources to complete the development and the ability to use or sell the research and development project; and
- the expenditure attributable to the research and development project during its development phase can be reliably measured.

Other research and development expenditures that do not meet these criteria are recognized as an expense as incurred. Research and development costs previously recognized as an expense are not recognized as an asset in a subsequent period.

(Expressed in Renminbi Yuan unless otherwise indicated)

2 Significant accounting policies *(continued)*

2.33 Related parties

(a) A person, or a close member of that person's family, is related to the Group if that person:

(i) has control or joint control over the Group;

(ii) has significant influence over the Group; or

(iii) is a member of the key management personnel of the Group or the Group's parent.

(b) An entity is related to the Group if any of the following conditions applies:

(iv) The entity and the Group are members of the same group (which means that each parent, subsidiary and fellow subsidiary is related to the others).

(v) One entity is an associate or joint venture of the other entity (or an associate or joint venture of a member of a group of which the other entity is a member).

(vi) Both entities are joint ventures of the same third party.

(vii) One entity is a joint venture of a third entity and the other entity is an associate of the third entity.

(viii) The entity is a post-employment benefit plan for the benefit of employees of either the Group or an entity related to the Group.

(ix) The entity is controlled or jointly controlled by a person identified in (i).

(x) A person identified in (a)(i) has significant influence over the entity or is a member of the key management personnel of the entity (or of a parent of the entity).

(xi) The entity, or any member of a Group of which it is a part, provides key management personnel services to the Group or to the Group's parent.

Close members of the family of a person are those family members who may be expected to influence, or be influenced by, that person in their dealings with the entity.

2.34 Rounding of amounts

All amounts disclosed in the consolidated financial statements and notes have been rounded off to the nearest thousand currency units unless otherwise stated.

(Expressed in Renminbi Yuan unless otherwise indicated)

3 Financial risk management

3.1 Financial risk factors

The Group's activities exposed it to a variety of financial risks: market risk (including foreign exchange risk, cash flow and fair value interest rate risk and commodity price risk), credit risk and liquidity risk. The Group's overall risk management programmer focuses on the unpredictability of financial markets and seeks to minimize potential adverse effects on the Group's financial performance.

Where all relevant criteria are met, hedge accounting is applied to remove the accounting mismatch between the hedging instrument and the hedged item.

(a) Derivatives

The Group has the following derivative financial instruments in the following line items in the consolidated statement of financial position:

	As at 31 December	
	2022 RMB'000	2021 RMB'000
Current derivative financial instrument assets		
Commodity swaps contracts applied hedge accounting	–	48,614
Commodity swaps contracts at fair value through profit or loss	–	32,791
Total derivative financial assets	–	81,405
Current derivative financial instrument liabilities		
Commodity swaps contracts at fair value through profit or loss	–	(23,804)
Total derivative financial liabilities	–	(23,804)

(Expressed in Renminbi Yuan unless otherwise indicated)

3 Financial risk management *(continued)*

3.1 Financial risk factors *(continued)*

(a) Derivatives *(continued)*

(i) Classification of derivatives

Derivatives are only used for economic hedging purposes and not as speculative investments. However, where derivatives do not meet the hedge accounting criteria, they are classified as 'held for trading' for accounting purposes and are accounted for at fair value through profit or loss. They are presented as current assets or liabilities to the extent they are expected to be settled within 12 months after the end of the reporting period.

The Group's accounting policy for its cash flow hedges is set out in note 2.13.

(ii) Fair value measurement

For information about the methods and assumptions used in determining the fair value of derivatives refer to note 3.3.

(iii) Hedging reserves

The following table provides a reconciliation of the hedging reserve in respect of commodity price risk and shows the effectiveness of the hedging relationships:

	Pre-tax amount RMB'000	Tax effect RMB'000	Post-tax amount RMB'000
Balance at 1 January 2022	48,613	(12,153)	36,460
Effective portion of the cash flow hedge recognized in other comprehensive income	375,701	(93,925)	281,776
Amounts reclassified to profit or loss	(107,009)	26,752	(80,257)
Reclassified to inventory	(317,305)	79,326	(237,979)
Balance at 31 December 2022	–	–	–

(Expressed in Renminbi Yuan unless otherwise indicated)

3 Financial risk management *(continued)*

3.1 Financial risk factors *(continued)*

(a) Derivatives *(continued)*

(iv) Amounts recognized in the consolidated statement of profit or loss

In addition to the amounts disclosed in the reconciliation of hedging reserves above, the following amounts were recognized in the consolidated statement of profit or loss in relation to derivatives:

	2022 RMB'000	2021 RMB'000
Net (losses)/gains on commodity swaps contracts not qualifying as hedges included in other (losses)/gains – net	(35,434)	18,997
Net gains on foreign exchange forward contracts not qualifying as hedges included in other (losses)/gains – net	7,583	–
Net losses on foreign exchange option contracts not qualifying as hedges included in other (losses)/gains – net	–	(151)
Total	(27,851)	18,846

Hedge effectiveness

Hedge effectiveness is determined at the inception of the hedge relationship, and through periodic prospective effectiveness assessments, to ensure that an economic relationship exists between the hedged item and hedging instrument.

The Group enters into commodity swaps contracts that have similar critical terms as the hedged item, such as reference rate, payment dates, transaction price, oil variety and oil quantity.

Hedge ineffectiveness for commodity swaps contracts may occur due to the changes in the timing of the hedged transactions. There was no recognized ineffectiveness during the year ended 31 December 2022 in relation to the commodity swaps.

As at 31 December 2022, the Group did not have commodity contracts of oil designed as qualified cash flow hedges. As at 31 December 2021, the Group had certain commodity contracts of crude oil designed as qualified cash flow hedges, which will be matured over the next 10 months. The fair value of such cash flow hedges is RMB48,614 thousand recognized as derivative financial assets in the consolidated statement of financial position.

(Expressed in Renminbi Yuan unless otherwise indicated)

3 Financial risk management *(continued)*

3.1 Financial risk factors *(continued)*

(b) Market risk

(i) Foreign exchange risk

The Group's major operational activities are carried out in Mainland China and a majority of the transactions are denominated in RMB. Nevertheless, the Group is exposed to foreign exchange risk arising from the recognized assets and liabilities, and future transactions denominated in foreign currencies, primarily with respect to US dollar. The Group's finance department at its headquarter is responsible for monitoring the amount of assets and liabilities, and transactions denominated in foreign currencies to minimize the foreign exchange risk. For the year ended 31 December 2022 and 31 December 2021, the Group used foreign exchange forward contracts and foreign exchange option contracts to mitigate its exposure to foreign exchange risk respect to US dollar.

As at 31 December 2022, there were no foreign exchange forward contract and foreign exchange option contract that had not been matured (31 December 2021: Nil).

As at 31 December 2022, if US dollar and HK dollar had weakened/strengthened by 5% against RMB with all other variables held constant, the Group's net loss for the year ended 31 December 2022 would decrease/increase by RMB1,751 thousand (31 December 2021: net profit would decrease/increase by RMB2,292 thousand) before considering the impact of forward and option contracts as a result of foreign exchange gains/losses which is mainly resulted from the translation of US dollar denominated trade receivables and payables.

The aggregate net foreign exchange gains/(losses) recognized in the consolidated statement of profit or loss were:

	2022 RMB'000	2021 RMB'000
Net foreign exchange gains/(losses) included in other (losses)/gains – net (note 8)	21,969	(1,861)

(Expressed in Renminbi Yuan unless otherwise indicated)

3 Financial risk management *(continued)*

3.1 Financial risk factors *(continued)*

(b) Market risk *(continued)*

(ii) Cash flow and fair value interest rate risk

The Group's interest rate risk arises from interest-bearing borrowings and short-term bonds. Borrowings obtained at variable rates expose the Group to cash flow interest rate risk. Borrowings obtained at fixed rates expose the Group to fair value interest rate risk. The Group determines the relative proportions of its fixed rate and floating rate contracts depending on the prevailing market conditions.

The Group's finance department at its headquarter continuously monitors the interest rate position of the Group. Increases in interest rates will increase the cost of new borrowing and the interest expenses with respect to the Group's outstanding floating rate borrowings, and therefore could have a material adverse effect on the Group's financial position. The Group makes adjustments timely with reference to the latest market conditions and may enter into interest rate swap agreements to mitigate its exposure to interest rate risk. For the years ended 31 December 2022 and 31 December 2021, the Group did not enter into any interest rate swap agreements.

(Expressed in Renminbi Yuan unless otherwise indicated)

3 Financial risk management *(continued)*

3.1 Financial risk factors *(continued)*

(b) Market risk *(continued)*

(ii) Cash flow and fair value interest rate risk (continued)

At the reporting date, the interest rate profile of the Group's interest-bearing financial instruments was as follows.

	2022 RMB'000	2021 RMB'000
Fixed rate:		
Time deposits with maturity less than one year	3,000,000	7,350,000
Time deposits with maturity more than one year	3,300,000	5,500,000
Borrowings	(1,550,000)	(1,500,000)
Lease liabilities	(16,251)	(4,613)
	4,733,749	11,345,387
Variable rate:		
Cash and cash equivalents	889,413	5,112,010
Borrowings	(700,000)	(759,800)
	189,413	4,352,210

As at 31 December 2022, if interest rates on the floating rate financial instruments had risen/fallen by 50 basis points while all other variables had been held constant, the Group's net loss would have decreased/increased by approximately RMB730 thousand (2021: RMB16,252 thousand increased/decreased in net profit), mainly as a result of higher/lower interest on floating rate cash and cash equivalents.

(Expressed in Renminbi Yuan unless otherwise indicated)

3 Financial risk management *(continued)*

3.1 Financial risk factors *(continued)*

(b) Market risk *(continued)*

(iii) Commodity price risk

The Group principally engages in processing crude oil into synthetic fibers, resins and plastics, intermediate petrochemicals and petroleum products. The selling price of petroleum products is periodically adjusted by the government department based on the market price adjustment mechanism, and generally in connection with the crude oil price. The fluctuations in prices of crude oil, refined oil products and intermediate petrochemicals and petroleum products could have significant impact on the Group. The Group uses commodity swaps contracts to manage a portion of this risk.

As at 31 December 2022, the Group had no unexpired commodity contracts of crude oil and refined oil designated as qualified cash flow hedges. As at 31 December 2021, the Group had certain unexpired commodity contracts of crude oil and refined oil designated as qualified cash flow hedges balances of which have been disclosed in note 3.1 (a).

(c) Credit risk

(i) Risk management

Credit risk refers to the risk that a counterparty will default on its contractual obligations resulting in a financial loss to the Group. Credit risk is managed on group basis. It mainly arises from cash and cash equivalents, time deposits with banks, bills receivable, derivative financial assets, trade receivables measured at amortized cost and FVOCI, other receivables etc.

The Group expects that there is no significant credit risk associated with cash at bank (including time deposits and structured deposits), bills receivable and derivative financial assets because the counterparties are banks and financial institutions with a relatively higher credit rating, which the Group considers to represent low credit risk. Management does not expect that there will be any significant losses from non-performance by these counterparties.

(Expressed in Renminbi Yuan unless otherwise indicated)

3 Financial risk management *(continued)*

3.1 Financial risk factors *(continued)*

(c) Credit risk *(continued)*

(i) Risk management (continued)

In addition, the Group has policies to limit the credit exposure on trade receivables, other receivables. The Group assesses the credit quality of and sets credit limits on its customers by taking into account their financial position, the availability of guarantee from third parties, their credit history and other factors such as current market conditions. The credit history of the customers is regularly monitored by the Group. In respect of customers with a poor credit history, the Group will use written payment reminders, or shorten or cancel credit periods, to ensure the overall credit risk of the Group is limited to a controllable extent.

The Group considers the probability of default upon initial recognition of a financial asset and whether there has been a significant increase in credit risk on an ongoing basis throughout each reporting period. To assess whether there is a significant increase in credit risk, the Group compares the risk of a default occurring on the asset as at the reporting date with the risk of default as at the date of initial recognition. It considers available reasonable and supportive forward-looking information. Especially the following indicators are incorporated:

- internal credit rating;
- external credit rating (as far as available);
- actual or expected significant adverse changes in business, financial or economic conditions that are expected to cause a significant change to the debtors' ability to meet its obligations;
- actual or expected significant changes in the operating results of the debtors;
- significant increases in credit risk on other financial instruments of the same debtors;
- significant changes in the value of the collateral supporting the obligation or in the quality of third-party guarantees or credit enhancements;
- significant changes in the expected performance and behaviour of the debtors, including changes in the payment status of debtors, etc.

Regardless of the analysis above, a significant increase in credit risk is presumed if a debtor is more than 30 days past due in making a contractual payment.

(Expressed in Renminbi Yuan unless otherwise indicated)

3 Financial risk management *(continued)*

3.1 Financial risk factors *(continued)*

(c) Credit risk *(continued)*

(i) Risk management (continued)

It has other monitoring procedures to ensure that follow-up action is taken to recover overdue debts. In addition, the Group reviews regularly the recoverable amount of each individual trade receivables to ensure that adequate impairment losses are made for irrecoverable amounts. Significant concentrations of credit risk primarily arise when the Group has significant exposure to individual customers. As at 31 December 2022, 95.57% and 97.65% of the total trade receivables were due from the Group's largest customer and the five largest customers respectively within the Group (31 December 2021: 93.20% and 94.70%).

For other receivables, management makes periodic collective assessment as well as individual assessment on the recoverability of other receivables based on historical settlement records and forward-looking information. The management believes that there is no material credit risk inherent in the Group's outstanding balance of other receivable.

(ii) Impairment of financial assets

The Group has three types of financial assets that are subject to the expected credit loss model:

– Trade receivables for sales of goods and from the providing services,

– Other financial assets carried at amortized cost, and

– Debt instruments carried at FVOCI.

While cash and cash equivalents, time deposits with banks and bills receivable are also subject to the impairment requirements of IFRS 9, the identified impairment loss was immaterial.

(Expressed in Renminbi Yuan unless otherwise indicated)

3 Financial risk management *(continued)*

3.1 Financial risk factors *(continued)*

(c) Credit risk *(continued)*

(ii) Impairment of financial assets (continued)

Trade receivables

The Group applies the IFRS 9 simplified approach to measuring expected credit losses which uses a lifetime expected loss allowance for all trade receivables (including trade receivables with related parties) and financial assets at fair value through other comprehensive income.

To measure the expected credit losses, trade receivables have been grouped based on shared credit risk characteristics and the days past due.

The expected credit loss rates are based on the payment profiles of sales over a period of 36 months before 31 December 2022 and 31 December 2021 respectively and the corresponding historical credit losses experienced within this period. The historical loss rates are adjusted to reflect current and forward-looking information on macroeconomic factors affecting the ability of the customers to settle the receivables.

Impairment losses on trade receivables are presented as provision of impairment losses on financial assets within operating (loss)/profit. Subsequent recoveries of amounts previously written off are credited against the same line item.

Other financial assets at amortized cost

Other financial assets at amortized cost include other receivables.

As at 31 December 2022 and 31 December 2021, the internal credit rating of other receivables was all performing. The Group has assessed that the expected credit losses for these receivables are not material under the 12 months expected losses method.

Management considered that there was no significant increase in credit risk for other receivables including receivables from related parties by taking into account of their past history of making payments when due and current ability to pay, and thus the impairment provision recognized during the period was limited to 12 months expected losses.

(Expressed in Renminbi Yuan unless otherwise indicated)

3 Financial risk management *(continued)*

3.1 Financial risk factors *(continued)*

(c) Credit risk *(continued)*

(ii) Impairment of financial assets (continued)

Other financial assets at amortized cost *(continued)*

The provision for loss allowance was recognized in the statement of profit or loss in provision of impairment losses on financial assets.

Trade and other receivables are written off where there is no reasonable expectation of recovery. Indicators that there is no reasonable expectation of recovery include, amongst others, the failure of a debtor to engage in a repayment plan with the Group, and a failure to make contractual payments for a period of greater than 120 days past due.

Impairment losses on trade and other receivables are presented as provision of impairment losses within operating (loss)/profit. Subsequent recoveries of amounts previously written off are credited against the same line item.

Debt instruments carried at FVOCI

Debt instruments carried at FVOCI include trade receivables and bills receivable with a business model which is achieved both by collecting contractual cash flows and selling of these assets. The loss allowance for debt instruments is recognized in the statement of profit or loss and reduces the fair value loss otherwise recognized in OCI.

As at 31 December 2022 and 31 December 2021, no loss allowance was provided for financial assets at FVOCI.

(Expressed in Renminbi Yuan unless otherwise indicated)

3 Financial risk management *(continued)*

3.1 Financial risk factors *(continued)*

(c) Credit risk *(continued)*

(iii) Provision of impairment losses on financial assets recognized in the consolidated statement of profit or loss

During the year, the following (losses)/recoveries were recognized in provision of impairment losses on financial assets in relation to impaired financial assets:

	2022 RMB'000	2021 RMB'000
Impairment losses		
– provision in loss allowance for trade receivables	(778)	(1,354)
– provision in loss allowance for other receivables	(4,727)	(1)
Impairment losses reversed	139	–
Provision of impairment losses on financial assets	(5,366)	(1,355)

(iv) Financial assets at fair value through profit or loss

The Group is also exposed to credit risk in relation to investments such as derivative financial instruments, which are measured at fair value through profit or loss. The maximum exposure at the end of the reporting period is the carrying amount of these investments.

(Expressed in Renminbi Yuan unless otherwise indicated)

3 Financial risk management *(continued)*

3.1 Financial risk factors *(continued)*

(d) Liquidity risk

Cash flow forecast is performed by the operating entities of the Group and aggregated by Group finance. Group finance monitors rolling forecasts of the Group's liquidity requirements to ensure it has sufficient cash to meet operational needs while maintaining sufficient headroom on its undrawn committed borrowing facilities from major financial institutions so that the Group does not breach borrowing limits or covenants on any of its borrowing facilities to meet the short-term and long-term liquidity requirements.

The liquidity of the Group is primarily dependent on its ability to maintain adequate cash inflow from operations, the renewal of its short-term bank loans and its ability to obtain adequate external financing to support its working capital and meet its debt obligation when they become due. As at 31 December 2022, the Group had credit facilities with several PRC financial institutions which provided the Group to draw down to RMB9,200,000 thousand, within which amounted to RMB6,950,000 thousand were unused. Management assessed that all the facilities could be renewed upon the expiration dates.

Surplus cash held by the operating entities over and above balance required for working capital management is transferred to the Group treasury. As at 31 December 2022, the Group held cash and cash equivalents of RMB889,413 thousand (31 December 2021: RMB5,112,010 thousand) (note 23), time deposits with banks – current of RMB3,108,919 thousand (31 December 2021: RMB7,386,607 thousand) (note 24) and trade receivables (including trade receivables with related parties and those carried at fair value through other comprehensive income ("FVOCI") of RMB2,957,771 thousand (31 December 2021: RMB1,568,800 thousand), that are expected to readily generate cash inflows for managing liquidity risk.

The table below analyzes the Group's financial liabilities into relevant maturity groupings based on the remaining period at the consolidated statement of financial position date to the contractual maturity date. The amounts disclosed in the table are the contractual undiscounted cash flows.

(Expressed in Renminbi Yuan unless otherwise indicated)

3 Financial risk management *(continued)*

3.1 Financial risk factors *(continued)*

(d) Liquidity risk *(continued)*

	As at 31 December 2022					
	Contractual maturities of financial liabilities					
	Less than 1 year RMB'000	Between 1 and 2 years RMB'000	Between 2 and 5 years RMB'000	Over 5 years RMB'000	Total RMB'000	Carrying amount
Non-derivatives						
Borrowings	1,570,282	704,914	–	–	2,275,196	2,250,000
Lease liabilities	9,395	7,531	655	–	17,581	16,251
Bills payables	24,951	–	–	–	24,951	24,951
Trade payables	1,818,453	–	–	–	1,818,453	1,818,453
Other payables	1,083,130	–	–	–	1,083,130	1,083,130
Amounts due to related parties excluded non-financial liabilities	7,877,323	–	–	–	7,877,323	7,877,323
	12,383,534	712,445	655	–	13,096,634	13,070,108
Derivatives						
Derivative financial liabilities	–	–	–	–	–	–

(Expressed in Renminbi Yuan unless otherwise indicated)

3 Financial risk management *(continued)*

3.1 Financial risk factors *(continued)*

(d) Liquidity risk *(continued)*

	As at 31 December 2021					
	Contractual maturities of financial liabilities					
	Less than 1 year RMB'000	Between 1 and 2 years RMB'000	Between 2 and 5 years RMB'000	Over 5 years RMB'000	Total RMB'000	Carrying amount
Non-derivatives						
Borrowings	1,578,817	7,665	704,914	–	2,291,396	2,259,800
Lease liabilities	3,814	730	814	–	5,358	4,613
Bills payables	562,593	–	–	–	562,593	562,593
Trade payables	1,527,706	–	–	–	1,527,706	1,527,706
Other payables	1,003,860	–	–	–	1,003,860	1,003,860
Amounts due to related parties excluded non-financial liabilities	4,910,255	–	–	–	4,910,255	4,910,255
	9,587,045	8,395	705,728	–	10,301,168	10,268,827
Derivatives						
Derivative financial liabilities	23,804	–	–	–	23,804	23,804

3.2 Capital management

The Group's objectives when managing capital are to safeguard the Group's ability to continue as a going concern, so that it can continue to provide returns for shareholders and benefits for other stakeholders, by pricing products and services commensurately with the level of risk and by securing access to finance at a reasonable cost.

The Group actively and regularly reviews and manages its capital structure to maintain a balance between the higher shareholder returns that might be possible with higher levels of borrowings and the advantages and security afforded by a sound capital position, and makes adjustments to the capital structure in light of changes in economic conditions.

The Group monitors its capital structure on the basis of an adjusted net debt-to-capital ratio. For this purpose, adjusted net debt is defined as total debt (which includes interest-bearing loans and borrowings, and lease liabilities) plus unaccrued proposed dividends, less cash and cash equivalents. Adjusted capital comprises all components of equity, other than amounts recognised in equity relating to cash flow hedges,less unaccrued proposed dividends.

3 Financial risk management *(continued)*

3.2 Capital management *(continued)*

The Group's adjusted net debt-to-capital ratio at 31 December 2022 was as follows:

	Note	2022 RMB'000
Current liabilities:		
Borrowings	26	1,550,000
Lease liabilities	15	8,738
		1,558,738
Non-current liabilities:		
Borrowings	26	700,000
Lease liabilities	15	7,513
Total Debt		2,266,251
Less: Cash and cash equivalents	23	(889,413)
Adjusted net debt		1,376,838
Total equity		26,355,363
Less: Hedging reserve		–
Adjusted capital		26,355,363
Adjusted net debt-to-capital ratio		5%

As cash and cash equivalents exceed total borrowings and short-term bonds, which was resulted primarily from profitability, there was no net debt as at 31 December 2021.

(Expressed in Renminbi Yuan unless otherwise indicated)

3 Financial risk management *(continued)*

3.3 Fair value estimation

The table below analyzes the Group's financial instruments carried at fair value as at 31 December 2022 and 2021 by the level of the inputs to valuation techniques used to measure fair value. Such inputs are categorized into three levels within a fair value hierarchy as follows:

– The fair value of financial instruments traded in active markets (such as publicly traded derivatives and equity securities) is based on quoted market prices at the end of the reporting period. The quoted market price used for financial assets held by the Group is the current bid price. These instruments are included in level 1.

– The fair value of financial instruments that are not traded in an active market (for example, over–the–counter derivatives) is determined using valuation techniques that maximize the use of observable market data and rely as little as possible on entity-specific estimates. If all significant inputs required to fair value an instrument are observable, the instrument is included in level 2.

– If one or more of the significant inputs is not based on observable market data, the instrument is included in level 3. This is the case for unlisted equity securities.

		As at 31 December 2022			
	Note	Level 1 RMB'000	Level 2 RMB'000	Level 3 RMB'000	Total RMB'000
Recurring fair value measurements					
Financial assets					
Financial assets measured at fair value through other comprehensive income					
– Trade and bills receivable	25	–	582,354	–	582,354
– Equity investments	25	–	–	5,000	5,000
		–	582,354	5,000	587,354

(Expressed in Renminbi Yuan unless otherwise indicated)

3 Financial risk management *(continued)*

3.3 Fair value estimation *(continued)*

		As at 31 December 2021			
	Note	Level 1 RMB'000	Level 2 RMB'000	Level 3 RMB'000	Total RMB'000
Recurring fair value measurements					
Financial assets					
Financial assets measured at fair value through profit or loss					
– Commodity swaps contracts	3.1(a)	–	32,791	–	32,791
Financial assets at fair value through other comprehensive income					
– Trade and bills receivable	25	–	1,072,690	–	1,072,690
– Equity investments	25	–	–	5,000	5,000
– Commodity swaps contracts	3.1(a)	–	48,614	–	48,614
		–	1,154,095	5,000	1,159,095
Financial liabilities					
Financial liabilities measured at fair value through profit or loss					
– Commodity swaps contracts		–	23,804	–	23,804
		–	23,804	–	23,804
Amounts due to related parties – measured at fair value through profit or loss (FVPL)		–	1,388,286	–	1,388,286

(Expressed in Renminbi Yuan unless otherwise indicated)

3 Financial risk management *(continued)*

3.3 Fair value estimation *(continued)*

Valuation techniques and inputs used in Level 2 fair value measurements

The fair value of commodity swaps contract is the estimated amount that the Group would receive or pay to terminate the swap at the end of the reporting period, taking into account the current interest rates and the current creditworthiness of the swap counterparties.

The fair value of trade and bills receivable is estimated as the present value of the future cash flows, discounted at the market interest rates at the balance sheet date.

The fair value of amounts due to related parties is the estimated amount that the Group would settle the liability by returning certain quantity of crude oil at the end of the reporting period, referring to market price of the related crude oil. As at 31 December 2022, if market price of crude oil had risen/fallen by 10% while all other variables had been held constant, the Group's net loss would have increased/decreased by approximately RMB nil (2021: RMB89,787 thousand decreased/increased in net profit).

During the year ended 31 December 2022, there were no transfers between Level 1 and Level 2, or transfers into or out of Level 3. The Group's policy is to recognize transfers between levels of fair value hierarchy as at the end of the reporting period in which they occur.

Financial assets and financial liabilities not measured at fair value mainly represent trade receivables, other receivables, amounts due from related parties excluded prepayments, trade payables, amounts due to related parties, other payables (except for the staff salaries and welfare payables and taxes payables), borrowings and short-term bonds. The carrying amounts of these financial assets and liabilities not measured at fair value are a reasonable approximation of their fair value.

3 Financial risk management *(continued)*

3.3 Fair value estimation *(continued)*

The following table presents the changes in level 3 items for the year ended 31 December 2022:

	Equity investments RMB'000	Structured deposits RMB'000	Total RMB'000
As at 1 January 2021	5,000	–	5,000
Acquisitions	–	8,150,000	8,150,000
Disposals	–	(8,247,921)	(8,247,921)
Fair value change	–	97,921	97,921
As at 31 December 2021	5,000	–	5,000
Acquisitions	–	1,000,000	1,000,000
Disposals	–	(1,011,124)	(1,011,124)
Fair value change	–	11,124	11,124
As at 31 December 2022	5,000	–	5,000

(Expressed in Renminbi Yuan unless otherwise indicated)

4 Critical accounting judgement and estimates

4.1 Critical accounting judgements in applying the Group's accounting policies

In the process of applying the Group's accounting policies, management has made the following accounting judgement:

(a) Classification of financial assets

The classification depends on the Group's business model for managing the financial assets and the contractual terms of the cash flows. The Group determines the business model for managing financial assets at the level of the financial asset portfolio. The factors considered include the way to evaluate and report the performance of financial assets to key management personnel, the risks affecting the performance of financial assets and their management methods, and the way for relevant business management personnel to obtain remuneration, etc.

When evaluating whether the contractual cash flow of financial assets is consistent with the basic lending arrangements, the Group has the following main judgments: whether the time distribution or amount of the principal may change in the duration due to prepayment and other reasons; whether the interest only includes the time value of money, credit risk, other basic lending risks and the consideration of cost and profit. For example, does the amount of prepayment only reflect the outstanding principal and the interest based on the outstanding principal, as well as the reasonable compensation paid for the early termination of the contract.

4.2 Sources of estimation uncertainty

Significant sources of estimation uncertainty are as follows:

(a) Net realizable value ("NRV") of inventories

As described in note 2.14, inventories are valued at the lower of cost and net realizable value. The net realizable value is determined based on the estimated selling prices in the ordinary course of business less the estimated costs to completion, and other costs necessary to make the sale. These estimates are based on the current market condition and historical experience of selling products of similar nature. It could change significantly as a result of competitor actions in response to changes in market conditions.

Management reassesses these estimations at the end of each reporting period to ensure inventory is measured at the lower of cost and net realizable value.

(Expressed in Renminbi Yuan unless otherwise indicated)

4 Critical accounting judgement and estimates *(continued)*

4.2 Sources of estimation uncertainty *(continued)*

(b) Impairments for non-current assets

As discussed in note 2.12, at the end of each reporting period, the Group estimates the recoverable amount of an asset or a cash-generating unit ("CGU") (a portion of which related to certain production facilities), at the higher of its fair value less costs of disposal and its value in use, to determine the impairment losses. If circumstances indicate that the carrying amount of the asset or CGU may not be recoverable, the asset or CGU may be considered "impaired", and an impairment loss may be recognized.

The recoverable amount of assets or CGUs is the higher of the fair value less costs of disposal and value in use. As the fair value of certain assets or CGUs may not be publicly available, the Group uses all readily available information in determining an amount that is a reasonable approximation of recoverable amount, including estimates based on reasonable and supportable assumptions for projections of product sales and operating costs and discount rate. In particular, in determining the value in use of the Group's specific CGUs, significant judgements are required on the accounting estimates which are based on the assumptions relating to product sales growth rates, related costs growth rates and discount rate applied.

(c) Useful life and residual value of property, plant and equipment

Property, plant and equipment, are depreciated on a straight-line basis over the estimated useful lives of the assets, after taking into account the estimated residual value. Management reviews the estimated useful lives and estimated residual value of the assets annually in order to determine the amount of depreciation expense to be recorded during any reporting period. The useful lives are based on the Group's historical experience with similar assets, taking into account anticipated technological changes. The depreciation expense for future periods is adjusted if there are significant changes from previous estimates.

5 Segment information and revenue

5.1 Segment information

The Group manages its business by divisions, which are organized by business lines. In view of the fact that the Company and its subsidiaries operate substantially all in the PRC, no geographical segment information is presented.

In a manner consistent with the way in which information is reported internally to the Group's chief operating decision maker, Board of Directors, for the purposes of resource allocation and performance assessment, the Group has identified the following five reportable segments. No operating segments have been aggregated to form the following reportable segments.

(Expressed in Renminbi Yuan unless otherwise indicated)

5 Segment information and revenue *(continued)*

5.1 Segment information *(continued)*

Segment results, assets and liabilities include items directly attributable to a segment as well as those that can be allocated on a reasonable basis. Unallocated items mainly comprise interests in associates and joint ventures, deferred tax assets, cash and cash equivalents, time deposits, and incomes relating to these assets (such as share of net (losses)/profits of associates and joint ventures accounted for using the equity method and interest income), derivative financial assets, borrowings, short-term bonds and interest expenses, derivative financial liabilities, and deferred tax liabilities.

The Group principally operates in five operating segments: synthetic fibres, resins and plastics, intermediate petrochemicals, petroleum products and trading of petrochemical products. Synthetic fibres, resins and plastics, intermediate petrochemicals and petroleum products are produced through intermediate steps from the principal raw material of crude oil. The specific products of each segment are as follows:

(i) The petroleum products segment is equipped with crude oil refinery facilities used to produce qualified refined gasoline, fuel, diesel oil, heavy oil and liquefied petroleum gas, and provide raw materials for the Group's downstream petrochemical processing facilities.

(ii) The intermediate petrochemicals segment primarily produces p-xylene, benzene and ethylene oxide. The intermediate petrochemicals produced by the Group are both served as raw materials in the production of other petrochemicals, resins, plastics and synthetic fibres, and sold to external customers.

(iii) The resins and plastics segment produces primarily polyester chips, polyethylene resins, polypropylene resins and PVA granules. The polyester chips are used to produce polyester fibres, coating and containers. Polyethylene resins and plastics are used to produce insulated cable, mulching films and moulded products such as housewares and toys. Polypropylene resins are used for films, sheets and moulded products such as housewares, toys, consumer electronics and automobile parts.

(iv) The synthetic fibres segment produces primarily polyester, acrylic fibres and carbon fibres, which are mainly used in the textile and apparel industries.

(v) The trading of petrochemical products segment is primarily engaged in importing and exporting of petrochemical products. The products are sourced from international and domestic suppliers.

(vi) Other operating segments represent the operating segments that do not meet the quantitative threshold for determining reportable segments. These include investment property leasing, service provision and a variety of other commercial activities.

(Expressed in Renminbi Yuan unless otherwise indicated)

5 Segment information and revenue (continued)

5.1 Segment information (continued)

2022	Petroleum products RMB'000	Intermediate petrochemicals RMB'000	Resins and plastics RMB'000	Synthetic fibres RMB'000	Trading of petrochemical products RMB'000	Others RMB'000	Total RMB'000
Total segment revenue	62,729,318	26,112,700	7,416,830	413,981	12,938,663	1,641,243	111,252,735
Inter segment revenue	(11,575,451)	(15,536,795)	(71,778)	(98)	(922,077)	(703,380)	(28,809,579)
Revenue from external customers	51,153,867	10,575,905	7,345,052	413,883	12,016,586	937,863	82,443,156
Timing of revenue recognition							
– At a point in time	51,153,867	10,575,905	7,345,052	413,883	11,917,827	937,863	82,344,397
– Over time	–	–	–	–	98,759	–	98,759
	51,153,867	10,575,905	7,345,052	413,883	12,016,586	937,863	82,443,156
Segment result – profit/(loss) from operations	972	(1,456,647)	(1,252,524)	(1,015,255)	12,838	(132,750)	(3,843,366)

2021	Petroleum products RMB'000	Intermediate petrochemicals RMB'000	Resins and plastics RMB'000	Synthetic fibres RMB'000	Trading of petrochemical products RMB'000	Others RMB'000	Total RMB'000
Total segment revenue	65,528,687	26,454,844	10,176,285	1,381,443	12,972,922	1,625,705	118,139,886
Inter segment revenue	(10,454,529)	(15,619,770)	(170,255)	(445)	(1,912,789)	(783,606)	(28,941,394)
Revenue from external customers	55,074,158	10,835,074	10,006,030	1,380,998	11,060,133	842,099	89,198,492
Timing of revenue recognition							
– At a point in time	55,074,158	10,835,074	10,006,030	1,380,998	11,020,323	842,099	89,158,682
– Over time	–	–	–	–	39,810	–	39,810
	55,074,158	10,835,074	10,006,030	1,380,998	11,060,133	842,099	89,198,492
Segment result – profit/(loss) from operations	2,967,030	(635,155)	52,215	(854,077)	43,729	(141,510)	1,432,232

(Expressed in Renminbi Yuan unless otherwise indicated)

5 Segment information and revenue *(continued)*

5.1 Segment information *(continued)*

	2022 RMB'000	2021 RMB'000
Segment result – (loss)/profit from operations		
Petroleum products	972	2,967,030
Intermediate petrochemicals	(1,456,647)	(635,155)
Resins and plastics	(1,252,524)	52,215
Synthetic fibres	(1,015,255)	(854,077)
Trading of petrochemical products	12,838	43,729
Others	(132,750)	(141,510)
(Loss)/profit from operations	(3,843,366)	1,432,232
Finance income – net	443,328	414,569
Share of net (losses)/profits of investments accounted for using the equity method	(173,616)	874,285
(Loss)/profit before taxation	(3,573,654)	2,721,086

Other profit and loss disclosures

	2022			2021		
	Depreciation and amortization RMB'000	Impairment loss and credit loss RMB'000	Inventory write-down RMB'000	Depreciation and amortization RMB'000	Impairment loss and credit loss RMB'000	Inventory write-down RMB'000
Petroleum products	(928,687)	–	(37,900)	(975,492)	(94,420)	(782)
Intermediate petrochemicals	(414,999)	(215,355)	(248,518)	(523,484)	(297,632)	(136,694)
Resins and plastics	(106,845)	(25,102)	(134,138)	(86,183)	(61,242)	(168)
Synthetic fibres	(140,885)	(51,160)	(104,713)	(132,091)	(135,683)	(13,239)
Trading of petrochemical products	(35,345)	–	–	(39,125)	–	–
Others	(186,537)	(9)	–	(209,333)	(28,392)	–
	(1,813,298)	(291,626)	(525,269)	(1,965,708)	(617,369)	(150,883)

(Expressed in Renminbi Yuan unless otherwise indicated)

5 Segment information and revenue (continued)

5.1 Segment information (continued)

	As at 31 December	
	2022 Total assets RMB'000	2021 Total assets RMB'000
Allocated assets		
Petroleum products	16,021,111	13,317,338
Intermediate petrochemicals	3,803,989	3,781,785
Resins and plastics	1,359,796	1,395,867
Synthetic fibres	2,734,193	1,919,194
Trading of petrochemical products	1,391,104	1,348,751
Others	2,765,693	2,700,327
Allocated assets	28,075,886	24,463,262
Unallocated assets		
Investments accounted for using the equity method	3,504,393	4,088,888
Cash and cash equivalents	889,413	5,112,010
Time deposits with banks	6,498,478	12,968,042
Deferred tax assets	991,850	184,143
Derivative financial assets	–	81,405
Value added tax recoverable	1,057,463	13,322
Others	119,234	9,517
Unallocated assets	13,060,831	22,457,327
Total assets	41,136,717	46,920,589

(Expressed in Renminbi Yuan unless otherwise indicated)

5 Segment information and revenue *(continued)*

5.1 Segment information *(continued)*

	As at 31 December	
	2022 Total liabilities RMB'000	2021 Total liabilities RMB'000
Allocated liabilities		
Petroleum products	8,159,960	9,749,806
Intermediate petrochemicals	801,787	1,257,436
Resins and plastics	1,309,344	1,327,587
Synthetic fibres	531,455	490,211
Trading of petrochemical products	1,370,346	1,257,750
Others	251,328	112,876
Allocated liabilities	12,424,220	14,195,666
Unallocated liabilities		
Borrowings	2,250,000	2,259,800
Deferred tax liabilities	30,895	33,344
Derivative financial liabilities	–	23,804
Others	76,239	30,577
Unallocated liabilities	2,357,134	2,347,525
Total liabilities	14,781,354	16,543,191

5 Segment information and revenue *(continued)*

5.1 Segment information *(continued)*

	2022 RMB'000	2021 RMB'000
Additions to property, plant and equipment, construction in progress, right-of-use assets, other non-current assets		
Petroleum products	544,806	708,342
Intermediate petrochemicals	1,029,771	1,306,813
Resins and plastics	54,220	44,495
Synthetic fibres	1,573,781	1,748,868
Trading of petrochemical products	16,603	71,917
Others	235,406	234,023
	3,454,587	4,114,458

5.2 Revenue

The Group's revenue from external customers are substantially all within Mainland China in 2022 and 2021. As at 31 December 2022 and 31 December 2021, assets are also substantially all within Mainland China.

Revenue of approximately RMB52,190,120 thousand (2021: RMB59,766,489 thousand) are derived from a single customer. These revenues are attributable to the petroleum products and others segments.

Details of concentrations of credit risk arising from these customers are set out in note 3.1(c).

6 Other operating income

	2022 RMB'000	2021 RMB'000
Government grants (a)	33,055	35,944
Rental income from investment properties (note 17)	75,159	81,923
Others	2,427	7,438
	110,641	125,305

(a) Government grants

Grants related to R&D, other tax refund and subsidies are included in the government grants line item. There are no unfulfilled conditions or other contingencies attaching to these grants.

(Expressed in Renminbi Yuan unless otherwise indicated)

7 Other operating expenses

	2022 RMB'000	2021 RMB'000
Cost related to lease of investment properties	(12,037)	(13,439)
Others	(13,738)	(31,273)
	(25,775)	(44,712)

8 Other (losses)/gains – net

	2022 RMB'000	2021 RMB'000
Net (losses)/gains on disposal of property, plant and equipment and other long-term assets	(26,767)	48,671
Gains from structured deposits (note a)	11,124	97,921
Net losses on foreign exchange option contracts	–	(151)
Net gains on foreign exchange forward contracts	7,583	–
Net (losses)/gains on commodity swaps contracts not qualified for hedging accounting	(35,434)	18,997
Impairment losses for investment in an associate	–	(28,392)
Net foreign exchange gains/(losses)	21,969	(1,861)
Losses on sale of FVOCI	(3,148)	(4,685)
Gains from entrusted loan receivables	2,704	–
Net losses on disposal of inventories	(819)	(19)
	(22,788)	130,481

(a) Gains from structured deposits

Structured deposits are financial products issued by banks, return of which are linked to the performance of the embedded index, like foreign exchange rate, interest rate and etc..

(b) The effect of "6.18" No.1 ethylene glycol plant explosion accident

On 18 June 2022, a fire broke out in No.1 ethylene glycol plant of the intermediate petrochemicals segment of the Company, causing a fire on surrounding individual pipelines. Net losses due to the fire, including writing off of damaged fixed assets and inventories in the amount of RMB7,676 thousand and RMB819 thousand respectively, have been recorded in other gains – net, and compensation to casualties in the amount of RMB1,010 thousand have been recorded in other operating expenses (2021: Nil).

(Expressed in Renminbi Yuan unless otherwise indicated)

9 Finance income and expenses

	2022 RMB'000	2021 RMB'000
Interest income from time deposits with maturity more than 3 months	410,652	424,696
Interest income from time deposits with maturity less than 3 months	124,468	71,402
Others	6,710	12,657
Finance income	541,830	508,755
Interest and finance charges paid/payable for lease liabilities and financial liabilities not at fair value through profit or loss	(122,638)	(106,827)
Less: interest expense capitalized into construction in progress	24,136	12,641
Finance expenses	(98,502)	(94,186)
Finance income – net	443,328	414,569

10 Expense by nature

	2022 RMB'000	2021 RMB'000
Cost of raw materials	55,997,717	54,457,558
Cost of trading products	11,910,488	10,929,127
Employee benefit expenses (note 11)	3,545,720	3,456,765
Depreciation and amortization:		
Property, plant and equipment (note 16)	1,494,176	1,621,459
Investment properties (note 17)	15,323	15,325
Other non-current assets (note 14)	270,881	294,617
Right-of-use assets (note 15)	32,918	34,307
Repairs and maintenance expenses	1,513,812	1,587,955
Changes of work in progress and finished goods	(78,255)	(235,402)
Transportation costs	193,144	238,405
Inventory write-down (note 21)	525,269	150,883
External processing fee	192,288	213,691
Commission expense (note 32)	90,341	110,552
Impairment loss of property, plant and equipment (note 16)	286,260	587,622
Impairment loss of investments accounted for using equity method (note 20)	–	28,392
Auditors' remuneration – audit services	6,837	6,837
Auditors' remuneration – non-audit services	129	129
Expenses relating to short-term leases	14,774	6,938

(Expressed in Renminbi Yuan unless otherwise indicated)

11 Employee benefit expenses

	2022 RMB'000	2021 RMB'000
Wages and salaries	2,139,472	2,142,959
Social welfare costs	921,971	861,375
Others	484,277	452,431
Total employee benefit expense	3,545,720	3,456,765

(a) Five highest paid individuals

For the years ended 31 December 2022 and 31 December 2021, all 5 individuals with the highest emoluments are directors and supervisors whose emoluments are disclosed in note 36.

(b) Employees of the Group's subsidiaries in the PRC are required to participate in a defined contribution retirement scheme administered and operated by the local municipal government. The Group's subsidiaries in the PRC contribute funds which are calculated on certain percentages of the average employee salary as stipulated by the local municipal government to the scheme to fund the retirement benefits of the employees.

In addition, the Group provides a supplementary retirement plan for its staff at rates not exceeding 8% of the salaries. The Group has no other material obligation for the payment of pension benefits associated with these plans beyond the annual contributions described above.

For the year ended 31 December 2022, the Group's total contributions to defined contribution retirement plans was RMB463,204 thousand. (2021: RMB431,818 thousand)

(c) As at 31 December 2022 and 31 December 2021, there was no material outstanding contribution to the above defined contribution retirement plans.

(Expressed in Renminbi Yuan unless otherwise indicated)

12 Income tax benefits/(expenses)

	2022 RMB'000	2021 RMB'000
Current income tax	(66,649)	(590,668)
Deferred taxation	798,003	(53,812)
Income tax benefits/(expenses)	731,354	(644,480)

A reconciliation of the expected income tax calculated at the applicable tax rate and profit before taxation, with the actual income tax is as follows:

	Year ended 31 December 2022 RMB'000	2021 RMB'000
(Loss)/profit before income tax	(3,573,654)	2,721,086
Expected PRC income tax at the statutory tax rate of 25%	893,414	(680,272)
Tax effect of share of net (losses)/profits of investments accounted for using the equity method	(46,787)	214,750
Tax effect of other non-taxable income	9,890	10,782
Tax effect of additional deductions for R&D expenses	17,779	12,168
Tax effect of non-deductible loss, expenses and costs	(67,330)	(185,945)
True up for final settlement of enterprise income taxes in respect of previous years	(54,017)	–
Tax losses for which no deferred tax asset was recognized	(24,948)	(21,225)
Utilization of previously unrecognized tax losses	3,353	157
Tax effect of additional deduction for purchasing environmental protection equipment	–	12,446
Derecognition of previously recognized tax losses	–	(7,341)
Actual income tax benefits/(expenses)	731,354	(644,480)

The provision for PRC income tax is calculated at the rate of 25% (2021: 25%) on the estimated taxable income of the year ended 31 December 2022 determined in accordance with relevant income tax rules and regulations. The Group did not carry out business overseas and therefore does not incur overseas income taxes.

(Expressed in Renminbi Yuan unless otherwise indicated)

12 Income tax benefits/(expenses) *(continued)*

(a) Current taxation in the consolidated statement of financial position represents:

	2022 RMB'000	2021 RMB'000
At beginning of the year	258,466	19,425
Provision for current income tax for the year	66,649	590,668
Payment during the year	(376,765)	(351,627)
At the end of the year	(51,650)	258,466
Representing		
Income tax		
– Payable	2,754	258,466
– Prepaid	(54,404)	–
	(51,650)	258,466

12 Income tax benefits/(expenses) *(continued)*

(b) Movements in deferred tax assets and liabilities are as follows:

	Balance as at 1 January 2022 RMB'000	Credited/ (Charged) to profit or loss RMB'000	Credited/ (Charged) to reserves RMB'000	Balance as at 31 December 2022 RMB'000
Deferred tax assets:				
Impairment for bad and doubtful debts and provision for inventories	56,349	71,761	–	128,110
Provision for impairment losses in property, plant and equipment and construction in progress	358,211	70,499	–	428,710
Tax losses	–	872,648	–	872,648
Accurals and others	82,178	(55,873)	–	26,305
	496,738	959,035	–	1,455,773
Deferred tax liabilities:				
Difference in depreciation	(330,071)	(163,492)	–	(493,563)
Capitalization of borrowing costs	(1,468)	213	–	(1,255)
Derivative financial instruments	(14,400)	2,247	12,153	–
	(345,939)	(161,032)	12,153	(494,818)
Deferred tax assets – net	184,143	795,554	12,153	991,850
Deferred tax liabilities – net	(33,344)	2,449	–	(30,895)

(Expressed in Renminbi Yuan unless otherwise indicated)

12 Income tax benefits/(expenses) *(continued)*

(b) Movements in deferred tax assets and liabilities are as follows *(continued)*:

	Balance as at 1 January 20221 RMB'000	Credited/ (Charged) to profit or loss RMB'000	Credited/ (Charged) to reserves RMB'000	Balance as at 31 December 2021 RMB'000
Deferred tax assets:				
Impairment for bad and doubtful debts and provision for inventories	57,326	(977)	–	56,349
Provision for impairment losses in property, plant and equipment and construction in progress	226,435	131,776	–	358,211
Tax losses	87,799	(87,799)	–	–
Accurals and others	130,986	(48,808)	–	82,178
	502,546	(5,808)	–	496,738
Deferred tax liabilities:				
Difference in depreciation	(283,739)	(46,332)	–	(330,071)
Capitalization of borrowing costs	(2,043)	575	–	(1,468)
Derivative financial instruments	–	(2,247)	(12,153)	(14,400)
	(285,782)	(48,004)	(12,153)	(345,939)
Deferred tax assets – net	252,121	(55,825)	(12,153)	184,143
Deferred tax liabilities – net	(35,357)	2,013	–	(33,344)

12 Income tax benefits/(expenses) *(continued)*

(b) Movements in deferred tax assets and liabilities are as follows *(continued)*:

The Group recognizes deferred tax assets only to the extent that it is probable that future taxable income will be available against which the assets can be utilized. Based on the level of historical taxable income and projections for future taxable income over the periods which the deferred tax assets will be utilized, management believes that it is probable the Group will realize the benefits of these temporary differences for which deferred tax assets have been recognized.

(c) Deferred tax assets not recognized:

As at 31 December 2022, certain subsidiaries of the Company did not recognize the deferred tax assets in respect of the impairment losses on property, plant and equipment amounting to RMB29,856 thousand (31 December 2021: RMB29,969 thousand), because it was not probable that the related tax benefit would be realized.

As at 31 December 2022, certain subsidiaries of the Company did not recognize the deferred tax assets in respect of tax losses of RMB393,896 thousand (31 December 2021: RMB350,574 thousand) carried forward for PRC income tax purpose because it was not probable that the related tax benefit would be realized.

Tax losses carried forward that are not recognized as deferred tax assets will expire in the following years:

	2022 RMB'000	2021 RMB'000
2022	–	65,331
2023	65,585	66,965
2024	91,901	91,901
2025	41,475	41,475
2026	95,144	84,902
2027	99,791	–
	393,896	350,574

(Expressed in Renminbi Yuan unless otherwise indicated)

13 (Losses)/earnings per share

(a) Basic (losses)/earnings per share

Basic (losses)/earnings per share is calculated by dividing the (loss)/profit attributable to equity shareholders of the Company by the weighted average number of ordinary shares in issue during the year.

	2022 RMB'000	2021 RMB'000
Net (loss)/profit attributable to equity shareholders of the Company	(2,846,156)	2,073,431
Weighted average number of ordinary shares in issue (thousand of shares)	10,819,622	10,823,814
Basic (losses)/earnings per share (RMB per share)	RMB(0.263)	RMB0.192

Weighted average number of ordinary shares

	2022 RMB'000	2021 RMB'000
Issued ordinary shares at 1 January	10,823,814	10,823,814
Effect of shares repurchased (note 30)	(4,192)	–
Weighted average number of ordinary shares at 31 December	10,819,622	10,823,814

(b) Diluted (losses)/earnings per share

There were no dilutive potential ordinary shares for the years ended 31 December 2022 and 2021, therefore diluted (losses)/earnings per share is the same as basic (losses)/earnings per share.

(Expressed in Renminbi Yuan unless otherwise indicated)

14 Other non-current assets

	Intangible assets RMB'000	Long-term prepaid expense RMB'000	Investment deposits RMB'000	Total RMB'000
As at 1 January 2021				
Cost	85,908	1,069,157	–	1,155,065
Accumulated amortization	(71,139)	(658,967)	–	(730,106)
Net book amount	14,769	410,190	–	424,959
Year ended 31 December 2021				
Opening net book amount	14,769	410,190	–	424,959
Additions	–	657,465	–	657,465
Charge for the year	(2,925)	(291,692)	–	(294,617)
Closing net book amount	11,844	775,963	–	787,807
As at 31 December 2021				
Cost	85,908	1,726,622	–	1,812,530
Accumulated amortization	(74,064)	(950,659)	–	(1,024,723)
Net book amount	11,844	775,963	–	787,807
Year ended 31 December 2022				
Opening net book amount	11,844	775,963	–	787,807
Additions	–	268,474	50,000	318,474
Charge for the year	(2,924)	(267,957)	–	(270,881)
Closing net book amount	8,920	776,480	50,000	835,400
As at 31 December 2022				
Cost	85,908	1,995,096	50,000	2,131,004
Accumulated amortization	(76,988)	(1,218,616)	–	(1,295,604)
Net book amount	8,920	776,480	50,000	835,400

For the year ended 31 December 2022, the amortization of intangible assets and long-term prepaid expense of RMB270,881 thousand (2021: RMB294,617 thousand) has been charged in Cost of sales.

(Expressed in Renminbi Yuan unless otherwise indicated)

15 Leases

(a) Amounts recognized in the consolidated statement of financial position

The consolidated statement of financial position shows the following amounts relating to leases:

	As at 31 December	
	2022	2021
	RMB'000	RMB'000
Right-of-use assets		
Land use rights	363,720	380,764
Buildings	14,540	3,288
Equipment	373	625
Others	1,172	966
	379,805	385,643
Lease liabilities		
Current	8,738	3,229
Non-current	7,513	1,384
	16,251	4,613

For the year ended 31 December 2022, additions to the right-of-use assets were RMB27,275 thousand (2021: RMB9,534 thousand).

At 31 December 2022, the lease liabilities were repayable as follows:

	2022
	RMB'000
Within 1 year	8,738
After 1 year but within 2 years	6,945
After 2 years but within 5 years	568
	16,251

15 Leases *(continued)*

(b) Amounts recognized in the consolidated statement of profit or loss

The consolidated statement of profit or loss shows the following amounts relating to leases:

	2022 RMB'000	2021 RMB'000
Depreciation charge of right-of-use assets		
Land use rights	(17,044)	(17,044)
Buildings	(14,089)	(15,677)
Equipment	(547)	(399)
Others	(1,238)	(1,187)
	(32,918)	(34,307)
Interest expense (included in Finance expenses)	(1,039)	(537)
Expense relating to short-term leases (included in Cost of sales)	(14,774)	(6,938)

The total cash outflow for leases in 2022 was RMB27,843 thousand (2021: RMB24,482 thousand).

(Expressed in Renminbi Yuan unless otherwise indicated)

16 Property, plant and equipment

	Buildings RMB'000	Plant and machinery RMB'000	Vehicles and other equipment RMB'000	Total RMB'000
Cost:				
At 1 January 2021	3,481,210	42,742,330	1,958,220	48,181,760
Additions	–	161,118	15,646	176,764
Transferred from construction in progress (note 18)	130,947	1,476,065	92,962	1,699,974
Reclassification	267,662	(275,880)	8,218	–
Disposals	(4,717)	(737,634)	(62,782)	(805,133)
Transferred from investment properties (note 17)	1,164	–	–	1,164
Transferred to construction in progress (note 18)	(2,091)	(1,260)	(15,404)	(18,755)
Transferred to investment properties (note 17)	(83)	(7)	–	(90)
At 31 December 2021 and 1 January 2022	3,874,092	43,364,732	1,996,860	49,235,684
Additions	132	187,460	39,934	227,526
Transferred from construction in progress (note 18)	609,303	1,768,395	90,219	2,467,917
Reclassification	9,088	(47,399)	38,311	–
Disposals	(2,596)	(393,686)	(51,813)	(448,095)
Transferred from investment properties (note 17)	47	–	–	47
Others	1,208	–	–	1,208
At 31 December 2022	4,491,274	44,879,502	2,113,511	51,484,287
Accumulated depreciation:				
At 1 January 2021	(2,396,564)	(31,700,912)	(1,457,854)	(35,555,330)
Charge for the year	(88,234)	(1,419,669)	(113,556)	(1,621,459)
Reclassification	(214,041)	216,706	(2,665)	–
Written back on disposals	3,652	626,865	55,709	686,226
Transferred from investment properties (note 17)	(1,088)	–	–	(1,088)
Transfer to construction in progress (note 18)	46	735	5,642	6,423
Transferred to investment properties (note 17)	80	7	–	87

(Expressed in Renminbi Yuan unless otherwise indicated)

16 Property, plant and equipment *(continued)*

	Buildings RMB'000	Plant and machinery RMB'000	Vehicles and other equipment RMB'000	Total RMB'000
At 31 December 2021 and 1 January 2022	(2,696,149)	(32,276,268)	(1,512,724)	(36,485,141)
Charge for the year	(95,661)	(1,270,423)	(128,092)	(1,494,176)
Reclassification	(787)	6,340	(5,553)	–
Written back on disposals	2,469	344,469	50,036	396,974
Transferred from investment properties (note 17)	(45)	–	–	(45)
At 31 December 2022	(2,790,173)	(33,195,882)	(1,596,333)	(37,582,388)
Impairment losses:				
At 1 January 2021	(53,792)	(850,967)	(8,649)	(913,408)
Charge for the year	(793)	(586,147)	(682)	(587,622)
Written back on disposals	–	60,018	501	60,519
Reclassification	(26,133)	26,270	(137)	–
At 31 December 2021 and 1 January 2022	(80,718)	(1,350,826)	(8,967)	(1,440,511)
Charge for the year	(984)	(283,624)	(1,652)	(286,260)
Written back on disposals	–	4,264	112	4,376
Reclassification	(2,146)	2,202	(56)	–
At 31 December 2022	(83,848)	(1,627,984)	(10,563)	(1,722,395)
Net book value:				
At 31 December 2022	1,617,253	10,055,636	506,615	12,179,504
At 31 December 2021	1,097,225	9,737,638	475,169	11,310,032

(Expressed in Renminbi Yuan unless otherwise indicated)

16 Property, plant and equipment *(continued)*

(i) The Group recognized impairment loss on property, plant and equipment in relation to certain production facilities of RMB212,410 thousand for the year ended 31 December 2022. Due to deteriorating market conditions, the increasing production cost is not expected to be covered by the estimated selling price of the products, the Group identified an impairment indicator for property, plant and equipment in relation to certain production facilities, including No.1 ethylene glycol plant and No.2 ethylene glycol plant under intermediate petrochemicals segment, and performed an impairment assessment of these assets based on their estimated recoverable amounts, as a result the carrying amount of these assets were written down to their recoverable amount of RMB265,377 thousand.

The recoverable amounts of above production facilities are estimated using the present value of future cash flows based on the financial budgets approved by management covering a five-year period. Forecasted cash flows are developed using several key assumptions, including the product sales growth rates, related costs growth rates ("forecasted growth rates") and discount rate. The forecasted growth rates are based on past business performance and market participants' expectations for market development, which are consistent with the forecasts included in industry reports. The discount rate used is a pre-tax ratio of 9% and reflects specific risks relating to the Group.

(ii) During the year ended 31 December 2022, a number of production facilities were idle or obsolete. The Group does not expect to have future economic benefits recoverable from the use of those production facilities. There is no alternative use of those production facilities which is specifically designed. The recoverable amounts of property, plant and equipment related to those production facilities are estimated to be their residual value. As a result, impairment loss of RMB49,230 thousand under synthetic fibres segment and RMB24,620 thousand under resins and plastics segment was made against the carrying amounts of those assets.

As a result of these assessments, an impairment loss of RMB286,260 thousand on property, plant and equipment was recognized in "cost of sales" for the year ended 31 December 2022.

(Expressed in Renminbi Yuan unless otherwise indicated)

17 Investment properties

	RMB'000
Cost:	
As at 1 January 2021	627,488
Transferred from property plant and equipment (note 16)	90
Transferred to property plant and equipment (note 16)	(1,164)
At 31 December 2021 and 1 January 2022	626,414
Transferred to property plant and equipment (note 16)	(47)
At 31 December 2022	626,367
Accumulated depreciation:	
At 1 January 2021	(259,902)
Charge for the year	(15,325)
Transferred from property plant and equipment (note 16)	(87)
Transferred to property plant and equipment (note 16)	1,088
At 31 December 2021 and 1 January 2022	(274,226)
Charge for the year	(15,323)
Transferred from property plant and equipment (note 16)	–
Transferred to property plant and equipment (note 16)	45
At 31 December 2022	(289,504)
Net book value:	
At 31 December 2022	336,863
At 31 December 2021	352,188

(Expressed in Renminbi Yuan unless otherwise indicated)

17 Investment properties *(continued)*

As at 31 December 2022, the Group has no contractual obligations for future repairs and maintenance (31 December 2021: Nil).

Investment properties represent certain floors of an office building leased to other entities including related parties.

a. The fair value of the investment properties of the Group as at 31 December 2022 was estimated by the directors to be approximately RMB1,236,686 thousand by reference to market values of similar properties in the nearby area (31 December 2021: RMB1,217,987 thousand). This fair value estimation was at level 3 of fair value hierarchy by using market observable inputs. The investment properties have not been valued by external independent appraisers.

b. Rental income of RMB75,159 thousand was recognized in other operating income by the Group for the year ended 31 December 2022 (2021: RMB81,923 thousand).

c. Leasing arrangements

The investment properties are leased out under operating leases. The leases typically run for an initial period of 1 to 3 years, with an option to renew the lease after that date at which time all terms are renegotiated. Lease payments are usually renegotiated every year to reflect market rentals.

Undiscounted lease payments under non-cancellable operating leases in place at the reporting date will be receivable by the Group in future periods as follows:

	2022 RMB'000	2021 RMB'000
Within 1 year	52,138	49,420
Between 1 and 2 years	6,638	39,137
Above 2 years	6,522	–
	65,298	88,557

(Expressed in Renminbi Yuan unless otherwise indicated)

18 Construction in progress

	2022 RMB'000	2021 RMB'000
As at 1 January	3,293,177	1,710,124
Additions	2,927,950	3,270,695
Disposal	(4,749)	–
Transferred to property plant and equipment (note 16)	(2,467,917)	(1,699,974)
Transferred from property plant and equipment (note 16)	–	12,332
As at 31 December	3,748,461	3,293,177

As at 31 December 2022, the impairment loss in construction in progress was RMB24,486 thousand (31 December 2021: RMB24,486 thousand).

For the year ended 31 December 2022, the Group capitalized borrowing costs amounting to RMB24,136 thousand (2021: RMB12,641 thousand) on qualifying assets. Borrowing costs were capitalized at the weighted average rate of its borrowings of 1.78%(2021: 2.85%).

(Expressed in Renminbi Yuan unless otherwise indicated)

19 Subsidiaries

The following list contains only the particulars of subsidiaries which principally affected the results, assets or liabilities of the Group. The class of shares held is ordinary unless otherwise stated.

			Proportion of ownership interest			
Name of company	Place of incorporation and business	Particulars of paid-up capital ’000	Group’s effective interest	Held by the Company	Held by a subsidiary	Principal activity
Shanghai Petrochemical Investment Development Company Limited (“Toufa”)	Mainland China	RMB1,000,000	100.00	100.00	–	Investment management
China Jinshan Associated Trading Corporation (“Jinmao”)	Mainland China	RMB25,000	67.33	67.33	–	Import and export of petrochemical products and equipment
Shanghai Jinchang Engineering Plastics Company Limited (“Jinchang”)	Mainland China	USD9,154	74.25	–	74.25	Production of polypropylene compound products
Shanghai Golden Phillips Petrochemical Company Limited (“Jinfei”)	Mainland China	RMB415,623	100.00	–	100.00	Production of polyethylene products
Shanghai Jinshan Trading Corporation (“JMGJ”)	Mainland China	RMB100,000	67.33	–	67.33	Import and export of petrochemical products
Zhejiang Jinlian Petrochemical Storage and Transportation Co., Ltd. (“Jinlian”)	Mainland China	RMB400,000	100.00	–	100.00	Trading of petrochemical products

(Expressed in Renminbi Yuan unless otherwise indicated)

20 Investments accounted for using the equity method

The amounts recognized in the consolidated statement of financial position are as follows:

	As at 31 December	
	2022	2021
	RMB'000	RMB'000
Associates		
– Share of net assets	3,027,632	3,812,845
Joint ventures		
– Share of net assets	476,761	276,043
As at 31 December	3,504,393	4,088,888

The amounts recognized in the share of net (losses)/profits of associates and joint ventures accounted for using the equity method are as follows:

	2022	2021
	RMB'000	RMB'000
Associates	(188,549)	825,132
Joint ventures	14,933	49,153
	(173,616)	874,285

(Expressed in Renminbi Yuan unless otherwise indicated)

20 Investments accounted for using the equity method *(continued)*

(a) Investment in associates

	2022 RMB'000	2021 RMB'000
As at 1 January	3,812,845	5,146,160
Additions (note i)	96,672	26,000
Decrease caused by associate's capital reduction (note ii)	–	(1,460,258)
Share of net (losses)/profits	(188,549)	825,132
Other comprehensive income	(23,771)	16,639
Cash dividends distribution	(669,565)	(712,436)
Impairment (note iii)	–	(28,392)
As at 31 December	3,027,632	3,812,845

Set out below are the material associates of the Group as at 31 December 2022. The associates as listed below have share capital consisting solely of ordinary shares, which are held directly by the Group; the country of incorporation or registration is also their principal place of business.

(Expressed in Renminbi Yuan unless otherwise indicated)

20 Investments accounted for using the equity method *(continued)*

(a) Investment in associates *(continued)*

The following list contains only the particulars of material associates, all of which are unlisted corporate entities whose quoted market price is not available:

				Proportion of ownership interest			
Name of company	Form of business structure	Place of incorporation and business	Particulars of paid- up capital '000	Group's effective interest	Held by the Company	Held by a subsidiary	Principal activity
Shanghai Secco Petrochemical Company Limited ("Shanghai Secco") (note ii)	Incorporated	Mainland China	RMB3,115,180	20.00%	20.00%	–	Manufacturing and distribution of chemical products
Shanghai Chemical Industry Park Development Company Limited ("Chemical Industry")	Incorporated	Mainland China	RMB2,372,439	38.26%	38.26%	–	Planning, development and operation of the Chemical Industry Park in Shanghai, PRC
Shanghai Jinsen Hydrocarbon Resins Company Limited ("Jinsen")	Incorporated	Mainland China	RMB193,695	40.00%	–	40.00%	Production of resins products
Shanghai Azbil Automation Company Limited ("Azbil")	Incorporated	Mainland China	RMB24,440	40.00%	–	40.00%	Service and maintenance of building automation systems and products
Shanghai Shidian Energy Company Limited ("Shidian Energy") (note i)	Incorporated	Mainland China	RMB1,000,000	40.00%	–	40.00%	Electric power supply

There are no contingent liabilities relating to the Group's interest in the associates.

(Expressed in Renminbi Yuan unless otherwise indicated)

20 Investments accounted for using the equity method *(continued)*

(a) Investment in associates *(continued)*

i. Pursuant to the articles of association of Shidian Energy in August 2019, Toufa agreed to make a capital contribution of RMB400,000 thousand to acquire 40% share of Shidian Energy. In 2022, Toufa contributed RMB80,000 thousand to Shidian Energy and the total investment amounted to RMB400,000 thousand as at 31 December 2022 (31 December 2021: RMB320,000 thousand).

ii. According to the resolution of the Board of Directors on 9 July 2021, the Company, Sinopec Corp., and Sinopec Shanghai Gaoqiao Petrochemical Company Limited ("Gaoqiao Company") approved to reduce their paid-in capital in Shanghai Secco, an associate of the Company, by a total amount of RMB7,300,811,000 in proportion to their shareholding ratios of 20%, 30% and 50% respectively. Among them, the Company reduced its investment cost in Shanghai Secco by approximately RMB1,460,258 thousand and the Company has received the amount of the capital reduction in December 2021.

iii. During the year ended 31 December 2021, the directors of the Company reviewed the carrying value of the Group's associate and joint ventures. The entire carrying amount of the interests in an associate is tested for impairment in accordance with IAS 36 Impairment of Assets as a single asset by comparing its recoverable amount with its carrying amount. Since the recoverable amount of investment in an associate Jinsen is lower when compared with its carrying amount, impairment loss of RMB28,392 thousand is recognized during the year ended 31 December 2021. The recoverable amount of the investment in an associate was based on its fair value less costs to sell. The fair value was estimated with reference to the transaction price of a recent share transaction of the associate.

All of the above associates are accounted for using the equity method in the consolidated financial statements.

Summarized financial information of the material associates, adjusted for any differences in accounting policies, and reconciled to the carrying amounts in the consolidated financial statements, are disclosed below:

(Expressed in Renminbi Yuan unless otherwise indicated)

20 Investments accounted for using the equity method (continued)

(a) Investment in associates (continued)

Summarized financial information for material associates

Set out below are the summarized financial information for the above associates.

Summarized statement of financial position for material associates

As at 31 December 2022	Shanghai Secco RMB'000	Chemical Industry RMB'000	Jinsen RMB'000	Azbil RMB'000	Shidian Energy RMB'000
Current					
– Current assets	4,941,394	4,327,622	49,810	276,707	950,614
– Current liabilities	(8,977,030)	(1,765,771)	(17,905)	(125,216)	(38,133)
Non-current					
– Non-current assets	5,683,409	4,480,448	50,360	12,338	166,068
– Non-current liabilities	(1)	(651,729)	–	(5,518)	(35,355)
Net assets	1,647,772	6,390,570	82,265	158,311	1,043,194
Group's effective interest	20.00%	38.26%	40.00%	40.00%	40.00%
Group's share of net assets	329,554	2,445,032	32,906	63,324	417,278
Unrealized upstream and downstream transaction	4,342	–	–	–	(12,615)
Unentitled portion (note i)	–	(329,890)	–	–	–
Impairment loss	–	–	(28,392)	–	–
Carrying value	333,896	2,115,142	4,514	63,324	404,663

(Expressed in Renminbi Yuan unless otherwise indicated)

20 Investments accounted for using the equity method *(continued)*

(a) Investment in associates *(continued)*

Summarized statement of financial position for material associates *(continued)*

As at 31 December 2021	Shanghai Secco RMB'000	Chemical Industry RMB'000	Jinsen RMB'000	Azbil RMB'000	Shidian Energy RMB'000
Current					
– Current assets	6,066,119	4,133,397	63,192	274,697	804,470
– Current liabilities	(5,433,872)	(1,789,223)	(10,476)	(111,472)	(34,565)
Non-current					
– Non-current assets	5,735,360	4,431,463	58,737	15,698	121,051
– Non-current liabilities	(66)	(619,306)	–	(7,506)	(15,827)
Net assets	6,367,541	6,156,331	111,453	171,417	875,129
Group's effective interest	20.00%	38.26%	40.00%	40.00%	40.00%
Group's share of net assets	1,273,508	2,355,412	44,581	68,567	350,052
Unrealized upstream and downstream transaction	(3,157)	–	–	–	(15,979)
Unentitled portion (note i)	–	(331,826)	–	–	–
Impairment loss	–	–	(28,392)	–	–
Carrying value	1,270,351	2,023,586	16,189	68,567	334,073

Note i: Unentitled portion represented the earnings from sales of the lands injected by Government in Chemical Industry that cannot be shared by other shareholders.

(Expressed in Renminbi Yuan unless otherwise indicated)

20 Investments accounted for using the equity method *(continued)*

(a) Investment in associates *(continued)*

Summarized statement of comprehensive income for material associates

2022	Shanghai Secco RMB'000	Chemical Industry RMB'000	Jinsen RMB'000	Azbil RMB'000	Shidian Energy RMB'000
Revenue	24,096,829	1,806,888	119,098	384,655	508,704
Post-tax (loss)/profit from continuing operations	(1,947,579)	441,369	(29,188)	46,894	28,065
Other comprehensive income	–	(62,130)	–	–	–
Total comprehensive income	(1,947,579)	379,239	(29,188)	46,894	28,065
Dividend received from the associate	554,438	55,477	–	24,000	24,000

2021	Shanghai Secco RMB'000	Chemical Industry RMB'000	Jinsen RMB'000	Azbil RMB'000	Shidian Energy RMB'000
Revenue	29,723,223	1,709,110	165,499	427,378	489,490
Post-tax profit/(loss) from continuing operations	3,125,904	396,761	(16,657)	61,711	33,269
Other comprehensive income	–	43,488	–	–	–
Total comprehensive income	3,125,904	440,249	(16,657)	61,711	33,269
Dividend received from the associate	634,341	52,225	–	19,200	–

(Expressed in Renminbi Yuan unless otherwise indicated)

20 Investments accounted for using the equity method *(continued)*

(a) Investment in associates *(continued)*

Aggregate information of associates that are not individually material:

	2022 RMB'000	2021 RMB'000
Aggregate carrying value of investments at 31 December	106,093	100,079
Aggregate amounts of the Group's share of those associates:		
Profit for the year	876	5,655
Total comprehensive income	876	5,655
Dividend received from the associate	11,650	6,670

(b) Investment in joint ventures

	2022 RMB'000	2021 RMB'000
As at 1 January	276,043	241,674
Addition (note i)	200,000	50,000
Share of net profits	14,933	49,153
Cash dividends distribution	(14,215)	(64,784)
As at 31 December	476,761	276,043

(Expressed in Renminbi Yuan unless otherwise indicated)

20 Investments accounted for using the equity method (continued)

(b) Investment in joint ventures (continued)

Details of the Group's interest in the joint venture, which is accounted for using the equity method in the consolidated financial statements, are as follows:

The following list contains only the particulars of material joint ventures, all of the Group's joint ventures are unlisted corporate entities whose quoted market price is not available:

				Proportion of ownership interest			
Name of joint venture	Form of business structure	Place of incorporation and business	Particulars of paid-up capital '000	Group's effective interest	Held by the Company	Held by a subsidiary	Principal activity
Linde-SPC Gases Company Limited ("Linde"), formerly known as "BOC-SPC Gases Company Limited")	Incorporated	Mainland China	USD 32,000	50.00%	–	50.00%	Production and sales of industrial gases
Shanghai Petrochemical Pressure Vessel Testing Center ("JYJC")	Incorporated	Mainland China	RMB10,000	50.00%	–	50.00%	Providing inspection and testing service
Shanghai Petrochemical Yangu Gas Development Company Limited ("Yangu Gas")	Incorporated	Mainland China	USD10,560	50.00%	–	50.00%	Production and sales of industrial gases
Shanghai Jinshan Baling New Materials Co., Ltd. ("Baling Materials") (note i)	Incorporated	Mainland China	RMB500,000	50.00%	–	50.00%	Production and sales of new styrene thermoplastic elastomer materials

i. In September 2021, Sinopec Baling Petrochemical Co., Ltd and the Company jointly established Baling Materials, the Company agreed to make cash contribution of RMB400,000 thousand to acquire 50% share of Baling Materials. In 2022, the Group made new investment of RMB200,000 thousand into Barling Materials. As at 31 December 2022, the Company has made a paid-up capital contribution of RMB250,000 thousand.

(Expressed in Renminbi Yuan unless otherwise indicated)

20 Investments accounted for using the equity method *(continued)*

(b) Investment in joint ventures *(continued)*

Summarized financial information for joint ventures

Set out below are the summarized financial information for joint ventures which are accounted for using the equity method.

Summarized statement of financial position for joint ventures

As at 31 December 2022	Linde RMB'000	JYJC RMB'000	Yangu Gas RMB'000	Baling Materials RMB'000
Current				
Cash and cash equivalents	237,902	11,482	62,639	13,948
Other current assets (excluding cash)	73,026	9,167	6,423	60,243
Total current assets	310,928	20,649	69,062	74,191
Total current liabilities	(32,670)	(2,437)	(2,392)	(153,952)
Non-current				
Total non-current assets	92,325	1,478	13,765	626,761
Total non-current liabilities	(17,016)	–	–	(47,000)
Net assets	353,567	19,690	80,435	500,000
Group's effective interest	50%	50%	50%	50%
Interest in joint ventures	176,784	9,845	40,218	250,000
Unrealized downstream transactions	(86)	–	–	–
Carrying value	176,698	9,845	40,218	250,000

(Expressed in Renminbi Yuan unless otherwise indicated)

20 Investments accounted for using the equity method *(continued)*

(b) Investment in joint ventures *(continued)*

As at 31 December 2021	Linde RMB'000	JYJC RMB'000	Yangu Gas RMB'000	Baling Materials RMB'000
Current				
Cash and cash equivalents	226,860	16,914	72,916	6,062
Other current assets (excluding cash)	74,652	5,065	11,149	28,418
Total current assets	301,512	21,979	84,065	34,480
Total current liabilities	(62,356)	(3,356)	(3,262)	–
Non-current				
Total non-current assets	109,366	1,577	19,034	65,520
Total non-current liabilities	(16,303)	–	–	–
Net assets	332,219	20,200	99,837	100,000
Group's effective interest	50%	50%	50%	50%
Interest in joint ventures	166,110	10,100	49,919	50,000
Unrealized downstream transactions	(86)	–	–	–
Carrying value	166,024	10,100	49,919	50,000

(Expressed in Renminbi Yuan unless otherwise indicated)

20 Investments accounted for using the equity method *(continued)*

(b) Investment in joint ventures *(continued)*

Summarized statement of comprehensive income for joint ventures

The information above reflects the amounts presented in the financial statements of the joint ventures (and not the Group's share of those amounts) adjusted for differences in accounting policies between the Group and the joint ventures.

2022	Linde RMB'000	JYJC RMB'000	Yangu Gas RMB'000	Baling Materials RMB'000
Revenue	375,795	25,129	26,091	–
Depreciation and amortization	(20,902)	(341)	(8,061)	–
Interest income	4,799	351	1,029	–
Profit/(loss) from continuing operations	58,338	1,996	(15,802)	–
Income tax expenses	(14,590)	(76)	–	–
Post-tax profit/(loss) from continuing operations	43,748	1,920	(15,802)	–
Other comprehensive income	–	–	–	–
Total comprehensive income	43,748	1,920	(15,802)	–
Dividend received from joint venture	11,200	1,215	1,800	–

2021	Linde RMB'000	JYJC RMB'000	Yangu Gas RMB'000	Baling Materials RMB'000
Revenue	428,971	27,190	60,222	–
Depreciation and amortization	(44,307)	(386)	(5,162)	–
Interest income	3,489	304	1,516	–
Profit from continuing operations	116,768	2,250	4,144	–
Income tax benefits/(expenses)	(29,316)	1,125	–	–
Post-tax profit from continuing operations	87,452	3,375	4,144	–
Other comprehensive income	–	–	–	–
Total comprehensive income	87,452	3,375	4,144	–
Dividend received from joint venture	63,044	940	800	–

(Expressed in Renminbi Yuan unless otherwise indicated)

21 Inventories

(a) Inventories in the consolidated statements of financial position comprise:

	As at 31 December 2022			As at 31 December 2021		
	Gross carrying amount RMB'000	Provision for diminution in value of inventories RMB'000	Carrying amount RMB'000	Gross carrying amount RMB'000	Provision for diminution in value of inventories RMB'000	Carrying amount RMB'000
Raw materials	5,700,215	(26,491)	5,673,724	4,391,555	(13,406)	4,378,149
Work in progress	756,007	(237,959)	518,048	795,791	(105,450)	690,341
Finished goods	1,096,623	(182,035)	914,588	709,990	(45,950)	664,040
Spare parts and consumables	246,161	(58,461)	187,700	249,456	(58,461)	190,995
	7,799,006	(504,946)	7,294,060	6,146,792	(223,267)	5,923,525

(b) The analysis of the amount of inventories recognized as expenses and included in profit or loss is as follows:

The cost of inventories recognized in Cost of sales amounted to RMB72,419,098 thousand for the year ended 31 December 2022 (2021: RMB70,704,868 thousand) which excluded an inventory provision of RMB525,269 thousand (2021: RMB150,883 thousand).

For the year ended 31 December 2022, the Group sold certain finished goods and utilized certain spare parts and consumables which were previously provided for. The related provision of RMB243,590 thousand was reversed and included in cost of sales in the consolidated statement of profit or loss (2021: RMB156,149 thousand).

(Expressed in Renminbi Yuan unless otherwise indicated)

22 Trade receivables and other receivables

	As at 31 December 2022 RMB'000	As at 31 December 2021 RMB'000
Trade receivables	72,110	79,413
Less: loss allowance	(2,759)	(1,988)
	69,351	77,425
Amounts due from related parties excluded prepayments and bills receivable (*)	2,583,289	1,153,111
Less: loss allowance (*)	(2,802)	–
Total trade receivables	2,649,838	1,230,536
Other receivables	109,440	47,737
Less: loss allowance	(1,933)	(140)
	107,507	47,597
Financial assets measured at amortized cost	2,757,345	1,278,133
Amounts due from related parties – prepayments (*)	58,496	34,220
Amounts due from related parties – bills receivables (*) (note 25)	–	25,000
	2,815,841	1,337,353
Amounts due from related parties (summary of *)	2,638,983	1,212,331

All of the trade and other receivables are expected to be recovered or recognized as expenses within one year.

Amounts due from related parties mainly represent trade-related balances, unsecured in nature and bear no interest.

22 Trade receivables and other receivables *(continued)*

The aging analysis based on invoice date of trade receivables and amounts due from related parties excluded prepayments and bills receivable (net of allowance for doubtful debts) is as follows:

	As at 31 December 2022 RMB'000	As at 31 December 2021 RMB'000
Within one year	2,649,673	1,230,360
Over one year but within two years	165	27
Over two years	–	149
	2,649,838	1,230,536

Movements in the loss allowance account in respect of trade and other receivables during the period is as follows:

	Year ended 31 December	
	2022 RMB'000	2021 RMB'000
Balance at 1 January	2,128	773
Impairment losses recognized during the year	5,366	1,355
Balance at 31 December	7,494	2,128

As at 31 December 2022 and 31 December 2021, no trade receivable was pledged as collateral.

Sale to third parties is generally on cash basis or on letter of credit. Subject to negotiation, credit is generally only available for major customers with well-established trading records.

(Expressed in Renminbi Yuan unless otherwise indicated)

23 Cash and cash equivalents

(a) Cash and cash equivalents comprise:

	As at 31 December 2022 RMB'000	As at 31 December 2021 RMB'000
Cash deposits with a related party (note i)	–	3,243
Cash at bank and on hand	889,413	5,108,767
Cash and cash equivalents in the consolidated statement of financial position	889,413	5,112,010

i. Cash deposits with a related party were cash deposits at Sinopec Finance Company Limited ("Sinopec Finance").

23 Cash and cash equivalents *(continued)*

(b) Cash (used in)/generated from operations

Reconciliation of profit before taxation to cash generated from operations

	2022 RMB'000	2021 RMB'000
(Loss)/profit before taxation	(3,573,654)	2,721,086
Adjustments items:		
Interest income from time deposits with maturity more than 3 months	(410,652)	(424,696)
Share of net losses/(profits) of investments accounted for using the equity method	173,616	(874,285)
Net losses/(gains) on foreign exchange option contracts and commodity swaps contracts not qualifying as hedges	27,851	(18,846)
Gains from structured deposits	(11,124)	(97,921)
Gains from entrusted loan receivables	(2,704)	–
Losses on sale of FVOCI	3,148	4,685
Interest expense	98,502	94,186
Foreign exchange (gains)/losses	(15,320)	1,861
Depreciation of property, plant and equipment	1,494,176	1,621,459
Depreciation of investment property	15,323	15,325
Depreciation of right-of-use assets	32,918	34,307
Amortization of other non-current assets	270,881	294,617
Impairment loss on property, plant and equipment	286,260	587,622
Impairment loss on investment accounted for using the equity method	–	28,392
Losses/(gains) on disposal of property, plant and equipment and other long-term assets-net	26,767	(48,671)
(Loss)/profit on operation before change of working capital	(1,584,012)	3,939,121
Increase in inventories	(1,370,535)	(2,034,779)
Decrease in operation receivables	511,325	49,586
Decrease in operation payables	(4,673,853)	(70,235)
Increase in balances to related parties – net	156,341	2,527,960
Cash (used in)/generated from operations	(6,960,734)	4,411,653

(Expressed in Renminbi Yuan unless otherwise indicated)

23 Cash and cash equivalents *(continued)*

(c) Reconciliation of liabilities arising from financing activities

	Borrowings RMB'000	Lease liabilities RMB'000	Short-term bonds RMB'000	Total RMB'000
As at 1 January 2021	1,548,000	12,471	3,017,811	4,578,282
Changes from financing cash flows:				
Proceeds from new bank loans	14,163,132	–	–	14,163,132
Repayment of bank loans	(13,451,332)	–	–	(13,451,332)
Proceeds from short-term bonds	–	–	5,998,899	5,998,899
Repayments of short-term bonds	–	–	(9,000,000)	(9,000,000)
Principal elements of lease payments	–	(17,544)	–	(17,544)
Total changes from financing cash flows	711,800	(17,544)	(3,001,101)	(2,306,845)
Other changes:				
Addition of lease liabilities	–	9,686	–	9,686
Issuance costs on short-term bonds	–	–	1,101	1,101
Interest expense	–	–	28,340	28,340
Others	–	–	(46,151)	(46,151)
Total other changes	–	9,686	(16,710)	(7,024)

(Expressed in Renminbi Yuan unless otherwise indicated)

23 Cash and cash equivalents *(continued)*

(c) Reconciliation of liabilities arising from financing activities *(continued)*

	Borrowings RMB'000	Lease liabilities RMB'000	Short-term bonds RMB'000	Total RMB'000
As at 31 December 2021 and 1 January 2022	2,259,800	4,613	–	2,264,413
Changes from financing cash flows:				
Proceeds from new bank loans	19,485,000	–	–	19,485,000
Repayment of bank loans	(19,494,800)	–	–	(19,494,800)
Proceeds from short-term bonds	–	–	5,000,000	5,000,000
Repayments of short-term bonds	–	–	(5,000,000)	(5,000,000)
Principal elements of lease payments	–	(13,069)	–	(13,069)
Total changes from financing cash flows	(9,800)	(13,069)	–	(22,869)
Other changes:				
Addition of lease liabilities	–	24,707	–	24,707
Total other changes	–	24,707	–	24,707
As at 31 December 2022	2,250,000	16,251	–	2,266,251

(Expressed in Renminbi Yuan unless otherwise indicated)

23 Cash and cash equivalents *(continued)*

(d) Total cash outflow for leases

Amounts included in the consolidated statement of cash flows for leases comprise the following:

	2022 RMB'000	2021 RMB'000
Within operating cash flows	(14,774)	(6,938)
Within financing cash flows	(13,069)	(17,544)
	(27,843)	(24,482)

These amounts relate to the following:

	2022 RMB'000	2021 RMB'000
Lease rentals paid	(27,843)	(24,482)

24 Time deposits with banks

	As at 31 December	
	2022 RMB'000	2021 RMB'000
Time deposits with maturity less than one year	3,108,919	7,386,607
Time deposits with maturity more than one year	3,389,559	5,581,435
	6,498,478	12,968,042

As at 31 December 2022, interest rates of time deposits with maturity less than one year ranged from 3.85% to 4.13% per annum (31 December 2021: 3.40% to 3.50% per annum), which were presented as current assets. Time deposits with maturity of more than one year were time deposits of three or five years with the interest rates from 3.55% to 4.20% per annum, which were presented as non-current assets in the consolidated statement of financial position (31 December 2021: 3.45% to 4.20% per annum).

(Expressed in Renminbi Yuan unless otherwise indicated)

25 Financial assets at fair value through other comprehensive income

	As at 31 December	
	2022 RMB'000	2021 RMB'000
Trade and bills receivable (note i)		
– Amounts due from related parties (note 22)	–	25,000
– Others	582,354	1,047,690
	582,354	1,072,690
Equity investments	5,000	5,000
	587,354	1,077,690

(i) As at 31 December 2022 and 2021, certain trade receivables and bills receivable were classified as financial assets at FVOCI, as the Group's business model is achieved both by collecting contractual cash flows and selling of these assets.

(ii) As at 31 December 2022, the Group discounted certain bank acceptance bills to banks for cash proceeds and endorsed certain bank acceptance bills to suppliers on a full recourse basis for settling trade payables of the same amount. The Group has derecognized these bills receivable and the payables to suppliers in their entirety. These derecognized bank acceptance bills had a maturity date less than twelve months from the end of the reporting period. In the opinion of the directors, the Group has transferred substantially all the risks and rewards of ownership of these bills to its suppliers, and the Group has limited exposure in respect of the settlement obligation of these bills receivable under the relevant PRC rules and regulations should the issuing banks fail to settle the bills on maturity date. The Group considered the issuing banks of the bills are of good credit rating and the non-settlement of these bills by the issuing banks on maturity is not probable.

As at 31 December 2022, the Group's maximum exposure to loss and undiscounted cash outflow, which is the same as the amounts payable by the Group to banks or suppliers in respect of the discounted bills and endorsed bills, should the issuing banks fail to settle the bills on maturity date, amounted to RMB196,667 thousand and RMB178,369 thousand respectively.

(Expressed in Renminbi Yuan unless otherwise indicated)

26 Borrowings

	As at 31 December 2022 RMB'000	As at 31 December 2021 RMB'000
Credit loans due within one year		
– Short term bank loan	1,550,000	1,559,800
Credit loans due over one year but within three years		
– Long-term borrowing from a related party (note 32(c))	700,000	700,000
	2,250,000	2,259,800

(a) The analysis of the repayment schedule of borrowings are as follows:

	2022 RMB'000	2021 RMB'000
Within 1 year or on demand	1,550,000	1,559,800
Over one year but within two years	700,000	–
Over two years but within three years	–	700,000
	2,250,000	2,259,800

The weighted average interest rate for the Group's short-term bank loan was 2.35% as at 31 December 2022 (31 December 2021: 2.74%). The interest rate of the Group's long-term borrowings was 1.08% as at 31 December 2022 (31 December 2021: 1.08%).

As at 31 December 2022 and 31 December 2021, no borrowings were secured by property, plant and equipment.

(Expressed in Renminbi Yuan unless otherwise indicated)

27 Trade and other payables

	As at 31 December	
	2022 RMB'000	2021 RMB'000
Trade payables	1,818,453	1,527,706
Bills payable	24,951	562,593
Amounts due to related parties exclude advances received (*)	7,877,323	4,910,255
	9,720,727	7,000,554
Dividends payable	31,631	30,577
Construction payable	831,422	487,283
Accrued expenses	143,299	400,391
Other liabilities	76,778	87,144
	1,083,130	1,005,395
Financial liabilities measured at amortized cost	10,803,857	8,005,949
Amounts due to related parties – advances received (*)	10,486	6,275
Amounts due to related parties – measured at fair value through profit or loss (FVPL) (*) (note i)	–	1,388,286
	10,814,343	9,400,510
Total amount due to related parties (summary of *)	7,887,809	6,304,816

All trade and other payables (including amounts due to related parties) are expected to be settled or recognized as income within one year or are repayable on demand.

(i) Amounts due to related parties – measured at FVPL represents the obligation that the Company needs to return the crude oil to its related party with maturity of less than 1 year, which is measured at fair value through profit or loss.

(Expressed in Renminbi Yuan unless otherwise indicated)

27 Trade and other payables *(continued)*

As at 31 December 2022 and 31 December 2021, all trade and other payables of the Group were non-interest bearing, and their fair value, approximated their carrying amounts due to their short maturities.

Majority of amount due to related parties were trade payable for purchasing crude oil from related parties.

As at 31 December 2022 and 31 December 2021, the ageing analysis of the trade payables (including amounts due to related parties of trading in nature) and bills payable based on invoice date were as follows:

	As at 31 December	
	2022 RMB'000	2021 RMB'000
Within one year	9,708,441	6,990,653
Over one year but within two years	2,524	9,527
Over two years	9,762	374
	9,720,727	7,000,554

28 Contract liabilities

	As at 31 December	
	2022 RMB'000	2021 RMB'000
Contract liabilities	372,760	424,607

The contract liabilities of the Group are advance for goods from customers. Related performance obligations are expected to be satisfied and revenue is recognized within one year. Revenue amounted to RMB424,607 thousand has been recognized in the current year relates to carried-forward contract liabilities (2021: RMB495,404 thousand).

29 Deferred income

	2022 RMB'000	2021 RMB'000
As at 1 January	12,720	13,433
Additions	34,623	–
Amortization	(2,735)	(713)
As at 31 December	44,608	12,720

(Expressed in Renminbi Yuan unless otherwise indicated)

30 Share capital

(i) Issued share capital

	Number of shares	Amount
	’000	RMB’000
As at 31 December 2021, 1 January 2022 and 31 December 2022		
Registered, issued and fully paid:		
Ordinary A shares listed in PRC	7,328,814	7,328,814
Foreign invested H shares listed overseas	3,495,000	3,495,000
Total	10,823,814	10,823,814

(ii) Purchase of own shares

During the year, the Company repurchased its own ordinary shares on the Stock Exchange of Hong Kong Limited as follows:

Month/year	Number of shares repurchased	Highest price paid per share	Lowest price paid per share	Aggregate price paid
		HKD	HKD	RMB’000
October 2022	4,956,000	1.10	1.03	4,883
November 2022	15,866,000	1.26	1.04	16,299
December 2022	3,706,000	1.39	1.25	4,507
	24,528,000			25,689

The Company repurchased 24,528,000 H shares for an aggregate consideration of RMB25,689 thousand. In February 2023, the Company has completed the cancellation procedures for all the repurchased own shares.

(Expressed in Renminbi Yuan unless otherwise indicated)

31 Reserves

	Legal surplus (note(a)) RMB'000	Capital surplus (note(b)) RMB'000	Surplus reserve (note(c)) RMB'000	Other reserve (note(d)) RMB'000	Hedging reserve (note 3.1(a)) RMB'000	Share premium (note(e)) RMB'000	Safety production fund (note(f)) RMB'000	Treasury shares (note 30(ii))	Retained earnings (note(g)) RMB'000	Total RMB'000
Balance at 1 January 2021	4,072,476	13,739	101,355	6,326	–	106,846	145,597	–	13,927,837	18,374,176
Total comprehensive income for the year attributable to shareholders of the Company	–	–	–	16,639	125,159	–	–	–	2,073,431	2,215,229
Amounts transferred from hedging reserve to initial carrying amount of hedged items	–	–	–	–	(88,699)	–	–	–	–	(88,699)
Dividends declared and approved in respect of previous year	–	–	–	–	–	–	–	–	(1,082,381)	(1,082,381)
Transfer to legal surplus	2,498,808	–	–	–	–	–	–	–	(2,498,808)	–
Appropriation of safety production fund	–	–	–	–	–	–	40,729	–	(40,729)	–
Balance at 31 December 2021 and 1 January 2022	6,571,284	13,739	101,355	22,965	36,460	106,846	186,326	–	12,379,350	19,418,325
Total comprehensive income for the year attributable to shareholders of the Company	–	–	–	(23,771)	201,519	–	–	–	(2,846,156)	(2,668,408)
Amounts transferred from hedging reserve to initial carrying amount of hedged items	–	–	–	–	(237,979)	–	–	–	–	(237,979)
Dividends declared and approved in respect of previous year	–	–	–	–	–	–	–	–	(1,082,381)	(1,082,381)
Purchase of own shares	–	–	–	–	–	–	–	(25,689)	–	(25,689)
Appropriation of safety production fund	–	–	–	–	–	–	54,092	–	(54,092)	–
Balance at 31 December 2022	6,571,284	13,739	101,355	(806)	–	106,846	240,418	(25,689)	8,396,721	15,403,868

(Expressed in Renminbi Yuan unless otherwise indicated)

31 Reserves *(continued)*

Notes:

(a) Under PRC rules and regulations, the Company and its PRC subsidiaries are required to set aside 10% of the net income determined in accordance with the PRC accounting rules and regulations to a legal surplus reserve. The transfer to this reserve must be made before distribution of any dividend to shareholders.

The legal surplus reserve is non-distributable other than in liquidation and can be used to make good of previous years' losses, if any, and may be utilized for business expansion or converted into ordinary shares by the issuance of new shares to shareholders in proportion to their existing shareholdings or by increasing the par value of the shares currently held by the shareholders, provided that the balance after such issuance is not less than 25% of the registered capital.

In accordance with PRC rules and regulations, the Company has set aside RMB6,571,284 thousand of legal surplus as of 31 December 2022.

(b) This reserve represents gifts or grants received from China Petrochemical Corporation, the ultimate parent company and which are required to be included in this reserve fund by PRC regulations.

(c) The transfer to this reserve from the retained profits is subject to the approval by shareholders at general meetings. Its usage is similar to that of the legal surplus reserve.

(d) Other reserve comprises share of post-acquisition movements in other comprehensive income from associates and joint ventures using the equity methods of accounting with a corresponding adjustment to the carrying amount of the investment.

(e) The application of the share premium account is governed by Sections 167 and 168 of the PRC Company Law.

(f) According to the relevant PRC regulations, the Group is required to transfer an amount to specific reserve for the safety production fund based on the turnover of certain refining and chemicals products. This reserve represents unutilized safety production fund.

(g) According to the Company's Articles of Association, the reserve available for distribution is the lower of the amount determined under China Accounting Standards for Business Enterprises and the amount determined under IFRS.

(Expressed in Renminbi Yuan unless otherwise indicated)

32 Related-party transactions

The following is a list of the Group's major related parties:

Names of related parties	Relationship with the Company
China International United Petroleum & Chemicals Co., Ltd.	Subsidiary of the ultimate parent company
Sinopec Chemical Sales Company Limited	Subsidiary of the ultimate parent company
Sinopec Chemical Commercial Holding Company Limited	Subsidiary of the ultimate parent company
Petro-cyberworks Information Technology Co., Ltd.	Subsidiary of the ultimate parent company
Lianhua (Ningbo) International Logistics Co., Ltd.	Subsidiary of the ultimate parent company
Zhongke (Guangdong) Refining & Chemical Co., Ltd.	Subsidiary of the ultimate parent company
Sinopec Marketing Co., Ltd.	Subsidiary of the ultimate parent company
Sinopec Fuel Oil Sales Co., Ltd.	Subsidiary of the ultimate parent company
Sinopec Lubricant Co., Ltd.	Subsidiary of the ultimate parent company
Sinopec Yangzi Petrochemical Co., Ltd.	Subsidiary of the ultimate parent company
China Petrochemical International (Beijing) Company Limited	Subsidiary of the ultimate parent company
Sinopec Catalysts Co., Ltd.	Subsidiary of the ultimate parent company
China Petrochemical International (Shanghai) Co., Ltd.	Subsidiary of the ultimate parent company
Sinopec Beijing Research Institute of Chemical Industry	Subsidiary of the ultimate parent company
China Petrochemical International (Ningbo) Co., Ltd.	Subsidiary of the ultimate parent company
Zhoushan Shihua Crude Oil Terminal Co., Ltd.	Subsidiary of the ultimate parent company
Dalian Sinopec Material Equip Company	Subsidiary of the ultimate parent company
Sinopec Material & Equipment (East China) Co., Ltd.	Subsidiary of the ultimate parent company
China Petrochemical International (Nanjing) Co., Ltd.	Subsidiary of the ultimate parent company
Sinopec Honeywell (Tianjin) Company Limited	Subsidiary of the ultimate parent company
China Petrochemical International (Wuhan) Co., Ltd.	Subsidiary of the ultimate parent company
China Petrochemical International Co., Ltd.	Subsidiary of the ultimate parent company
China Petrochemical Refinery Sales Co., Ltd.	Subsidiary of the ultimate parent company
Sinopec Shanghai Gaoqiao Petrochemical Co., Ltd.	Subsidiary of the ultimate parent company
China Petrochemical International (Tianjin) Co., Ltd.	Subsidiary of the ultimate parent company
Ningbo East sea Line fan Technology Company Limited	Subsidiary of the ultimate parent company
Sinopec Petroleum & Chemical Scientific Research Institute Dadi Company	Subsidiary of the ultimate parent company
Sinopec Shanghai Research Institute of Petrochemical Technology	Subsidiary of the ultimate parent company
Sinopec Lubricating Oil Shanghai Research Institute Company Limited	Subsidiary of the ultimate parent company
Dalian Furuipu Technology Co., Ltd.	Subsidiary of the ultimate parent company
Nantong Donghai Petrochemical Co., Ltd.	Subsidiary of the ultimate parent company
China Petroleum and Chemical Corporation Qingdao Security Engineering Research Institute	Subsidiary of the ultimate parent company
Sinopec (Shanghai) Energy Trade Co., Ltd.	Subsidiary of the ultimate parent company
Storage and Transportation Installation Company of Ningbo Engineering Company Limited	Subsidiary of the ultimate parent company

(Expressed in Renminbi Yuan unless otherwise indicated)

32 Related-party transactions *(continued)*

Names of related parties	Relationship with the Company
Sinopec Chemical Commercial Holding (Hong Kong) Company Limited	Subsidiary of the ultimate parent company
Sinopec Yizheng Chemical Fibre Limited Liability Company	Subsidiary of the ultimate parent company
Fujian Gulei Petrochemical Company Limited	Subsidiary of the ultimate parent company
Sinopec China East Chemical Sales Co., Ltd	Subsidiary of the ultimate parent company
Unipec Singapore	Subsidiary of the ultimate parent company
China Yanshan United Foreign Trade Co., Ltd.	Subsidiary of the ultimate parent company
Sinopec Chemical Commercial Holding (Wuhan) Company Limited	Subsidiary of the ultimate parent company
Nanjing Yangzi Petrol-chemical Industry Co., Ltd.	Subsidiary of the ultimate parent company
Sinopec Baling Petrochemical Co., Ltd.	Subsidiary of the ultimate parent company
Shengli Oil Field Exploration and Development Research Institute	Subsidiary of the ultimate parent company
Shanghai Lide Catalyst Co., Ltd.	Subsidiary of the ultimate parent company
Ypc-gpro (Nanjing) Rubber Co., Ltd.	Subsidiary of the ultimate parent company
Fujian Refining & Petrochemical Company Limited	Subsidiary of the ultimate parent company
Sinopec Dalian (Fushun) Research Institute of Petroleum and Petrochemicals	Subsidiary of the ultimate parent company
Sinopec Jianghan Salt Chemical Hubei Co., Ltd.	Subsidiary of the ultimate parent company
Yipaike Business Factoring Co., Ltd.	Subsidiary of the ultimate parent company
Sinopec Great Wall Energy and Chemical (Ningxia) Co., Ltd.	Subsidiary of the ultimate parent company
Sinopec (Shenzhen) E-Commerce Company Limited	Subsidiary of the ultimate parent company
Sinopec Research Institute of Safety Engineering	Subsidiary of the ultimate parent company
Ningbo Minggang Gas Company Limited	Subsidiary of the ultimate parent company
Sinopec Zhongyuan Petrol-Chemical Industry Co., Ltd.	Subsidiary of the ultimate parent company
Epec E-commerce Co., Ltd.	Subsidiary of the ultimate parent company
Sinopec Oil Refining and Marketing (Shanghai) Co., Ltd	Subsidiary of the ultimate parent company
Sinopec Chemical Sales (Guangdong) Co., Ltd.	Subsidiary of the ultimate parent company
Unipec (Qingdao) International Logistics Company Limited	Subsidiary of the ultimate parent company
Qingdao Zhonghua Sunshine Management System Certification Center	Subsidiary of the ultimate parent company
Zhejiang Baling Hengyi Caprolactam Limited Company	Joint venture of the ultimate parent company
Shanghai Sinopec Mitsui Chemicals, Co., Ltd	Joint venture of the ultimate parent company
Basf-ypc Company Limited	Joint venture of the ultimate parent company
Shanghai Changshi Shipping Co., Ltd.	Associate of the ultimate parent company
Shanghai KSD Bulk Solids Engineering Co., Ltd.	Associate of the ultimate parent company
Basf Gao-Qiao Performance Chemicals (Shanghai) Company Limited	Associate of the ultimate parent company
Sinopec Chemical Commercial Holding (Singapore) Pte. Ltd	Subsidiary of the immediate parent company
Sinopec Finance Co., Ltd.	Subsidiary of the immediate parent company
Sinopec Chemical Commercial Holding Company Limited	Subsidiary of the immediate parent company
Sinopec Nanjing Chemical Research Institute Co., Ltd.	Subsidiary of the immediate parent company
China Economy Phulishing House Co., Ltd.	Subsidiary of the immediate parent company
Sinopec Publishing House Co., Ltd.	Subsidiary of the immediate parent company
Sinopec International Travel Service Co., Ltd.	Subsidiary of the immediate parent company

(Expressed in Renminbi Yuan unless otherwise indicated)

32 Related-party transactions *(continued)*

Names of related parties	Relationship with the Company
Sinopec Assets Management Co., Ltd.	Subsidiary of the immediate parent company
Ningbo Engineering Company of Sinopec	Subsidiary of the immediate parent company
Sinopec Shared Service Co., Ltd.	Subsidiary of the immediate parent company
Sinopec Petroleum Engineering Geophysics Ltd.	Subsidiary of the immediate parent company
Sinopec Baichuan Economic and Trade Company	Subsidiary of the immediate parent company
Sinopec Group Jiangsu Petroleum Exploration Bureau Co., Ltd.	Subsidiary of the immediate parent company
Sinopec Newspaper Office	Subsidiary of the immediate parent company
Sinopec Energy Saving Technology Service Co., Ltd.	Subsidiary of the immediate parent company
Sinopec Group Economic and Technology Research Institute Co., Ltd.	Subsidiary of the immediate parent company
Beijing Petro-Chemical Construction Consulting Co., Ltd.	Subsidiary of the immediate parent company
China Economicbooks Co., Ltd.	Subsidiary of the immediate parent company
Petrol-Chemical Industry Management Cadre College	Subsidiary of the immediate parent company
Sinopec Engineering Quality Supervision Terminal	Subsidiary of the immediate parent company
Sinopec Group Shanghai Training Center Ltd.	Subsidiary of the immediate parent company
Sinopec Beijing Yanshan Petrochemical Co., Ltd.	Subsidiary of the immediate parent company
Sinopec Zhongyuan Petroleum Exploration Bureau Co., Ltd.	Subsidiary of the immediate parent company
Sinopec Shengli Petroleum Administration Co., Ltd.	Subsidiary of the immediate parent company
The Fourth Construction Company of Sinopec	Subsidiary of the immediate parent company
Sinopec Tending Co., Ltd.	Subsidiary of the immediate parent company
Sinopec Shanghai Engineering Co., Ltd.	Subsidiary of the immediate parent company
Sinopec Engineering Incorporation	Subsidiary of the immediate parent company
Sinopec Engineering Quality Monitoring Co., Ltd.	Subsidiary of the immediate parent company
Sinopec Engineering (Group) Co.,Ltd.	Subsidiary of the immediate parent company
National Petrochemical Project Risk Assessment Technology Center	Subsidiary of the immediate parent company
The Tenth Construction Company of Sinopec	Subsidiary of the immediate parent company
The Fifth Construction Company of Sinopec	Subsidiary of the immediate parent company
Shanghai Petrochemical Machinery Manufacturing Co., Ltd.	Subsidiary of the immediate parent company
Sinopec Nanjing Engineering Company Limited	Subsidiary of the immediate parent company
Sinopec Luoyang Engineering Company Limited	Subsidiary of the immediate parent company
Jiangsu Jinling Opta Polymer Company Limited	Subsidiary of the immediate parent company
Shanghai Petro-Chemical Haidi Administration Co., Ltd.	Subsidiary of the immediate parent company
Sinopec Sichuan Uinylon Works	Subsidiary of the immediate parent company
China Petrochemical Corp. Nanjing Chemistry Industrial Co., Ltd.	Subsidiary of the immediate parent company
Sinopec Group International Petroleum Exploration And Production Limited	Subsidiary of the immediate parent company
Sinopec Consulting Company Limited	Subsidiary of the immediate parent company
China Petrochemical Corp. Engineering Ration Management Station	Subsidiary of the immediate parent company
Beijing Victory Hotel Company Limited	Subsidiary of the immediate parent company
Maoming Shihua Dongcheng Chemical Co., Ltd.	Subsidiary of the immediate parent company

(Expressed in Renminbi Yuan unless otherwise indicated)

32 Related-party transactions *(continued)*

Names of related parties	Relationship with the Company
Yihua Tory Polyester Film Company Limited	Joint venture of the immediate parent company
China Sinopec Pipeline Storage and Transportation Co., Ltd.	Associate of the immediate parent
Yihua Bonar Yarns and Fabrics Co., Ltd.	Associate of the immediate parent
Unipec Singapore	Subsidiary of the immediate parent company
Unipec America, Inc	Subsidiary of the immediate parent company
Sinopec Japan Company Limited	Subsidiary of the immediate parent company
Rizhao Shihua Crude Oil Terminal Co., Ltd.	Joint venture of the ultimate parent company
Sinopec Europe Company Limited	Subsidiary of the immediate parent company
Sinopec Chemical Commercial Holding (North America), Inc.	Subsidiary of the immediate parent company
Sinopec International (Australia) Pty. Ltd.	Subsidiary of the immediate parent company
Sinopec Easy Joy sales CO., Ltd	Subsidiary of the immediate parent company
Sinopec National Petrochemical Project Risk Assessment Technology Center Co., Ltd	Subsidiary of the immediate parent company
Sinopec International (Russia) Pty. Ltd.	Subsidiary of the immediate parent company
Sinopec Jianghan Petroleum Administration Co., Ltd	Subsidiary of the ulitimate parent company
Sinopec America Company Limited	Subsidiary of the ulitimate parent company
Sinopec (Beijing) Chemical Research Institute Co., Ltd	Subsidiary of the ulitimate parent company
Sinopec-Sk (Wuhan) Petrochemical Co., Ltd	Subsidiary of the ulitimate parent company
Shanghai Petroleum&Natural Gas General Co., Ltd	Associate of the ultimate parent company
Beijing Heyuan Jingyi Hotel Co., Ltd	Subsidiary of the ulitimate parent company
Sinopec Henan Oilfield Training Center	Subsidiary of the ulitimate parent company
Sinopec Jiangsu Petroleum Exploration Bureau Co., Ltd. Training Center	Subsidiary of the ulitimate parent company
Sinopec Capital Co., Ltd.	Subsidiary of the ulitimate parent company

The following is a summary of significant balances and transactions between the Group and its related parties except for the dividends payable as disclosed in note 33.

(Expressed in Renminbi Yuan unless otherwise indicated)

32 Related-party transactions *(continued)*

(a) Most of the transactions undertaken by the Group during the year ended 31 December 2022 have been affected on such terms as determined by Sinopec Corp. and relevant PRC authorities.

Sinopec Corp. negotiates and agrees with the terms of crude oil supply with suppliers on a group basis, which is then allocated among its subsidiaries, including the Group, on a discretionary basis. Sinopec Corp. also owns a widespread petroleum products sales network and possesses a fairly high market share in the domestic petroleum products market, which is subject to extensive regulation by the PRC government.

The Group has entered into a mutual product supply and sales services framework agreement with Sinopec Corp. Pursuant to the agreement, Sinopec Corp. provides the Company with crude oil, other petrochemical raw materials and agent services. On the other hand, the Group provides Sinopec Corp. with petroleum products, petrochemical products and property leasing services.

The pricing policy for these services and products provided under the agreement is as follows:

- if there are applicable State (central and local government) tariffs, the pricing shall follow the State tariffs;
- if there are no State tariffs, but there are applicable State guidance prices, the pricing shall follow the State's guidance prices; or
- if there are no State tariffs or State's guidance prices, the pricing shall be determined in accordance with the prevailing market prices (including any bidding prices).

Transactions between the Group and Sinopec Corp, its subsidiaries and joint ventures during the year ended 31 December 2022 and the year ended 31 December 2021 were as follows:

	2022 RMB'000	2021 RMB'000
Sales of petroleum products	44,392,225	47,201,755
Sales other than petroleum products	8,194,827	9,439,546
Purchases of crude oil	46,790,433	35,371,820
Purchases other than crude oil	7,544,094	9,008,147
Commission expense	90,341	110,552
Rental income	34,088	34,475

(Expressed in Renminbi Yuan unless otherwise indicated)

32 Related-party transactions *(continued)*

(b) Other transactions between the Group and Sinopec Group and its subsidiaries, associates and joint ventures of the Group during the year ended 31 December 2022 and the year ended 31 December 2021 were as follows:

	2022 RMB'000	2021 RMB'000
Sales of goods and service fee income		
– Sinopec Group and its subsidiaries	19,450	36,683
– Associates and joint ventures of the Group	3,171,835	4,248,658
	3,191,285	4,285,341
Purchases		
– Sinopec Group and its subsidiaries	1,870,287	2,830,256
– Associates and joint ventures of the Group	2,411,552	4,425,698
	4,281,839	7,255,954
Insurance premium expenses		
– Sinopec Group and its subsidiaries	109,597	108,850
Addition to right-of-use assets		
– Sinopec Group and its subsidiaries	20,023	1,388
Interest expense of lease liabilities		
– Sinopec Group and its subsidiaries	787	247
– Joint ventures of the Group	17	24
	804	271

(Expressed in Renminbi Yuan unless otherwise indicated)

32 Related-party transactions *(continued)*

(b) Other transactions between the Group and Sinopec Group and its subsidiaries, associates and joint ventures of the Group during the year ended 31 December 2022 and the year ended 31 December 2021 were as follows: (continued)

	2022 RMB'000	2021 RMB'000
Interest expense		
– Sinopec Finance	7,665	2,835
Interest income		
– Sinopec Finance	213	824
– Joint ventures of the Group	2,704	–
	2,917	824
Construction and installation cost		
– Sinopec Group and its subsidiaries	812,516	785,216
Rental income		
– Associates and joint ventures of the Group	14,032	14,930
– Sinopec Group and its subsidiaries	427	464
	14,459	15,394
Long-term borrowings		
– Sinopec Finance	–	700,000

The directors of the Company are of the opinion that the transactions with Sinopec Corp., its subsidiaries and joint ventures, Sinopec Group and its subsidiaries, associates and joint ventures of the Group as disclosed in notes 32(a) and 32(b) were conducted in the ordinary course of business, on normal commercial terms and in accordance with the agreements governing such transactions.

(Expressed in Renminbi Yuan unless otherwise indicated)

32 Related-party transactions *(continued)*

(c) The relevant amounts due from/to Sinopec Corp., its subsidiaries and joint ventures, Sinopec Group and its subsidiaries, associates and joint ventures of the Group, arising from purchases, sales and other transactions as disclosed in notes 32(a) and 32(b), are summarized as follows:

	As at 31 December 2022 RMB'000	As at 31 December 2021 RMB'000
Amounts due from related parties		
– Sinopec Corp., its subsidiaries and joint ventures	2,593,908	1,184,117
– Associates and joint ventures of the Group	45,075	28,214
	2,638,983	1,212,331
Amounts due to related parties		
– Sinopec Corp., its subsidiaries and joint ventures	6,569,219	4,475,992
– Sinopec Group and its subsidiaries	1,232,589	1,672,439
– Associates and joint ventures of the Group	86,001	156,385
	7,887,809	6,304,816
Lease liabilities		
– Sinopec Group and its subsidiaries	12,714	992
– Joint ventures of the Group	290	435
	13,004	1,427
Cash deposits, maturing within three months		
– Sinopec Finance (note d)	–	3,243
Long-term borrowings		
– Sinopec Finance	700,000	700,000

(Expressed in Renminbi Yuan unless otherwise indicated)

32 Related-party transactions *(continued)*

(d) As at 31 December 2021, cash deposits at Sinopec Finance were charged at an interest rate of 0.35% per annum.

Except for cash deposits at Sinopec Finance and long-term borrowings from Sinopec Finance, the balances with related parties as above are unsecured, interest-free and repayable on demand.

(e) Key management personnel compensation, post-employment benefit plans and share options

Key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of the Group, directly or indirectly, including directors and supervisors of the Group. The key personnel compensations are as follows:

	Year ended 31 December	
	2022	2021
	RMB'000	RMB'000
Short-term employee benefits	13,667	11,866
Post-employment benefits	639	551
	14,306	12,417

(f) Transactions with other state-owned entities in the PRC

The Group is a state-controlled enterprise and operates in an economic regime currently dominated by entities directly or indirectly controlled by the PRC government (collectively referred to as "state-controlled entities") through its government authorities, agencies, affiliations and other organizations.

Apart from transactions with related parties, the Group has transactions with other state-controlled entities which include, but are not limited to, the following:

- sales and purchases of goods and ancillary materials;
- rendering and receiving services;
- lease of assets, purchase of property, plant and equipment;

32 Related-party transactions *(continued)*

(f) Transactions with other state-owned entities in the PRC *(continued)*

- placing deposits and obtaining finance; and
- use of public utilities

These transactions are conducted in the ordinary course of the Group's business on terms comparable to those with other entities that are not state controlled. The Group has established its procurement policies, pricing strategy and approval process for purchases and sales of products and services which do not depend on whether the counterparties are state-controlled entities or not.

(g) Commitments with related parties

(i) Construction and installation cost

	As at 31 December 2022 RMB'000	As at 31 December 2021 RMB'000
Sinopec Group and its subsidiaries	930,665	775,007

(h) Investment commitments with related parties

	As at 31 December 2022 RMB'000	As at 31 December 2021 RMB'000
Capital contribution to Shanghai Secco (i)	111,263	111,263
Capital contribution to Shanghai Shidian Energy Company Limited ("Shidian Energy") (ii)	–	80,000
Capital contribution to Baling Materials (iii)	150,000	350,000
	261,263	541,263

(Expressed in Renminbi Yuan unless otherwise indicated)

32 Related-party transactions *(continued)*

(h) Investment commitments with related parties *(continued)*

(i) Pursuant to the resolution of the 18th meeting of the 7th term of Board of Directors on 5 December 2013, the Group was approved to make a capital contribution of USD30,017,000 (RMB182,804 thousand equivalent) to Shanghai Secco, an associate of the Group. As at 31 December 2022, the Company has contributed RMB71,541 thousand to Shanghai Secco.

According to the approval by Shanghai Municipal Commission of Commerce as issued on 19 October 2015, the rest of the capital contribution to Shanghai Secco should be within 50 years starting from its registration date.

(ii) Pursuant to the articles of association of Shidian Energy in August 2019, Toufa agreed to make a capital contribution of RMB400,000 thousand to acquire 40% share of Shidian Energy. As at 31 December 2022, Toufa has fully contributed RMB400,000 thousand to Shidian Energy.

(iii) Sinopec Baling Petrochemical Co., Ltd and the Company jointly established Baling Materials on 7 September 2021, each with a cash contribution of RMB400,000 thousand. As at 31 December 2022, the Company has made a paid-up capital contribution of RMB250,000 thousand.

Except for the above disclosed in notes 32 (g) and 32 (h), the Group had no other material commitments with related parties as at 31 December 2022, which are contracted, but not included in the financial statements.

33 Dividend

(a) Dividends payable to equity shareholders of the Company attributable to the year:

	2022 RMB'000	2021 RMB'000
No final dividend proposed after the end of the reporting period (2021: RMB0.10 per ordinary share)	–	1,082,381

The final dividend proposed after the end of the reporting period has not been recognized as a liability at the end of the reporting period.

(Expressed in Renminbi Yuan unless otherwise indicated)

33 Dividend *(continued)*

(b) Dividends payable to equity shareholders of the Company attributable to the previous financial year, approved and paid during the year

	2022 RMB'000	2021 RMB'000
Final dividend in respect of the previous financial year, approved and paid during the year, of RMB0.10 per share (2021: RMB0.10)	1,082,381	1,082,381

34 Commitments

Capital commitments outstanding at 31 December 2022 not provided for in the financial statements were as follows:

	As at 31 December 2022 RMB'000	As at 31 December 2021 RMB'000
Property, plant and equipment contracted for	1,783,781	1,176,168

(Expressed in Renminbi Yuan unless otherwise indicated)

35 Statement of financial position and equity movement of the Company

	As at 31 December 2022 RMB'000	As at 31 December 2021 RMB'000
Non-current assets		
Property, plant and equipment	11,823,562	10,914,990
Investment properties	365,147	381,540
Right-of-use assets	274,926	275,924
Construction in progress	3,647,200	3,201,111
Investments in subsidiaries	2,048,328	2,048,328
Investments accounted for using the equity method	2,654,151	3,299,050
Time deposits with banks	3,139,559	5,381,149
Deferred tax assets	986,830	178,084
Other non-current assets	821,397	769,492
	25,761,100	26,449,668
Current assets		
Derivative financial instruments	–	81,405
Inventories	7,043,613	5,726,264
Trade receivables	–	149
Other receivables	88,839	8,276
Amounts due from related parties	2,526,598	1,116,553
Prepayments	10,711	13,790
Value added tax recoverable	1,045,002	–
Financial assets at fair value through other comprehensive income (FVOCI)	127,558	615,689
Time deposits with banks	3,108,916	7,386,605
Cash and cash equivalents	671,538	4,927,519
	14,622,775	19,876,250

(Expressed in Renminbi Yuan unless otherwise indicated)

35 Statement of financial position and equity movement of the Company *(continued)*

	As at 31 December 2022 RMB'000	As at 31 December 2021 RMB'000
Current liabilities		
Trade and other payables	2,217,580	2,389,508
Contract liabilities	289,407	376,834
Amounts due to related parties	8,809,690	7,423,883
Staff salaries and welfares payable	307,190	253,800
Borrowings	1,500,000	1,500,000
Lease liabilities	7,172	1,604
Derivative financial instruments	–	23,804
Income tax payable	–	249,332
Current tax liabilities	913,231	3,843,541
	14,044,270	16,062,306
Net current assets	578,505	3,813,944
Total assets less current liabilities	26,339,605	30,263,612
Non-current liabilities		
Interest-bearing borrowings	700,000	700,000
Lease liabilities	6,481	399
Deferred income	44,494	12,720
	750,975	713,119
NET ASSETS	25,588,630	29,550,493

(Expressed in Renminbi Yuan unless otherwise indicated)

35 Statement of financial position and equity movement of the Company *(continued)*

	As at 31 December 2022 RMB'000	As at 31 December 2021 RMB'000
CAPITAL AND RESERVES		
Share capital	10,823,814	10,823,814
Reserves	14,764,816	18,726,679
TOTAL EQUITY	25,588,630	29,550,493

Approved and authorized for issue by the Board of Directors on 22 March 2023.

Wan Tao
Directors

Du Jun
Directors

(Expressed in Renminbi Yuan unless otherwise indicated)

35 Statement of financial position and equity movement of the Company (continued)

(a) Movements in components of equity of the Company

	Share capital RMB'000	Legal surplus RMB'000	Capital surplus RMB'000	Surplus reserve RMB'000	Other reserve RMB'000	Hedging RMB'000	Share premium RMB'000	Safety production fund RMB'000	Treasury reserve RMB'000	Retained earnings RMB'000	Total RMB'000
Balance at 1 January 2021	10,823,814	4,072,476	4,180	101,355	6,326	–	106,846	145,597	–	13,260,897	28,521,491
Total comprehensive income for the year	–	–	–	–	16,639	125,159	–	–	–	2,058,284	2,200,082
Amounts transferred from hedging reserve to initial carrying amount of hedged items	–	–	–	–	–	(88,699)	–	–	–	–	(88,699)
Dividends declared and approved in respect of previous year	–	–	–	–	–	–	–	–	–	(1,082,381)	(1,082,381)
Transfer to legal surplus	–	2,498,808	–	–	–	–	–	–	–	(2,498,808)	–
Appropriation of safety production fund	–	–	–	–	–	–	–	32,310	–	(32,310)	–
Balance at 31 December 2021 and 1 January 2022	10,823,814	6,571,284	4,180	101,355	22,965	36,460	106,846	177,907	–	11,705,682	29,550,493
Total comprehensive income for the year	–	–	–	–	(23,771)	201,519	–	–	–	(2,793,562)	(2,615,814)
Amounts transferred from hedging reserve to initial carrying amount of hedged items	–	–	–	–	–	(237,979)	–	–	–	–	(237,979)
Dividends declared and approved in respect of previous year	–	–	–	–	–	–	–	–	–	(1,082,381)	(1,082,381)
Purchase of own shares	–	–	–	–	–	–	–	–	(25,689)	–	(25,689)
Appropriation of safety production fund	–	–	–	–	–	–	–	61,782	–	(61,782)	–
Balance at 31 December 2022	10,823,814	6,571,284	4,180	101,355	(806)	–	106,846	239,689	(25,689)	7,767,957	25,588,630

(Expressed in Renminbi Yuan unless otherwise indicated)

36 Benefits and interests of directors and supervisors

(a) Directors' and supervisors' emoluments:

	2022				
	Salaries and other benefits RMB'000	Retirement scheme contributions RMB'000	Discretionary bonuses RMB'000	Directors' fees RMB'000	Total RMB'000
Executive directors					
Wan Tao *(appointed in September 2022)*	177	24	90	–	291
Wu Haijun *(resigned in September 2022)*	207	35	634	–	876
Guan Zemin	412	55	992	–	1,459
Jin Qiang *(resigned in February 2022)*	372	55	907	–	1,334
Du Jun	373	55	894	–	1,322
Jin Wenmin *(resigned in February 2022)*	259	55	812	–	1,126
Huang Xiangyu	250	54	817	–	1,121
Huang Fei *(resigned in February 2022)*	246	52	811	–	1,109
Non-executive directors					
Xie Zhenglin	–	–	–	–	–
Peng Kun	193	52	641	–	886
Independent non-executive directors					
Li Yuanqin	–	–	–	150	150
Tang Song	–	–	–	150	150
Chen Haifeng	–	–	–	150	150
Yang Jun	–	–	–	150	150
Gao Song	–	–	–	150	150
Supervisors					
Ma Yanhui	343	55	899	–	1,297
Zhang Feng	174	46	560	–	780
Chen Hongjun	184	47	603	–	834
Zheng Yunrui	100	–	–	–	100
Cai Tingji	100	–	–	–	100
	3,390	585	8,660	750	13,385

(Expressed in Renminbi Yuan unless otherwise indicated)

36 Benefits and interests of directors and supervisors *(continued)*

(a) Directors' and supervisors' emoluments *(continued)*:

	2021				
	Salaries and other benefits RMB'000	Retirement scheme contributions RMB'000	Discretionary bonuses RMB'000	Directors' fees RMB'000	Total RMB'000
Executive directors					
Wu Haijun	324	49	768	–	1,141
Guan Zemin	407	49	767	–	1,223
Jin Qiang *(resigned in February 2022)*	378	49	682	–	1,109
Du Jun *(appointed in June 2021)*	373	49	617	–	1,039
Jin Wenmin *(resigned in February 2022)*	265	49	684	–	998
Huang Xiangyu	276	48	684	–	1,008
Huang Fei *(resigned in February 2022)*	251	46	683	–	980
Non-executive directors					
Xie Zhenglin	–	–	–	–	–
Peng Kun	186	46	631	–	863
Independent non-executive directors					
Li Yuanqin	–	–	–	150	150
Tang Song	–	–	–	150	150
Chen Haifeng	–	–	–	150	150
Yang Jun	–	–	–	150	150
Gao Song	–	–	–	150	150
Supervisors					
Ma Yanhui	350	49	682	–	1,081
Zhang Feng	169	42	584	–	795
Chen Hongjun	178	41	603	–	822
Zheng Yunrui	100	–	–	–	100
Cai Tingji	100	–	–	–	100
	3,357	517	7,385	750	12,009

(b) Directors' retirement benefits

No specific retirement benefits were paid to directors in respect of services in connection with the management of the affairs of the company or its subsidiary undertaking (2021: Nil).

(Expressed in Renminbi Yuan unless otherwise indicated)

37 Comparative figures

Certain comparative figures have been adjusted to conform to current year's presentation.

38 Possible impact of amendments, new standards and interpretations issued but not yet effective for the year ended 31 December 2022

Up to the date of issue of these financial statements, the IASB has issued a number of amendments, new standards and interpretations, which are not yet effective for the year ended 31 December 2022 and which have not been adopted in these financial statements. These developments include the following which may be relevant to the Group.

	Effective for accounting periods beginning on or after
IFRS 17, *Insurance contracts*	1 January 2023
Amendments to IAS 1, *Presentation of financial statements: Classification of liabilities as current or non-current*	1 January 2023
Amendments to IAS 1, *Presentation of financial statements and IFRS Practice Statement 2, Making materiality judgements: Disclosure of accounting policies*	1 January 2023
Amendments to IAS 8, *Accounting policies, changes in accounting estimates and errors: Definition of accounting estimates*	1 January 2023
Amendments to IAS 12, *Income taxes: Deferred tax related to assets and liabilities arising from a single transaction*	1 January 2023

The Group is in the process of making an assessment of what the impact of these amendments, new standards and interpretations are expected to be in the period of initial application. So far, the Group has concluded that the adoption of them is unlikely to have a significant impact on the consolidated financial statements.

畢馬威華振審字第2302616號

The Shareholders of Sinopec Shanghai Petrochemical Company Limited:

Opinion

We have audited the accompanying financial statements of Sinopec Shanghai Petrochemical Company Limited ("Sinopec Shanghai"), which comprise the consolidated and company balance sheets as at 31 December 2022, the consolidated and company income statements, the consolidated and company cash flow statements, the consolidated and company statements of changes in shareholders' equity for the year then ended, and notes to the financial statements.

In our opinion, the accompanying financial statements present fairly, in all material respects, the consolidated and company financial position of Sinopec Shanghai as at 31 December 2022, and the consolidated and company financial performance and cash flows of Sinopec Shanghai for the year then ended in accordance with Accounting Standards for Business Enterprises issued by the Ministry of Finance of the People's Republic of China.

Basis for Opinion

We conducted our audit in accordance with China Standards on Auditing for Certified Public Accountants ("CSAs"). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of Sinopec Shanghai in accordance with the China Code of Ethics for Certified Public Accountants ("the Code"), and we have fulfilled our other ethical responsibilities in accordance with the Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Assessment of net realizable value of raw materials, work in progress and finished goods	
Refer to notes III.10 Inventory, III.32(1)(a) of the accounting policies to the consolidated financial statements and Note V.7 Inventory to the consolidated financial statements.	
The Key Audit Matter	**How the matter was addressed in our audit**
The Group is principally engaged in processing of crude oil into petroleum products and other chemical products. The crude oil can be processed into various finished goods by different processing procedures. Inventories are valued at the lower of cost and net realizable value. The gross carrying amount of raw materials, work in progress and finished goods, and provision for diminution in value were RMB7,552,845 thousand and RMB446,485 thousand, respectively, as at 31 December 2022. The net realizable value is determined based on the estimated selling prices in the ordinary course of business less the estimated costs to completion, estimated selling expenses and relevant taxes necessary to make the sale. We identified the assessment of net realizable value of raw materials, work in progress and finished goods as a key audit matter because evaluation of estimated selling prices of inventories, estimated costs to completion, estimated selling expenses and relevant taxes necessary to make the sale involved a high degree of auditor judgements.	Our audit procedures to assess net realizable value of raw materials, work in progress and finished goods included the following: • Evaluating the design, implementation and operating effectiveness of key internal controls over the process of determination of net realizable value of raw materials, work in progress and finished goods, including controls related to the determination of estimated selling prices, estimated costs to completion, estimated selling expenses and relevant taxes necessary to make the sale; • Evaluating the estimated selling price at the reporting date for a sample of inventory items by comparison of the estimated selling price to the price from publicly available market data and the actual prices of sales transactions subsequent to the reporting date if available; and • Evaluating the estimated costs to completion, estimated selling expenses and relevant taxes necessary to make the sale by comparing with the historical costs to completion and other costs necessary to make the sale for the same type of inventories on a sample basis.

Key audit matters *(continued)*

<table>
<tr><th colspan="2">Net realizable value of raw materials, products in process and inventory goods</th></tr>
<tr><th colspan="2">Refer to notes III.13 Fixed Assets, III.32(1)(b) of the accounting policies to the consolidated financial statements and Note V Fixed Assets.11 to the consolidated financial statements.</th></tr>
<tr><th>The Key Audit Matter</th><th>How the matter was addressed in our audit</th></tr>
<tr><td>The consolidated carrying amount of property, plant and equipment was RMB12,195,527 thousand as of 31 December 2022. During the year ended 31 December 2022, the Group recognized impairment loss on property, plant and equipment in relation to certain production facilities of RMB212,410 thousand. At the end of each reporting period, if any indication of impairment exists, the Group estimates the recoverable amount of an asset, or a cash-generating unit, at the higher of its fair value less costs of disposal and its value in use, to determine the impairment losses. The Group's estimated value in use includes assumptions on product sales growth rates, related costs growth rates ("forecasted growth rates") and discount rate.

We identified the assessment of value in use of certain production facilities as a key audit matter because high degree of subjectivity and auditor judgment was involved to evaluate the forecasted growth rates and the discount rate used to estimate value in use of these assets. The forecasted growth rates and the discount rate were challenging to test as minor changes to those assumptions would have a significant effect on the Group's assessment of value in use of these assets. In addition, specialized skills and knowledge were required to assess the discount rate used to estimate value in use of these assets.</td><td>Our audit procedures to assess value in use of certain production facilities included the following:

• Evaluating the design, implementation and operating effectiveness of key internal controls related to the process in assessing the value in use of certain production facilities, including controls related to the determination of the forecasted growth rates and the discount rate;

• Assessing the forecasted growth rates adopted in the Group's value in use assessment by comparing them with historical results, future operation plans and external market data;

• Involving valuation professionals with specialized skills and knowledge assisted in evaluating the discount rate used by comparing it against discount rate that was independently developed using publicly available industry data; and

• Performing sensitivity analysis over the forecasted growth rates and the discount rate assumptions to assess their impact on the Group's impairment assessment.</td></tr>
</table>

Information other than the consolidated financial statements and auditor's report thereon

The directors are responsible for the other information. The other information comprises all the information included in the annual report, other than the consolidated financial statements and our auditor's report thereon.

Our opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of Management and Those Charged with Governance for the consolidated financial statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with the Accounting Standards for Business Enterprises, and for the design, implementation and maintenance of such internal control necessary to enable that the financial statements are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing Sinopec Shanghai'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 Sinopec Shanghai or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing Sinopec Shanghai's financial reporting process.

Auditor's Responsibilities for the Audit 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 auditor's 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 CSAs 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 CSAs, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

(1) 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 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.

(2) Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances.

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

(4) Conclude on the appropriateness of 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 Sinopec Shanghai's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's 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 auditor's report. However, future events or conditions may cause Sinopec Shanghai to cease to continue as a going concern.

(5) 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.

Auditor's Responsibilities for the Audit of the Financial Statements *(continued)*

(6) Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within Sinopec Shanghai to express an opinion on the financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

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

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 period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a 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.

KPMG Huazhen LLP

Certified Public Accountants
Registered in the People's
Republic of China

Wang Wenli (Engagement Partner)
Fang Haijie

Beijing, China
22 March 2023

Consolidated and Company Balance Sheets

As at 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

Assets	Note	31 December 2022 Consolidated	31 December 2021 Consolidated	31 December 2022 Company	31 December 2021 Company
Current Assets					
Cash at bank and on hand	V.1	3,998,332	12,498,617	3,780,454	12,314,124
Derivative financial assets	V.2	–	81,405	–	81,405
Accounts receivable	V.3, XIII.1	2,512,362	1,169,405	2,334,828	1,014,787
Receivables under financing	V.4, XIII.2	582,354	1,072,690	127,558	624,584
Prepayments	V.5	67,008	60,577	55,961	42,024
Other receivables	V.6, XIII.3	190,579	108,728	172,076	69,053
Inventories	V.7	7,294,060	5,923,525	7,043,613	5,726,264
Other current assets	V.8	1,121,187	17,329	1,108,285	4,009
Total Current Assets		15,765,882	20,932,276	14,622,775	19,876,250
Non-Current Assets					
Long-term equity investments	V.9, XIII.4	3,594,393	4,188,888	4,837,366	5,492,265
Investments in other equity instruments		5,000	5,000	–	–
Investment properties	V.10	336,863	352,188	365,147	381,540
Fixed assets	V.11, XIII.5	12,195,527	11,328,065	11,839,585	10,933,023
Construction in progress	V.12	3,748,461	3,293,177	3,647,200	3,201,111
Right-of-use assets	V.13	16,085	4,879	13,494	2,205
Intangible assets	V.14	372,640	392,608	261,432	273,719
Long-term deferred expenses	V.15	776,480	775,963	771,397	769,492
Deferred tax assets	V.16	991,850	184,143	986,830	178,084
Other non-current assets	V.17	3,439,559	5,581,435	3,189,559	5,381,149
Total Non-current Assets		25,476,858	26,106,346	25,912,010	26,612,588
Total Assets		41,242,740	47,038,622	40,534,785	46,488,838

The notes on pages 313 to 470 form part of these financial statements.

As at 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

Liabilities and shareholders' equity	Note	31 December 2022 Consolidated	31 December 2021 Consolidated	31 December 2022 Company	31 December 2021 Company
Current Liabilities					
Short-term loans	V.19	1,550,000	1,540,000	1,500,000	1,500,000
Derivative financial liabilities	V.2	–	23,804	–	23,804
Bills payable	V.20	40,951	830,006	–	720,513
Accounts payable	V.21	9,144,554	5,888,879	8,295,462	5,198,489
Contract liabilities	V.22	383,246	430,882	300,168	383,624
Employee benefits payable	V.23	317,891	260,096	307,190	253,800
Taxes payable	V.24	889,856	4,070,663	874,213	4,043,002
Other payables	V.25	1,618,352	1,287,064	2,721,047	2,499,313
Non-current liabilities due within one year	V.26	8,738	23,029	7,172	1,604
Other current liabilities	V.27	44,750	1,441,320	39,018	1,438,157
Total Current Liabilities		13,998,338	15,795,743	14,044,270	16,062,306
Non-Current Liabilities					
Long-term loans	V.28	700,000	700,000	700,000	700,000
Lease liabilities	V.29	7,513	1,384	6,481	399
Deferred income	V.30	134,608	112,720	134,494	112,720
Deferred tax liabilities	V.16	30,895	33,344	–	–
Total Non-Current Liabilities		873,016	847,448	840,975	813,119
Total Liabilities		14,871,354	16,643,191	14,885,245	16,875,425
Shareholders' equity					
Share capital	I, V.31	10,823,814	10,823,814	10,823,814	10,823,814
Capital reserve	V.32	610,327	610,327	600,768	600,768
Less: Treasury stock	V.33	25,689	–	25,689	–
Other comprehensive income	V.34	(806)	59,425	(806)	59,425
Specific reserve	V.35	240,418	216,512	239,689	216,508
Surplus reserve	V.36	6,672,639	6,672,639	6,672,639	6,672,639
Retained earnings	V.37	7,923,002	11,877,455	7,339,125	11,240,259
Total equity attributable to shareholders of the Company		26,243,705	30,260,172	–	–
Non-controlling interests	V.38	127,681	135,259	–	–
Total Shareholders' Equity		26,371,386	30,395,431	25,649,540	29,613,413
Total Liabilities and Shareholders' Equity		41,242,740	47,038,622	40,534,785	46,488,838

These financial statements were approved by the Board of Directors of the Company on 22 March 2023.

Wan Tao *Chairman*

Du Jun *Director and Chief Financial Officer*

Yang Yating *Accounting Chief*

The notes on pages 313 to 470 form part of these financial statements.

Consolidated and Company Income Statements

For the year ended 31 Deccember 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

		Twelve months ended 31 December		Twelve months ended 31 December	
		2022	2021	2022	2021
	Note	Consolidated	Consolidated	Company	Company
I. Operating income	V.39, XIII.6	82,518,315	89,280,415	70,516,484	78,170,627
Less: Operating costs	V.39, XIII.6	73,518,024	71,675,646	61,667,159	60,772,128
Taxes and surcharges	V.40	9,788,593	13,309,688	9,774,331	13,294,428
Selling and distribution expenses	V.41	282,841	362,334	195,703	271,713
General and administrative expenses	V.42	1,795,867	1,842,087	1,671,934	1,722,893
Research and development expenses	V.43	130,516	94,295	121,844	82,866
Financial expenses ("-" for income)	V.44	(459,437)	(406,799)	(426,095)	(396,207)
Including: interest expense		98,502	94,186	96,371	91,886
interest income		541,830	508,755	524,126	491,271
Add: Other income	V.45	30,320	35,231	27,253	33,472
Investment income ("-" for losses)	V.46, XIII.7	(191,800)	967,380	(204,071)	875,555
Including: Income from investment in associates and joint ventures ("-" for losses)		(183,616)	864,285	(221,213)	774,784
Gains from changes in fair value ("-" for losses)	V.47	(8,987)	8,987	(8,987)	8,987
Credit losses ("-" for losses)	V.48	(5,366)	(1,355)	(4,742)	(1,331)
Impairment losses of assets ("-" for losses)	V.49	(811,529)	(766,897)	(811,475)	(738,339)
Gains from asset disposals ("-" for losses)	V.50	(1,231)	79,085	–	79,085
II. Operating profit ("-" for loss)		(3,526,682)	2,725,595	(3,490,414)	2,680,235
Add: Non-operating income	V.51	21,826	27,783	21,161	27,477
Less: Non-operating expenses	V.52	94,714	105,217	91,907	104,528
III. Profit before income tax ("-" for loss)		(3,599,570)	2,648,161	(3,561,160)	2,603,184
Less: Income tax (benefits)/ expenses	V.53	(731,354)	644,480	(742,407)	617,821

The notes on pages 313 to 470 form part of these financial statements.

For the year ended 31 Deccember 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

	Note	Twelve months ended 31 December 2022 Consolidated	Twelve months ended 31 December 2021 Consolidated	Twelve months ended 31 December 2022 Company	Twelve months ended 31 December 2021 Company
IV.Net profit ("-" for net loss)		(2,868,216)	2,003,681	(2,818,753)	1,985,363
(1) Net profit classified by continuity of operations:					
1. Net profit from continuing operations ("-" for net loss)		(2,868,216)	2,003,681	(2,818,753)	1,985,363
2. Net profit from discontinued operations ("-" for net loss)		–	–	–	–
(2) Net profit classified by ownership:					
1. Shareholders of the Company ("-" for net loss)		(2,872,072)	2,000,506	–	–
2. Non-controlling interests ("-" for net loss)		3,856	3,175	–	–
V. Other comprehensive income, net of tax		177,748	141,798	177,748	141,798
(1) Other comprehensive income (net of tax) attributable to shareholders of the Company		177,748	141,798	177,748	141,798
Items that may be reclassified to profit or loss		177,748	141,798	177,748	141,798
a. Other comprehensive income recognized under equity method		(23,771)	16,639	(23,771)	16,639
b. Cash flow hedge reserve		201,519	125,159	201,519	125,159
(2) Other comprehensive income (net of tax) attributable to non-controlling interests	–	–	–	–	–
VI.Total comprehensive income		(2,690,468)	2,145,479	(2,641,005)	2,127,161
(1) Attributable to shareholders of the Company		(2,694,324)	2,142,304	–	–
(2) Attributable to non-controlling interests		3,856	3,175	–	–
VII.(Losses)/Earnings per share					
(1) Basic losses/earnings per share (RMB Yuan)	V.54	(0.265)	0.185	–	–
(2) Diluted losses/earnings per share (RMB Yuan)	V.54	(0.265)	0.185	–	–

These financial statements were approved by the Board of Directors of the Company on 22 March 2023.

Wan Tao — *Chairman*
Du Jun — *Director and Chief Financial Officer*
Yang Yating — *Accounting Chief*

The notes on pages 313 to 470 form part of these financial statements.

Consolidated and Company Cash Flow Statements

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

	Note	Twelve months ended 31 December 2022 Consolidated	Twelve months ended 31 December 2021 Consolidated	Twelve months ended 31 December 2022 Company	Twelve months ended 31 December 2021 Company
I. Cash flows from operating activities					
Proceeds from sale of goods and rendering of services		87,729,513	95,338,044	75,156,046	83,594,831
Refund of taxes		1,210,010	113,542	940,016	–
Proceeds from other operating activities	V.56	272,209	219,055	265,085	1,257,788
Sub-total of cash inflows		89,211,732	95,670,641	76,361,147	84,852,619
Payment for goods and services		(78,324,323)	(73,364,969)	(65,858,885)	(61,844,330)
Payment to and for employees		(3,503,196)	(3,431,643)	(3,305,855)	(3,229,404)
Payment of various taxes		(14,313,830)	(14,321,443)	(14,224,143)	(14,245,703)
Payment for other operating activities	V.56	(407,882)	(492,560)	(469,653)	(430,268)
Sub-total of cash outflows		(96,549,231)	(91,610,615)	(83,858,536)	(79,749,705)
Net cash flows (used in)/generated from operating activities	V.57, XIII.8	(7,337,499)	4,060,026	(7,497,389)	5,102,914
II. Cash flows from investing activities					
Cash received from structured deposits		1,000,000	8,150,000	1,000,000	7,000,000
Proceeds from capital reduction of an associate		150,000	1,460,258	150,000	1,460,258
Cash received from returns on investments		682,929	880,815	632,116	784,757
Net cash received from disposal of fixed assets and other long-term assets		13,937	55,254	13,143	54,970
Proceeds from other investing activities	V.56	9,480,216	4,198,937	9,472,516	4,191,891
Sub-total of cash inflows		11,327,082	14,745,264	11,267,775	13,491,876
Payment for acquisition of fixed assets, intangible assets and other long-term assets		(2,836,912)	(3,224,000)	(2,811,588)	(3,120,461)
Payment of structured deposits		(1,000,000)	(8,150,000)	(1,000,000)	(7,000,000)
Payment for establishing of a subsidiary and an associate		(296,672)	(76,000)	(200,000)	(50,000)
Payment for other investing activities	V.56	(2,803,148)	(5,654,685)	(2,751,032)	(5,451,605)
Sub-total of cash outflows		(6,936,732)	(17,104,685)	(6,762,620)	(15,622,066)
Net cash flows generated from/(used in) investing activities		4,390,350	(2,359,421)	4,505,155	(2,130,190)

The notes on pages 313 to 470 form part of these financial statements.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

	Note	Twelve months ended 31 December 2022 Consolidated	Twelve months ended 31 December 2021 Consolidated	Twelve months ended 31 December 2022 Company	Twelve months ended 31 December 2021 Company
III. Cash flows from financing activities					
Proceeds from borrowings		19,485,000	14,163,132	19,435,000	14,123,132
Proceeds from short-term bonds		5,000,000	5,998,899	5,000,000	5,998,899
Sub-total of cash inflows		24,485,000	20,162,031	24,435,000	20,122,031
Repayments of borrowings		(19,494,800)	(13,451,332)	(19,435,000)	(13,423,132)
Repayments of short-term bonds		(5,000,000)	(9,000,000)	(5,000,000)	(9,000,000)
Payment for dividends, profit distributions or interest		(1,214,637)	(1,196,297)	(1,201,182)	(1,189,267)
Including: Dividends paid by subsidiaries to non-controlling interests		(11,434)	(4,901)	–	–
Payment for other financing activities	V.56	(66,331)	(17,544)	(62,565)	(12,862)
Sub-total of cash outflows		(25,775,768)	(23,665,173)	(25,698,747)	(23,625,261)
Net cash flows generated from/ (used in) financing activities		(1,290,768)	(3,503,142)	(1,263,747)	(3,503,230)
IV. Effect of foreign exchange rate changes on cash and cash equivalents		15,320	(1,861)	–	(2,042)
V. Net increase in cash and cash equivalents ("-" for decrease)		(4,222,597)	(1,804,398)	(4,255,981)	(532,548)
Add: Cash and cash equivalents at beginning of the year	V.57, XIII.8	5,112,010	6,916,408	4,927,519	5,460,067
VI. Cash and cash equivalents at the end of the year	V.57, XIII.8	889,413	5,112,010	671,538	4,927,519

These financial statements were approved by the Board of Directors of the Company on 22 March 2023.

Wan Tao	**Du Jun**	**Yang Yating**
Chairman	*Director and Chief Financial Officer*	*Accounting Chief*

The notes on pages 313 to 470 form part of these financial statements.

Consolidated Statement of Changes in Shareholders' Equity

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

	Note	Attributable to equity shareholders of the Company									
		Share capital	Capital reserve	Less: Treasury stock	Other comprehensive income	Specific reserve	Surplus reserve	Retained earnings	Sub-total	Non-controlling interests	Total
I. Balance at 1 January 2022		10,823,814	610,327	-	59,425	216,512	6,672,639	11,877,455	30,260,172	135,259	30,395,431
II. Changes in equity for the twelve months ended 31 December 2022 ("-" for decreases)											
1. Total comprehensive income											
(1) Net profit ("-" for net loss)		-	-	-	-	-	-	(2,872,072)	(2,872,072)	3,856	(2,868,216)
(2) Other comprehensive income	V.34	-	-	-	177,748	-	-	-	177,748	-	177,748
2. The capital of shareholders' input and reduction											
(1) Treasury stock repurchase	V.33	-	-	25,689	-	-	-	-	(25,689)	-	(25,689)
3. Amounts transferred from hedging reserve to initial carrying amount of hedged items		-	-	-	(237,979)	-	-	-	(237,979)	-	(237,979)
4. Appropriation of profits											
(1) Distributions to shareholders	V.37	-	-	-	-	-	-	(1,082,381)	(1,082,381)	(11,434)	(1,093,815)
5. Specific reserve											
(1) Accrued	V.35	-	-	-	-	171,040	-	-	171,040	-	171,040
(2) Utilized	V.35	-	-	-	-	(147,134)	-	-	(147,134)	-	(147,134)
III. Balance at 31 December 2022		10,823,814	610,327	25,689	(806)	240,418	6,672,639	7,923,002	26,243,705	127,681	26,371,386

These financial statements were approved by the Board of Directors of the Company on 22 March 2023.

Wan Tao	**Du Jun**	**Yang Yating**
Chairman	*Director and Chief Financial Officer*	*Accounting Chief*

The notes on pages 313 to 470 form part of these financial statements.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

		Attributable to equity shareholders of the Company								
	Note	Share capital	Capital reserve	Other comprehensive income	Specific reserve	Surplus reserve	Retained earnings	Sub-total	Non-controlling interests	Total
I. Balance at 1 January 2021		10,823,814	610,327	6,326	145,597	6,474,103	11,157,866	29,218,033	136,985	29,355,018
II. Changes in equity for the twelve months ended 31 December 2021 ("-" for decreases)										
1. Total comprehensive income										
(1) Net profit		–	–	–	–	–	2,000,506	2,000,506	3,175	2,003,681
(2) Other comprehensive income	V.34	–	–	141,798	–	–	–	141,798	–	141,798
2. Amounts transferred from hedging reserve to initial carrying amount of hedged items		–	–	(88,699)	–	–	–	(88,699)	–	(88,699)
3. Appropriation of profits										
(1) Distributions to shareholders	V.37	–	–	–	–	–	(1,082,381)	(1,082,381)	(4,901)	(1,087,282)
(2) Appropriation to surplus reserves		–	–	–	–	198,536	(198,536)	–	–	–
4. Specific reserve										
(1) Accrued	V.35	–	–	–	111,644	–	–	111,644	–	111,644
(2) Utilized	V.35	–	–	–	(40,729)	–	–	(40,729)	–	(40,729)
III. Balance at 31 December 2021		10,823,814	610,327	59,425	216,512	6,672,639	11,877,455	30,260,172	135,259	30,395,431

These financial statements were approved by the Board of Directors of the Company on 22 March 2023.

Wan Tao
Chairman

Du Jun
Director and Chief Financial Officer

Yang Yating
Accounting Chief

The notes on pages 313 to 470 form part of these financial statements.

Statement of Changes in Shareholders' Equity

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

	Share capital	Capital reserve	Less: Treasury stock	Other comprehensive income	Specific reserve	Surplus reserve	Retained earnings	Total
I. Balance at 1 January 2022	10,823,814	600,768	–	59,425	216,508	6,672,639	11,240,259	29,613,413
II. Changes in for the twelve months ended 31 December 2022 ("-" for decreases)								
1. Total comprehensive income								
(1) Net profit ("-" for net loss)	–	–	–	–	–	–	(2,818,753)	(2,818,753)
(2) Other comprehensive income	–	–	–	177,748	–	–	–	177,748
2. The capital of shareholders' input and reduction	–	–		(88,699)	–	–	–	(88,699)
(1) Treasury stock repurchase	–	–	25,689	–	–	–	–	(25,689)
3. Amounts transferred from hedging reserve to initial carrying amount of hedged items	–	–	–	(237,979)	–	–	–	(237,979)
4. Appropriation of profits								
(1) Distributions to shareholders	–	–	–	–	–	–	(1,082,381)	(1,082,381)
5. Specific reserve								
(1) Accrued	–	–	–	–	161,766	–	–	161,766
(2) Utilized	–	–	–	–	(138,585)	–	–	(138,585)
III. Balance at 31 December 2022	10,823,814	600,768	25,689	(806)	239,689	6,672,639	7,339,125	25,649,540

These financial statements were approved by the Board of Directors of the Company on 22 March 2023.

Wan Tao	**Du Jun**	**Yang Yating**
Chairman	*Director and Chief Financial Officer*	*Accounting Chief*

The notes on pages 313 to 470 form part of these financial statements.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

	Share capital	Capital reserve	Other comprehensive income	Specific reserve	Surplus reserve	Retained earnings	Total equity
I. Balance at 1 January 2021	10,823,814	600,768	6,326	145,597	6,474,103	10,535,813	28,586,421
II. Changes in equity for the twelve months ended 31 December 2021 ("-" for decreases)							
1. Total comprehensive income							
(1) Net profit	–	–	–	–	–	1,985,363	1,985,363
(2) Other comprehensive income	–	–	141,798	–	–	–	141,798
2. Amounts transferred from hedging reserve to initial carrying amount of hedged items	–	–	(88,699)	–	–	–	(88,699)
3. Appropriation of profits							
(1) Distributions to shareholders	–	–	–	–	–	(1,082,381)	(1,082,381)
(2) Appropriation to surplus reserves	–	–	–	–	198,536	(198,536)	–
4. Specific reserve							
(1) Accrued	–	–	–	103,221	–	–	103,221
(2) Utilized	–	–	–	(32,310)	–	–	(32,310)
III. Balance at 31 December 2021	10,823,814	600,768	59,425	216,508	6,672,639	11,240,259	29,613,413

These financial statements were approved by the Board of Directors of the Company on 22 March 2023.

Wan Tao	**Du Jun**	**Yang Yating**
Chairman	*Director and Chief Financial Officer*	*Accounting Chief*

The notes on pages 313 to 470 form part of these financial statements.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

I. General information

Sinopec Shanghai Petrochemical Company Limited ("the Company"), formerly Shanghai Petrochemical Company Limited, was established in the People's Republic of China ("the PRC") on 29 June 1993 with registered capital of RMB4,000,000,000, invested by its holding company-China National Petrochemical Corporation ("Sinopec Group"); these shares were converted from assets of former Shanghai Petrochemical Complex.

H shares were listed on the Hong Kong Stock Exchange on 26 July 1993 and listed on the New York Stock Exchange in the form of American Depositary Shares at the same time; the A shares were listed on the Shanghai Stock Exchange on 8 November 1993.

Sinopec Group completed its reorganisation on 25 February 2000. After the reorganisation, China Petroleum & Chemical Corporation ("Sinopec Corp.") was established. As part of the reorganisation, Sinopec Group transferred its 4,000,000,000 of the Company's state-owned legal shares, which represented 55.56 percent of the issued share capital of the Company, to Sinopec Corp. Sinopec Corp. became the largest shareholder of the Company. The Company changed its name to Sinopec Shanghai Petrochemical Company Limited on 12 October 2000.

Additional A shares of RMB14,176,600 and RMB9,636,900 were registered on 27 September 2017 and 12 January 2018.

As at 31 December 2022, total share capital of the Company were RMB10,823,814, 1 Yuan per share. Detailed changes to share capital refers to Note V.31.

The Company and its subsidiaries ("the Group") is a highly integrated entity which processes crude oil into synthetic fibres, resins and plastics, intermediate petrochemicals and petroleum products.

Details of the Company's principal subsidiaries are set out in Note VI.

II. Basis of preparation

The financial statements have been prepared on the going concern basis.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

III. Summary of significant accounting policies and accounting estimates

Accounting policies for the provision for impairment of inventories, depreciation of fixed assets, impairment of long-term assets of the Group are adopted according to the specific characteristics of the Group's operations. Please refer to the relevant notes on accounting policies.

1. Statement of compliance

The financial statements have been prepared in accordance with the requirements of Accounting Standards for Business Enterprises or referred to as China Accounting Standards ("CAS") issued by the MOF. These financial statements present truly and completely the consolidated financial position and financial position of the Company as at 31 December 2022, and the consolidated financial performance and financial performance and the consolidated cash flows and cash flows of the Company for the year from 1 January 2022 to 31 December 2022.

These financial statements also comply with the disclosure requirements of "Regulation on the Preparation of Information Disclosures by Companies Issuing Securities, No.15: General Requirements for Financial Reports" as revised by the China Securities Regulatory Commission ("CSRC") in 2014.

2. Accounting period

The Company's accounting year starts on 1 January and ends on 31 December.

3. Operating cycle

The Company takes the period from the acquisition of assets for processing to until the ultimate realization of cash or cash equivalents as a normal operating cycle. The operating cycle of the Company is usually less than 12 months.

4. Functional currency

The Company's functional currency is Renminbi and these financial statements are presented in Renminbi. Functional currency is determined by the Company and its subsidiaries on the primary economic environment in which they operate.

III. Summary of significant accounting policies and accounting estimates *(continued)*

5. Accounting treatments for business combinations involving entities under common control and not under common control

A transaction constitutes a business combination when the Group obtains control of one or more entities (or a group of assets or net assets). Business combination is classified as either business combinations involving enterprises under common control or business combinations not involving enterprises under common control.

For a transaction not involving enterprises under common control, the acquirer determines whether acquired set of assets constitute a business. The Group may elect to apply the simplified assessment method, the concentration test, to determine whether an acquired set of assets is not a business. If the concentration test is met and the set of assets is determined not to be a business, no further assessment is needed. If the concentration test is not met, the Group shall perform the assessment according to the guidance on the determination of a business.

When the set of assets the group acquired does not constitute a business, acquisition costs should be allocated to each identifiable assets and liabilities at their acquisition-date fair values. It is not required to apply the accounting of business combination described as below.

(1) Business combinations involving entities under common control

A business combination involving entities under common control is a business combination in which all of the combining entities are ultimately controlled by the same party or parties both before and after the business combination, and that control is not transitory. The assets acquired and liabilities assumed are measured based on their carrying amounts in the consolidated financial statements of the ultimate controlling party at the combination date. The difference between the carrying amount of the net assets acquired and the consideration paid for the combination (or the total par value of shares issued) is adjusted against share premium in the capital reserve, with any excess adjusted against retained earnings. Any costs directly attributable to the combination are recognized in profit or loss when incurred. The combination date is the date on which one combining entity obtains control of other combining entities. Transaction costs associated with the issue of equity or debt securities for the business combination are included in the initially recognized amounts of the equity or debt securities.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

III. Summary of significant accounting policies and accounting estimates *(continued)*

5. Accounting treatments for business combinations involving entities under common control and not under common control *(continued)*

(2) Business combinations involving entities not under common control

A business combination involving entities not under common control is a business combination in which all of the combining entities are not ultimately controlled by the same party or parties both before and after the business combination. Where (1) the aggregate of the acquisition-date fair value of assets transferred (including the acquirer's previously held equity interest in the acquiree), liabilities incurred or assumed, and equity securities issued by the acquirer, in exchange for control of the acquiree, exceeds (2) the acquirer's interest in the acquisition-date fair value of the acquiree's identifiable net assets, the difference is recognized as goodwill. If (1) is less than (2), the difference is recognized in profit or loss for the current period. The costs of issuing equity or debt securities as a part of the consideration for the acquisition are included in the carrying amounts of these equity or debt securities upon initial recognition. Acquisition-related costs are expensed when incurred. Any difference between the fair value and the carrying amount of the assets transferred as consideration is recognized in profit or loss. The acquiree's identifiable asset, liabilities and contingent liabilities, if the recognition criteria are met, are recognized by the Group at their acquisition-date fair value. The acquisition date is the date on which the acquirer obtains control of the acquiree.

For a business combination involving entities not under common control and achieved in stages, the Group remeasures its previously-held equity interest in the acquiree to its acquisition-date fair value and recognizes any resulting difference between the fair value and the carrying amount as investment income or other comprehensive income for the current period. In addition, any amount recognized in other comprehensive income and other changes in the owners' equity under equity accounting in prior reporting periods relating to the previously-held equity interest that may be reclassified to profit or loss are transferred to investment income at the date of acquisition; Any previously-held equity interest that is designated as equity investment at fair value through other comprehensive income, the other comprehensive income recognized in prior reporting periods is transferred to retained earnings and surplus reserve at the date of acquisition.

6. Consolidated financial statements

(1) General principles

The scope of consolidated financial statements is based on control and the consolidated financial statements comprise the Company and its subsidiaries. Control exists when the investor has all of following: power over the investee; exposure, or rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. When assessing whether the Group has power, only substantive rights (held by the Group and other parties) are considered. The financial position, financial performance and cash flows of subsidiaries are included in the consolidated financial statements from the date that control commences until the date that control ceases.

III. Summary of significant accounting policies and accounting estimates *(continued)*

6. Consolidated financial statements *(continued)*

(1) General principles *(continued)*

Non-controlling interests are presented separately in the consolidated balance sheet within shareholders' equity. Net profit or loss attributable to non-controlling shareholders is presented separately in the consolidated income statement below the net profit line item. Total comprehensive income attributable to non-controlling shareholders is presented separately in the consolidated income statement below the total comprehensive income line item.

When the amount of loss for the current period attributable to the non-controlling shareholders of a subsidiary exceeds the non-controlling shareholders' share of the opening owners' equity of the subsidiary, the excess is still allocated against the non-controlling interests.

When the accounting period or accounting policies of a subsidiary are different from those of the Company, the Company makes necessary adjustments to the financial statements of the subsidiary based on the Company's own accounting period or accounting policies. Intra-group balances and transactions, and any unrealized profit or loss arising from intra-group transactions, are eliminated when preparing the consolidated financial statements. Unrealized losses resulting from intra-group transactions are eliminated in the same way as unrealized gains, unless they represent impairment losses that are recognized in the financial statements. Unrealized profits and losses resulting from the sale of assets by a subsidiary to the Company are eliminated and allocated between net profit attributable to owners of the parent and non-controlling interests in accordance with the allocation proportion of the parent in the subsidiary. Unrealized profits and losses resulting from the sale of assets by one subsidiary to another are eliminated and allocated between net profit attributable to owners of the parent and non-controlling interests in accordance with the allocation proportion of the parent in the subsidiary. If the accounting treatment of a transaction which considers the Group as an accounting entity is different from that considers the Company or its subsidiaries as an accounting entity, it is adjusted from the perspective of the Group.

(2) Subsidiaries acquired through a business combination

Where a subsidiary was acquired during the reporting period, through a business combination involving entities under common control, the financial statements of the subsidiary are included in the consolidated financial statements based on the carrying amounts of the assets and liabilities of the subsidiary in the financial statements of the ultimate controlling party as if the combination had occurred at the date that the ultimate controlling party first obtained control. The opening balances and the comparative figures of the consolidated financial statements are also restated.

Where a subsidiary was acquired during the reporting period, through a business combination involving entities not under common control, the identifiable assets and liabilities of the acquired subsidiaries are included in the scope of consolidation from the date that control commences, based on the fair value of those identifiable assets and liabilities at the acquisition date.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

III. Summary of significant accounting policies and accounting estimates *(continued)*

6. Consolidated financial statements *(continued)*

(3) Disposal of subsidiaries

When the Group loses control over a subsidiary, any resulting disposal gains or losses are recognized as investment income for the current period. The remaining equity interests is re-measured at its fair value at the date when control is lost, any resulting gains or losses are also recognized as investment income for the current period.

When the Group loses control of a subsidiary in multiple transactions in which it disposes of its long-term equity investment in the subsidiary in stages, the following are considered to determine whether the Group should account for the multiple transactions as a bundled transaction:

– arrangements are entered into at the same time or in contemplation of each other;

– arrangements work together to achieve an overall commercial effect;

– the occurrence of one arrangement is dependent on the occurrence of at least one other arrangement;

– one arrangement considered on its own is not economically justified, but it is economically justified when considered together with other arrangements.

If each of the multiple transactions does not form part of a bundled transaction, the transactions conducted before the loss of control of the subsidiary are accounted for in accordance with the accounting policy for partial disposal of equity investment in subsidiaries where control is retained (see Note III.6(4)).

If each of the multiple transactions forms part of a bundled transaction which eventually results in the loss of control in the subsidiary, these multiple transactions are accounted for as a single transaction. In the consolidated financial statements, the difference between the consideration received and the corresponding proportion of the subsidiary's net assets (calculated continuously from the acquisition date) in each transaction prior to the loss of control shall be recognized in other comprehensive income and transferred to profit or loss when the parent eventually loses control of the subsidiary.

(4) Changes in non-controlling interests

Where the Company acquires a non-controlling interest from a subsidiary's non-controlling shareholders or disposes of a portion of an interest in a subsidiary without a change in control, the difference between the proportion interests of the subsidiary's net assets being acquired or disposed and the amount of the consideration paid or received is adjusted to the capital reserve (share premium) in the consolidated balance sheet, with any excess adjusted to retained earnings.

III. Summary of significant accounting policies and accounting estimates *(continued)*

7. Cash and cash equivalents

Cash and cash equivalents comprise cash on hand, deposits that can be readily withdraw on demand, and short-term, highly liquid investments that are readily convertible into known amounts of cash and are subject to an insignificant risk of change in value.

8. Foreign currency transactions

When the Group receives capital in foreign currencies from investors, the capital is translated to Renminbi at the spot exchange rate at the date of the receipt. Other foreign currency transactions are, on initial recognition, translated to Renminbi at the spot exchange rates on the dates of the transactions.

Monetary items denominated in foreign currencies are translated to Renminbi at the spot exchange rate at the balance sheet date. The resulting exchange differences are generally recognized in profit or loss, unless they arise from the re-translation of the principal and interest of specific borrowings for the acquisition of qualifying assets (see Note III.15). Non-monetary items that are measured at historical cost in foreign currencies are translated to Renminbi using the exchange rate at the transaction date. Effect of foreign exchange rate changes on cash is presented separately in the cash flow statement.

9. Financial instruments

Financial instruments include cash at bank and on hand, account receivables, account payables, loans and borrowings, and share capital.

(1) Recognition and initial measurement of financial assets and financial liabilities

A financial asset or financial liability is recognized in the balance sheet when the Group becomes a party to the contractual provisions of a financial instrument.

A financial asset or financial liability is measured initially at fair value. For financial assets and financial liabilities at fair value through profit or loss, any related directly attributable transaction costs are charged to profit or loss; for other categories of financial assets and financial liabilities, any related directly attributable transaction costs are included in their initial costs. A trade receivable, without significant financing component or practical expedient applied for one year or less contracts, is initially measured at the transaction price in accordance with Note III.21.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

III. Summary of significant accounting policies and accounting estimates *(continued)*

9. Financial instruments *(continued)*

(2) Classification and subsequent measurement of financial assets

(a) Classification of financial assets

The classification of financial assets is generally based on the business model in which a financial asset is managed and its contractual cash flow characteristics. On initial recognition, a financial asset is classified as measured at amortized cost, at fair value through other comprehensive income (“FVOCI”), or at fair value through profit or loss (“FVTPL”).

Financial assets are not reclassified subsequent to their initial recognition unless the Group changes its business model for managing financial assets in which case all affected financial assets are reclassified on the first day of the first reporting period following the change in the business model.

A financial asset is measured at amortized cost if it meets both of the following conditions and is not designated as at FVTPL:

– it is held within a business model whose objective is to hold assets to collect contractual cash flows; and

– its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

A debt investment is measured at FVOCI if it meets both of the following conditions and is not designated as at FVTPL:

– it is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets; and

– its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

III. Summary of significant accounting policies and accounting estimates *(continued)*

9. Financial instruments *(continued)*

(2) Classification and subsequent measurement of financial assets *(continued)*

(a) Classification of financial assets (continued)

On initial recognition of an equity investment that is not held for trading, the Group may irrevocably elect to present subsequent changes in the investment's fair value in other comprehensive income, and listed them as other equity instrument investments. This election is made on an investment-by-investment basis. The instrument meets the definition of equity from the perspective of the issuer. The relevant dividend income of such financial assets is included in the current profit and loss.

All financial assets not classified as measured at amortized cost or FVOCI as described above are measured at FVTPL. On initial recognition, the Group may irrevocably designate a financial asset that otherwise meets the requirements to be measured at amortized cost or at FVOCI as at FVTPL if doing so eliminates or significantly reduces an accounting mismatch that would otherwise arise.

The business model refers to how the Group manages its financial assets in order to generate cash flows. That is, the Group's business model determines whether cash flows will result from collecting contractual cash flows, selling financial assets or both. The Group determines the business model for managing the financial assets according to the facts and based on the specific business objective for managing the financial assets determined by the Group's key management personnel.

In assessing whether the contractual cash flows are solely payments of principal and interest, the Group considers the contractual terms of the instrument. For the purposes of this assessment, 'principal' is defined as the fair value of the financial asset on initial recognition. 'Interest' is defined as consideration for the time value of money and for the credit risk associated with the principal amount outstanding during a particular period of time and for other basic lending risks and costs, as well as a profit margin. The Group also assesses whether the financial asset contains a contractual term that could change the timing or amount of contractual cash flows such that it would not meet this condition.

(b) Subsequent measurement of financial assets

– Financial assets at FVTPL

These financial assets are subsequently measured at fair value. Net gains and losses, including any interest or dividend income, are recognized in profit or loss unless the financial assets are part of a hedging relationship. Those maturing more than one year from the balance sheet date and expected to be held for more than one year shall be listed as other non-current financial assets, while the rest shall be listed as trading financial assets.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

III. Summary of significant accounting policies and accounting estimates *(continued)*

9. Financial instruments *(continued)*

(2) Classification and subsequent measurement of financial assets *(continued)*

(b) Subsequent measurement of financial assets (continued)

– Financial assets at amortized cost

These assets are subsequently measured at amortized cost using the effective interest method. A gain or loss on a financial asset that is measured at amortized cost and is not part of a hedging relationship shall be recognized in profit or loss when the financial asset is derecognized, reclassified, through the amortization process or in order to recognize impairment gains or losses. Such financial assets mainly include cash at bank and on hand, accounts receivable, other receivables and investments in debt securities, etc. The Group shall list the investments in debt securities that is due within one year (including one year) from the date of balance sheet as non-current assets that are due within one year; The investments in debt securities that is due within one year (including one year) at the time of acquisition is listed as other current assets. The investments in debt securities that is due more than one year from the date of balance sheet is listed as other non-current assets.

– Debt investments at FVOCI

These assets are subsequently measured at fair value. Interest income calculated using the effective interest method, impairment and foreign exchange gains and losses are recognized in profit or loss. Other net gains and losses are recognized in other comprehensive income. On derecognition, gains and losses accumulated in other comprehensive income are reclassified to profit or loss. Such financial assets are listed as receivables under financing, other investments in debt securities, and other investments in debt securities that are due within one year (including one year) from the date of balance sheet are listed as non-current assets that are due within one year; Other investments in debt securities with a maturity of one year (including one year) at the time of acquisition are listed as other current assets.

– Equity investments at FVOCI

These assets are subsequently measured at fair value. Dividends are recognized as income in profit or loss. Other net gains and losses are recognized in other comprehensive income. On derecognition, gains and losses accumulated in other comprehensive income are reclassified to retained earnings.

III. Summary of significant accounting policies and accounting estimates *(continued)*

9. Financial instruments *(continued)*

(3) Classification and subsequent measurement of financial liabilities

Financial liabilities are classified as measured at FVTPL or amortized cost.

– Financial liabilities at FVTPL

A financial liability is classified as at FVTPL if it is classified as held-for-trading (including derivative financial liability) or it is designated as such on initial recognition.

Financial liabilities at FVTPL are subsequently measured at fair value and net gains and losses, including any interest expense, are recognized in profit or loss, unless the financial liabilities are part of a hedging relationship.

– Financial liabilities at amortized cost

These financial liabilities are subsequently measured at amortized cost using the effective interest method.

The financial liabilities of the Group are mainly financial liabilities measured by amortized cost, including bills payable and accounts payable, other payables, loans, etc. Such financial liabilities are initially measured according to their fair value after deducting transaction costs and are subsequently measured by the effective interest rate method. Where the term is less than one year (including one year), it shall be listed as current liabilities; If the term is more than one year, but the term is due within one year (including one year) from the balance sheet date, it shall be listed as non-current liabilities that are due within one year; The rest are shown as non-current liabilities.

(4) Offsetting

Financial assets and financial liabilities are generally presented separately in the balance sheet and are not offset. However, a financial asset and a financial liability are offset and the net amount is presented in the balance sheet when both of the following conditions are satisfied:

– The Group currently has a legally enforceable right to set off the recognized amounts;

– The Group intends either to settle on a net basis, or to realize the financial asset and settle the financial liability simultaneously.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

III. Summary of significant accounting policies and accounting estimates *(continued)*

9. Financial instruments *(continued)*

(5) Derecognition of financial assets and financial liabilities

Financial asset is derecognized when one of the following conditions is met:

- the Group's contractual rights to the cash flows from the financial asset expire;
- the financial asset has been transferred and the Group transfers substantially all of the risks and rewards of ownership of the financial asset; or;
- the financial asset has been transferred, although the Group neither transfers nor retains substantially all of the risks and rewards of ownership of the financial asset, it does not retain control over the transferred asset.

Where a transfer of a financial asset in its entirety meets the criteria for derecognition, the difference between the two amounts below is recognized in profit or loss:

- the carrying amount of the financial asset transferred measured at the date of derecognition;
- the sum of the consideration received from the transfer and, when the transferred financial asset is a debt investment at FVOCI, any cumulative gain or loss that has been recognized directly in other comprehensive income for the part derecognized.

The Group derecognizes a financial liability (or part of it) only when its contractual obligation (or part of it) is extinguished. The difference between the carrying amount of the part to be recognized and the consideration paid shall be recorded into the profit and loss of the current period.

(6) Impairment

The Group recognizes loss allowances for expected credit loss (ECL) on:

- financial assets measured at amortized cost;
- debt investments measured at FVOCI.

III. Summary of significant accounting policies and accounting estimates *(continued)*

9. Financial instruments *(continued)*

(6) Impairment *(continued)*

Financial assets measured at fair value, including equity securities designated at FVOCI and derivative financial assets, are not subject to the ECL assessment.

Measurement of ECLs

ECLs are a probability-weighted estimate of credit losses. Credit losses are measured as the present value of all cash shortfalls (i.e., the difference between the cash flows due to the entity in accordance with the contract and the cash flows that the Group expects to receive).

The maximum period considered when estimating ECLs is the maximum contractual period (including extension options) over which the Group is exposed to credit risk.

Lifetime ECLs are the ECLs that result from all possible default events over the expected life of a financial instrument.

12-month ECLs are the portion of ECLs that result from default events that are possible within the 12 months after the balance sheet date (or a shorter period if the expected life of the instrument is less than 12 months).

Loss allowances for trade receivables and contract assets are always measured at an amount equal to lifetime ECL. ECLs on these financial assets are estimated using a provision matrix based on the Group's historical credit loss experience, adjusted for factors that are specific to the debtors and an assessment of both the current and forecast general economic conditions at the balance sheet date.

Except for trade receivables and contract assets, the Group measures loss allowance at an amount equal to 12-month ECL for the following financial instruments, and at an amount equal to lifetime ECL for all other financial instruments.

– If the financial instrument is determined to have low credit risk at the balance sheet date;

– If the credit risk on a financial instrument has not increased significantly since initial recognition.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

III. Summary of significant accounting policies and accounting estimates *(continued)*

9. Financial instruments *(continued)*

(6) Impairment *(continued)*

Financial instruments that have low credit risk

The credit risk on a financial instrument is considered low if the financial instrument has a low risk of default, the borrower has a strong capacity to meet its contractual cash flow obligations in the near term and 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.

Significant increases in credit risk

In assessing whether the credit risk of a financial instrument has increased significantly since initial recognition, the Group compares the risk of default occurring on the financial instrument assessed at the balance sheet date with that assessed at the date of initial recognition.

When determining whether the credit risk of a financial asset has increased significantly since initial recognition and when estimating ECL, the Group considers reasonable and supportable information that is relevant and available without undue cost or effort, including forward-looking information. In particular, the following information is taken into account:

– failure to make payments of principal or interest on their contractually due dates;

– an actual or expected significant deterioration in a financial instrument's external or internal credit rating (if available);

– an actual or expected significant deterioration in the operating results of the debtor; and

– existing or forecast changes in the technological, market, economic or legal environment that have a significant adverse effect on the debtor's ability to meet its obligation to the Group.

Depending on the nature of the financial instruments, the assessment of a significant increase in credit risk is performed on either an individual basis or a collective basis. When the assessment is performed on a collective basis, the financial instruments are grouped based on shared credit risk characteristics, such as past due status and credit risk ratings.

The Group assumes that the credit risk on a financial asset has increased significantly if it is more than 30 days past due.

III. Summary of significant accounting policies and accounting estimates *(continued)*

9. Financial instruments *(continued)*

(6) Impairment *(continued)*

Credit-impaired financial assets

At each balance sheet date, the Group assesses whether financial assets carried at amortized cost and debt investments at FVOCI are credit-impaired. A financial asset is 'credit-impaired' when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred. Evidence that a financial asset is credit-impaired includes the following observable data:

– significant financial difficulty of the borrower or issuer;

– a breach of contract, such as a default or delinquency in interest or principal payments;

– for economic or contractual reasons relating to the borrower's financial difficulty, the Group having granted to the borrower a concession that would not otherwise consider;

– it is probable that the borrower will enter bankruptcy or other financial reorganization; or

– the disappearance of an active market for that financial asset because of financial difficulties.

Presentation of allowance for ECL

ECLs are remeasured at each balance sheet date to reflect changes in the financial instrument's credit risk since initial recognition. Any change in the ECL amount is recognized as an impairment gain or loss in profit or loss. The Group recognizes an impairment gain or loss for all financial instruments with a corresponding adjustment to their carrying amount through a loss allowance account, except for debt investments that are measured at FVOCI, for which the loss allowance is recognized in other comprehensive income.

Write-off

The gross carrying amount of a financial asset is written off (either partially or in full) to the extent that there is no realistic prospect of recovery. A write-off constitutes a derecognition event. This is generally the case when the Group determines that the debtor does not have assets or sources of income that could generate sufficient cash flows to repay the amounts subject to the write-off. However, financial assets that are written off could still be subject to enforcement activities in order to comply with the Group's procedures for recovery of amounts due.

Subsequent recoveries of an asset that was previously written off are recognized as a reversal of impairment in profit or loss in the period in which the recovery occurs.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

III. Summary of significant accounting policies and accounting estimates *(continued)*

9. Financial instruments *(continued)*

(7) Equity instrument

The consideration received from the issuance of equity instruments net of transaction costs is recognized in shareholders' equity. Consideration and transaction costs paid by the Company for repurchasing self-issued equity instruments are deducted from shareholders' equity.

When the Company repurchases its own shares, those shares are treated as treasury shares. All expenditure relating to the repurchase is recorded in the cost of the treasury shares, with the transaction recording in the share register. Treasury shares are excluded from profit distributions and are presented as a deduction under shareholders' equity in the balance sheet.

When treasury shares are cancelled, the share capital should be reduced to the extent of the total par value of the treasury shares cancelled. Where the cost of the treasury shares cancelled exceeds the total par value, the excess is deducted from capital reserve (share premium), surplus reserve and retained earnings sequentially. If the cost of treasury shares cancelled is less than the total par value, the difference is credited to the capital reserve (share premium).

When treasury shares are disposed of, any excess of proceeds above cost is recognized in capital reserve (share premium); otherwise, the shortfall is deducted against capital reserve (share premium), surplus reserve and retained earnings sequentially.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

III. Summary of significant accounting policies and accounting estimates *(continued)*

10. Inventories

(1) Classification and cost

Inventories include raw materials, work in progress, semi-finished goods, finished goods and reusable materials. Reusable materials include low-value consumables, packaging materials and other materials, which can be used repeatedly but do not meet the definition of fixed assets.

Inventories are initially measured at cost. Cost of inventories comprises all costs of purchase, costs of conversion and other expenditure incurred in bringing the inventories to their present location and condition. In addition to the purchase cost of raw materials, work in progress and finished goods include direct labor costs and an appropriate allocation of production overheads.

(2) Measurement method of cost of inventories

Cost of inventories recognized is calculated using the weighted average method.

Consumables including low-value consumables and packaging materials are charged to profit or loss upon receipt. The amortization charge is included in the cost of the related assets or recognized in profit or loss for the current period.

(3) Basis for determining the net realizable value and method for provision for obsolete inventories

At the balance sheet date, inventories are carried at the lower of cost and net realizable value.

Net realizable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale and relevant taxes. The net realizable value of materials held for use in the production is measured based on the net realizable value of the finished goods in which they will be incorporated. The net realizable value of the inventory held to satisfy sales or service contracts is measured based on the contract price, to the extent of the quantities specified in sales contracts, and the excess portion of inventories is measured based on general selling prices.

Any excess of the cost over the net realizable value of each item of inventories is recognized as a provision for obsolete inventories, and is recognized in profit or loss.

(4) Inventory count system

The Group maintains a perpetual inventory system.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

III. Summary of significant accounting policies and accounting estimates *(continued)*

11. Long-term equity investments

(1) Investment cost of long-term equity investments

(a) Long-term equity investments acquired through a business combination

- The initial cost of a long-term equity investment acquired through a business combination involving entities under common control is the Company's share of the carrying amount of the subsidiary's equity in the consolidated financial statements of the ultimate controlling party at the combination date. The difference between the initial investment cost and the carrying amount of the consideration given is adjusted to the share premium in the capital reserve, with any excess adjusted to retained earnings. For a long-term equity investment in a subsidiary acquired through a business combination achieved in stages which do not form a bundled transaction and involving entities under common control, the Company determines the initial cost of the investment in accordance with the above policies. The difference between this initial cost and the sum of the carrying amount of previously-held investment and the consideration paid for the shares newly acquired is adjusted to capital premium in the capital reserve, with any excess adjusted to retained earnings.

- For a long-term equity investment obtained through a business combination not involving entities under common control, the initial cost comprises the aggregate of the fair value of assets transferred, liabilities incurred or assumed, and equity securities issued by the Company, in exchange for control of the acquiree. For a long-term equity investment obtained through a business combination not involving entities under common control and achieved through multiple transactions in stages which do not form a bundled transaction, the initial cost comprises the carrying amount of the previously-held equity investment in the acquiree immediately before the acquisition date, and the additional investment cost at the acquisition date.

(b) Long-term equity investments acquired other than through a business combination

- A long-term equity investment acquired other than through a business combination is initially recognized at the amount of cash paid if the Group acquires the investment by cash, or at the fair value of the equity securities issued if an investment is acquired by issuing equity securities.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

III. Summary of significant accounting policies and accounting estimates *(continued)*

11. Long-term equity investments *(continued)*

(2) Subsequent measurement of long-term equity investment

(a) Investments in subsidiaries

In the Company's separate financial statements, long-term equity investments in subsidiaries are accounted for using the cost method for subsequent measurement. Except for cash dividends or profit distributions declared but not yet distributed that have been included in the price or consideration paid in obtaining the investments, the Company recognizes its share of the cash dividends or profit distributions declared by the investee as investment income for the current period.

The investments in subsidiaries are stated in the balance sheet at cost less accumulated impairment losses.

For the impairment of the investments in subsidiaries, refer to Note III.18.

In the Group's consolidated financial statements, subsidiaries are accounted for in accordance with the policies described in Note III.5.

(b) Investment in joint ventures and associates

A joint venture is an arrangement whereby the Group and other parties have joint control (see Note III.11(3)) and rights to the net assets of the arrangement.

An associate is an entity over which the Group has significant influence (see Note III.11(3)).

An investment in a joint venture or an associate is accounted for using the equity method for subsequent measurement.

The accounting treatments under the equity method adopted by the Group are as follows:

– Where the initial cost of a long-term equity investment exceeds the Group's interest in the fair value of the investee's identifiable net assets at the date of acquisition, the investment is initially recognized at cost. Where the initial investment cost is less than the Group's interest in the fair value of the investee's identifiable net assets at the date of acquisition, the investment is initially recognized at the investor's share of the fair value of the investee's identifiable net assets, and the difference is recognized in profit or loss.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

III. Summary of significant accounting policies and accounting estimates *(continued)*

11. Long-term equity investments *(continued)*

(2) Subsequent measurement of long-term equity investment *(continued)*

(b) Investment in joint ventures and associates (continued)

– After the acquisition of the investment, the Group recognizes its share of the investee's profit or loss and other comprehensive income as investment income or losses and other comprehensive income respectively, and adjusts the carrying amount of the investment accordingly. Once the investee declares any cash dividends or profit distributions, the carrying amount of the investment is reduced by the amount attributable to the Group. Changes in the Group's share of the investee's owners' equity, other than those arising from the investee's net profit or loss, other comprehensive income or profit distribution (referred to as "other changes in owners' equity"), is recognized directly in the Group's equity, and the carrying amount of the investment is adjusted accordingly.

– In calculating its share of the investee's net profits or losses, other comprehensive income and other changes in owners' equity, the Group recognizes investment income and other comprehensive income after making appropriate adjustments to align the accounting policies or accounting periods with those of the Group based on the fair value of the investee's identifiable net assets at the date of acquisition. Unrealized profits and losses resulting from transactions between the Group and its associates or joint ventures are eliminated to the extent of the Group's interest in the associates or joint ventures. Unrealized losses resulting from transactions between the Group and its associates or joint ventures are eliminated in the same way as unrealized gains but only to the extent that there is no impairment.

– The Group discontinues recognizing its share of further losses of the investee after the carrying amount of the long-term equity investment and any long-term interest that in substance forms part of the Group's net investment in the joint venture or associate is reduced to zero, except to the extent that the Group has an obligation to assume additional losses. However, if the Group has obligations for additional losses and the criteria with respect to recognition of provisions under the accounting standards on contingencies are satisfied, the Group continues recognizing the investment losses and the provisions. If the joint venture or associate subsequently reports net profits, the Group resumes recognizing its share of those profits only after its share of the profits has fully covered the share of losses not recognized.

For the impairment of the investments in joint ventures and associates, refer to Note III.18.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

III. Summary of significant accounting policies and accounting estimates *(continued)*

11. Long-term equity investments *(continued)*

(3) Criteria for determining the existence of joint control or significant influence over an investee

Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities (activities with significant impact on the returns of the arrangement) require the unanimous consent of the parties sharing control.

The following factors are usually considered when assessing whether the Group can exercise joint control over an investee:

– Whether no single participant party is in a position to control the investee's related activities unilaterally;

– Whether strategic decisions relating to the investee's related activities require the unanimous consent of all participant parties that sharing of control.

Significant influence is the power to participate in the financial and operating policy decisions of an investee but does not have control or joint control over those policies.

12. Investment properties

Investment properties are properties held either to earn rental income or for capital appreciation or for both. Investment properties are accounted for using the cost model and stated in the balance sheet at cost less accumulated depreciation, amortization and impairment losses. The cost of investment property, less its estimated residual value and accumulated impairment losses, is depreciated or amortized using the straight-line method over its estimated useful life, unless the investment property is classified as held for sale. For the impairment of the investment properties, refer to Note III.18.

Class	Estimated useful life (years)	Residual value rate (%)	Depreciation rate (%)
Plant and buildings	30-40 years	3%	2.4%-3.2%

When an investment property is transferred to owner-occupied properties, it is reclassified as fixed asset or intangible asset at the date of the transfer. When an owner-occupied property is transferred out for earning rentals or for capital appreciation, the fixed asset or intangible asset is reclassified as investment properties at its carrying amount at the date of the transfer.

The investment property's estimated useful life, net residual value and depreciation method applied are reviewed and adjusted as appropriate at each year-end.

An investment property is derecognized on disposal or when the investment property is permanently withdrawn from use and no future economic benefits are expected from its disposal. The net amount of proceeds from sale, transfer, retirement or damage of an investment property after its carrying amount and related taxes and expenses is recognized in profit or loss for the current period.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

III. Summary of significant accounting policies and accounting estimates *(continued)*

13. Fixed assets

(1) Recognition of fixed assets

Fixed assets represent the tangible assets held by the Group for use in production of goods or for administrative purposes with useful lives over one accounting year.

The cost of a purchased fixed asset comprises the purchase price, related taxes, and any directly attributable expenditure for bringing the asset to working condition for its intended use. The cost of self-constructed assets is measured in accordance with the policy set out in Note III.14. The fixed assets injected by the state-owned shareholder during the restructuring were initially recorded at the valuated amount approved by the relevant authorities managing state-owned assets.

Where the parts of an item of fixed assets have different useful lives or provide benefits to the Group in a different pattern, thus necessitating use of different depreciation rates or methods, each part is recognized as a separate fixed asset.

Any subsequent costs including the cost of replacing part of an item of fixed assets are recognized as assets when it is probable that the economic benefits associated with the costs will flow to the Group, and the carrying amount of the replaced part is derecognized. The costs of the day-to-day maintenance of fixed assets are recognized in profit or loss as incurred.

Fixed assets are stated in the balance sheet at cost less accumulated depreciation and impairment losses.

(2) Depreciation of fixed assets

The cost of a fixed asset, less its estimated residual value and accumulated impairment losses, is depreciated using the straight-line method over its estimated useful life.

The estimated useful lives, residual value rates and depreciation rates of each class of fixed assets are as follows:

Class	Estimated useful life (years)	Residual value rate (%)	Depreciation rate (%)
Buildings	12~40 years	0%~5%	2.4%~8.3%
Plant and machinery	5~20 years	0%~5%	4.8%~20.0%
Vehicles and other equipment	4~20 years	0%~5%	4.8%~25.0%

Useful lives, estimated residual values and depreciation methods are reviewed at least at each year-end.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

III. Summary of significant accounting policies and accounting estimates *(continued)*

13. Fixed assets *(continued)*

(3) For the impairment of the fixed assets, refer to Note III.18.

(4) Disposal of fixed assets

The carrying amount of a fixed asset is derecognized:

– when the fixed asset is holding for disposal; or

– when no future economic benefit is expected to be generated from its use or disposal.

Gains or losses arising from the retirement or disposal of an item of fixed asset are determined as the difference between the net disposal proceeds and the carrying amount of the item, and are recognized in profit or loss on the date of retirement or disposal.

14. Construction in progress

The cost of self-constructed assets includes the cost of materials, direct labour, capitalized borrowing costs (see Note III.15), and any other costs directly attributable to bringing the asset to working condition for its intended use.

A self-constructed asset is classified as construction in progress and transferred to fixed asset when it is ready for its intended use, and depreciation begins from the following month. No depreciation is provided against construction in progress.

Construction in progress is stated in the balance sheet at cost less accumulated impairment losses (see Note III.18).

The Group sells the products or by-products produced before the fixed assets are ready for their intended use. In accordance with CAS No.14 – Revenue, CAS No.1 – Inventory and other standards, the relevant income and cost are accounted for separately and recognized in profit or loss.

III. Summary of significant accounting policies and accounting estimates *(continued)*

15. Borrowing costs

Borrowing costs incurred directly attributable to the acquisition and construction of a qualifying asset are capitalized as part of the cost of the asset. Other borrowing costs are recognized as financial expenses when incurred.

During the capitalization period, the amount of interest (including amortization of any discount or premium on borrowing) to be capitalized in each accounting period is determined as follows:

– Where funds are borrowed specifically for the acquisition, and construction or production of a qualifying asset, the amount of interest to be capitalized is the interest expense calculated using effective interest rates during the period less any interest income earned from depositing the borrowed funds or any investment income on the temporary investment of those funds before being used on the asset.

– To the extent that the Group borrows funds generally and uses them for the acquisition, and construction or production of a qualifying asset, the amount of borrowing costs eligible for capitalization is determined by applying a capitalization rate to the weighted average of the excess amounts of cumulative expenditure on the asset over the above amounts of specific borrowings. The capitalization rate is the weighted average of the interest rates applicable to the general-purpose borrowings.

The effective interest rate is determined as the rate that exactly discounts estimated future cash flow through the expected life of the borrowing or, when appropriate, a shorter period to the initially recognized amount of the borrowings.

During the capitalization period, exchange differences related to the principal and interest on a specific-purpose borrowing denominated in foreign currency are capitalized as part of the cost of the qualifying asset. The exchange differences related to the principal and interest on foreign currency borrowings other than a specific-purpose borrowing are recognized as a financial expense when incurred.

The capitalization period is the period from the date of commencement of capitalization of borrowing costs to the date of cessation of capitalization, excluding any period over which capitalization is suspended. Capitalization of borrowing costs commences when expenditure for the asset is being incurred, borrowing costs are being incurred and activities of acquisition and construction that are necessary to prepare the asset for its intended use are in progress, and ceases when the assets become ready for their intended use. Capitalization of borrowing costs is suspended when the acquisition and construction activities are interrupted abnormally for a period of more than three months.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

III. Summary of significant accounting policies and accounting estimates *(continued)*

16. Intangible assets

Intangible assets are stated in the balance sheet at cost less accumulated amortization (where the estimated useful life is finite) and impairment losses (see Note III.18). For an intangible asset with finite useful life, its cost less estimated residual value and accumulated impairment losses is amortized using the straight-line method over its estimated useful life, unless the intangible asset is classified as held for sale. The intangible assets injected by the state-owned shareholder during the restructuring were initially recorded at the valuated amount approved by the relevant authorities managing state-owned assets.

The respective amortization periods for intangible assets are as follows:

Item	Amortization period (years)
Land-use right	20-50 years
Other intangible assets	2-28 years

Useful lives and amortization methods of intangible asset with finite useful life are reviewed at least at each year-end.

An intangible asset is regarded as having an indefinite useful life and is not amortized when there is no foreseeable limit to the period over which the asset is expected to generate economic benefits for the Group. At the balance sheet date, the Group does not have any intangible assets with indefinite useful lives.

Expenditure on an internal research and development project is classified into expenditure incurred during the research phase and expenditure incurred during the development phase.

Expenditure during the research phase is expensed when incurred. Expenditure during the development phase is capitalized if development costs can be measured reliably, the product or process is technically and commercially feasible, and the Group intends to and has sufficient resources to complete the development. Capitalized development costs are stated in the balance sheet at cost less impairment losses (see Note III.18). Other development expenditure is recognized as an expense in the period in which it is incurred.

For the external sales of products or by-products produced in the research and development process, the relevant income and cost are accounted for separately and recognized in profit or loss in accordance with CAS No.14 – Revenue, CAS No.1 – Inventory and other standards.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

III. Summary of significant accounting policies and accounting estimates *(continued)*

17. Long-term deferred expenses

Long-term prepaid expenses mainly include the catalyst expenditures, leasehold improvements and other expenditures that have been incurred but should be recognized as expenses over more than one year in the current and subsequent periods.

Long-term deferred expenses are amortized using a straight-line method within the benefit period. The respective amortization periods for such expenses are as follows:

Item	Amortization period
Catalysts	1.5-10 years
Leasehold improvements	15-27 years

18. Impairment of assets other than inventories and financial assets

The carrying amounts of the following assets are reviewed at each balance sheet date based on internal and external sources of information to determine whether there is any indication of impairment:

– fixed assets

– construction in progress

– right-of-use assets

– intangible assets

– investment properties measured using a cost model

– long-term equity investments

– long-term deferred expenses, etc.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

III. Summary of significant accounting policies and accounting estimates *(continued)*

18. Impairment of assets other than inventories and financial assets *(continued)*

If any indication exists, the recoverable amount of the asset is estimated. In addition, the Group estimates the recoverable amounts of intangible assets not ready for use at least annually at each year-end, irrespective of whether there is any indication of impairment.

The recoverable amount of an asset (or asset group, set of asset groups) is the higher of its fair value (see Note III.19) less costs to sell and its present value of expected future cash flows.

An asset group is composed of assets directly related to cash generation and is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or asset groups.

The present value of expected future cash flows of an asset is determined by discounting the future cash flows, estimated to be derived from continuing use of the asset and from its ultimate disposal, to their present value using an appropriate pre-tax discount rate.

An impairment loss is recognized in profit or loss when the recoverable amount of an asset is less than its carrying amount. A provision for impairment of the asset is recognized accordingly. Impairment losses related to an asset group or a set of asset groups are allocated first to reduce the carrying amount of any goodwill allocated to the asset group or set of asset groups, and then to reduce the carrying amount of the other assets in the asset group or set of asset groups on a pro rata basis. However, such allocation would not reduce the carrying amount of an asset below the highest of its fair value less costs to sell (if measurable), its present value of expected future cash flows (if determinable) and zero.

Once an impairment loss is recognized, it is not reversed in a subsequent period.

19. Fair value measurement

Unless otherwise specified, the Group measures fair value as follows:

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

When measuring fair value, the Group takes into account the characteristics of the particular asset or liability (including the condition and location of the asset and restrictions, if any, on the sale or use of the asset) that market participants would consider when pricing the asset or liability at the measurement date, and uses valuation techniques that are appropriate in the circumstances and for which sufficient data and other information are available to measure fair value. Valuation techniques mainly include the market approach, the income approach and the cost approach.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

III. Summary of significant accounting policies and accounting estimates *(continued)*

20. Provisions

A provision is recognized for an obligation related to a contingency if the Group has a present obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation.

A provision is initially measured at the best estimate of the expenditure required to settle the related present obligation. Where the effect of the time value of money is material, provisions are determined by discounting the expected future cash flows. The increase in the discounted amount of the provision arising from passage of time is recognized as interest expense. Factors pertaining to a contingency such as the risks, uncertainties and time value of money are taken into account as a whole in reaching the best estimate. Where there is a continuous range of possible outcomes for the expenditure required, and each possible outcome in that range is as likely as any other, the best estimate is the mid-point of that range. In other cases, the best estimate is determined according to the following circumstances:

– Where the contingency involves a single item, the best estimate is the most likely outcome.

– Where the contingency involves a large population of items, the best estimate is determined by weighting all possible outcomes by their associated probabilities.

The Group reviews the carrying amount of a provision at the balance sheet date and adjusts the carrying amount to the current best estimate. The estimated liabilities expected to be paid within one year from the balance sheet date are listed as current liabilities.

21. Revenue recognition

Revenue is the gross inflow of economic benefits arising in the course of the Group's ordinary activities when the inflows result in increase in shareholders' equity, other than increase relating to contributions from shareholders.

Revenue is recognized when the Group satisfies the performance obligation in the contract by transferring the control over relevant goods or services to the customers.

Where a contract has two or more performance obligations, the Group determines the stand-alone selling price at contract inception of the distinct good or service underlying each performance obligation in the contract and allocates the transaction price in proportion to those stand-alone selling prices. The Group recognizes as revenue the amount of the transaction price that is allocated to each performance obligation. The stand-alone selling price is the price at which the Group would sell a promised good or service separately to a customer. If a stand-alone selling price is not directly observable, the Group considers all information that is reasonably available to the entity, maximizes the use of observable inputs to estimate the stand-alone selling price.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

III. Summary of significant accounting policies and accounting estimates *(continued)*

21. Revenue recognition *(continued)*

For the contract with a warranty, the Group analyses the nature of the warranty provided, if the warranty provides the customer with a distinct service in addition to the assurance that the product complies with agreed-upon specifications, the Group recognizes for the promised warranty as a performance obligation. Otherwise, the Group accounts for the warranty in accordance with the requirements of CAS No.13 – Contingencies.

The transaction price is the amount of consideration to which the Group expects to be entitled in exchange for transferring promised goods or services to a customer, excluding amounts collected on behalf of third parties. The Group recognizes the transaction price only to the extent that it is highly probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved. Where the contract contains a significant financing component, the Group recognizes the transaction price at an amount that reflects the price that a customer would have paid for the promised goods or services if the customer had paid cash for those goods or services when (or as) they transfer to the customer. The difference between the amount of promised consideration and the cash selling price is amortized using an effective interest method over the contract term. The Group does not adjust the consideration for any effects of a significant financing component if it expects, at contract inception, that the period between when the Group transfers a promised good or service to a customer and when the customer pays for that good or service will be one year or less.

The Group satisfies a performance obligation over time if one of the following criteria is met; or otherwise, a performance obligation is satisfied at a point in time:

– the customer simultaneously receives and consumes the benefits provided by the Group's performance as the Group performs;

– the customer can control the asset created or enhanced during the Group's performance; or

– the Group's performance does not create an asset with an alternative use to it and the Group has an enforceable right to payment for performance completed to date.

For performance obligation satisfied over time, the Group recognizes revenue over time by measuring the progress towards complete satisfaction of that performance obligation. When the outcome of that performance obligation cannot be measured reasonably, but the Group expects to recover the costs incurred in satisfying the performance obligation, the Group recognizes revenue only to the extent of the costs incurred until such time that it can reasonably measure the outcome of the performance obligation.

III. Summary of significant accounting policies and accounting estimates *(continued)*

21. Revenue recognition *(continued)*

For performance obligation satisfied at a point in time, the Group recognizes revenue at the point in time at which the customer obtains control of relevant goods or services. To determine whether a customer has obtained control of goods or services, the Group considers the following indicators:

– the Group has a present right to payment for the goods or services;

– the Group has transferred physical possession of the goods to the customer;

– the Group has transferred the legal title of the goods or the significant risks and rewards of ownership of the goods to the customer; and

– the customer has accepted the goods or services, etc.

The Group determines whether it is a principal or an agent, depending on whether it obtains control of the specified good or service before that good or service is transferred to a customer. The Group is a principal if it controls the specified good or service before that good or service is transferred to a customer, and recognizes revenue in the gross amount of consideration to which it has received (or receivable). Otherwise, the Group is an agent, and recognizes revenue in the amount of any fee or commission to which it expects to be entitled. The fee or commission is the net amount of consideration that the Group retains after paying the other party the consideration, or is the established amount or proportion.

A contract asset is the Group's right to consideration in exchange for goods or services that it has transferred to a customer when that right is conditional on something other than the passage of time. The Group recognizes loss allowances for expected credit loss on contract assets (see Note III 9(6)). Accounts receivable is the Group's right to consideration that is unconditional (only the passage of time is required). A contract liability is the Group's obligation to transfer goods or services to a customer for which the Group has received consideration (or an amount of consideration is due) from the customer.

The following is the description of accounting policies regarding revenue from the Group's principal activities:

(1) Sale of goods

Revenue from sale is recognized when all of the general conditions stated above and the following conditions are satisfied: the significant risks and rewards of ownership of goods have been transferred to the buyer, as well as the Group retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold. The Group recognizes revenue when goods are sent to designated place or customer take delivery of the goods from Group's designated warehouse, and confirmed receipt by customers according to the terms of contract.

The Group provides discounts based on the sales amount, and recognizes revenue based on the contract value exclude expected discounts.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

III. Summary of significant accounting policies and accounting estimates *(continued)*

21. Revenue recognition *(continued)*

(2) Rendering of overseas shipping services

Revenue from the rendering of overseas shipping services is recognized using the percentage of completion method, with the stage of completion being determined based on proportion of shipping time incurred to date to the estimated total shipping time.

(3) Interest income

Interest income is calculated by the time of lending money and the actual interest rate.

22. Contract costs

Contract costs are either the incremental costs of obtaining a contract with a customer or the costs to fulfil a contract with a customer.

Incremental costs of obtaining a contract are those costs that the Group incurs to obtain a contract with a customer that it would not have incurred if the contract had not been obtained (e.g., an incremental sales commission). The Group recognizes as an asset the incremental costs of obtaining a contract with a customer if it expects to recover those costs. Other costs of obtaining a contract are expensed when incurred.

If the costs to fulfil a contract with a customer are not within the scope of inventories or other accounting standards, the Group recognizes an asset from the costs incurred to fulfil a contract only if those costs meet all of the following criteria:

– the costs relate directly to an existing contract or to a specifically identifiable anticipated contract, including direct labor, direct materials, allocations of overheads (or similar costs), costs that are explicitly chargeable to the customer and other costs that are incurred only because the Group entered into the contract;

– the costs generate or enhance resources of the Group that will be used in satisfying performance obligations in the future;

– the costs are expected to be recovered.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

III. Summary of significant accounting policies and accounting estimates *(continued)*

22. Contract costs *(continued)*

Assets recognized for the incremental costs of obtaining a contract and assets recognized for the costs to fulfil a contract (the "assets related to contract costs") are amortized on a systematic basis that is consistent with the transfer to the customer of the goods or services to which the assets relate and recognized in profit or loss for the current period. The Group recognizes the incremental costs of obtaining a contract as an expense when incurred if the amortization period of the asset that the entity otherwise would have recognized is one year or less.

The Group recognizes an impairment loss in profit or loss to the extent that the carrying amount of an asset related to contract costs exceeds:

- remaining amount of consideration that the Group expects to receive in exchange for the goods or services to which the asset relates; less

- the costs that relate directly to providing those goods or services that have not yet been recognized as expenses.

23. Employee benefits

(1) Short-term employee benefits

Employee wages or salaries, bonuses, social security contributions such as medical insurance, work injury insurance, maternity insurance and housing fund, measured at the amount incurred or accrued at the applicable benchmarks and rates, are recognized as a liability as the employee provides services, with a corresponding charge to profit or loss or included in the cost of assets where appropriate. Employee benefits which are non-monetary benefits are measured at fair value.

(2) Post employment benefits-defined contribution plans

Pursuant to the relevant laws and regulations of the People's Republic of China, the Group participated in a defined contribution basic pension insurance plan in the social insurance system established and managed by government organisations. The Group makes contributions to basic pension insurance plans based on the applicable benchmarks and rates stipulated by the government. When employees retire, the relevant local authorities are obliged to pay the basic pensions to them. Basic pension insurance contributions payable are recognized as a liability as the employee provides services, with a corresponding charge to profit or loss or included in the cost of assets where appropriate.

III. Summary of significant accounting policies and accounting estimates *(continued)*

23. Employee benefits *(continued)*

(3) Termination benefits

When the Group terminates the employment with employees before the employment contracts expire, or provides compensation under an offer to encourage employees to accept voluntary redundancy, a provision is recognized with a corresponding expense in profit or loss at the earlier of the following dates:

– When the Group cannot unilaterally withdraw the offer of termination benefits because of an employee termination plan or a curtailment proposal;

– When the Group has a formal detailed restructuring plan involving the payment of termination benefits and has raised a valid expectation in those affected that it will carry out the restructuring by starting to implement that plan or announcing its main features to those affected by it.

Termination benefits expected to be paid in one year are listed as current liabilities.

24. Government grants

Government grants are non-reciprocal transfers of monetary or non monetary assets from the government to the Group except for capital contributions from the government in the capacity as an investor in the Group. Special funds such as investment grants allocated by the government, if clearly defined in official documents as part of "capital reserve" are dealt with as capital contributions, are not regarded as government grants.

A government grant is recognized when there is reasonable assurance that the grant will be received and that the Group will comply with the conditions attaching to the grant.

If a government grant is in the form of a transfer of a monetary asset, it is measured at the amount received or receivable. If a government grant is in the form of a transfer of a non monetary asset, it is measured at fair value.

Government grants related to assets are grants whose primary condition is that the Group qualifying for them should purchase, construct or otherwise acquire long-term assets. Government grants related to income are grants other than those related to assets. A government grant related to an asset is offset against the carrying amount of the related asset or recognized as deferred income and amortized over the useful life of the related asset on a reasonable and systematic manner as other income or non-operating income. A grant that compensates the Group for expenses or losses to be incurred in the future is recognized as deferred income, and included in other income or non operating income offset against related expense in the periods in which the expenses or losses are recognized. Or included in other income or non-operating income offset against the related expenses directly. The Group uses the same reporting method for similar government subsidies.

Government subsidies related to daily activities are included in operating profit, while government subsidies unrelated to daily activities are included in non-operating income and expenditure.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

III. Summary of significant accounting policies and accounting estimates *(continued)*

25. Specific reserve

The Group recognizes a safety fund in the specific reserve pursuant to relevant government regulations, with a corresponding increase in the costs of the related products or expenses, and accrues in the specific reserve.

When the safety fund is subsequently used for revenue expenditure, the specific reserve is reduced accordingly. On utilization of the safety fund for fixed assets, the specific reserve is reduced as the fixed assets are recognized, which is the time when the related assets are ready for their intended use; in such cases, an amount that corresponds to the reduction in the specific reserve is recognized in accumulated depreciation with respect to the related fixed assets. As a consequence, such fixed assets are not depreciated in subsequent periods.

26. Income tax

Current tax and deferred tax are recognized in profit or loss except to the extent that they relate to a business combination or items recognized directly in equity (including other comprehensive income).

Current tax is the expected tax payable calculated at the applicable tax rate on taxable income for the year, plus any adjustment to tax payable in respect of previous years.

At the balance sheet date, current tax assets and liabilities are offset only if the Group has a legally enforceable right to set them off and also intends either to settle on a net basis or to realize the asset and settle the liability simultaneously.

Deferred tax assets and deferred tax liabilities arise from deductible and taxable temporary differences respectively, being the differences between the carrying amounts of assets and liabilities for financial reporting purposes and their tax bases, which include the deductible losses and tax credits carried forward to subsequent periods. Deferred tax assets are recognized to the extent that it is probable that future taxable profits will be available against which deductible temporary differences can be utilized.

Deferred tax is not recognized for the temporary differences arising from the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting profit nor taxable profit (or deductible loss). Deferred tax is not recognized for taxable temporary differences arising from the initial recognition of goodwill.

III. Summary of significant accounting policies and accounting estimates *(continued)*

26. Income tax *(continued)*

At the balance sheet date, deferred tax is measured based on the tax consequences that would follow from the expected manner of recovery or settlement of the carrying amounts of the assets and liabilities, using tax rates enacted at the balance sheet date that are expected to be applied in the period when the asset is recovered, or the liability is settled.

The carrying amount of a deferred tax asset is reviewed at each balance sheet date and is reduced to the extent that it is no longer probable that the related tax benefits will be utilized. Such reduction is reversed to the extent that it becomes probable that sufficient taxable profits will be available.

Deferred tax liabilities are recognized for temporary differences arising from investments in subsidiaries, associates and joint ventures, except where the Group is able to control the timing of reversal of the temporary difference, and it is probable that the temporary difference will not reverse in the foreseeable future. When it is probable that the temporary differences arising from investments in subsidiaries, associates and joint ventures will be reversed in the foreseeable future and that the taxable profit will be available in the future against which the temporary differences can be utilized, the corresponding deferred tax assets are recognized.

At the balance sheet date, deferred tax assets and deferred tax liabilities are offset if all of the following conditions are met:

- the taxable entity has a legally enforceable right to offset current tax liabilities and current tax assets;
- they relate to income taxes levied by the same tax authority on either:
  - the same taxable entity; or
  - different taxable entities which intend either to settle the current tax liabilities and current tax assets on a net basis, or to realize the assets and settle the liabilities simultaneously, in each future period in which significant amounts of deferred tax liabilities or deferred tax assets are expected to be settled or recovered.

27. Leases

At inception of a contract, the Group assesses whether a contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

III. Summary of significant accounting policies and accounting estimates *(continued)*

27. Leases *(continued)*

To assess whether a contract conveys the right to control the use of an identified asset, the Group assesses whether:

– the contract involves the use of an identified asset. An identified asset may be specified explicitly or implicitly specified in a contract and should be physically distinct, or capacity portion or other portion of an asset that is not physically distinct, but it represents substantially all of the capacity of the asset and thereby provides the customer with the right to obtain substantially all of the economic benefits from the use of the asset. If the supplier has a substantive substitution right throughout the period of use, then the asset is not identified;

– the lessee has the right to obtain substantially all of the economic benefits from use of the asset throughout the period of use;

– the lessee has the right to direct the use of the asset.

For a contract that contains more separate lease components, the lessee and the lessor separate lease components and account for each lease component as a lease separately. For a contract that contains lease and non-lease components, the lessee and the lessor separate lease components from non-lease components. However, for the leases of land and buildings in which it is a lessee, the Group has elected not to separate lease components from non-lease components and account for the lease and non-lease components as a single lease component. For a contract that contains lease and non-lease components, the lessee 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. The lessor allocates the consideration in the contract in accordance with the accounting policy in Note III.21.

(1) As a lessee

The Group recognizes a right-of-use asset and a lease liability at the lease commencement date. The right-of-use asset is initially measured at cost, which comprises the initial amount of the lease liability, any lease payments made at or before the commencement date (less any lease incentives received), any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset or to 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.

The right-of-use asset is depreciated using the straight-line method. If the lessee is reasonably certain to exercise a purchase option by the end of the lease term, the right-of-use asset is depreciated over the remaining useful lives of the underlying asset. Otherwise, the right-of-use asset is depreciated from the commencement date to the earlier of the end of the useful life of the right-of-use asset or the end of the lease term. Impairment losses of right-of-use assets are accounted for in accordance with the accounting policy described in Note III.18.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

III. Summary of significant accounting policies and accounting estimates *(continued)*

27. Leases *(continued)*

(1) As a lessee *(continued)*

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date. Lease payments include fixed payments and payments to be made if it is reasonably determined that the option to buy or to terminate the lease option will be exercised. The variable rent, which is determined by a certain percentage of sales, is not included in the lease payment and is recorded into the current profit and loss when it actually occurs. The Group will be paid from the balance sheet date within one year (including one year) of the lease liabilities, as a non-current liability due within one year. Discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Group's incremental borrowing rate.

A constant periodic rate is used to calculate the interest on the lease liability in each period during the lease term with a corresponding charge to profit or loss or included in the cost of assets where appropriate. Variable lease payments not included in the measurement of the lease liability is charged to profit or loss or included in the cost of assets where appropriate as incurred.

Under the following circumstances after the commencement date, the Group remeasures lease liabilities based on the present value of revised lease payments:

– there is a change in the amounts expected to be payable under a residual value guarantee;

– there is a change in future lease payments resulting from a change in an index or a rate used to determine those payments;

– there is a change in the assessment of whether the Group will exercise a purchase, extension or termination option, or there is a change in the exercise of the extension or termination option.

When the lease liability is remeasured, a corresponding adjustment is made to the carrying amount of the right-of-use asset, or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

The Group has elected not to recognize right-of-use assets and lease liabilities for short-term leases that have a lease term of 12 months or less and leases of low-value assets. The Group recognizes the lease payments associated with these leases in profit or loss or as the cost of the assets where appropriate using the straight-line method over the lease term.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

III. Summary of significant accounting policies and accounting estimates *(continued)*

27. Leases *(continued)*

(2) As a lessor

All lease contracts where the Group is a lessor are operating leases.

Lease receipts from operating leases is recognized as income using the straight-line method over the lease term. The initial direct costs incurred in respect of the operating lease are initially capitalized and subsequently amortized in profit or loss over the lease term on the same basis as the lease income. Variable lease payments not included in lease receipts are recognized as income as they are earned.

28. Hedge accounting

Hedge accounting is a method which recognizes in profit or loss (or other comprehensive income) the gain or loss on the hedging instrument and the hedged item in the same accounting period(s) to represent the effect of risk management.

Hedged items are items that expose the Group to risks of changes in cash flows and that are designated as being hedged and can be reliably measured. The Group's hedged items include a forecast transaction that is settled with an undetermined future market price and exposes the Group to risk of variability in cash flows, etc.

A hedging instrument is a designated financial instrument whose changes in cash flows are expected to offset changes in the fair value or cash flows of the hedged item.

The Group assesses at the inception of a hedging relationship, and on an ongoing basis, whether the hedging relationship meets the hedge effectiveness requirements. A hedging relationship is regarded as having met the hedge effectiveness requirements if all of the following conditions are satisfied:

– There is an economic relationship between the hedged item and the hedging instrument. The economic relationship causes the value of the hedging instrument and the hedged item to move in opposite directions due to the same exposure to the hedged risk;

– The effect of credit risk does not dominate the value changes that result from the economic relationship;

– The hedge ratio of the hedging relationship is the same as that resulting from the quantity of the hedged item that the entity actually hedges and the quantity of the hedging instrument that the entity actually uses to hedge that quantity of the hedged item.

III. Summary of significant accounting policies and accounting estimates *(continued)*

28. Hedge accounting *(continued)*

When a hedging relationship no longer meets the hedge effectiveness requirements due to the hedge ratio, but the risk management objective of the designated hedging relationship remains unchanged, the Group rebalances the hedging relationship. Rebalancing refers to the adjustments made to the designated quantities of the hedged item or the hedging instrument of an already existing hedging relationship for the purpose of maintaining a hedge ratio that complies with the hedge effectiveness requirements.

The Group discontinues applying hedge accounting in any of the following circumstances:

– The hedging relationship no longer meets the risk management objective on the basis of which it qualified for hedge accounting;

– The hedging instrument expires or is sold, terminated or exercised;

– There is no longer an economic relationship between the hedged item and the hedging instrument or the effect of credit risk starts to dominate the value changes that result from that economic relationship;

– The hedging relationship no longer meets other criteria for applying hedge accounting.

(1) Cash flow hedges

A cash flow hedge is a hedge of the exposure to variability in cash flows. The portion of the gain or loss on a hedging instrument that is determined to be an effective hedge is recognized in other comprehensive income as a cash flow hedge reserve. The amount of the cash flow hedge reserve is adjusted to the lower of the following (in absolute amounts):

– the cumulative gain or loss on the hedging instrument from inception of the hedge;

– the cumulative change in present value of the expected future cash flows on the hedged item from inception of the hedge.

The change in the amount of the cash flow hedge reserve is recognized in other comprehensive income in each period.

The portion of the gain or loss on the hedging instrument that is determined to be ineffectiveness is recognized in profit or loss.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

III. Summary of significant accounting policies and accounting estimates *(continued)*

28. Hedge accounting *(continued)*

(1) Cash flow hedges *(continued)*

If a hedged forecast transaction subsequently results in the recognition of a non-financial asset or non-financial liability, or a hedged forecast transaction for a non-financial asset or non-financial liability becomes a firm commitment for which fair value hedge accounting is applied, the Group removes that amount from the cash flow hedge reserve and includes it in the initial cost or other carrying amount of the asset or liability. This is not a reclassification adjustment and will not affect other comprehensive income.

For cash flow hedges other than those covered above, that amount is reclassified from the cash flow hedge reserve to profit or loss as a reclassification adjustment in the same period or periods during which the hedged expected future cash flows affect profit or loss.

When the Group discontinues hedge accounting for a cash flow hedge, the amount of the accumulated cash flow hedge reserve recognized in other comprehensive income is accounted for as follows:

- If the hedged future cash flows are still expected to occur, that amount will remain in the cash flow hedge reserve and be accounted for in accordance with the above policy;

- If the hedged future cash flows are no longer expected to occur, that amount is immediately reclassified from the cash flow hedge reserve to profit or loss as a reclassification adjustment.

29. Profit distributions

Dividends or profit distributions proposed in the profit appropriation plan, which will be approved after the balance sheet date, are not recognized as a liability at the balance sheet date but are disclosed in the notes separately.

30. Related parties

If a party has the power to control, jointly control or exercise significant influence over another party, or vice versa, or where two or more parties are subject to common control or joint control from another party, they are considered to be related parties. Related parties may be individuals or enterprises. Enterprises with which the Company is under common control only from the State and that have no other related party relationships are not regarded as related parties.

In addition to the related parties stated above, the Company determines related parties based on the disclosure requirements of Administrative Procedures on the Information Disclosures of Listed Companies issued by the CSRC.

III. Summary of significant accounting policies and accounting estimates *(continued)*

31. Segment reporting

Reportable segments are identified based on operating segments which are determined based on the structure of the Group's internal organization, management requirements and internal reporting system after taking the materiality principle into account. An operating segment is a component of the Group that satisfies all of the following conditions:

– the component is able to earn revenues and incur expenses from its ordinary activities;

– whose operating results are regularly reviewed by the Group's management to make decisions about resources to be allocated to the segment and to assess its performance;

– for which the information on financial position, operating results and cash flows is available to the Group. Two or more operating segments may be aggregated into a single operating segment if the segments have the similar economic characteristics and are same or similar in respect of the nature of each segment's products and services, the nature of production processes, the types or classes of customers for the products and services, the methods used to distribute the products or provide the services, and the nature of the regulatory environment. The Group determines the reporting segments based on the operating segments and the principle of materiality.

Inter-segment revenues are measured on the basis of the actual transaction prices for such transactions for segment reporting. Segment accounting policies are consistent with those for the consolidated financial statements.

32. Significant accounting estimates and judgements

The preparation of the financial statements requires management to make estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates. Estimates as well as underlying assumptions and uncertainties involved are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised and in any future periods affected.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

III. Summary of significant accounting policies and accounting estimates *(continued)*

32. Significant accounting estimates and judgements *(continued)*

(1) Significant accounting estimates

(a) Accounting estimate of Inventory provision

Any excess of the cost over the net realizable value of each item of inventories is recognized as a provision for diminution in the value of inventories. Net realizable value represents the estimated selling price in the ordinary course of business, less the estimated costs of completion and the estimated costs necessary to make the sale. Management bases the estimates on all available information, including the current market prices of the finished goods and raw materials, and historical cost of sales. If the actual selling prices were to be lower or the costs of completion were to be higher than estimated, the actual allowance for diminution in value of inventories could be higher than estimated.

(b) Impairment of assets other than inventories and financial assets

As described in Note III.18, at the end of each reporting period, the Group estimates the recoverable amount of an asset or a cash-generating unit ("CGU") (a portion of which related to certain production facilities), at the higher of its fair value less costs of disposal and its value in use, to determine the impairment losses. If circumstances indicate that the carrying amount of the asset or CGU may not be recoverable, the asset or CGU may be considered "impaired", and an impairment loss may be recognized.

The recoverable amount of assets or CGUs is the higher of the fair value less costs of disposal and value in use. As the fair value of certain assets or CGUs may not be publicly available, the Group uses all readily available information in determining an amount that is a reasonable approximation of recoverable amount, including estimates based on reasonable and supportable assumptions for projections of product sales and operating costs and discount rate. In particular, in determining the value in use of the Group's specific CGUs, significant judgements are required on the accounting estimates which are based on the assumptions relating to product sales growth rates, related costs growth rates and discount rate applied.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

III. Summary of significant accounting policies and accounting estimates *(continued)*

32. Significant accounting estimates and judgements *(continued)*

(1) Significant accounting estimates *(continued)*

(c) Estimated useful life and residual value of fixed assets

The Group assessed the reasonableness of estimated useful life of fixed assets in line with the historical experience on the basis of similar function or characteristic for the assets. If there are significant changes in estimated useful lives and residual value from previous years, the depreciation expenses for future periods are adjusted.

The Group reviews and adjusts the useful lives and estimated residual value of the assets regularly at the end of each year end.

(2) Significant accounting judgements

(a) Classification of financial assets

The classification depends on the Group's business model for managing the financial assets and the contractual terms of the cash flows. The Group determines the business model of managing financial assets at the level of financial asset portfolio, taking into account such factors as the way of evaluating and reporting the performance of financial assets to key managers, the risk and management methods that affect the performance of financial assets, and the ways in which relevant business managers are paid, etc.

When the Group evaluates whether the contract cash flow of financial assets is consistent with the basic lending arrangement, there are the following main judgments: whether the time distribution or amount of principal may change within the duration due to prepayment or other reasons; Does interest include only the time value of money, credit risk, other basic lending risks, and consideration of costs and profits? For example, does the prepayment amount reflect only the principal outstanding and the interest based on the principal outstanding, as well as the reasonable compensation paid for the early termination of the contract.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

III. Summary of significant accounting policies and accounting estimates *(continued)*

33. Changes in significant accounting policies and accounting estimates

(1) Description and reasons of changes in accounting policies

The following accounting standards take effect for annual periods beginning on or after 1 January 2022 and are relevant to the Group:

– CAS Bulletin No.15 (Caikuai [2021] No.35) ('Bulletin No.15') 'About the accounting treatment of external sales of products or by-products produced by enterprises before the fixed assets are ready for their intended use or during the research and development process ('Accounting treatment of trial operation sales');

– Judgment regarding onerous contracts' in Bulletin No.15;

– Notice on the Adoption of the Accounting Treatment of COVID-19-Related Rent Concessions (Caikuai [2022] No.13)

(a) Accounting treatment of trial operation sales in Bulletin No.15

According to this regulation, the income and cost of the Group's external sales of products or by-products produced before the fixed assets are ready for their intended use or during the research and development process (hereinafter collectively referred to as "trial operation sales") are accounted for separately and recognized in profit or loss in accordance with CAS No.14 – Revenue and CAS No.1 – Inventory. The net trial operation sales after offsetting the relevant cost will no longer be offset against the cost of fixed assets or R&D expenses.

The above standards take effect on 1 January 2022. The Group has made retrospective adjustments to the trial operation sales that occurred between January 1, 2021 and the date of initial implementation in accordance with the above standards.

The adoption of above standards does not have any significant effect on the financial position or financial performance of the Group.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

III. Summary of significant accounting policies and accounting estimates *(continued)*

33. Changes in significant accounting policies and accounting estimates *(continued)*

(1) Description and reasons of changes in accounting policies *(continued)*

(b) 'Judgment regarding onerous contracts' in Bulletin No.15

According to this regulation, when the Group judges an onerous contract, the estimated cost of performing the contract shall include the incremental cost of performing the contract and the apportioned amount of other costs directly related to the performance of the contract.

Judgment regarding onerous contracts' in Bulletin No.15 takes effect on 1 January 2022. The Group will implement this regulation for contracts that have not fulfilled all obligations as of January 1, 2022. The cumulative impact will be adjusted for retained earnings and other related financial statement items at the beginning of the year when this regulation is first implemented, without adjusting comparative financial statement data.

The adoption of this standard does not have any significant effect on the financial position or financial performance of the Group.

(c) Caikuai [2022] No.13

The Accounting Treatment of COVID-19-Related Rent Concessions (Caikuai [2020] No.10) provides a simplified approach to rent concessions under certain conditions directly triggered by the COVID-19 pandemic. According to Caikuai [2022] No.13, for the reduction of lease payments payable after 30 June 2022, the simplified approach of Cai Kuai [2020] No.10 still applies.

The Group has made retrospective adjustments to the above regulation between January 1, 2022. The cumulative impact is adjusted for retained earnings and other related financial statement items at the beginning of the year 2022 and does not adjust previous comparative financial statement data.

The adoption of the above standard does not have any significant effect on the financial position or financial performance of the Group.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

IV. Taxation

Main types of taxes and corresponding tax rates:

Tax type	Tax basis	Tax rate
Corporate income tax (a)	Based on taxable profits	25%
Value-added tax (VAT)	Output VAT is calculated on product sales and taxable services revenue. The basis for VAT payable is to deduct input VAT from the output VAT for the period	5%.6%.9% and 13%
Consumption tax	Based on taxable revenue	Gasoline: RMB2,109.76 per ton; Diesel oil: RMB1,411.20 per ton; Naphtha: RMB2,105.20 per ton; Fuel oil: RMB1,218.00 per ton
Urban maintenance and construction tax	Based on VAT and consumption tax paid	5% and 7%

(a) Pursuant to the 'Circular on Enterprise Income Tax Policy concerning Deductions for Equipment and Appliances' (Cai Shui [2018] 54) issued by the State Administration of Taxation, during the period from 1 January 2018 to 31 December 2020, the cost of newly purchased equipment with the original cost less than RMB5 million can be fully deducted against taxable profit in the next month after the asset is put into use, instead of being depreciated annually for tax filing. Pursuant to the 'Announcement on the extension of the implementation period of some tax incentives' (Cai Shui [2021] 6) issued by the State Administration of Taxation, the implementation period of Cai Shui [2018] 54 is extended to December 31, 2023.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements

1. Cash at bank and on hand

Item	31 December 2022	31 December 2021
Deposits with banks	3,998,329	12,498,614
Other monetary funds	3	3
Total	3,998,332	12,498,617

Cash and cash equivalents shown in the cash flow statement:

Item	31 December 2022	31 December 2021
Deposits with banks	3,998,329	12,498,614
Less: Time deposits (a)	(3,108,916)	(7,386,604)
Ending balance of cash and cash equivalents	889,413	5,112,010

(a) As at 31 December 2022, time deposits are time deposits of 1,080days to three years, with annual interest rate of 3.85%-4.125%.

As at 31 December 2021, time deposits are time deposits of six months to three years, with annual interest rate of 3.2%-4.2%.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

2. Derivative financial assets and derivative financial liabilities

Category	31 December 2022	31 December 2021
Derivative financial assets		
– Commodity swap contracts	–	81,405
Derivative financial Liabilities		
– Commodity swap contracts	–	23,804

As at 31 December 2022, the Group has no derivative financial assets and derivative financial liabilities.

As at 31 December 2021, the Group's derivative financial assets are mainly commodity swap contracts.

3. Accounts receivable

(1) Accounts receivable by customer type are as follows:

Category	31 December 2022	31 December 2021
Amounts due from related parties (Note VIII.6)	2,443,018	1,091,980
Amounts due from third parties	72,110	79,413
Sub-total	2,515,128	1,171,393
Less: Provision for bad and doubtful debts	(2,766)	(1,988)
Total	2,512,362	1,169,405

(2) The ageing analysis of accounts receivable is as follows:

Aging	31 December 2022	31 December 2021
Within 1 year (inclusive)	2,512,964	1,169,279
Over 1 year but within 2 years (inclusive)	50	–
Over 2 years but within 3 years (inclusive)	–	2,114
Over 3 years	2,114	–
Total	2,515,128	1,171,393

The ageing is counted starting from the date when accounts receivables are recognized.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

3. Accounts receivable *(continued)*

(3) Accounts receivable by provisioning method

	31 December 2022					31 December 2021				
	Book value		Provision for bad and doubtful debts		Carrying	Book value		Provision for bad and doubtful debts		Carrying
Category	Amount	Percentage (%)	Amount	Percentage (%)	amount	Amount	Percentage (%)	Amount	Percentage (%)	amount
Individual assessment	489	0.02	489	100.00	-	-	-	-	-	-
Collective assessment	2,514,639	99.98	2,277	0.09	2,512,362	1,171,393	100	1,988	0.17	1,169,405
Total	2,515,128	100.00	2,766	0.11	2,512,362	1,171,393	100	1,988	0.17	1,169,405

(i) *As at 31 December 2022, the reason for provision for bad debts on a single basis is as follows: (as at 31 December 2021: Nil);*

Name	Book value	Provision for impairment	Percentage (%)	Reason
Ningbo Hezhong Auto Parts Co., Ltd.	489	489	100.00	It is estimated ultimately irrecoverable

(ii) *The recognition standard and instruction of provision for bad debts on combination;*

According to the historical experience of the Group, there is no significant difference in the occurrence of losses among different customer segments, so different customer groups are not further differentiated in the calculation of bad debt reserve.

(iii) *Assessment of ECLs on accounts receivable:*

At all times the Group measures the impairment loss for accounts receivable at an amount equal to lifetime ECLs, and the ECLs are based on the number of overdue days and the expected loss rate.

The loss given default is measured based on the actual credit loss experience in the past years, and is adjusted taking into consideration the differences among the economic conditions during the historical data collection period, the current economic conditions and the economic conditions during the expected lifetime.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

3. Accounts receivable *(continued)*

(4) Movements of provisions for bad and doubtful debts:

Provision for bad and doubtful debts	2022	2021
Balance at the beginning	1,988	634
Additions during the year	778	1,354
Recoveries or reversals during the year	–	–
Balance at the end	2,766	1,988

(5) As at 31 December 2022, Five largest accounts receivable by debtor at the end of the year:

	Amount	Provision	Percent of total amount
Total amount of five largest accounts receivable by debtor of the Group	2,455,916	32	97.65%

(6) Derecognition of accounts receivable due to transfer of financial assets

(i) *For the twelve months ended 31 December 2022, the Group has no accounts receivable derecognized due to transfer of financial assets.*

(ii) *For the twelve months ended 31 December 2022, the Group has no accounts receivable that have fully accrued or accrued a large proportion of bad and doubtful debts in previous years, but fully recovered or reversed, or have a large proportion of recovered or reversed in the current year. (For the twelve months ended 31 December 2021: Nil).*

(iii) *For the twelve months ended 31 December 2022, the Group has not written off significant accounts receivable. (For the twelve months ended 31 December 2021: Nil)*

(iv) *At 31 December 2022, the Group has no pledged accounts receivable. (31 December 2021: Nil)*

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

4. Receivables under financing

Item	Note	31 December 2022	31 December 2021
Bills receivable	(1)	136,945	673,295
Accounts receivable	(2)	445,409	399,395
Total		582,354	1,072,690

(1) Bills receivable

(i) *Due to the requirement of cash management, the Group discounted and endorsed part of the bank acceptance notes. The business model of bank acceptance notes management is for the purpose of collecting cash flow of contracts and sales. Therefore, as at 31 December 2022, the Group classified RMB136,945 thousand bills receivable to financial assets measured at fair value and whose changes are included in other comprehensive income and disclosed in bills receivable and accounts receivable (31 December 2021: RMB673,295 thousand).*

(ii) *The Group has no individually impaired bank acceptance notes, with all provision was accrued by their expected credit loss. As at 31 December 2022 and 31 December 2021, the Group considers no significant credit risk of the bank acceptance notes and the Group has limited exposure to losses arising from banks' breach of contract.*

(iii) *As at 31 December 2022, the Group had no pledged bank acceptance notes (31 December 2021: Nil).*

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

4. Receivables under financing *(continued)*

(1) Bills receivable *(continued)*

(iv) As at 31 December 2022, unmatured bills receivable that have been endorsed or discounted by the Group is as follows:

Item	Derecognized	Not derecognized
Bank acceptance notes	375,036	–

As at 31 December 2022, the Group endorsed and discounted the undue bills receivable of RMB375,036 thousand (31 December 2021: RMB464,012 thousand). The Group derecognized such bills receivable, accounts payable to suppliers and short-term loans as a whole by considering that the risks and rewards of ownership of such unmatured bills had been substantially transferred. The Group's continued involvement in the unexpired bills receivable whose overall derecognition is limited to the extent that the issuing bank is unable to settle the amount to the bill holder. The maximum exposure to loss caused by the Group's continued involvement is the amount of outstanding bills receivable endorsed to the supplier of RMB375,036 thousand (31 December 2021: RMB464,012 thousand). The term of the outstanding bills receivable is within one year.

(2) Accounts receivable

(i) The Group's subsidiaries Shanghai Jinshan Trading Corporation Limited ("JMGJ") and Shanghai Jinmao International Trading Corporation Limited ("Jinmao International") derecognized part of the accounts receivable for the non-recourse forfaiting business based on the requirement of daily cash management. The business model of accounts receivable management is for the purpose of collecting cash flow of contracts and sales. Therefore, as at 31 December 2022, the Group classified RMB445,409 thousand third party accounts receivable of subsidiaries to financial assets measured at fair value and whose changes are included in other comprehensive income and disclosed in bills receivable and accounts receivable (31 December 2021, RMB399,395 thousand).

(ii) The analysis of accounts receivable derecognized due to the transfer of financial assets is as follows:

For the twelve months ended 31 December 2022, the Group's subsidiaries JMGJ and Jinmao International derecognized RMB203,834 thousand-yuan accounts receivable due to the non-recourse forfaiting. (31 December 2021: RMB254,915 thousand).

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

5. Prepayments

(1) Prepayments by category:

Item	31 December 2022	31 December 2021
Amounts advance to related parties (Note VIII.6)	58,496	34,220
Amounts advance to third parties	8,512	26,357
Total	67,008	60,577

(2) The ageing analysis of prepayments is as follows:

	31 December 2022		31 December 2021	
Aging	Amount	Percentage	Amount	Percentage
Within 1 year (inclusive)	67,008	100%	60,577	100%

The ageing is counted starting from the date when prepayments are recognized.

(3) As at 31 December 2022, the total amount of the top five prepayments to suppliers are summarised as follows:

	Amount	Percentage of total advances to suppliers
Total amount of the top five prepayments to suppliers	61,750	92.15%

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

6. Other receivables

	Note	31 December 2022	31 December 2021
Amounts due from related parties	Note VIII.6	140,271	61,131
Amounts due from third parties		55,036	47,737
Sub-total		195,307	108,868
Less: Provision for bad and doubtful debts		(4,728)	(140)
Total		190,579	108,728

(a) The ageing analysis is as follows:

Aging	31 December 2022	31 December 2021
Within 1 year (inclusive)	193,228	108,701
Over 1 year but within 2 years (inclusive)	2,074	28
Over 2 years but within 3 years (inclusive)	5	–
Over 3 years	–	139
Total	195,307	108,868

The ageing is counted starting from the date when other receivables are recognized.

(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

6. Other receivables *(continued)*

(b) Others by provisioning method:

	31 December 2022					31 December 2021				
	Book value		Provision for bad and doubtful debts		Carrying amount	Book value		Provision for bad and doubtful debts		Carrying amount
Category	Amount	Percentage (%)	Amount	Percentage (%)		Amount	Percentage (%)	Amount	Percentage (%)	
Individual assessment	4,725	2.42	(4,725)	100.00	–	–	–	–	–	–
Collective assessment	190,582	97.58	(3)	0.00	190,579	108,868	100	(140)	0.13	108,728
Total	195,307	100.00	(4,728)	2.42	190,579	108,868	100	(140)	0.13	108,728

(i) *As at 31 December 2022, the reason for provision for bad debts on a single basis is as follows: (as at 31 December 2021: Nil);*

Name	Book value	Provision for impairment	Percentage (%)	Reason
Sinopec Materials & Equipment Co., Ltd.	2,795	2,795	100.00	It is estimated ultimately irrecoverable
Beijing Zhongli Machinery Engineering Technology Co., Ltd	1,930	1,930	100.00	It is estimated ultimately irrecoverable
Total	4,725	4,725	100.00	

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

6. Other receivables *(continued)*

(c) Movements of provisions for bad and doubtful debts

	Stage 1					Stage 3		
	12-month ECL (collective)		12-month ECL (individual)		Sub-total	Lifetime ECL-Credit impaired		Total
	Book value	Provision for bad and doubtful debts	Book value	Provision for bad and doubtful debts	Provision for bad and doubtful debts	Book value	Provision for bad and doubtful debts	Provision for bad and doubtful debts
Balance at 31 December 2021	108,729	(1)	–	–	(1)	139	(139)	(140)
Additions during the year	–	(2)	–	–	(2)	4,725	(4,725)	(4,727)
Recoveries or reversals during the year	–	–	–	–	–	(139)	139	139
Balance at 31 December 2022	190,582	(3)	–	–	(3)	4,725	(4,725)	(4,728)

As at 31 December 2022 and 31 December 2021, the Group has no other receivables under Stage 2.

(i) For the twelve months ended 31 December 2022, The Group has fully recovered other receivables of RMB139 thousand which have been fully withdrawn as bad debt reserve in previous years.

For the twelve months ended 31 December 2021, the Group has no other receivables that have fully accrued or accrued a large proportion of bad and doubtful debts in previous years, but fully recovered or reversed, or have a large proportion of recovered or reversed in the current year.

(ii) For the twelve months ended 31 December 2022, the Group has not written off significant other receivables. (For the twelve months ended 31 December 2021: Nil).

(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

6. Other receivables *(continued)*

(d) Others categorised by nature

Nature of other receivables	31 December 2022	31 December 2021
Export tax rebate	13,711	35,665
Amounts due from related parties	140,271	61,131
Rent receivable	140	17
Water, electricity and gas charges receivable	44	86
Prepayment for share repurchase	27,573	–
Others	13,568	11,969
Sub-total	195,307	108,868
Less: Provision for bad and doubtful debts	(4,728)	(140)
Total	190,579	108,728

(e) Five largest others-by debtors as at 31 December 2022

Name	Nature of the receivable	Balance at the end of the year	Ageing	Percentage of ending balance of others	Provision for bad and doubtful debts
China International United Petroleum and Chemicals Co., Ltd.	Business transaction	133,820	Within 1 year (inclusive)	68.52%	–
China International Capital Corporation Hong Kong Securities Limited	Prepayment for share repurchase	27,573	Within 1 year (inclusive)	14.12%	–
State Administration of Taxation, Shanghai Jinshan	Export tax rebate	13,711	Within 1 year (inclusive)	7.02%	–
Sinopec Materials & Equipment Co., Ltd.	Business transaction	2,795	Within 1 year (inclusive)	1.43%	(2,795)
Linde-SPC Gases Company Limited	Business transaction	2,190	Within 1 year (inclusive)	1.12%	–
Total		180,089		92.21%	(2,795)

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

7. Inventories

(1) Inventories by categories are as follows:

	2022			2021		
Inventories by categories	Book value	Provision for impairment of inventories	Carrying amount	Book value	Provision for impairment of inventories	Carrying amount
Raw materials	5,700,215	(26,491)	5,673,724	4,391,555	(13,406)	4,378,149
Work in progress	756,007	(237,959)	518,048	795,791	(105,450)	690,341
Finished goods	1,096,623	(182,035)	914,588	709,990	(45,950)	664,040
Spare parts and consumables	246,161	(58,461)	187,700	249,456	(58,461)	190,995
Total	7,799,006	(504,946)	7,294,060	6,146,792	(223,267)	5,923,525

The balance of inventories of the Group does not include the capitalized interest at 31 December 2022 (31 December 2021: Nil).

The Group has no inventory for guarantee as at 31 December 2022 (31 December 2021: Nil).

(2) Provision for impairment of inventories is analysed as follows:

Inventories by categories	31 December 2021	Increases during the year	Decreases during the year	31 December 2022
Raw materials	13,406	26,491	(13,406)	26,491
Work in progress	105,450	287,173	(154,664)	237,959
Finished goods	45,950	211,605	(75,520)	182,035
Spare parts and consumables	58,461	–	–	58,461
Total	223,267	525,269	(243,590)	504,946

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

7. Inventories *(continued)*

(3) Provision for impairment of inventories are analysed as follows:

Inventories by categories	Basis for determining net realizable value	Main reasons for reversal/write-off
Raw materials	The estimated selling price in the ordinary course of business, less the estimated costs to completion and estimated costs to make the sale and related taxes.	Not applicable
Work in progress	The estimated selling price in the ordinary course of business, less the estimated costs to completion and estimated costs to make the sale and related taxes.	Sold in current year
Finished goods	The estimated selling price in the ordinary course of business, less the estimated costs to make the sale and related taxes.	Sold in current year
Spare parts and consumables	The estimated selling price in the ordinary course of business, less the estimated costs to make the sale and related taxes.	Used for repair and sold in current year

8. Other current assets

Item	2022	2021
VAT deductible	1,057,463	13,322
Corporate income tax prepaid	54,404	–
Others	9,320	4,007
Total	1,121,187	17,329

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

9. Long-term equity investments

	Note	2022	2021
Joint ventures	(1)	476,761	276,043
Associates	(2)	3,146,024	3,941,237
Sub-total		3,622,785	4,217,280
Less: Provision for impairment			
– Joint ventures		–	–
– Associates		(28,392)	(28,392)
Total		3,594,393	4,188,888

(1) Joint ventures

Investee	31 December 2021	Current year movement: Additional/ (negative) investment	Investment income recognized under equity method	Cash dividends declared in current year	Impairment provision	31 December 2022	Ending balance of impairment provision
Joint venture of the Company							
Shanghai Jinshan Baling New Material Co., Ltd. ("Baling Materials")	50,000	200,000	–	–	–	250,000	–
Joint ventures of subsidiaries							
Shanghai Petrochemical Equipment Inspection and Testing Co., Ltd. ("Inspection and Testing company")	10,100	–	960	(1,215)	–	9,845	–
Shanghai Petrochemical Yangu Gas Development Company Limited ("Yangu Gas")	49,919	–	(7,901)	(1,800)	–	40,218	–
Linde-SPC Gases Company Limited ("Linde"), formerly known as "BOC-SPC Gases Company Limited")	166,024	–	21,874	(11,200)	–	176,698	–
Total	276,043	200,000	14,933	(14,215)	–	476,761	–

Interests in joint ventures, refer to Note VI.2.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

9. Long-term equity investments *(continued)*

(2) Associates

		Current period movement							
Investee	31 December 2021	Additional/ (negative) investment	Investment income/(loss) recognized under equity method	Cash dividends declared in current year	Impairment provision	Change in other equity	Others	31 December 2022	Ending balance of impairment provision
Associates of the Company									
Shanghai Secco	1,270,351	–	(382,017)	(554,438)	–	–	–	333,896	–
Shanghai Chemical Industry Park Development Company Limited ("Chemical Industry")	2,123,586	–	160,804	(55,477)	–	–	(23,771)	2,205,142	–
Associates of subsidiaries									
Shanghai Jinsen Hydrocarbon Resins Company Limited ("Jinsen")(Note 1)	16,189	–	(11,675)	–	–	–	–	4,514	(28,392)
Shanghai Azbil Automation Company Limited ("Azbil")	68,567	–	18,757	(24,000)	–	–	–	63,324	–
Shanghai Shidian Energy Company Limited ("Shidian Energy")	334,073	80,000	14,590	(24,000)	–	–	–	404,663	–
Others	100,079	16,672	992	(11,650)	–	–	–	106,093	–
Total	3,912,845	96,672	(198,549)	(669,565)	–	–	(23,771)	3,117,632	(28,392)

Interests in associates, refer to Note VI.2.

Note 1: During the year ended 31 December 2021, the Group reviewed the carrying value of the Group's associate and joint ventures. The entire carrying amount of the interests in an associate is tested for impairment in accordance with CAS 8 Impairment of Assets as a single asset by comparing its recoverable amount with its carrying amount. Since the recoverable amount of investment in an associate Jinsen is lower when compared with its carrying amount, impairment loss amounting to RMB28,392 thousand is recognized during the year ended 31 December 2021.

The recoverable amount of the investment in an associate was based on its fair value less costs to sell. The fair value was determined by reference to the actual price at which another shareholder of Jinsen sold its equity interest in fiscal 2021.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

10. Investment properties

	Buildings
Cost	
31 December 2021	626,414
Additions during the period	–
Decrease during the period	
– Transfer out to fixed assets (Note V.11)	(47)
– Transfer out to others	–
31 December 2022	626,367
Accumulated depreciation	
31 December 2021	274,226
Additions during the period	
– Charge for current period	15,323
Decrease during the period	
– Transfer out to fixed assets (Note V.11)	(45)
31 December 2022	289,504
Carrying amount	
31 December 2022	336,863
31 December 2021	352,188

For year 2022, the depreciation amount of investment properties is RMB15,323 thousand without provision for impairment (for year 2021, depreciation amount is RMB15,325 thousand without provision for impairment).

As at 31 December 2022 and 31 December 2021 the Group had no investment properties pending certificates of ownership.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

11. Fixed assets

(1) Fixed assets

	Buildings	Plant and machinery	Vehicles and other equipment	Total
Cost				
31 December 2021	3,876,070	43,772,938	1,996,930	49,645,938
Reclassification in current period	(3,662)	(35,712)	39,374	–
Increase in current period				
– Purchase	132	187,460	39,934	227,526
– Transfer from CIP (Note V.12)	609,303	1,768,395	90,219	2,467,917
– Transfer from investment properties (Note V.10)	47	–	–	47
– Others	1,208	–	–	1,208
Decrease in current period				
-Disposal	(2,596)	(393,686)	(51,813)	(448,095)
31 December 2022	4,480,502	45,299,395	2,114,644	51,894,541
Accumulated depreciation				
31 December 2021	2,696,773	32,669,993	1,512,782	36,879,548
Reclassification in current period	787	(6,340)	5,553	–
Increase in current period				
– Charge for current period	95,725	1,272,365	128,096	1,496,186
– Transfer from investment properties (Note V.10)	45	–	–	45
Decrease in current period				
– Disposal	(2,469)	(344,469)	(50,036)	(396,974)
31 December 2022	2,790,861	33,591,549	1,596,395	37,978,805
Provision for impairment				
31 December 2021	80,718	1,348,640	8,967	1,438,325
Reclassification in current period	2,146	(2,202)	56	–
Increase in current period				
– Charge for current period	984	283,624	1,652	286,260
Decrease in current period				
– Disposals during current period	–	(4,264)	(112)	(4,376)
31 December 2022	83,848	1,625,798	10,563	1,720,209
Carrying amount				
31 December 2022	1,605,793	10,082,048	507,686	12,195,527
31 December 2021	1,098,579	9,754,305	475,181	11,328,065

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

11. Fixed assets *(continued)*

(2) **During 2022, due to deteriorating market conditions, the increasing production cost is not expected to be covered by the anticipated selling price of the products, the Group identified an impairment indicator assets in relation to certain production facilities, including 1# aromatic joint unit and 2# aromatic joint unit under intermediate petrochemicals segment.**

During 2022,the Group conducted impairment tests on the assets related to the specific production devices, according to Note III.18 to the financial statements. The recoverable amount of the assets related to certain production facilities was RMB265,377 thousand, and the Group recognized impairment loss on assets in relation to certain production facilities of RMB212,410 thousand to the recoverable amount.

The recoverable amounts of above production facilities are estimated using the present value of future cash flows based on the financial budgets approved by management covering a five-year period. Forecasted cash flows are developed using several key assumptions, including the product sales growth rates, related costs growth rates ("forecasted growth rates") and discount rate. The forecasted growth rates are based on past business performance and market participants' expectations for market development, which are consistent with the forecasts included in industry reports. The discount rate used is a pre-tax ratio of 9.00% and reflects specific risks relating to the Group.

During the year ended 31 December 2022, a number of production facilities were idle or backward production technology. The Group does not expect to have future economic benefits recoverable from the use of those production facilities. There is no alternative use of those production facilities which is specifically designed. As a result, impairment loss of RMB49,230 thousand and RMB24,620 thousand were made separately against the carrying amounts of synthetic fiber segment and resin and resins and plastics segment, respectively.

As a result of these assessments, an impairment loss of RMB286,260 thousand on property, plant and equipment were recognized for the year ended 31 December 2022.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

11. Fixed assets *(continued)*

(3) **As at 31 December 2022, the cost of temporarily idle fixed assets was RMB3,358,312 thousand, the accumulated depreciation was RMB2,685,006 thousand, related impairment provision was RMB493,944 thousand and the carrying amount of these assets was RMB179,362 thousand (31 December 2021: the cost of temporarily idle fixed assets was RMB3,553,001 thousand, accumulated depreciation was RMB2,867,318 thousand, related impairment provision was RMB552,580 thousand, and the carrying amount of these assets was RMB133,103 thousand, respectively).**

At 31 December 2022 and 31 December 2021, the Group had no fixed assets as collateral.

For year 2022, amount of RMB2,467,917 thousand was transferred from construction in progress to fixed assets. (for the twelve months ended 31 December 2021: RMB1,699,974 thousand).

(4) **As at 31 December 2022, the carrying amount of fixed assets leased out under operating leases was RMB54,110 thousand (31 December 2021: RMB54,366 thousand).**

(5) **As at 31 December 2022 and 31 December 2021, the Group had no fixed assets pending certificates of ownership.**

12. Construction in progress

(1) **Construction in progress**

	2022			2021		
	Original cost	Provision for impairment	Carrying amount	Original cost	Provision for impairment	Carrying amount
Construction in progress	3,772,947	(24,486)	3,748,461	3,317,663	(24,486)	3,293,177

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

12. Construction in progress *(continued)*

(2) The movement of the Group's major construction in progress is listed as follows:

Project	Budget	31 December 2021	Increase during the period	Transfer to fixed assets (Note V.11)	Disposal during the period	31 December 2022	Percentage of actual cost to budget	Project progress	Accumulative capitalized interest	Including: Capitalized interest in current period	Interest rate for capitalization in current year	Sources of funding
24000 T/A precursor fiber and 12000 T/a 48K large tow carbon fiber project	3,489,638	1,279,999	1,099,999	(1,344,326)	–	1,035,672	68.20%	68.20%	27,431	15,648	1.44%	own funds and borrowings
100-ton high performance carbon fiber plant	566,183	166,668	326,739	–	–	493,407	87.15%	87.15%	3,747	3,747	2.59%	own funds and borrowings
Third circuit 220KV power supply line project	507,120	374,487	75,000	–	–	449,487	88.64%	88.64%	4,740	4,741	2.59%	own funds and borrowings
100,000 tons/year EVA production equipment	1,131,520	257,853	–	–	–	257,853	22.79%	22.79%	1,081	–	–	own funds and borrowings
2×CC100 Turbine (No.5, No.6) for Coal Power Unit Energy Consumption Compliance	93,260	31,000	53,000	–	–	84,000	90.07%	90.07%	–	–	–	own funds
T-121-1 of petrochemical storage and transportation department, Jinshan Area environmental comprehensive improvement	156,259	70,000	10,000	–	–	80,000	51.20%	51.20%	–	–	–	own funds
Sewage diversion and perfect transformation project	155,293	–	80,000	–	–	80,000	51.52%	51.52%	–	–	–	own funds
Shanghai petrochemical test line project of aviation carbon fibre reinforced thermoplastic composite material	87,682	–	60,000	(29,480)	–	30,520	68.43%	68.43%	–	–	–	own funds

(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

12. Construction in progress *(continued)*

(2) The movement of the Group's major construction in progress is listed as follows: *(continued)*

Project	Budget	31 December 2021	Increase during the period	Transfer to fixed assets (Note V.11)	Disposal during the period	31 December 2022	Percentage of actual cost to budget	Project progress	Accumulative capitalized interest	Including: Capitalized interest in current period	Interest rate for capitalization in current year	Sources of funding
2022 Utility department equipment renewal	50,000	–	29,609	–	–	29,609	59.22%	59.22%	–	–	–	own funds
2022 Heat and power department equipment renewal	50,000	–	29,188	–	–	29,188	58.38%	58.38%	–	–	–	own funds
2# 3# aromatics joint unit energy saving renovation	954,240	29,940	–	–	(2,795)	27,145	2.85%	2.85%	–	–	–	own funds
Oil refining department upgrading project of high-pressure air-cooling materials for medium pressure hydrocracking unit	32,829	–	27,056	–	–	27,056	82.41%	82.41%	–	–	–	own funds
Additional online monitoring project for Suitang River stormwater outfall	43,392	–	26,679	–	–	26,679	61.48%	61.48%	–	–	–	own funds
2022 olefin Department equipment update	50,000	–	26,044	–	–	26,044	73.94%	73.94%	–	–	–	own funds
2022 equipment update	40,000	–	22,220	–	–	22,220	55.55%	55.55%	–	–	–	own funds
Hidden danger rectification project of mobile and fixed packaging machine in packaging workshop of synthetic resin Department	26,731	–	22,179	–	–	22,179	82.97%	82.97%	–	–	–	own funds
2022 Oil refining department equipment renewal	50,000	–	19,559	–	–	19,559	44.91%	44.91%	–	–	–	own funds
Three workshop fire hidden danger rectification project	19,875	7,179	10,460	–	–	17,639	88.75%	88.75%	–	–	–	own funds

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

12. Construction in progress *(continued)*

(2) The movement of the Group's major construction in progress is listed as follows: *(continued)*

Project	Budget	31 December 2021	Increase during the period	Transfer to fixed assets (Note V.11)	Disposal during the period	31 December 2022	Percentage of actual cost to budget	Project progress	Accumulative capitalized interest	Including: Capitalized interest in current period	Interest rate for capitalization in current year	Sources of funding
Flue gas online monitoring system (CEMS) instrument hidden danger control	20,020	11,244	5,772	–	–	17,016	85.00%	85.00%	–	–	–	own funds
Carbon Fiber Division 5.25 MW roof distributed photovoltaic power generation project	30,278	–	16,523	–	–	16,523	54.57%	54.57%	–	–	–	own funds
Compliance renovation project of control room of Ministry of Chemical Industry	16,760	–	15,700	–	–	15,700	93.68%	93.68%	–	–	–	own funds
Hidden danger control project of 220 kV system in East Area of Thermoelectric Department	85,813	483	15,000	–	–	15,483	18.04%	18.04%	–	–	–	own funds
Optimization project of turbine control system of olefin Department	76,320	46,000	–	(46,000)	–	–	60.27%	60.27%	–	–	–	own funds
Energy saving and reliability of No.5 and No.6 boilers of coal power unit energy consumption compliance of cogeneration department	80,150	53,000	16,000	(69,000)	–	–	86.09%	86.09%	–	–	–	own funds
Shanghai petrochemical ethylene glycol product structure optimization and hazardous waste reduction project	70,333	41,465	15,000	(56,465)	–	–	80.28%	80.28%	–	–	–	own funds
Management project of hidden danger of seawall safety	256,118	172,057	–	(172,057)	–	–	67.15%	100.00%	–	–	–	own funds

(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

12. Construction in progress *(continued)*

(2) The movement of the Group's major construction in progress is listed as follows: *(continued)*

Project	Budget	31 December 2021	Increase during the period	Transfer to fixed assets (Note V.11)	Disposal during the period	31 December 2022	Percentage of actual cost to budget	Project progress	Accumulative capitalized interest	Including: Capitalized interest in current period	Interest rate for capitalization in current year	Sources of funding
Controlling room project of 1#, 2#, 3#, 4# refining combined unit of oil refining department	97,689	–	70,000	(70,000)	–	–	71.66%	71.66%	–	–	–	own funds
Aromatics unit low temperature heat comprehensive utilization (phase I) project	76,237	34,740	20,000	(54,740)	–	–	71.80%	71.80%	–	–	–	own funds
Compliance renovation project of control room of Synthetic Resin Department (former Plastic Department)	121,991	–	60,000	(60,000)	–	–	49.18%	49.18%	–	–	–	own funds
Other projects	–	741,548	776,223	(565,849)	(1,954)	949,968	–	–	–	–	–	own funds
Sub-total	–	3,317,663	2,927,950	(2,467,917)	(4,749)	3,772,947	–	–	36,999	24,136	1.78%	
Less: Provision for impairment	–	(24,486)	–	–	–	(24,486)	–	–	–	–	–	
Total	–	3,293,177	2,927,950	(2,467,917)	(4,749)	3,748,461	–	–	36,999	24,136	1.78%	

For the twelve months ended 31 December 2022, the capitalized interest of the Group is RMB24,136 thousand (for the twelve months ended 31 December 2021: RMB12,641 thousand).

As at 31 December 2022 and 31 December 2021, the balance of the impairment provision for the Group's construction in progress was for the long-term suspended energy saving transformation of No. 2 and No. 3 aromatics combined plant with the amount of RMB24,486 thousand.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

13. Right-of-use assets

Item	Buildings	Plant and machinery	Vehicles and other equipment	Total
Cost				
31 December 2021	37,058	1,307	2,736	41,101
Increase in current period	25,513	314	1,448	27,275
Decrease in current period	(26,133)	(19)	(507)	(26,659)
31 December 2022	36,438	1,602	3,677	41,717
Accumulated depreciation				
31 December 2021	33,770	682	1,770	36,222
Increase in current period	14,089	547	1,238	15,874
Decrease in current period	(25,961)	–	(503)	(26,464)
31 December 2022	21,898	1,229	2,505	25,632
Carrying amount				
31 December 2022	14,540	373	1,172	16,085
31 December 2021	3,288	625	966	4,879

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

14. Intangible assets

Intangible assets situation

	Land use rights	Other intangible assets	Total
Cost			
31 December 2021	785,567	100,193	885,760
Increase in current period	–	–	–
Disposal in current period	–	–	–
31 December 2022	785,567	100,193	885,760
Accumulated amortization			
31 December 2021	404,803	88,349	493,152
Charge for current period	17,044	2,924	19,968
Disposal in current period	–	–	–
31 December 2022	421,847	91,273	513,120
Carrying amount			
31 December 2022	363,720	8,920	372,640
31 December 2021	380,764	11,844	392,608

As at 31 December 2022 and at 31 December 2021, the Group had no land-use right without property right certificate.

As at 31 December 2022 and at 31 December 2021, the Group has no intangible assets formed through internal research and development.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

15. Long-term deferred expenses

	31 December 2021	Increase during the period	Amortization during the period	31 December 2022
Catalysts	769,491	268,474	266,570	771,395
Lease holding improvements	5,660	–	1,110	4,550
Others	812	–	277	535
Less: Provision for impairment	–	–	–	–
Total	775,963	268,474	267,957	776,480

16. Deferred tax assets and deferred tax liabilities

(1) Deferred tax assets before offsetting

	2022		2021	
Item	Deductible temporary differences and deductible losses	Deferred tax assets	Deductible temporary differences and deductible losses	Deferred tax assets
Provision for bad debts	7,491	1,873	2,127	532
Provision for inventory	504,946	126,237	223,267	55,817
Provision for impairment of fixed assets	1,690,353	422,588	1,408,357	352,089
Provision for impairment of construction in progress	24,486	6,122	24,486	6,122
Accrued expenses	48,111	12,028	300,013	75,003
Deductible loss	3,490,594	872,648	–	–
Other deferred tax assets	57,110	14,277	28,700	7,175
Total	5,823,091	1,455,773	1,986,950	496,738

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

16. Deferred tax assets and deferred tax liabilities *(continued)*

(2) Deferred tax liabilities before offsetting

	2022		2021	
Item	Taxable temporary differences	Deferred tax liabilities	Taxable temporary differences	Deferred tax liabilities
Capitalized interest	(5,018)	(1,255)	(5,873)	(1,468)
Difference in fixed assets depreciation and intangible assets amortization	(1,974,253)	(493,563)	(1,320,280)	(330,071)
Derivative financial instruments	–	–	(57,600)	(14,400)
Total	(1,979,271)	(494,818)	(1,383,753)	(345,939)

(3) Deductible temporary differences and deductible losses that are not recognized as deferred tax assets are analysed as follows:

Item	2022	2021
Deductible temporary differences	29,859	29,969
Deductible losses	393,896	350,574
Total	423,755	380,543

In accordance with the accounting policy set out in Note III.26, it is unlikely that some of the Group's subsidiaries will obtain sufficient future taxable profits to be used to offset the deductible temporary differences and deductible losses. Therefore, the Group has not recognized deferred income tax assets for the deductible temporary differences and deductible losses of the following subsidiaries. Under current tax law, these deductible losses expire between 2023 and 2027.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

16. Deferred tax assets and deferred tax liabilities *(continued)*

(3) Deductible temporary differences and deductible losses that are not recognized as deferred tax assets are analysed as follows: *(continued)*

The breakdown of deductible losses by subsidiaries is as follows:

Name of subsidiaries	2022	2021
Shanghai Petrochemical Investment Development Company Limited ("Toufa")	112,386	71,113
Shanghai Jinchang Engineering Plastics Company Limited ("Jinchang")	102,262	67,585
Shanghai Jinshan Hotel Company Limited ("Jinshan Hotel")	7,685	21,717
Zhejiang Jinlian Petrochemical Storage and Transportation Co. LTD. ("Jinlian")	171,563	190,159
Total	393,896	350,574

(4) Deductible losses that are not recognized as deferred tax assets will expire in the following years:

Year	2022	2021
2022	–	65,331
2023	65,585	66,965
2024	91,901	91,901
2025	41,475	41,475
2026	95,144	84,902
2027	99,791	–
Total	393,896	350,574

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

16. Deferred tax assets and deferred tax liabilities *(continued)*

(5) The net balance of deferred tax assets and liabilities after offsetting is as follows:

	2022		2021	
Item	Offsetting amount of deferred tax assets and deferred tax liabilities	Deferred tax assets – net	Offsetting amount of deferred tax assets and deferred tax liabilities	Deferred tax assets – net
Deferred tax assets	(463,923)	991,850	(312,595)	184,143
Deferred tax liabilities	463,923	(30,895)	312,595	(33,344)

17. Other non-current assets

Item	2022	2021
Time deposit	3,389,559	5,581,435
Investment security deposits	50,000	–
Total	3,439,559	5,581,435

As at 31 December 2022, other non-current assets of the Group is three-year or five-year time deposit with interest rate range from 3.55% to 4.20% per annum (31 December 2021: from 3.45% to 4.20% per annum).

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

18. Provision for assets impairment

	31 December		Decrease			31 December
	2021	Increase	Reverse	Sold	Written off	2022
Provision for accounts receivable (Note V.3)	1,988	778	–	–	–	2,766
Provision for other receivable (Note V.6)	140	4,727	(139)	–	–	4,728
Sub-total	2,128	5,505	(139)	–	–	7,494
Provision for inventory (Note V.7)	223,267	525,269	–	(243,590)	–	504,946
Provision for fixed assets (Note V.11)	1,438,325	286,260	–	–	(4,376)	1,720,209
Provision for CIP (Note V.12)	24,486	–	–	–	–	24,486
Impairment loss of investments accounted for using equity method (note V.9)	28,392	–	–	–	–	28,392
Sub-total	1,714,470	811,529	–	(243,590)	(4,376)	2,278,033
Total	1,716,598	817,034	(139)	(243,590)	(4,376)	2,285,527

19. Short-term loans

Item	Currency	2022	2021
Credit loans			
– bank loans	RMB	1,550,000	1,540,000

As at 31 December 2022, the interest rate of short-term loans ranged from 2.10% to 3.50% per annum (31 December 2021: from 2.70% to 3.70% per annum).

As at 31 December 2022 and 31 December 2021, there was no short-term loans which are due but have not been repaid.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

20. Bills payable

Item	2022	2021
Bank acceptance notes	40,951	830,006

The bills above are all due within one year.

21. Accounts payable

Item	2022	2021
Amount due to related parties (Note VIII.6)	7,326,101	4,361,173
Amount due to third parties	1,818,453	1,527,706
Total	9,144,554	5,888,879

As at 31 December 2022 and 31 December 2021, there was no individually significant accounts payable aged over one year.

22. Contract liabilities

Item	2022	2021
Advance from related parties (Note VIII.6)	10,486	6,275
Advance from third parties	372,760	424,607
Total	383,246	430,882

As at 31 December 2022 and 31 December 2021, there was no individually significant contract liabilities aged over one year.

Contract liabilities primarily relate to the Group's advances from product sales contracts. The Group receives 100% of the contract consideration as advances when entering into the contract with customers. The revenue related to the contracts will be recognized until the Group satisfies its performance obligation.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

22. Contract liabilities *(continued)*

Changes in the contract liabilities of the Group are as follows:

	2022	2021
Balance at the beginning of the period	430,882	496,521
Revenue recognized that was included in the contract liability balance at the beginning of the period	(430,882)	(496,521)
Net increase due to cash received during the period	383,246	430,882
Balance at the end of the period	383,246	430,882

23. Employee benefits payable

(1) Employee benefits payable:

	Note	2022	2021
Short-term employee benefits	(2)	289,102	235,593
Post-employment benefits			
– defined contribution plans	(3)	28,789	24,503
Total		317,891	260,096

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

23. Employee benefits payable *(continued)*

(2) Short-term employee benefits

	31 December 2021	Increase in current period	Decrease in current period	31 December 2022
Salaries, bonuses, allowances	214,250	2,139,472	(2,088,522)	265,200
Staff welfare	3,569	232,855	(232,855)	3,569
Social insurances	17,060	225,105	(222,439)	19,726
Including: Medical insurance	14,091	180,968	(177,070)	17,989
Work injury insurance	1,488	18,734	(18,498)	1,724
Maternity insurance	1,481	13,849	(15,317)	13
Supplementary medical insurance	–	11,554	(11,554)	–
Housing funds	8	224,270	(224,270)	8
Termination benefits	–	33,739	(33,739)	–
Labour union fee, staff and workers' education fee	706	64,969	(65,076)	599
Non-monetary benefits	–	105,951	(105,951)	–
Others	–	46,763	(46,763)	–
Total	235,593	3,073,124	(3,019,615)	289,102

(3) Post-employment benefits- defined contribution plans

	31 December 2021	Increase in current period	Decrease in current period	31 December 2022
Basic pensions	23,760	300,582	(296,427)	27,915
Unemployment insurance	743	9,392	(9,261)	874
Supplemental basic pensions	–	162,622	(162,622)	–
Total	24,503	472,596	(468,310)	28,789

As stipulated by the regulations of the PRC, the Group participates in a defined contribution retirement plan organised by the Shanghai Municipal Government for its staff.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

23. Employee benefits payable *(continued)*

(3) Post-employment benefits- defined contribution plans *(continued)*

In addition, pursuant to the document "Order of the Ministry of Labour and Social Security No.20" dated 6 January 2004 issued by the Ministry of Labour of the PRC, the Group has set up a supplementary defined contribution retirement plan for the benefit of employees. Employees who have served the Group for more than one year may participate in this plan. The Group and participating employees make defined contributions to their pension saving accounts according to the plan.

The Group has no other material obligation for the payment of pension benefits associated with these plans beyond the annual contributions described above. For the year ended 31 December 2022, the Group's contribution to the above two plans amounted to RMB300,582 thousand and RMB162,622 thousand respectively (For the year ended 31 December 2021: RMB278,930 thousand and RMB152,888 thousand respectively).

24. Taxes payable

	2022	2021
Consumption tax payable	733,334	3,195,865
Value-added tax payable	5,277	325,986
Educational surcharge payable	36,868	59,865
Urban maintenance and construction tax payable	51,557	156,261
Corporate income tax payable	2,754	258,466
Land-use tax payable	12,149	12,149
Individual income tax payable	28,032	43,303
Others	19,885	18,768
Total	889,856	4,070,663

25. Other payables

	2022	2021
Dividends payable on ordinary shares	31,631	30,577
Amounts due to related parties (Note VIII.6)	535,222	281,669
Amounts due to third parties	1,051,499	974,818
Total	1,618,352	1,287,064

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

25. Other payables *(continued)*

(1) As at 31 December 2022, there are no other payables that are individually significant aged over 1 year except unpaid project guaranty deposit.

(2) Other payables by categories are analysed as follows:

Item	2022	2021
Accrued expenses	143,299	400,391
Equipment project payables	1,251,897	754,214
Closed derivative gains and losses to be settled	102,068	4,370
Dividends payable on ordinary shares	31,631	30,577
Withholding social insurance	18,254	16,630
Sales discount	5,968	22,017
Warranty payable	9,353	2,075
Deposits	10,346	10,539
Others	45,536	46,251
Total	1,618,352	1,287,064

26. Non-current liabilities due within one year

	2022	2021
Lease liabilities due within one year (Note V.29)	8,738	3,229
Long-term loans due within 1 year	–	19,800
Total	8,738	23,029

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

27. Other current liabilities

Item	2022	2021
Short-term bonds	–	–
Amounts due to related parties – measured at fair value through profit or loss (FVPL) (Note VIII.6)	–	1,388,286
Output VAT to be transferred	44,750	53,034
Total	44,750	1,441,320

(1) Short-term bonds:

Debenture	Face value	Issuance date	Maturity period	Issuance amount	Issuance rate	Balance at the beginning of the year	Issuance during the year	Interest at face value	Amortization of discounts or premium	Repayment during the year	Balance at the end of the year
22 Shanghai Petrochemical SCP001	RMB100	18 January 2022	120 days	1,500,000	2.35%	-	1,500,000	11,589	-	1,511,589	-
22 Shanghai Petrochemical SCP002	RMB100	7 March 2022	120 days	1,500,000	2.01%	-	1,500,000	9,912	-	1,509,912	-
22 Shanghai Petrochemical SCP00	RMB100	11 July 2022	150 days	2,000,000	1.98%	-	2,000,000	16,274	-	2,016,274	-
Total				5,000,000		-	5,000,000	37,775	-	5,037,775	-

(2) Amounts due to related parties – measured at fair value through profit or loss (FVPL)

Amounts due to related parties – measured at FVPL represents the obligation that the Group needs to return the crude oil to its related party with maturity of less than 1 year, which is measured at fair value through profit or loss.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements (continued)

28. Long-term loans

Item	Currency	2022	2021
Credit loans			
– Long-term borrowing from a related party (Note VIII.6)	RMB	700,000	700,000

The interest rate of the Group's long-term borrowings was 1.08% as at 31 December 2022 (31 December 2021: 1.08%).

29. Lease liabilities

	2022	2021
Lease liabilities	16,251	4,613
Less: Non-current liabilities due within one year (Note V.26)	(8,738)	(3,229)
Total	7,513	1,384

30. Deferred income

Item	31 December 2021	Increase in current year	Decrease in current year	31 December 2022	Cause
Government grants	112,720	34,623	(12,735)	134,608	related to assets/income

Liability Items	31 December 2021	Increase	Deduct from Property plant and Equipment	Include in other income	Deduct from general and administrative expenses	Deduct from financial expenses	Include in non-operating income	Deduct from non-operating expense	31 December 2022	Related to assets/income
Investment subsidy for Chemical Industry	100,000	–	–	–	–	–	(10,000)	–	90,000	related to assets
Other government subsidy related to assets	12,720	13,000	–	–	–	–	(2,735)	–	22,985	related to assets
Other government subsidy related to income	–	21,623	–	–	–	–	–	–	21,623	related to income
Total	112,720	34,623	–	–	–	–	(12,735)	–	134,608	

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

31. Share capital

	31 December 2021	Increase or decrease in current period: Issue new share	Stock dividend	Transfer from capital surplus to paid-in capital	Other	Sub-total	31 December 2022
Non-restricted Shares							
Ordinary A shares listed in PRC	7,328,814	–	–	–	–	–	7,328,814
Foreign investment H shared listed overseas	3,495,000	–	–	–	–	–	3,495,000
Total	10,823,814	–	–	–	–	–	10,823,814

The Company was founded in Shanghai, PRC on 29 June 1993 with registered capital of RMB4,000,000,000 invested by its holding company-China National Petrochemical Corporation; these shares were converted from assets of former Shanghai Petrochemical Complex.

Approved by Zheng Wei Fa No. [1993]30 issued by the State Council Securities Committee, the Company launched its Initial Public Offering ("IPO") in July 1993 and September 1993 in Hong Kong, New York and Shanghai to issue 2.23 billion shares, including 1.68 billion H shares and 550 million A shares. The 550 million A shares included 400 million individual shares (including 150 million shares issued to SPC employees) and 150 million legal person shares. H shares were listed on the Hong Kong Stock Exchange on 26 July 1993 and listed on the New York Stock Exchange in the form of American Depositary Shares at the same time; the A shares were listed on the Shanghai Stock Exchange on 8 November 1993.

After the IPO, the total quantity of shares issued by the Company was 6.23 billion, including 4 billion state owned shares, 150 million legal person shares, 400 million individual shares, and 1.68 billion H shares.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

31. Share capital *(continued)*

According to the plan stated in the prospectus issued in July 1993, and approved by the China Securities Regulatory Commission, the Company issued 320 million ordinary A shares with a par value of RMB1 each at an issuing price of RMB2.4 each during the period from 5 April to 10 June 1994. These shares were listed on the Shanghai Stock Exchange on 4 July 1994. By then, the total quantity of shares issued was expanded from 6.23 billion to 6.55 billion.

On 22 August 1996, the Company issued 500 million H shares to overseas investors; on 6 January 1997, another 150 million H shares were issued to overseas investors. By then, the total quantity of shares issued was expanded to 7.2 billion, including 2.33 billion H shares.

In 1998, China National Petrochemical Corporation was restructured to Sinopec Group.

Sinopec Corp. was founded on 28 February 2000 based on the approved assets restructuring of Sinopec Group. As part of the restructuring, the shares of the Company held by the Sinopec Group were injected in Sinopec Corp.; after the restructuring, the ownership of 4 billion state-owned shares of the Company held by the Sinopec Group were transferred to Sinopec Corp., and the shares were changed to state owned legal person shares in nature.

All the A and H shares rank pari passu in all respects.

Pursuant to the 'Approval on matters relating to the Share Segregation Reform of Sinopec Shanghai Petrochemical Company Limited' issued by the State-owned Assets Supervision and Administration Commission of the State Council (State Owned Property [2013] No.443), a General Meeting of A share shareholders was held on 8 July 2013 and passed the resolution of 'Share Segregation Reform of Sinopec Shanghai Petrochemical Company Limited (Amendment)' ("the share segregation reform resolution") which was published by the Company on Shanghai Stock Exchange ("SSE") website on 20 June 2013. According to the Share Segregation Reform Resolution, the controlling shareholder of the Company, Sinopec Corp., offered shareholders of circulating A shares 5 shares for every 10 circulating A shares they held on 16 August 2013, aggregating 360,000,000 A shares, for the purpose of obtaining the listing rights of its noncirculating shares in the A Shares market. From 20 August 2013 ("the circulation date"), all the Company's non-circulating A shares have been granted circulating rights on Shanghai Stock Exchange("SSE"). As part of the restricted conditions, Sinopec Corp. committed that all the 3,640,000,000 A shares held were not allowed to be traded on SSE or transferred within 12 months from the circulation date ("the restriction period"). After the restriction period, Sinopec Corp. can only sell no more than 5 and 10 percent of its total shares within 12 and 24 months, respectively. The former 150,000,000 non-circulating A shares held by social legal persons were also prohibited to be traded on SSE or transferred within 12 months from the circulation date. Meanwhile, Sinopec Corp. also committed in the Share Segregation Reform Resolution that a scheme of converting surplus to share capital (no less than 4 shares for every 10 shares) will be proposed on the board of directors and shareholders meetings within 6 months after the circulation date.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

31. Share capital *(continued)*

On 22 October 2013, Sinopec Corp. passed the Share Reform Commitment Scheme added up to 3,600,000,000 shares, after deliberation of temporary shareholders' meeting, A share class shareholders' meeting and H share class shareholders' meeting.

Since the Company share reform, which was executed after 20 August 2013, the Company's non-circulating A shares have been granted circulating rights on Shanghai Stock Exchange("SSE"). As part of the restricted conditions, all the 5,460,000,000 A shares held by Sinopec Corp. and 225,000,000 A shares held by social legal persons had been realized circulation as at 31 December 2016.

On 23 August 2017, the first Share Option Incentive Scheme of A shares was passed according to board resolution. On 27 September 2017, the Company increased newly registered capital of RMB14,177 thousand, which was paid in cash amount to RMB54,580 thousand by 199 grantees. The difference between actual capital contribution and registered capital amount to RMB40,403 thousand was included in share premium, and the confirmed capital reserve – employee equity option plan in the waiting period is RMB21,916 thousand, which is transferred to the capital reserve -- equity premium.. As to 31 December 2017, total equity capital was 10,814,176,600 shares.

On 8 January 2018, according to the resolution of the board of directors of the Company, the second exercise period exercise plan of the Company's common a-share stock option incentive plan was adopted. On 12 January 2018, the new registered capital of the Company is RMB9,637 thousand, which is fully paid in cash of RMB37,102 thousand by 185 equity incentive objects who meet the conditions for exercise. The difference between the actual capital contribution and the subscribed registered capital is RMB27,465 thousand, which is included in the Company's capital reserve -- equity premium, and the confirmed capital reserve – employee equity option plan in the waiting period is RMB17,062 thousand, which is transferred to the capital reserve -- equity premium.

According to the board resolution of the Company on 28 December 2018, the third exercise period of the stock option incentive plan for A shares of the common stock of the Company will not be exercised because the non-market exercise conditions are not met. As at 31 December 2022 and 31 December 2021, the total share capital of the Company was 10,823,813,500 shares.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

32. Capital reserve

Item	31 December 2021	Increase in current year	Decrease in current year	31 December 2022
Government grants	412,370	–	–	412,370
Refund of harbour construction charge	32,485	–	–	32,485
Share premium (Note V.31)	106,846	–	–	106,846
Others	58,626	–	–	58,626
Total	610,327	–	–	610,327

As at 31 December 2022 and 31 December 2021, there were no outstanding share options.

33. Treasury stock

Item	31 December 2021	Increase in current period	Decrease in current period	31 December 2022
Repurchase of Hong Kong ordinary shares	–	25,689	–	25,689

In accordance with the Motion on Requesting the Board of Directors to authorize the buyback of the Company's domestic shares and/or Overseas Listed foreign Shares approved by the General Meeting of Shareholders held on June 22, 2022, the Company will conduct the buyback of the Company's shares through centralized bidding since October 27, 2022. As at December 31, 2022, the Company had repurchased a total of 24,528,000 H-share ordinary shares on the Stock Exchange of Hong Kong for a consideration of RMB25,689 thousand.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

34. Other comprehensive income

	Other comprehensive income in Balance Sheet				Other comprehensive income in twelve months ended 31 December 2022 Income Statement				
	31 December 2021	Net-of-tax amount attributable to shareholders of the Company	Less: Amounts transferred from hedging reserve to initial carrying amount of hedged items	31 December 2022	Before-tax amount	Less: Previously recognized amount transferred to profit or loss	Less: income tax expense	Net-of-tax amount attributable to shareholders of the Company	Net-of-tax amount attributable to non-controlling interests
Items that may be reclassified to profit or loss									
Cash flow hedge reserves	36,460	201,519	(237,979)	–	375,701	(107,009)	(67,173)	201,519	–
Other comprehensive income recognized under equity method	22,965	(23,771)	–	(806)	(23,771)	–	–	(23,771)	–
Total	59,425	177,748	(237,979)	(806)	351,930	(107,009)	(67,173)	177,748	–

	Other comprehensive income in Balance Sheet				Other comprehensive income in twelve months ended 31 December 2021 Income Statement				
	31 December 2020	Net-of-tax amount attributable to shareholders of the Company	Less: Amounts transferred from hedging reserve to initial carrying amount of hedged items	31 December 2021	Before-tax amount	Less: Previously recognized amount transferred to profit or loss	Less: income tax expense	Net-of-tax amount attributable to shareholders of the Company	Net-of-tax amount attributable to non-controlling interests
Items that may be reclassified to profit or loss									
Cash flow hedge reserves	–	125,159	(88,699)	36,460	165,576	1,303	(41,720)	125,159	–
Other comprehensive income recognized under equity method	6,326	16,639	–	22,965	16,639	–	–	16,639	–
Total	6,326	141,798	(88,699)	59,425	182,215	1,303	(41,720)	141,798	–

(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

35. Specific reserve

Item	31 December 2021	Accrued in current year	Utilized in current year	31 December 2022
Safety fund	216,512	171,040	(147,134)	240,418

Item	31 December 2020	Accrued in current year	Utilized in currentyear	31 December 2021
Safety fund	145,597	111,644	(40,729)	216,512

Specific reserve represents unutilized safety fund accrued in accordance with state regulations (Note III.25).

36. Surplus reserve

Item	31 December 2021	Increase in current year	Decrease in current year	31 December 2022
Statutory surplus reserve	6,571,284	–	–	6,571,284
Discretionary surplus reserve	101,355	–	–	101,355
Total	6,672,639	–	–	6,672,639

Item	31 December 2020	Increase in current year	Decrease in current year	31 December 2021
Statutory surplus reserve	6,372,748	198,536	–	6,571,284
Discretionary surplus reserve	101,355	–	–	101,355
Total	6,474,103	198,536	–	6,672,639

In accordance with the Company Law and the Company's Articles of Association, the Company should appropriate 10% of net profit for the year to the statutory surplus reserve. The statutory surplus reserve can be used to make up for the loss or increase the share capital after approval from the appropriate authorities. No statutory surplus reserve was appropriated in 2022 (For the year ended 31 December 2021: RMB198,536 thousand).

The Company appropriates for the discretionary surplus reserve should be proposed by the board of directors and approved by the shareholders' meeting. The discretionary surplus reserve can be used to make up for the loss or increase the share capital after approval from the appropriate authorities. No discretionary surplus reserve was appropriated in 2022 (for the year ended 31 December 2021: Nil).

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

37. Retained earnings

	2022	2021
Retained earnings at the beginning of the year	11,877,455	11,157,866
Add: Net (loss)/profit attributable to shareholders of the Company	(2,872,072)	2,000,506
Less: Appropriation to statutory reserve (Note V. 36)	–	(198,536)
Dividend to ordinary shares (1)	(1,082,381)	(1,082,381)
Retained earnings at the end of the year	7,923,002	11,877,455

(1) Pursuant to the resolution of the shareholders' meeting on 22 June 2022, a dividend in respect of the year ended 31 December 2021 of RMB0.1 per share (including tax), amounting to a total dividend of RMB1,082,381 thousand was declared, which was paid in July 2022.

Pursuant to the resolution of the shareholders' meeting on 16 June 2021, a dividend in respect of the year ended 31 December 2020 of RMB0.1 per share (including tax), amounting to a total dividend of RMB1,082,381 thousand was declared, which was paid in July 2021.

In accordance with the resolution of the Board of Directors on 22 March 2022, the Board of Directors proposes that the no dividend be paid for the current year and no conversion of provident fund into share capital.

(2) Retained earnings at the end of the year

As at 31 December 2022, the consolidated retained earnings attributable to the Group included appropriation to surplus reserves made by the Company's subsidiaries amounting to RMB296,083 thousand (31 December 2021: RMB293,373 thousand).

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

38. Non-controlling interests

Attributable to the non-controlling interests of the Group:

Name of subsidiaries	2022	2021
China Jinshan Associated Trading Corporation ("Jinmao")	101,448	101,868
Shanghai Jinchang Engineering Plastics Company Limited ("Jinchang")	26,233	33,391
Total	127,681	135,259

39. Operating income and operating costs

Item	Note	2022	2021
Income from principal activities	(1)	82,048,185	88,791,702
Income from other operating activities		470,130	488,713
Total		82,518,315	89,280,415

Item	Note	2022	2021
Cost of principal activities	(1)	73,201,001	71,282,353
Cost of other operating activities		317,023	393,293
Total		73,518,024	71,675,646

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

39. Operating income and operating costs *(continued)*

(1) Income and cost from principal activities

The principal business of the Group mainly belongs to the petrochemical industry.

Analysis by product is as follows:

	2022		2021	
	Income from principal activities	Cost of principal activities	Income from principal activities	Cost of principal activities
Petroleum products	51,153,867	41,092,010	55,074,158	38,276,985
Intermediate petrochemicals	10,575,905	10,831,360	10,835,074	10,359,666
Trading of petrochemical products	12,016,586	11,910,488	11,060,133	10,929,127
Resins and plastics	7,345,052	7,914,497	10,006,030	9,227,408
Synthetic fibres	413,883	831,846	1,380,998	1,911,682
Other products	542,892	620,800	435,309	577,485
Total	82,048,185	73,201,001	88,791,702	71,282,353

(2) For the year ended 31 December 2022, analysis of revenue are as followings:

	for the year ended 31 December						
	Petroleum products	Intermediate petrochemicals	Trading of petrochemical products	Resins and plastics	Synthetic fibres	Others	Total
Income from principal activities	51,153,867	10,575,905	12,016,586	7,345,052	413,883	542,892	82,048,185
Including: Recognized at a point in time	51,153,867	10,575,905	11,917,827	7,345,052	413,883	542,892	81,949,426
Recognized over time	–	–	98,759	–	–	–	98,759
Income from other operating activities	–	–	–	–	–	470,130	470,130
Total	51,153,867	10,575,905	12,016,586	7,345,052	413,883	1,013,022	82,518,315

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

39. Operating income and operating costs *(continued)*

(2) For the year ended 31 December 2022, analysis of revenue are as followings: *(continued)*

For the year ended 31 December 2021, analysis of revenue are as followings:

	for the year ended 31 December 2021						
	Petroleum products	Intermediate petrochemicals	Trading of petrochemical products	Resins and plastics	Synthetic fibres	Others	Total
Income from principal activities	55,074,158	10,835,074	11,060,133	10,006,030	1,380,998	435,309	88,791,702
Including: Recognized at a point in time	55,074,158	10,835,074	11,020,323	10,006,030	1,380,998	435,309	88,751,892
Recognized over time	–	–	39,810	–	–	–	39,810
Income from other operating activities	–	–	–	–	–	488,713	488,713
Total	55,074,158	10,835,074	11,060,133	10,006,030	1,380,998	924,022	89,280,415

For the year ended 31 December 2022, the Group has no trial operation sales revenue and costs. (For the year ended 31 December 2021: Nil)

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

40. Taxes and surcharges

Item	2022	2021	Tax base and rate
Consumption tax	8,584,160	11,634,040	According to relevant PRC tax regulations, since 1 January 2009, the Group required to pay consumption tax based on the Group's sales of gasoline, diesel, naphtha and fuel oil rate according to the applicable tax rate (Note IV)
Urban maintenance and construction tax	653,829	916,833	5% or 7% of actual payments of consumption tax and VAT during the year
Education surcharges	475,050	672,083	3% of actual payments of consumption tax and VAT during the year
Stamp tax	29,141	22,392	Applicable tax rate
Property tax	17,958	26,277	1.2% of taxable property value or 12% of rental expense
Land use tax	16,671	26,192	Applicable tax rate
Others	11,784	11,871	
Total	9,788,593	13,309,688	

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

41. Selling and distribution expenses

Item	2022	2021
Transportation fee	44,393	83,279
Sales commission	90,341	110,552
Staff costs	84,360	83,588
Storage and logistics expenses	42,261	51,906
Others	21,486	33,009
Total	282,841	362,334

42. General and administrative expenses

Item	2022	2021
Staff costs	992,287	991,258
Repair and maintenance expense	271,165	386,298
Depreciation and amortization	180,152	161,309
Security and fire fighting expenses	51,221	47,516
Information system operation maintenance	48,050	43,933
Depreciation of right – of – use assets	12,951	13,591
Others	240,041	198,182
Total	1,795,867	1,842,087

43. Research and development expenses

Item	2022	2021
R & D material cost	34,230	14,401
Technical cooperation fee	35,840	47,696
Payroll	43,581	24,427
Depreciation and amortization	3,444	3,738
Others	13,421	4,033
Total	130,516	94,295

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

44. (Net financial income)/financial expenses

Item	2022	2021
Interest expenses from loans and payables	121,599	106,290
Less: Capitalized borrowing costs	(24,136)	(12,641)
Add: Interest expenses from lease liabilities	1,039	537
Interest income from deposits and receivables	(541,830)	(508,755)
Net exchange (gains)/losses	(21,969)	1,861
Others	5,860	5,909
Total	(459,437)	(406,799)

The interest rate per annum, at which the borrowing costs were capitalized by the Group, was 1.78% for 2022(for the year ended 31 December 2021: 2.85%).

45. Other income

Item	2022	2021	Related to asset/ related to income
Local education surcharge special fund subsidy	12,399	20,841	related to income
Refund of harbour construction charge	8,553	7,018	related to income
Tax refunds	2,104	1,295	related to income
Scientific research expenditures subsidy	3,858	4,598	related to income
Others	3,406	1,479	related to income
Total	30,320	35,231	

46. Investment income ("-" for losses)

Item	2022	2021
(Losses)/gains from investment in associates and joint ventures	(183,616)	864,285
Structured deposits income	11,124	97,921
Net (losses)/gains from disposal of derivative financial instruments	(18,864)	9,859
Discount loss of receivables	(3,148)	(4,685)
Others	2,704	–
Total	(191,800)	967,380

There was no significant restriction on the repatriation of investment income.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

47. (Loss)/Gains from changes in fair value

Item	2022	2021
Derivative financial assets and derivative financial liabilities		
commodity swaps contracts	(8,987)	8,987
Total	(8,987)	8,987

48. Credit losses

Item	2022	2021
Accounts receivable credit loss (Note V. 3)	(778)	(1,354)
Other receivable credit loss (Note V. 6)	(4,588)	(1)
Total	(5,366)	(1,355)

49. Impairment losses

Item	2022	2021
Impairment loss on inventories (Note V. 7)	(525,269)	(150,883)
Impairment loss on fixed assets (Note V. 11)	(286,260)	(587,622)
Impairment loss on long-term equity investment (Note V. 9)	–	(28,392)
Total	(811,529)	(766,897)

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

50. Gains from asset disposals

Item	2022	2021	Amount recognised in extraordinary gain and loss for the twelve months ended 31 December 2022
Gains from disposal of fixed assets	–	79,085	–
Losses from disposal of fixed assets	(1,231)	–	(1,231)
Total	(1,231)	79,085	(1,231)

51. Non-operating income

Item	Note	2022	2021	Amount recognised in extraordinary gain and loss for the twelve months ended 31 December 2022
Government grants	(1)	12,735	10,713	12,735
Others		9,091	17,070	9,091
Total		21,826	27,783	21,826

(1) Government grants mainly include:

Item	2022	2021
Amortization of deferred income (Note V.30)	12,735	10,713

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

52. Non-operating expenses

	2022	2021	Amount recognised in extraordinary gain and loss for twelve months ended 31 December 2022
Losses from scrapping of fixed assets	32,200	40,046	32,200
Allowances	51,476	40,550	51,476
Others	11,038	24,621	11,038
Total	94,714	105,217	94,714

At around 4:00 on June 18, 2022, a fire broke out in the No. 1 ethylene glycol plant area of the Group's intermediate petrochemical products division, causing a fire in some surrounding pipelines. The main production facilities of the Group. During the 12 months ended December 31, 2022, non-operating expenses included a net loss of RMB7,676 thousand from the scrapping of fixed assets caused by fire accidents, a net loss of RMB819 thousand from the scrapping of inventories, and compensation for casualties of RMB1,010 thousand (For the 12 months ended December 31, 2021: Nil).

53. Income tax (benefits)/expenses

Item	2022	2021
Current tax expense for the year based on tax law and regulations	12,632	590,668
Changes in deferred tax assets/liabilities	(798,003)	53,812
Tax filing differences	54,017	–
Total	(731,354)	644,480

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

53. Income tax (benefits)/expenses *(continued)*

Reconciliation between income tax expenses and accounting (loss)/profit:

Item	2022	2021
(Losses)/profit before income tax	(3,599,570)	2,648,161
Expected income tax expense at applicable tax rates	(899,893)	662,040
Tax effect of investment income accounted for using the equity method	46,787	(214,750)
Other non-taxable profit	(9,387)	(10,279)
Tax deductions for R&D expenses	(17,779)	(12,168)
Additional deduction for purchasing environmental protection equipment not used in the previous year	–	(12,446)
Costs, expenses and losses not deductible	73,306	203,674
Difference in settlement of income tax in previous years and the supplementary income tax	54,017	–
Deductible loss of unrecognized deferred income tax assets in the previous years	(3,353)	(157)
Derecognition of previously recognized tax losses	–	7,341
Tax losses for which no deferred income tax asset was recognized	24,948	21,225
Income tax expenses	(731,354)	644,480

54. Calculation of basic (losses)/earnings per share and diluted (losses)/earnings per share

(1) Basic (losses)/earnings per share

Basic (losses)/earnings per share is calculated by dividing the consolidated net (loss)/profit attributable to ordinary shareholders of the Company by the weighted average number of ordinary shares outstanding:

	2022	2021
Consolidated net (loss)/profit attributable to ordinary shareholders of the Company	(2,872,072)	2,000,506
Weighted average number of the Company's ordinary shares outstanding (thousand)	10,819,622	10,823,814
Basic (losses)/earnings per share (RMB per share)	(0.265)	0.185

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

54. Calculation of basic (losses)/earnings per share and diluted (losses)/earnings per share *(continued)*

(1) Basic (losses)/earnings per share *(continued)*

The weighted average number of ordinary shares is calculated as follows:

	2022	2021
Amount of ordinary shares outstanding at 31 December 2021	10,823,814	10,823,814
Weighted average number of ordinary shares during the period	(4,192)	–
Amount of ordinary shares outstanding at 31 December 2022	10,819,622	10,823,814

(2) Diluted (losses)/earnings per share

For the twelve months ended 31 December 2022, there are no diluted ordinary shares outstanding, the diluted (losses)/earnings per share equals the basic (losses)/earnings per share.

55. Supplementary information on income statement

Expenses on income statement are analysed by their nature:

Item	2022	2021
Operating income	82,518,315	89,280,415
Less: Changes in inventories of finished goods and work in progress	(78,255)	(235,402)
Consumed raw materials and low value consumables, etc.	55,997,717	54,457,558
Cost of trading products	11,910,488	10,929,127
Employee benefits	3,545,720	3,456,765
Depreciation and amortization expenses	1,799,434	1,950,455
Depreciation of right-of-use assets	15,874	17,263
Taxes and surcharges	9,788,593	13,309,688
Repair and maintenance expenses	1,537,719	1,587,955
Other expenses	998,551	1,810,641
Finance expenses ("-" for income)	(459,437)	(406,799)
Add: Gains from changes in fair value ("-" for loss)	(8,987)	8,987
Gains from asset disposals ("-" for loss)	(1,231)	79,085
Other income	30,320	35,231
Investment income ("-" for loss)	(191,800)	967,380
Impairment losses ("-" for loss)	(811,529)	(766,897)
Credit losses ("-" for loss)	(5,366)	(1,355)
Operating (loss)/profit	(3,526,682)	2,725,595

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

56. Notes to cash flow statement

(1) Proceeds from other operating activities:

Item	2022	2021
Subsidy income	28,216	33,936
Others	243,993	185,119
Total	272,209	219,055

(2) Payments for other operating activities:

Item	2022	2021
Agency fee	(90,341)	(110,552)
Research and development expenses	(49,261)	(51,729)
Information system operation maintenance	(48,050)	(43,933)
Commodity storage and logistics fee	(42,261)	(51,906)
Security and fire fighting expenses	(51,221)	(47,516)
Others	(126,748)	(186,924)
Total	(407,882)	(492,560)

(3) Proceeds from other investing activities:

Item	2022	2021
Time deposits due within one-year receipts	9,150,000	3,800,000
Interest income	330,216	398,937
Total	9,480,216	4,198,937

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

56. Notes to cash flow statement *(continued)*

(4) Payments for other investing activities:

Item	2022	2021
Payments for time deposits due over one year	(2,600,000)	(2,000,000)
Payments for time deposits due within one year	–	(3,650,000)
Entrusted loan	(150,000)	–
Discount loss of receivables	(3,148)	(4,685)
Others	(50,000)	–
Total	(2,803,148)	(5,654,685)

(5) Payments for other financing activities:

Item	2022	2021
Lease liabilities payment	(13,069)	(17,544)
Hong Kong ordinary shares repurchase	(53,262)	–
Total	(66,331)	(17,544)

For the twelve months ended 31 December 2022, cash payment of the Group related to lease activities is RMB27,843 thousand (for the twelve months ended 31 December 2021: RMB24,482 thousand), except for the above amount included in financing activities, the rest are included in operating activities.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

57. Supplementary information on cash flow statement

(1) Supplement to cash flow statement

a. *Reconciliation of net (loss)/profit to cash flows from operating activities:*

Item	2022	2021
Net (loss)/profit	(2,868,216)	2,003,681
Add: Provisions for impairment of assets	811,529	766,897
Provision of credit losses	5,366	1,355
Depreciation of investment properties	15,323	15,325
Depreciation of fixed assets	1,496,186	1,623,469
Depreciation of right-of-use assets	15,874	17,263
Amortization of intangible assets	19,968	19,968
Amortization of long-term deferred expenses	267,957	291,693
Losses/(gains) on disposal of fixed assets	26,767	(48,671)
Gains from changes in fair value	8,987	(8,987)
Finance expenses ("-" for income)	(327,470)	(328,648)
Investment loss ("-" for income)	191,800	(967,380)
Decrease in deferred tax assets ("-" for increase)	(795,554)	55,825
Increase in deferred tax liabilities ("-" for decrease)	(2,449)	(2,013)
Increase in deferred income ("-" for decrease)	21,888	(10,713)
Decrease in inventories ("-" for increase)	(1,895,804)	(2,185,662)
Decrease in operating receivables ("-" for increase)	(975,097)	(71,784)
Increase in operating payables ("-" for decrease)	(3,378,460)	2,817,493
Increase in specific reserve	23,906	70,915
Net cash flows (used)/produced in operating activities	(7,337,499)	4,060,026

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

57. Supplementary information on cash flow statement *(continued)*

(1) Supplement to cash flow statement *(continued)*

b. Change in cash and cash equivalents:

Item	2022	2021
Cash and cash equivalents at end of the year	889,413	5,112,010
Less: Cash and cash equivalents at beginning of the year	(5,112,010)	(6,916,408)
Net decrease in cash and cash equivalents	(4,222,597)	(1,804,398)

(2) Details of cash and cash equivalents

Item	2022	2021
Cash at bank and on hand	–	–
Including: Bank deposits available on demand	889,413	5,112,010
Cash and cash equivalents at the end of the year	889,413	5,112,010

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

58. Foreign monetary items

	2022		
	Foreign currency	Exchange rate	RMB currency
Cash at bank and on hand—USD	28,084	6.9646	195,594
Accounts receivable—USD	113	6.9646	787
Other receivable—USD	40	6.9646	279
Other receivable—HKD	30,328	0.8933	27,092
Receivables under financing—USD	55,589	6.9646	387,155
Accounts payable—USD	(92,502)	6.9646	(644,239)
Other payables—USD	(1,917)	6.9646	(13,351)
Gross balance sheet exposure—USD	(10,593)		(73,775)
Gross balance sheet exposure—HKD	30,328		27,092

	2021		
	Foreign currency	Exchange rate	RMB currency
Cash at bank and on hand—USD	26,015	6.3757	165,864
Derivative financial assets—USD	12,768	6.3757	81,405
Accounts receivable—USD	408	6.3757	2,601
Other receivable—USD	40	6.3757	255
Receivables under financing—USD	56,242	6.3757	358,582
Derivative financial liabilities—USD	(3,734)	6.3757	(23,804)
Accounts payable—USD	(79,633)	6.3757	(507,716)
Other payables—USD	(2,521)	6.3757	(16,073)
Gross balance sheet exposure—USD	9,585		61,114

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

59. Leases

(1) As a lessor

(a) Operating lease

Item	2022	2021
Lease income	75,159	81,923

The Group leases out some land, buildings and machinery. The lease period ranges from 1 to 20 years. The Group has classified these leases as operating leases, because they do not transfer substantially all of the risks and rewards incidental to the ownership of the assets.

(2) As a lessee

Item	2022	2021
Short-term lease expenses applied the practical expedient	14,774	6,938
Total cash outflow for leases	27,843	24,482

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

V. Notes to the consolidated financial statements *(continued)*

60. Government grants

(1) Details of government grants

Category	Amount	Presentation item	Amount recognized in profit or loss for the current year
Investment subsidy for Chemical Industry	90,000	Deferred income/Non-operating income	10,000
Power units energy saving reconstruction subsidies	16,178	Deferred income/Non-operating income	2,022
Huang Gu Tang pipeline relocation subsidy	3,495	Deferred income/Non-operating income	437
Funds allocated by state to scientific research institutions	20,200	Deferred income	–
Others subsidy relating to assets	3,312	Deferred income/Non-operating income	276
Others subsidy relating to income	1,423	Deferred income	–
Local education surcharge special fund subsidy	12,399	Other income	12,399
Refund of harbor construction charge	8,553	Other income	8,553
Financial subsidies for scientific research expenditures	3,858	Other income	3,858
Commission for withholding tax refund	2,104	Other income	2,104
Others subsidy relating to income	3,406	Other income	3,406

(2) For the twelve months ended 31 December 2022, there is no repayment of government grants.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

VI. Interests in other entities

1. Interests in subsidiaries

(1) Main components of the Group's subsidiaries as at 31 December 2022:

Name of enterprise	Main business area	Place of registration	Principal activities	Registered capital (thousands)	Percentage of equity		Way of acquisition
					Directly	Indirectly	
Toufa	Shanghai	Shanghai	Investment	RMB2,100,000	100.00%	–	Establish
Jinmao	Shanghai	Shanghai	Trading	RMB25,000	67.33%	–	Establish
Jinchang	Shanghai	Shanghai	Manufacturing	USD9,154	–	74.25%	Establish
Shanghai Golden Phillips Petrochemical Company Limited ("Jinfei")	Shanghai	Shanghai	Manufacturing	RMB415,623	–	100.00%	Establish
Jinmao International	Shanghai	Shanghai	Trading	RMB100,000	–	67.33%	Establish
Jinlian	Zhejiang Jiaxing	Zhejiang Jiaxing	Trading	RMB400,000	–	100.00%	Business combinations involving entities not under common control

(2) As at 31 December 2022 and 31 December 2021, non-controlling interests of subsidiaries' non-controlling shareholders were not significant (Note V.38).

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

VI. Interests in other entities *(continued)*

2. Interests in joint ventures or associates

(1) Nature of interest in major joint ventures or associates at 31 December 2022

Name of enterprise	Place of main business	Place of registry	Principal activities	Whether it is strategic to group activities	% of ownership interest		Registered capital (thousands)
					Directly	Indirectly	
Joint ventures–							
Linde	Shanghai	Shanghai	Production and sales of industrial gases	Yes	–	50.00%	USD 32,000
Inspection and Testing Company	Shanghai	Shanghai	Inspect and test chemical equipment	Yes	–	50.00%	RMB10,000
Yangu Gas	Shanghai	Shanghai	Production and sales of industrial gases	Yes	–	50.00%	USD 10,560
Baling Materials	Shanghai	Shanghai	Production and sales of new styrene thermoplastic elastomer materials	Yes	50.00%	–	RMB800,000
Associates –							
Shanghai Secco	Shanghai	Shanghai	Manufacturing and distribution of chemical products	Yes	20.00%	–	RMB3,115,180
Chemical Industry	Shanghai	Shanghai	Planning, development and operation of the Chemical Industry Park in Shanghai, PRC	Yes	38.26%	–	RMB2,372,439
Jinsen	Shanghai	Shanghai	Production of resins products	Yes	–	40.00%	RMB193,756
Azbil	Shanghai	Shanghai	Service and maintenance of building automation systems and products		–	40.00%	USD 3,000
Shidian Energy	Shanghai	Shanghai	Electricity supply		–	40.00%	RMB1,000,000

The Group applies the equity method to measure these equity investments.

(i) Sinopec Baling Petrochemical Co., Ltd. and the Company jointly established Baling Materials on 7 September 2021, each with a cash contribution of RMB400,000 thousand. As at 31 December 2022, the Company has made a paid-up capital contribution of RMB250,000 thousand. The main business scope of Baling Materials is the production and sales of new styrene thermoplastic elastomer materials SBS, SIS, SEBS, SEPS and SSBR (collectively referred to as SBC) and their raw materials, intermediate products and by-products.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

VI. Interests in other entities *(continued)*

2. Interests in joint ventures or associates *(continued)*

(2) Key financial information of material joint ventures

	2022				2021			
	Linde Gases Company	Inspection and Testing Company	Yangu Gas	Baling Materials	Linde Gases Company	Inspection and Testing Company	Yangu Gas	Baling Materials
Current assets	310,928	20,649	69,062	74,191	301,512	21,979	84,065	34,480
Including: Cash and cash equivalents	237,902	11,482	62,639	13,948	226,860	16,914	72,916	6,062
Non-current assets	92,325	1,478	13,765	626,761	109,366	1,577	19,034	65,520
Total assets	403,253	22,127	82,827	700,952	410,878	23,556	103,099	100,000
Current liabilities	(32,670)	(2,437)	(2,392)	(153,952)	(62,356)	(3,356)	(3,262)	–
Non-current liabilities	(17,016)	–	–	(47,000)	(16,303)	–	–	–
Total liabilities	(49,686)	(2,437)	(2,392)	(200,952)	(78,659)	(3,356)	(3,262)	–
Net assets	353,567	19,690	80,435	500,000	332,219	20,200	99,837	100,000
Group's share of net assets (i)	176,784	9,845	40,218	250,000	166,110	10,100	49,919	50,000
Elimination of unrealized profit or loss on intra- group transactions	(86)	–	–	–	(86)	–	–	–
Carrying amount of interests	176,698	9,845	40,218	250,000	166,024	10,100	49,919	50,000

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

VI. Interests in other entities *(continued)*

2. Interests in joint ventures or associates *(continued)*

(2) Key financial information of material joint ventures *(continued)*

	2022				2021			
	Linde Gases Company	Inspection and Testing Company	Yangu Gas	Baling Materials	Linde Gases Company	Inspection and Testing Company	Yangu Gas	Baling Materials
Operating income	375,795	25,129	26,091	–	428,971	27,190	60,222	–
Financial income	4,799	351	1,029	–	3,489	304	1,516	–
Income tax expenses	14,590	76	–	–	29,316	(1,125)	–	–
Net profit/(losses)	43,748	1,920	(15,802)	–	87,452	3,375	4,144	–
Other comprehensive income	–	–	–	–	–	–	–	–
Total comprehensive income	43,748	1,920	(15,802)	–	87,452	3,375	4,144	–
Dividends received from joint ventures	11,200	1,215	1,800	–	63,044	940	800	–

(i) The Group calculated shares of assets by its shareholding ratio, based on the amount from financial statements in joint ventures. The amount in financial statements of joint ventures based on the impacts of identifiable assets when obtained investment, fair value of liabilities, and consistency of accounting policies.

(All amounts in thousands of Renminbi Yuan unless otherwise stated)

VI. Interests in other entities *(continued)*

2. Interests in joint ventures or associates *(continued)*

(3) Key financial information of material associates

	2022					2021				
	Shanghai Secco	Chemical Industry	Jinsen	Azbil	Shidian Energy	Shanghai Secco	Chemical Industry	Jinsen	Azbil	Shidian Energy
Current assets	4,941,394	4,327,622	49,810	276,707	950,614	6,066,119	4,133,397	63,192	274,697	804,470
Including: Cash and cash equivalents	822,431	2,555,041	8,623	173,106	897,544	2,332,751	2,650,246	16,163	171,399	772,235
Non-current assets	5,683,409	6,294,394	50,360	12,338	166,068	5,735,360	6,201,415	58,737	15,698	121,051
Total assets	10,624,803	10,622,016	100,170	289,045	1,116,682	11,801,479	10,334,812	121,929	290,395	925,521
Current liabilities	(8,977,030)	(1,765,771)	(17,905)	(125,216)	(38,133)	(5,433,872)	(1,789,223)	(10,476)	(111,472)	(34,565)
Non-current liabilities	(1)	(651,729)	–	(5,518)	(35,355)	(66)	(619,306)	–	(7,506)	(15,827)
Total liabilities	(8,977,031)	(2,417,500)	(17,905)	(130,734)	(73,488)	(5,433,938)	(2,408,529)	(10,476)	(118,978)	(50,392)
Net assets	1,647,772	8,204,516	82,265	158,311	1,043,194	6,367,541	7,926,283	111,453	171,417	875,129
Non-controlling interests	–	1,578,714	–	–	–	–	1,508,583	–	–	–
Net assets attributable to Equity shareholders of the Company	1,647,772	6,625,802	82,265	158,311	1,043,194	6,367,541	6,417,700	111,453	171,417	875,129
Group's share of net assets (i)	329,554	2,535,032	32,906	63,324	417,278	1,273,508	2,455,412	44,581	68,567	350,052
Adjustment- elimination of unrealized profit or loss on intra- group transactions	4,342	–	–	–	(12,615)	(3,157)	–	–	–	(15,979)
Adjustment (ii)	–	(329,890)	–	–	–	–	(331,826)	–	–	–
impairment loss	–	–	(28,392)	–	–	–	–	(28,392)	–	–
Carrying amount of interests in associates	333,896	2,205,142	4,514	63,324	404,663	1,270,351	2,123,586	16,189	68,567	334,073

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

VI. Interests in other entities *(continued)*

2. Interests in joint ventures or associates *(continued)*

(3) Key financial information of material associates *(continued)*

	2022					2021				
	Shanghai Secco	Chemical Industry	Jinsen	Azbil	Shidian Energy	Chemical Industry	Chemical Industry	Jinsen	Azbil	Shidian Energy
Operating income	24,096,829	1,806,888	119,098	384,655	508,704	29,723,223	1,709,110	165,499	427,378	489,490
Net (loss)/profit	(1,947,579)	485,363	(29,188)	46,894	28,065	3,125,904	370,624	(16,657)	61,711	33,269
Other comprehensive income	–	(62,130)	–	–	–	–	43,488	–	–	–
Total comprehensive income	(1,947,579)	423,233	(29,188)	46,894	28,065	3,125,904	414,112	(16,657)	61,711	33,269
Dividends received from associates	554,438	55,477	–	24,000	24,000	634,341	52,225	–	19,200	–

(ii) The Group calculates its share of assets based on the amount attributable to the parent company in the consolidated financial statements of associates in proportion to its shareholding. The key financial information of associates is adjusted for fair value adjustments at the time of acquisition and any differences in accounting policies of the Group.

(iii) Unentitled portion represented some piece of lands injected by Government in Chemical Industry as capital reserve and the earnings from this land cannot be shared by other shareholders.

(4) Summarised financial information of immaterial associates

	2022	2021
Aggregate carrying amount of investments as at 31 December	106,093	100,079
Aggregate amount of share of Net profit (i)	876	5,655
Other comprehensive income (i)	–	–
Total comprehensive income	876	5,655
Dividends received from immaterial associates	11,650	6,670

(i) Net profit and other comprehensive income had been adjusted for fair value adjustments at the time of acquisition and any differences in accounting policies of the Group.

(ii) Unrecognized commitments related to investments in associates refer to Note IX.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

VII. Segment information

Segment information is presented in respect of the Group's business segments, the format of which is determined based on the structure of the Group's internal organisation, management requirement, and internal reporting system.

In a manner consistent with the way in which information is reported internally to the Group's chief operating decision maker for the purposes of resource allocation and performance assessment, the Group identified the following five reportable segments. No operating segments have been aggregated to form the following reportable segments.

The Group evaluates the performance and allocates resources to its operating segments on an operating income basis, without considering the effects of finance expenses, investment income, non-operating income and non-operating expenses. The accounting policies adopted by the operating segments are the same with the policies in summary of significant accounting policies. The transfer price of intersegment is recognized with cost plus profit method.

The Group principally operates in five operating segments: petroleum products, intermediate petrochemicals, synthetic fibers, resins and plastics and trading of petrochemical products. Petroleum products, intermediate petrochemicals, synthetic fibers and resins and plastics are produced through intermediate steps from crude oil, the principal raw material. The specific products of each segment are as follows:

(i) The Group's petroleum products segment is equipped with crude oil distillation facilities to produce qualified refined gasoline, kerosene, diesel, heavy oil and liquefied petroleum, in addition to producing feedstocks of the Group's downstream processing facilities.

(ii) The intermediate petrochemicals segment primarily produces p-xylene, benzene and ethylene oxide. Most of the intermediate petrochemicals produced by the Group are used by the Group as raw materials in the production of other petrochemicals, resins, plastics and synthetic fibres. A portion of the intermediate petrochemicals as well as certain by-products of the production process are sold to outside customers.

(iii) The synthetic fibres segment produces primarily polyester, acrylic fibres and carbon fibres, which are mainly used in the textile and apparel industries.

(iv) The resins and plastics segment produces primarily polyester chips, low-density polyethylene resins and films, polypropylene resins and PVA granules. The polyester chips are used to produce polyester fibres, coating and containers. Polyethylene resins and plastics are used to produce insulated cable, mulching films and moulded products such as housewares and toys. Polypropylene resins are used for films, sheets and moulded products such as housewares, toys, consumer electronics and automobile parts.

(v) Group's trading of petrochemical products segment primarily engages in importing and exporting of petrochemical products.

(vi) All other operating segments represent the operating segments which do not meet the quantitative threshold for determining reportable segments. These include rental, providing services and a variety of other commercial activities, which are not allocated to the above five operating segments.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

VII. Segment information *(continued)*

Segment results, assets and liabilities include items directly attributable to a segment as well as those that can be allocated on a reasonable basis. Unallocated items mainly comprise long-term equity investments, deferred tax assets and income tax expenses, cash at band and on hand and its related interest income, interest-bearing borrowings, and interest expenses, invest income, deferred income, other income, gains from asset disposals, non-operating income and expenses and related expenses.

(1) Segment information as at 31 December 2022 and for the year ended 31 December 2022 is as follows:

	Petroleum products	Intermediate petrochemicals	Resins and plastics	Synthetic fibres	Trading of petrochemical products	Others	Unallocated	Elimination	Total
Revenue from external customers	51,153,867	10,575,905	7,345,052	413,883	12,016,586	1,013,022	–	–	82,518,315
Inter-segment revenue	11,575,451	15,536,795	71,778	98	922,077	703,380	–	(28,809,579)	–
Operating costs	(41,092,010)	(10,831,360)	(7,914,497)	(831,846)	(11,910,488)	(937,823)	–	–	(73,518,024)
Interest income	–	–	–	–	–	–	541,830	–	541,830
Interest expenses	–	–	–	–	–	–	(98,502)	–	(98,502)
Investment income	–	–	–	–	–	(8,184)	(183,616)	–	(191,800)
Impairment losses	(37,900)	(460,928)	(158,758)	(153,943)	–	–	–	–	(811,529)
Impairment and expected credit losses	–	(2,945)	(482)	(1,930)	–	(9)	–	–	(5,366)
Gains from changes in fair value	–	–	–	–	–	(8,987)	–	–	(8,987)
Depreciation and amortization	(928,687)	(414,999)	(106,845)	(142,895)	(35,345)	(186,537)	–	–	(1,815,308)
Profit/(loss)before income tax	972	(1,446,647)	(1,252,524)	(1,017,279)	12,838	(151,864)	254,934	–	(3,599,570)
Income tax expenses	–	–	–	–	–	–	731,354	–	731,354
Net profit/(loss)	972	(1,446,647)	(1,252,524)	(1,017,279)	12,838	(151,864)	986,288	–	(2,868,216)
Total assets	16,021,111	3,803,989	1,359,796	2,738,431	1,391,104	2,777,478	13,150,831	–	41,242,740
Total liabilities	8,159,960	801,787	1,309,344	531,455	1,370,346	251,328	2,447,134	–	14,871,354
Investment in associates and joint ventures	–	–	–	–	–	–	3,594,393	–	3,594,393
Non-current assets increase (i)	544,806	1,029,771	54,220	1,573,781	16,603	235,406	–	–	3,454,587

(i) Non-current assets do not include financial assets, long-term equity investments or deferred tax assets.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

VII. Segment information *(continued)*

(2) Segment information as at 31 December 2021 and for the year ended 31 December 2021 is as follows:

Item	Petroleum products	Intermediate petrochemicals	Resins and plastics	Synthetic fibres	Trading of petrochemical products	Others	Unallocated	Elimination	Total
Revenue from external customers	55,074,158	10,835,074	10,006,030	1,380,998	11,060,133	924,022	–	–	89,280,415
Inter-segment revenue	10,454,529	15,619,770	170,255	445	1,912,789	783,606	–	(28,941,394)	-
Operating costs	(38,276,985)	(10,359,666)	(9,227,408)	(1,911,682)	(10,929,127)	(970,778)	–	–	(71,675,646)
Interest income	–	–	–	–	–	–	508,755	–	508,755
Interest expenses	–	–	–	–	–	–	(94,186)	–	(94,186)
Investment income	–	–	–	–	–	103,095	864,285	–	967,380
Impairment losses	(95,202)	(432,994)	(61,387)	(148,922)	–	–	(28,392)	–	(766,897)
Impairment and expected credit losses	–	(1,332)	(23)	–	–	–	–	–	(1,355)
Gains from changes in fair value	–	–	–	–	–	8,987	–	–	8,987
Depreciation and amortization	(970,161)	(522,314)	(81,678)	(133,967)	(38,656)	(203,679)	–	–	(1,950,455)
Profit/(loss) before income tax	2,947,974	(682,740)	47,941	(856,101)	43,729	(113,104)	1,260,462	–	2,648,161
Income tax expenses	–	–	–	–	–	–	(644,480)	–	(644,480)
Net profit/(loss)	2,947,974	(682,740)	47,941	(856,101)	43,729	(113,104)	615,982	–	2,003,681
Total assets	13,317,338	3,781,785	1,395,867	1,925,456	1,348,751	2,712,098	22,557,327	–	47,038,622
Total liabilities	9,749,806	1,257,436	1,327,587	490,211	1,257,750	100,157	2,460,244	–	16,643,191
Investment in associates and joint ventures	–	–	–	–	–	–	4,188,888	–	4,188,888
Non-current assets increase (i)	708,342	1,306,813	44,495	1,748,868	71,917	234,023	–	–	4,114,458

(i) Non-current assets do not include financial assets, long-term equity investments, and deferred income assets. As the Group operates mainly in the PRC, no geographical segment information is presented. For the twelve months ended 31 December 2022, revenue from the same customer accounted for 63% of total Group revenue (for the twelve months ended 31 December 2021: 68%). The revenue from the customer derived from the following segments: petroleum products and other segment.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

VIII. Related parties and related party transactions

1. Information about the parent of the Company

(1) General information of the parent company

Name of parent company	Place of registration	Business nature
China Petroleum & Chemical Corporation	No.22 Chaoyangmen North Street, Chaoyang District, Beijing	Exploring for, extracting and selling crude oil and natural gas; oil refining; production, sale and transport of petrochemical, chemical fibres and other chemical products; pipe transport of crude oil and natural gas; research and development and application of new technologies and information.

The Company's ultimate controlling party is China Petrochemical Corporation.

(2) Registered capital and changes in registered capital of the parent company

	31 December 2021	Increase in current year	Decrease in current year	31 December 2022
China Petroleum & Chemical Corporation	121.1 billion	–	–	121.1 billion

(3) The percentages of shareholding and voting rights in the Company held by the parent company

	2022		2021	
	Share holding	Voting rights	Share holding	Voting rights
China Petroleum & Chemical Corporation	50.44%	50.44%	50.44%	50.44%

VIII. Related parties and related party transactions *(continued)*

2. Information about the subsidiaries of the Company

For basic information about the subsidiaries of the Company, refer to Note VI.

3. Basic information about joint ventures and associates of the Company

In addition to the major joint ventures and associates disclosed in Note VI.2, related parties transactions between the Group and other associates are as follows:

	Place of business	Place of registration	Business nature	Whether it is strategic for group activities	% of ownership interest	
					Directly	Indirectly
Shanghai Nanguang Petrochemical Co., Ltd.	Shanghai	Shanghai	Petrochemical products import and export	Yes	–	35.00%
Shanghai Jinhuan Petroleum Naphthalene Development Company Limited	Shanghai	Shanghai	Production of petrochemical products	Yes	–	25.00%
Shanghai Chemical Industry Park Logistics Company Limited	Shanghai	Shanghai	Products freight	Yes	–	33.33%
Pinghu China Aviation Oil Port Co., Ltd. ("Pinghu Port")	Zhejiang Jiaxing	Zhejiang Jiaxing	Products freight	Yes	–	29.00%

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

VIII. Related parties and related party transactions *(continued)*

4. Information on other related parties

Names of related parties	Relationship with the Company
China International United Petroleum & Chemicals Co., Ltd.	Subsidiary of the ultimate parent company
Sinopec Chemical Sales Company Limited	Subsidiary of the ultimate parent company
Sinopec Chemical Commercial Holding Company Limited	Subsidiary of the ultimate parent company
Petro-cyberworks Information Technology Co., Ltd.	Subsidiary of the ultimate parent company
Lianhua (Ningbo) International Logistics Co., Ltd.	Subsidiary of the ultimate parent company
Zhongke (Guangdong) Refining & Chemical Co., Ltd.	Subsidiary of the ultimate parent company
Sinopec Marketing Co., Ltd.	Subsidiary of the ultimate parent company
Sinopec Fuel Oil Sales Co., Ltd.	Subsidiary of the ultimate parent company
Sinopec Lubricant Co., Ltd.	Subsidiary of the ultimate parent company
Sinopec Yangzi Petrochemical Co., Ltd.	Subsidiary of the ultimate parent company
China Petrochemical International (Beijing) Company Limited	Subsidiary of the ultimate parent company
Sinopec Catalysts Co., Ltd.	Subsidiary of the ultimate parent company
China Petrochemical International (Shanghai) Co., Ltd.	Subsidiary of the ultimate parent company
Sinopec Beijing Research Institute of Chemical Industry	Subsidiary of the ultimate parent company
China Petrochemical International (Ningbo) Co., Ltd.	Subsidiary of the ultimate parent company
Zhoushan Shihua Crude Oil Terminal Co., Ltd.	Subsidiary of the ultimate parent company
Dalian Sinopec Material Equip Company	Subsidiary of the ultimate parent company
Sinopec Material & Equipment (East China) Co., Ltd.	Subsidiary of the ultimate parent company
China Petrochemical International (Nanjing) Co., Ltd.	Subsidiary of the ultimate parent company
Sinopec Honeywell (Tianjin) Company Limited	Subsidiary of the ultimate parent company
China Petrochemical International (Wuhan) Co., Ltd.	Subsidiary of the ultimate parent company
China Petrochemical International Co., Ltd.	Subsidiary of the ultimate parent company
China Petrochemical Refinery Sales Co., Ltd.	Subsidiary of the ultimate parent company
Sinopec Shanghai Gaoqiao Petrochemical Co., Ltd.	Subsidiary of the ultimate parent company
China Petrochemical International (Tianjin) Co., Ltd.	Subsidiary of the ultimate parent company
Ningbo East sea Line fan Technology Company Limited	Subsidiary of the ultimate parent company
Sinopec Petroleum & Chemical Scientific Research Institute Dadi Company	Subsidiary of the ultimate parent company
Sinopec Shanghai Research Institute of Petrochemical Technology	Subsidiary of the ultimate parent company
Sinopec Lubricating Oil Shanghai Research Institute Company Limited	Subsidiary of the ultimate parent company
Dalian Furuipu Technology Co., Ltd.	Subsidiary of the ultimate parent company
Nantong Donghai Petrochemical Co., Ltd.	Subsidiary of the ultimate parent company
China Petroleum and Chemical Corporation Qingdao Security Engineering Research Institute	Subsidiary of the ultimate parent company
Sinopec (Shanghai) Energy Trade Co., Ltd.	Subsidiary of the ultimate parent company
Storage and Transportation Installation Company of Ningbo Engineering Company Limited	Subsidiary of the ultimate parent company

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

VIII. Related parties and related party transactions *(continued)*

4. Information on other related parties *(continued)*

Names of related parties	Relationship with the Company
Sinopec Chemical Commercial Holding (Hong Kong) Company Limited	Subsidiary of the ultimate parent company
Sinopec Yizheng Chemical Fibre Limited Liability Company	Subsidiary of the ultimate parent company
Fujian Gulei Petrochemical Company Limited	Subsidiary of the ultimate parent company
Sinopec China East Chemical Sales Co., Ltd	Subsidiary of the ultimate parent company
Unipec Singapore	Subsidiary of the ultimate parent company
China Yanshan United Foreign Trade Co., Ltd.	Subsidiary of the ultimate parent company
Sinopec Chemical Commercial Holding (Wuhan) Company Limited	Subsidiary of the ultimate parent company
Nanjing Yangzi Petrol-chemical Industry Co., Ltd.	Subsidiary of the ultimate parent company
Sinopec Baling Petrochemical Co., Ltd.	Subsidiary of the ultimate parent company
Shengli Oil Field Exploration and Development Research Institute	Subsidiary of the ultimate parent company
Shanghai Lide Catalyst Co., Ltd.	Subsidiary of the ultimate parent company
Ypc-gpro (Nanjing) Rubber Co., Ltd.	Subsidiary of the ultimate parent company
Fujian Refining & Petrochemical Company Limited	Subsidiary of the ultimate parent company
Sinopec Dalian (Fushun) Research Institute of Petroleum and Petrochemicals	Subsidiary of the ultimate parent company
Sinopec Jianghan Salt Chemical Hubei Co., Ltd.	Subsidiary of the ultimate parent company
Yipaike Business Factoring Co., Ltd.	Subsidiary of the ultimate parent company
Sinopec Great Wall Energy and Chemical (Ningxia) Co., Ltd.	Subsidiary of the ultimate parent company
Sinopec (Shenzhen) E-Commerce Company Limited	Subsidiary of the ultimate parent company
Sinopec Research Institute of Safety Engineering	Subsidiary of the ultimate parent company
Ningbo Minggang Gas Company Limited	Subsidiary of the ultimate parent company
Sinopec Zhongyuan Petrol-Chemical Industry Co., Ltd.	Subsidiary of the ultimate parent company
Epec E-commerce Co., Ltd.	Subsidiary of the ultimate parent company
Sinopec Oil Refining and Marketing (Shanghai) Co., Ltd	Subsidiary of the ultimate parent company
Sinopec Chemical Sales (Guangdong) Co., Ltd.	Subsidiary of the ultimate parent company
Unipec (Qingdao) International Logistics Company Limited	Subsidiary of the ultimate parent company
Qingdao Zhonghua Sunshine Management System Certification Center	Subsidiary of the ultimate parent company
Zhejiang Baling Hengyi Caprolactam Limited Company	Joint venture of the ultimate parent company
Shanghai Sinopec Mitsui Chemicals, Co., Ltd	Joint venture of the ultimate parent company

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

VIII. Related parties and related party transactions *(continued)*

4. Information on other related parties *(continued)*

Names of related parties	Relationship with the Company
Basf-ypc Company Limited	Joint venture of the ultimate parent company
Shanghai Changshi Shipping Co., Ltd.	Associate of the ultimate parent company
Shanghai KSD Bulk Solids Engineering Co., Ltd.	Associate of the ultimate parent company
Basf Gao-Qiao Performance Chemicals (Shanghai) Company Limited	Associate of the ultimate parent company
Sinopec Chemical Commercial Holding (Singapore) Pte. Ltd	Subsidiary of the immediate parent company
Sinopec Finance Co., Ltd.	Subsidiary of the immediate parent company
Sinopec Chemical Commercial Holding Company Limited	Subsidiary of the immediate parent company
Sinopec Nanjing Chemical Research Institute Co., Ltd.	Subsidiary of the immediate parent company
China Economy Phulishing House Co., Ltd.	Subsidiary of the immediate parent company
Sinopec Publishing House Co., Ltd.	Subsidiary of the immediate parent company
Sinopec International Travel Service Co., Ltd.	Subsidiary of the immediate parent company
Sinopec Assets Management Co., Ltd.	Subsidiary of the immediate parent company
Ningbo Engineering Company of Sinopec	Subsidiary of the immediate parent company
Sinopec Shared Service Co., Ltd.	Subsidiary of the immediate parent company
Sinopec Petroleum Engineering Geophysics Ltd.	Subsidiary of the immediate parent company
Sinopec Baichuan Economic and Trade Company	Subsidiary of the immediate parent company
Sinopec Group Jiangsu Petroleum Exploration Bureau Co., Ltd.	Subsidiary of the immediate parent company
Sinopec Newspaper Office	Subsidiary of the immediate parent company
Sinopec Energy Saving Technology Service Co., Ltd.	Subsidiary of the immediate parent company
Sinopec Group Economic and Technology Research Institute Co., Ltd.	Subsidiary of the immediate parent company
Beijing Petro-Chemical Construction Consulting Co., Ltd.	Subsidiary of the immediate parent company
China Economicbooks Co., Ltd.	Subsidiary of the immediate parent company
Petrol-Chemical Industry Management Cadre College	Subsidiary of the immediate parent company
Sinopec Engineering Quality Supervision Terminal	Subsidiary of the immediate parent company
Sinopec Group Shanghai Training Center Ltd.	Subsidiary of the immediate parent company

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

VIII. Related parties and related party transactions *(continued)*

4. Information on other related parties *(continued)*

Names of related parties	Relationship with the Company
Sinopec Beijing Yanshan Petrochemical Co., Ltd.	Subsidiary of the immediate parent company
Sinopec Zhongyuan Petroleum Exploration Bureau Co., Ltd.	Subsidiary of the immediate parent company
Sinopec Shengli Petroleum Administration Co., Ltd.	Subsidiary of the immediate parent company
The Fourth Construction Company of Sinopec	Subsidiary of the immediate parent company
Sinopec Tending Co., Ltd.	Subsidiary of the immediate parent company
Sinopec Shanghai Engineering Co., Ltd.	Subsidiary of the immediate parent company
Sinopec Engineering Incorporation	Subsidiary of the immediate parent company
Sinopec Engineering Quality Monitoring Co., Ltd.	Subsidiary of the immediate parent company
Sinopec Engineering(Group)Co.,Ltd.	Subsidiary of the immediate parent company
National Petrochemical Project Risk Assessment Technology Center	Subsidiary of the immediate parent company
The Tenth Construction Company of Sinopec	Subsidiary of the immediate parent company
The Fifth Construction Company of Sinopec	Subsidiary of the immediate parent company
Shanghai Petrochemical Machinery Manufacturing Co., Ltd.	Subsidiary of the immediate parent company
Sinopec Nanjing Engineering Company Limited	Subsidiary of the immediate parent company
Sinopec Luoyang Engineering Company Limited	Subsidiary of the immediate parent company
Jiangsu Jinling Opta Polymer Company Limited	Subsidiary of the immediate parent company
Shanghai Petro-Chemical Haidi Administration Co., Ltd.	Subsidiary of the immediate parent company
Sinopec Sichuan Uinylon Works	Subsidiary of the immediate parent company
China Petrochemical Corp. Nanjing Chemistry Industrial Co., Ltd.	Subsidiary of the immediate parent company
Sinopec Group International Petroleum Exploration And Production Limited	Subsidiary of the immediate parent company
Sinopec Consulting Company Limited	Subsidiary of the immediate parent company
China Petrochemical Corp. Engineering Ration Management Station	Subsidiary of the immediate parent company
Beijing Victory Hotel Company Limited	Subsidiary of the immediate parent company
Maoming Shihua Dongcheng Chemical Co., Ltd.	Subsidiary of the immediate parent company
Yihua Tory Polyester Film Company Limited	Joint venture of the immediate parent company
China Sinopec Pipeline Storage and Transportation Co., Ltd.	Associate of the immediate parent
Yihua Bonar Yarns and Fabrics Co., Ltd.	Associate of the immediate parent
Unipec Singapore	Subsidiary of the immediate parent company
Unipec America, Inc	Subsidiary of the immediate parent company
Sinopec Japan Company Limited	Subsidiary of the immediate parent company
Rizhao Shihua Crude Oil Terminal Co., Ltd.	Joint venture of the ultimate parent company
Sinopec Europe Company Limited	Subsidiary of the immediate parent company
Sinopec Chemical Commercial Holding (North America), Inc.	Subsidiary of the immediate parent company

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

VIII. Related parties and related party transactions *(continued)*

4. Information on other related parties *(continued)*

Names of related parties	Relationship with the Company
Sinopec International (Australia) Pty. Ltd.	Subsidiary of the immediate parent company
Sinopec Easy Joy sales CO., Ltd	Subsidiary of the immediate parent company
Sinopec National Petrochemical Project Risk Assessment Technology Center Co., Ltd	Subsidiary of the immediate parent company
Sinopec International (Russia) Pty. Ltd.	Subsidiary of the immediate parent company
Sinopec Jianghan Petroleum Administration Co., Ltd	Subsidiary of the ulitimate parent company
Sinopec America Company Limited	Subsidiary of the ulitimate parent company
Sinopec (Beijing) Chemical Research Institute Co., Ltd	Subsidiary of the ulitimate parent company
Sinopec-Sk(Wuhan)Petrochemical Co., Ltd	Subsidiary of the ulitimate parent company
Shanghai Petroleum&Natural Gas General Co., Ltd	Associate of the ultimate parent company
Beijing Heyuan Jingyi Hotel Co., Ltd	Subsidiary of the ulitimate parent company
Sinopec Henan Oilfield Training Center	Subsidiary of the ulitimate parent company
Sinopec Jiangsu Petroleum Exploration Bureau Co., Ltd. Training Center	Subsidiary of the ulitimate parent company
Sinopec Capital Co., Ltd.	Subsidiary of the ulitimate parent company

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

VIII. Related parties and related party transactions *(continued)*

5. Material related party transactions

Most of the transactions undertaken by the Group affected on such terms as determined by Sinopec Corp. and relevant PRC authorities.

Sinopec Corp. negotiates and agrees the terms of crude oil supply with suppliers on a group basis, which is then allocated among its subsidiaries, including the Group, on a discretionary basis. Sinopec Corp. also owns a widespread petroleum products sales network and possesses a fairly high market share in domestic petroleum products market, which is subject to extensive regulation by the PRC government.

The Group has entered into a mutual product supply and sales services framework agreement with Sinopec Corp. Pursuant to the agreement, Sinopec Corp. provides the Group with crude oil, other petrochemical raw materials and agent services. On the other hand, the Group provides Sinopec Corp. with petroleum products, petrochemical products and property leasing services.

The pricing policy for these services and products provided under the agreement is as follows:

- If there are applicable State (central and local government) tariffs, the pricing shall follow the State tariffs;
- If there are no State tariffs, but there are applicable State's guidance prices, the pricing shall follow the State's guidance prices; or
- If there are no State tariffs or State's guidance prices, the pricing shall be determined in accordance with the prevailing market prices (including any bidding prices).

In addition to the related transaction disclosed in Note V.9, Note V.38 and Note V.46, other material related party transactions of the Group are as follows:

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

VIII. Related parties and related party transactions *(continued)*

5. Material related party transactions *(continued)*

(1) Purchases and sales of goods, rendering and receiving services

Purchases of goods and receiving services:

Name of Related Parties	Category	Transaction type	2022 Amount	2022 Percentage of the same category (%)	2021 Amount	2021 Percentage of the same category (%)
Sinopec Corp., its subsidiaries and joint ventures	Purchases	Trade	54,334,527	75.13%	44,379,967	63.79%
Sinopec Group and its subsidiaries	Purchases	Trade	1,870,287	2.59%	2,830,256	4.07%
Associates of the Group	Purchases	Trade	2,050,359	2.83%	4,035,834	5.80%
Joint ventures of the Group	Purchases	Trade	361,193	0.50%	389,864	0.56%
Key management personnel	Short-term employee benefits	Compensation for services	12,829	0.42%	11,866	0.36%
Key management personnel	Retirement scheme contributions	Compensation for services	659	0.14%	551	0.36%

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

VIII. Related parties and related party transactions *(continued)*

5. Material related party transactions *(continued)*

(1) Purchases and sales of goods, rendering and receiving services *(continued)*

Sales of goods, rendering services:

			2022		2021	
Name of Related Parties	Category	Transaction type	Amount	Percentage of the same category (%)	Amount	Percentage of the same category (%)
Sinopec Corp., its subsidiaries and joint ventures	Sales/Service	Trade	52,587,052	63.79%	56,641,301	63.50%
Sinopec Group and its subsidiaries	Sales/Service	Trade	19,450	0.02%	36,683	0.04%
Associates of the Group	Sales/Service	Trade	3,126,074	3.79%	4,208,937	4.72%
Joint ventures of the Group	Sales/Service	Trade	45,761	0.06%	39,721	0.04%

(2) Lease

The Group as the lessor:

Name of lessee	Type of leasing	Rental income recognized in 2022	Rental income recognized in 2021
Sinopec Corp., its subsidiaries and joint ventures	Properties	34,088	34,475
Joint ventures of the Group	Equipment	6,014	6,012
Associates of the Group	Properties and equipment	8,018	8,918
Sinopec Group and its subsidiaries	Properties	427	464
Total		48,547	49,869

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

VIII. Related parties and related party transactions *(continued)*

5. Material related party transactions *(continued)*

(2) Lease *(continued)*

Increase in right-of-use assets of the Group as lessee:

Related Parties as lessor	Type of leasing	2022	2021
Sinopec Group and its subsidiaries	Properties, lands and equipment	20,023	1,388

Lease liabilities interest expense of the Group as lessor:

	2022	2021
Sinopec Group and its subsidiaries	787	247
Associates of the Group	17	24
Total	804	271

(3) Funds Borrowing and Lending

As at 31 December 2022, the Group borrowed entrust loans of RMB150,000 thousand to Baling New Materials, and it was withdrawn in July 2022.

As at 31 December 2021, the Group borrowed long-term loans of RMB700,000 thousand from Sinopec Finance, as detailed in Note V.28.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

VIII. Related parties and related party transactions *(continued)*

5. Material related party transactions *(continued)*

(4) Other related transactions

	Type of transaction	2022	2021
Sinopec Group and its subsidiaries	Insurance premiums	109,597	108,850
Sinopec Finance Co., Ltd.	Interests received and receivable	213	824
Joint ventures of the Group	Interests received and receivable	2,704	–
Sinopec Finance	Interests paid and payable	7,665	2,835
Sinopec Corp., its subsidiaries and joint ventures	Construction, installation and inspection cost	812,516	785,216
Sinopec Finance	Long-term loans	–	700,000
Sinopec Corp., its subsidiaries and joint ventures	Sales commission	90,341	110,552

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

VIII. Related parties and related party transactions *(continued)*

6. Receivables from and payables to related parties

Receivables from related parties:

		2022		2021	
		Book value	Provision for bad and doubtful debts	Book value	Provision for bad and doubtful debts
Cash at bank and on hand	Sinopec Finance	–	–	3,243	–
Accounts receivable	Sinopec Corp., its subsidiaries and joint ventures	2,403,649	–	1,067,912	–
	Associates of the Group	38,777	–	23,768	–
	Joint ventures of the Group	592	7	300	–
Sub-total		2,443,018	7	1,091,980	–
Receivables under financing	Sinopec Corp., its subsidiaries and joint ventures	–	–	25,000	–
Other receivables	Sinopec Corp., its subsidiaries and joint ventures	137,902	2,795	58,539	–
	Joint ventures of the Group	2,190	–	2,412	–
	Associates of the Group	179	–	180	–
Sub-total		140,271	2,795	61,131	–
Prepayments	Sinopec Corp. and its subsidiaries	55,152	–	32,666	–
	Associates of the Group	3,344	–	1,554	–
Sub-total		58,496	–	34,220	–

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

VIII. Related parties and related party transactions *(continued)*

6. Receivables from and payables to related parties *(continued)*

Payables to related parties:

		2022	2021
Accounts payable	Sinopec Corp., its subsidiaries and joint ventures	6,445,704	4,205,745
	Sinopec Group and its subsidiaries	819,648	24,791
	Associates of the Group	19,076	87,332
	Joint ventures of the Group	41,673	43,305
Sub-total		7,326,101	4,361,173
Bills payable	Associates of the Group	16,000	25,480
	Sinopec Corp., its subsidiaries and joint ventures	–	241,933
Sub-total		16,000	267,413
Other payables	Sinopec Group and its subsidiaries	412,917	259,248
	Sinopec Corp., its subsidiaries and joint ventures	122,305	22,409
	Associates of the Group	–	12
Sub-total		535,222	281,669
Other current liabilities	Sinopec Group and its subsidiaries	–	1,388,286
Contract liabilities	Associates of the Group	9,252	256
	Joint ventures of the Group	–	–
	Sinopec Corp., its subsidiaries and joint ventures	1,210	5,905
	Sinopec Group and its subsidiaries	24	114
Sub-total		10,486	6,275
Lease liabilities	Sinopec Group and its subsidiaries	12,714	992
	Joint ventures of the Group	290	435
Sub-total		13,004	1,427
Long-term loans	Sinopec Finance	700,000	700,000

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

VIII. Related parties and related party transactions *(continued)*

7. Commitments with related parties

Commitments with related parties contracted for by the Group at the balance sheet date but are not yet necessary to be recognized on the balance sheet are as follows:

(1) Construction and installation cost:

	2022	2021
Sinopec Group and its subsidiaries	930,665	775,007

(2) Investment commitments with related parties

	2022	2021
Capital contribution to Shanghai Secco (Note IX.2(i))	111,263	111,263
Capital contribution to Shidian Energy (Note IX.2(ii))	–	80,000
Capital contribution to Baling Materials (Note IX.2(iii))	150,000	350,000
Total	261,263	541,263

As at 31 December 2022 and 31 December 2021, except for the information disclosed above, the Group and the Company had no other material commitments with related parties, which are contracted, but not included in the financial statements.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

IX. Commitments

1. Capital commitments

Capital expenditures contracted for by the Group at the balance sheet date but are not yet necessary to be recognized on the balance sheet are as follows:

	2022	2021
Signed purchase contract of fixed assets	1,783,781	1,176,168

2. Investment commitments

(i) **The Company held the 18th meeting of the seventh board of directors on 5 December 2013, and reviewed and approved the capital increase of USD30,017,124 (about RMB182,804 thousand) for Shanghai Secco based on the equity ratio of the affiliated company held by the Company. The Company will make capital contribution to Shanghai Secco in equal amounts in stages.**

As at 31 December 2022 and 31 December 2021, the Company has completed the first phase of its investment in Shanghai Secco with totally RMB71,541 thousand. In accordance with the approval of Shanghai municipal commission of commerce received by Shanghai secco on 19 October 2015, the remaining capital contribution of the Company and other shareholders of Shanghai Secco can be paid within the term of the joint venture of Shanghai Secco. As at 31 December 2022, the Company has not made a resolution to revoke this investment.

(ii) **According to the resolution of board of directors on 9 July 2019, Toufa agreed to make capital contribution of RMB400,000 thousand to acquire 40% share of Shidian Energy. The payment is to be made in installments.**

As at 31 December 2022, Toufa has contributed RMB400,000 thousand to Shidian Energy (As at 31 December 2021: RMB320,000 thousand).

(iii) **Sinopec Baling Petrochemical Co., Ltd. and the Company jointly established Baling Materials on 7 September 2021, each with a cash contribution of RMB400,000 thousand. As at 31 December 2022, the Company has made a paid-up capital contribution of RMB250,000 thousand (As at 31 December 2021: RMB50,000 thousand).**

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

X. Risk related to financial instruments

The Group's normal course of operations expose it to a variety of financial risks: market risk (primarily foreign currency risk, interest rate risk and commodity price risk), credit risk and liquidity risk. The Group's overall risk management program focuses on the unpredictability of financial markets and seeks to minimise potential adverse effects on the Group's financial performance.

1. Market risk

(1) Foreign currency risk

The Group's major operational activities are carried out in Mainland China and a majority of the transactions are denominated in RMB. Nevertheless, the Group is exposed to foreign currency risk arising from the recognized assets and liabilities, and future transactions denominated in foreign currencies, primarily with respect to US dollars. The Group's finance department at its headquarters is responsible for monitoring the amount of assets and liabilities, and transactions denominated in foreign currencies to minimise the foreign currency risk. Therefore, the Group would sign forward exchange contracts or foreign exchange option contracts to avoid foreign exchange risks. As at 31 December 2022 and 31 December 2021, the Group has not signed any currency swaps. As at 31 December 2022 and 31 December 2021, the Group has no unexpired foreign exchange contract and foreign exchange option contract.

As at 31 December 2022 and 31 December 2021, the Group's exposure to currency risk arising from recognized financial assets or financial liabilities denominated in foreign currencies is presented in the following tables:

	31 December 2022		31 December 2021	
	Foreign currency	RMB equivalent	Foreign currency	RMB equivalent
– Cash at bank and on hand-USD	28,084	195,594	26,015	165,864
– Derivative financial assets-USD	–	–	12,768	81,405
– Receivables under financing-USD	55,589	387,155	56,242	358,582
– Accounts receivable-USD	113	787	408	2,601
– Other receivables-USD	40	279	40	255
– Other receivables-HKD	30,328	27,092	–	–
– Accounts payable-USD	(92,502)	(644,239)	(79,633)	(507,716)
– Other payables-USD	(1,917)	(13,351)	(2,521)	(16,073)
– Derivative financial liabilities-USD	–	–	(3,734)	(23,804)
Total				
-USD	(10,593)	(73,775)	9,585	61,114
-HKD	30,328	27,092	–	–

(All amounts in thousands of Renminbi Yuan unless otherwise stated)

X. Risk related to financial instruments *(continued)*

1. Market risk *(continued)*

(1) Foreign currency risk *(continued)*

The following are the exchange rates for Renminbi against foreign currencies applied by the Group:

	Average rate		Balance sheet date mid-spot rate	
	2022	2021	2022	2021
USD	6.6702	6.4503	6.9646	6.3757
HKD	0.8968	0.8168	0.8933	0.8176

Assuming all other risk variables remained constant, a 5% strengthening or weaken of the Renminbi against the US dollar at 31 December 2022 would have decreased or increased the Group's net loss by the amount of RMB1,751 thousand (31 December 2021: decreased or increased net profit by RMB2,292 thousand).

(2) Interest rate risk

The interest rate risk of the Group is mainly generated by interest bearing short-term loan and short-term bonds. Financial liabilities with floating interest rate expose the Group to cash flow interest rate risk, while financial liabilities with fixed interest rate expose the Group to cash fair value interest risk. The Group determines the appropriate weightings of fixed and floating rate contracts based on the current market conditions.

The financial department of the Group headquarters continuously monitor the interest rate level of the Group. The increase of interest rate will increase the cost of new interest-bearing debt and the interest expense of the Group's outstanding interest-bearing debt with floating interest rate and have a significant adverse impact on the financial performance of the Group. The management makes timely adjustments according to the latest market conditions, which may be reducing interest rate risk by entering into interest rate swaps. The Group does not enter any interest rate swap arrangement for the twelve months ended 31 December 2022 and 2021.

As at 31 December 2022 and 31 December 2021, the Group held the following interest-bearing financial instruments:

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

X. Risk related to financial instruments *(continued)*

1. Market risk *(continued)*

(2) Interest rate risk *(continued)*

Fixed rate instruments:

	2022		2021	
Item	Effective interest rate	Amounts	Effective interest rate	Amounts
Financial assets				
– Cash at bank and on hand	3.85%-4.13%	3,000,000	3.40%-4.18%	7,350,000
– Other non-current assets	3.55%-4.20%	3,300,000	3.45%-4.20%	5,500,000
Financial liabilities				
– Short-term loans	2.10%-3.50%	(1,550,000)	2.70%	(1,500,000)
– Lease liabilities	4.35%-4.90%	(16,251)	4.35%-4.90%	(4,613)
Total		4,733,749		11,345,387

Variable rate instruments:

	2022		2021	
Item	Effective interest rate	Amounts	Effective interest rate	Amounts
Financial assets				
– Cash at bank and on hand	0.30%-2.00%	889,416	0.30%-2.00%	5,112,013
Financial liabilities				
– Short-term loans	–	–	1-year LPR-0.15%	(40,000)
– Non-current liabilities due within one year	–	–	1-year LPR-0.15%	(19,800)
– Long-term loans	1.08% in the first year, with regular annual adjustments thereafter	(700,000)	1.08% in the first year, with regular annual adjustments thereafter	(700,000)
Total		189,416		4,352,213

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

X. Risk related to financial instruments *(continued)*

1. Market risk *(continued)*

(2) Interest rate risk *(continued)*

As at 31 December 2022, if interest rates on the floating rate borrowings had risen or fallen by 100 basis points while all other variables had been held constant, the Group's net gains would increase or decrease by approximately RMB1,460 thousand (31 December 2021: RMB32,504 thousand).

(3) Commodity price risk

The Group principally engages in processing crude oil into synthetic fibers, resins and plastics, intermediate petrochemicals and petroleum products. The Group is exposed to commodity price risks related to the price of crude oil, refined oil and other chemical products. The fluctuation of the price of crude oil, refined oil and other chemical products may have a significant impact on the group. The Group uses derivative financial instruments such as commodity swap contracts to avoid some of these risks.

As at 31 December 2022, the Group had certain commodity contracts of crude oil designed as qualified cash flow hedges. As at 31 December 2022, the fair value of such derivative hedging financial instruments is derivative financial assets of RMB0 thousand (31 December 2021: RMB81,405 thousand), derivative financial liabilities of RMB0 thousand (31 December 2021: RMB23,804 thousand) and the amount payable to related parties measured at fair value is RMB0 thousand (31 December 2021: RMB1,388,286 thousand).

As at 31 December 2022, it was estimated that a general increase/decrease of 10% per barrel in basic price of commodity swap contract, with all other variables held constant, would impact the fair value of derivative financial instruments, which would increase or decrease the Group's net loss and other comprehensive income by approximately RMB0 thousand (31 December 2021: decrease or increase the Group's net profit for the year by approximately RMB1,111 thousand and other comprehensive income by approximately RMB73,938 thousand). This sensitivity analysis above is made assuming that the changes in prices had occurred at the balance sheet date and had been applied to the Group's derivative financial instruments at that date with exposure to commodity price risk. Please refer to note XI(1) for sensitivity analysis of accounts payable to related parties measured at fair value.

2. Credit risk

Credit risk is the risk that one party to a financial instrument will cause a financial loss for the other party by failing to discharge an obligation. The Group's credit risk is primarily attributable to cash at bank, derivative financial assets, accounts receivable, other receivables and receivables under financing, etc. As at balance sheet date, the maximum exposure to credit risk is represented by the carrying amount of financial assets in the balance sheet.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

X. Risk related to financial instruments *(continued)*

2. Credit risk *(continued)*

The cash at bank, derivative financial assets, and receivables under financing of the Group is mainly held with state-owned banks and other large and medium-sized listed banks with good reputation and high credit rating. Management does not foresee any significant credit risks from these deposits and does not expect that these financial institutions may default and cause losses to the Group.

The Group's exposure to credit is influenced mainly by the individual characteristics of each customer rather than the industry or country/region in which the customers operate. Therefore, significant concentrations of credit risk primarily arise when the Group has significant exposure to individual customers. As at the balance sheet date, 95.57% (31 December 2021: 93.20%) and 97.65% (31 December 2021: 94.70%) of total accounts receivable were due from the Group's largest and five largest customers respectively.

In respect of receivables, the Group establishes relevant policies to control credit risk exposure. The Group assesses customers' credit qualifications and sets corresponding credit periods based on their financial status, the possibility of obtaining guarantees from third parties, credit records and other factors such as current market conditions. The Group will regularly monitor customers' credit records. For customers with poor credit records, the Group will use written reminders, shorten the credit period or cancel the credit period to ensure that the Group's overall credit risk is within a controllable range.

As at 31 December 2022 and 31 December 2021, the Group has no material collateral mortgaged by the debtor or credit enhancement.

3. Liquidity risk

Liquidity risk is the risk that an enterprise will encounter difficulty in meeting obligations that are settled by delivering cash or another financial asset. Cash flow forecast is performed by the operating entities of the Group and aggregated by Group finance. Group finance monitors rolling forecasts of the Group's liquidity requirements to ensure it has sufficient cash to meet operational needs while maintaining sufficient headroom on its undrawn committed borrowing facilities from major financial institution so that the Group does not breach borrowing limits or covenants on any of its borrowing facilities to meet the short-term and long-term liquidity requirements.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

X. Risk related to financial instruments *(continued)*

3. Liquidity risk *(continued)*

As at 31 December 2022, the Group obtained standby lines of credit from certain financial institutions in China, allowing the Group to borrow up to a total amount of RMB9,200,000 thousand, of which the Group's unused standby line of credit is RMB6,950,000 thousand.

The following tables set out the remaining contractual maturities at the balance sheet date of the Group's financial liabilities, which are based on contractual undiscounted cash flows:

	31 December 2022					
	Within 1 year or demand	More than 1 year but less than 2 years	More than 2 years but less than 5 years	More than 5 years	Total	Carrying amount at balance sheet date
Short-term loans	1,562,617	–	–	–	1,562,617	1,550,000
Non-current liabilities due within one year	–	–	–	–	–	–
Long-term loans	7,665	704,914	–	–	712,579	700,000
Lease liabilities	9,395	7,531	655	–	17,581	16,251
Accounts payable	9,144,554	–	–	–	9,144,554	9,144,554
Bills payable	40,951	–	–	–	40,951	40,951
Other payables	1,618,352	–	–	–	1,618,352	1,618,352
Total	12,383,534	712,445	655	–	13,096,634	13,070,108

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

X. Risk related to financial instruments *(continued)*

3. Liquidity risk *(continued)*

	31 December 2021					
	Within 1 year or demand	More than 1 year but less than 2 years	More than 2 years but less than 5 years	More than 5 years	Total	Carrying amount at balance sheet date
Short-term loans	1,550,908	–	–	–	1,550,908	1,540,000
Non-current liabilities due within one year	20,244	–	–	–	20,244	19,800
Long-term loans	7,665	7,665	704,914	–	720,244	700,000
Lease liabilities	3,814	730	814	–	5,358	4,613
Accounts payable	5,888,879	–	–	–	5,888,879	5,888,879
Bills payable	830,006	–	–	–	830,006	830,006
Other payables	1,285,529	–	–	–	1,285,529	1,285,529
Derivative financial liabilities	23,804	–	–	–	23,804	23,804
Total	9,610,849	8,395	705,728	–	10,324,972	10,292,631

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

XI. Fair value disclosure

The following table presents the fair value information and the fair value hierarchy, at the end of the current reporting period, of the Group's assets and liabilities which are measured at fair value at each balance sheet date on a recurring or non-recurring basis. The level in which fair value measurement is categorised is determined by the level of the fair value hierarchy of the lowest level input that is significant to the entire fair value measurement. The levels are defined as follows:

Level 1 inputs: unadjusted quoted prices in active markets that are observable at the measurement date for identical assets or liabilities;

Level 2 inputs: inputs other than Level 1 inputs that are either directly or indirectly observable for underlying assets or liabilities;

Level 3 inputs: inputs that are unobservable for underlying assets or liabilities.

1. Assets recurring measured at fair value

As at 31 December 2022, assets recurring measured at fair value are presented in the above three levels as follows:

	Level 1	Level 2	Level 3	Total
Financial assets				
FVOCI				
– Receivables under financing	–	582,354	–	582,354
– Investments in other equity instruments	–	–	5,000	5,000
Total	–	582,354	5,000	587,354

(All amounts in thousands of Renminbi Yuan unless otherwise stated)

XI. Fair value disclosure *(continued)*

1. Assets recurring measured at fair value *(continued)*

As at 31 December 2021, the assets recurring measured at fair value are listed as follows according to the above three levels:

	Level 1	Level 2	Level 3	Total
Financial assets				
FVOCI				
– Receivables under financing	–	1,072,690	–	1,072,690
– Investments in other equity instruments	–	–	5,000	5,000
Derivative financial assets				
– Commodity swap contracts	–	81,405	–	81,405
Total	–	1,154,095	5,000	1,159,095
Financial liabilities				
Derivative financial liabilities				
– Commodity swap contracts	–	23,804	–	23,804
Total	–	23,804	–	23,804
Other current liabilities				
– Amounts due to related parties				
– measured at fair value through profit or loss	–	1,388,286	–	1,388,286

For the twelve months ended 31 December 2022, there were no transfers between different levels. (for the twelve months ended 31 December 2021: Nil).

The Group uses discounted cash flow model to evaluate the fair value of the structured deposits classified as level 2 and level 3 financial assets. The assessment of input value for assessing the fair value of structured deposits is mainly based on the historical fluctuations of exchange rates and the possibility of market fluctuations.

The primary input to the receivables financing valuation is the discount rate for counterparty credit risk.

The main inputs to the valuation of commodity swap contracts are the price of the underlying commodity and the discount rate for counterparty credit risk.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

XI. Fair value disclosure *(continued)*

1. Assets recurring measured at fair value *(continued)*

The main input to value of payables due to related parties measured at fair value is the market price of the underlying commodity. As at 31 December 2022, if market price of crude oil had risen/fallen by 10% while all other variables had been held constant, the Group's net profit would have decreased/increased by approximately RMB0 thousand (31 December 2021: the Group's net profit decreased/increased by approximately RMB89,787 thousand).

The reconciliation information between the book value at the beginning of the year and the book value at the end of the year for the items measured by continuous Level 3:

	Opening balance	Increase	Decrease	Changes in fair value	Ending Balance	Unearned profits or losses for assets held at the end of the year
– Investments in other equity instruments	5,000	–	–	–	5,000	–
– Structured deposits	–	1,000,000	(1,011,124)	11,124	–	–
Total	5,000	1,000,000	(1,011,124)	11,124	5,000	–

2. Fair values of financial assets and liabilities not measured at fair value

Financial assets and liabilities measured at amortized cost mainly include trade receivables, other receivables, other current assets, short-term loans, trade payables, lease liabilities and other current liabilities.

As at 31 December 2022 and 31 December 2021, the carrying amount of these financial assets and financial liabilities not measured at fair value are a reasonable approximation of their fair value.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

XII. Capital management

The Group's objectives when managing capital are to safeguard the Group's ability to continue as a going concern, so that it can continue to provide returns for shareholders and benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders, return capital to shareholders, issue new shares or sell assets to reduce debt.

The Group's total capital is calculated as 'shareholder's equity' and 'total liabilities' as shown in the consolidated balance sheet. The Group is not subject to external mandatory capital requirements, and monitors capital on the basis of gearing ratio.

During 2022, the Group's strategy, which was unchanged from 2021, was to maintain a reasonable range of net debt-to-capital ratio by the management.

XIII. Notes to the Company's financial statements

1. Accounts receivable

(1) Accounts receivable by customer type are as follows;

Type of customers	2022	2021
Amounts due from related parties	2,334,835	1,014,638
Amounts due from third parties	2,114	2,114
Sub-total	2,336,949	1,016,752
Less: provision for bad and doubtful debts	(2,121)	(1,965)
Total	2,334,828	1,014,787

(2) The ageing analysis of accounts receivable is as follows:

Aging	2022	2021
Within 1 year (inclusive)	2,334,835	1,014,638
Over 1 year but within 2 years (inclusive)	–	–
Over 2 years but within 3 years (inclusive)	–	2,114
Over 3 years	2,114	–
Total	2,336,949	1,016,752

The ageing is counted starting from the date when accounts receivable are recognized.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

XIII. Notes to the Company's financial statements *(continued)*

1. Accounts receivable *(continued)*

(3) Accounts receivable by provisioning method

	2022					2021				
	Book value		Provision for bad and doubtful debts		Carrying amount	Book value		Provision for bad and doubtful debts		Carrying amount
Category	Amount	Percentage (%)	Amount	Percentage (%)		Amount	Percentage (%)	Amount	Percentage (%)	
Individual assessment	–	–	–	–	–	–	–	–	–	–
Collective assessment	2,336,949	100.00	2,121	0.09	2,334,828	1,016,752	100.00	1,965	0.19	1,014,787
Total	2,336,949	100.00	2,121	0.09	2,334,828	1,016,752	100.00	1,965	0.19	1,014,787

(i) *As at 31 December 2022, the Company has no individually impaired accounts receivable (as at 31 December 2021: Nil).*

(ii) *Criteria for collective assessment for the twelve months ended 31 December 2022 and details:*

According to the historical experience of the Company, there are no significant differences in the losses of different customer groups. Therefore, different customer groups are not further distinguished when calculating impairment loss based on the overdue information.

(iii) *Assessment of ECLs on accounts receivable:*

At all times the Company measures the impairment loss for accounts receivable at an amount equal to lifetime ECLs, and the ECLs are based on the number of overdue days and the expected loss rate.

The loss given default is measured based on the actual credit loss experience in the past years, and is adjusted taking into consideration the differences among the economic conditions during the historical data collection period, the current economic conditions and the economic conditions during the expected lifetime.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

XIII. Notes to the Company's financial statements *(continued)*

1. Accounts receivable *(continued)*

(4) Movements of provisions for bad and doubtful debts:

	2022	2021
Provisions for bad and doubtful debts		
Balance at the beginning of the year	1,965	634
Additions during the period	156	1,331
Recoveries or reversals during the year	–	–
Balance at the end of the year	2,121	1,965

(i) *For the twelve months ended 31 December 2022, the Company has no accounts receivable that have fully accrued or accrued a large proportion of bad and doubtful debts in previous years, but fully recovered or reversed, or have a large proportion of recovered or reversed in the current year (For the twelve months ended 31 December 2021: Nil).*

(ii) *For the twelve months ended 31 December 2022, the Company has not written off significant accounts receivable (For the twelve months ended 31 December 2021: Nil).*

(5) Five largest accounts receivable by debtor as at 31 December 2022

Item	Amount	Provision	Percent of total amount
Total amount of five largest accounts receivable by debtor of the Company	2,336,295	2,119	99.97%

(6) For the twelve months ended 31 December 2022, the Company has no accounts receivable derecognized due to transfer of financial assets. (31 December 2021: Nil)

(7) As at 31 December 2022, the Company has no pledged accounts receivable. (31 December 2021: Nil)

(All amounts in thousands of Renminbi Yuan unless otherwise stated)

XIII. Notes to the Company's financial statements *(continued)*

2. Receivables under financing

Item	Note	2022	2021
Bills receivable	(1)	127,558	624,584

(1) Bills receivable

(i) *Due to the requirement of cash management, the Company discounted and endorsed part of the bank acceptance notes. Therefore, as at 31 December 2022, the Company classified RMB127,558 thousand bills receivable to financial assets measured at fair value and whose changes are included in other comprehensive income and disclosed in bills receivable (31 December 2021: RMB624,584 thousand).*

(ii) *The Company has no single provision for impairment of the bank acceptance notes, with all provision was accrued by their expected credit loss. As at 31 December 2022 and 31 December 2021, the Company considers that no bank acceptance notes has significant credit risk and will not suffer significant loss due to the violation of banks.*

(iii) *As at 31 December 2022, the Company had no pledged bills receivable (31 December 2021: Nil).*

(iv) *As at 31 December 2022, unmatured notes receivable that have been endorsed or discounted by the Company is as follows:*

Item	**Derecognized**	**Not derecognized**
Bank acceptance notes	244,589	–

As at 31 December 2022, the Company endorsed and discounted the undue bills receivable of RMB244,589 thousand (31 December 2021: RMB324,074 thousand). The Company derecognized such bills receivable, accounts payable to suppliers and short-term loans as a whole by considering that the risks and rewards of ownership of such unmatured bills had been substantially transferred. The Company's continued involvement in the unexpired bills receivable whose overall derecognition is limited to the extent that the issuing bank is unable to settle the amount to the bill holder. The maximum exposure to loss caused by the Company's continued involvement is the amount of outstanding bills receivable endorsed to the supplier of RMB244,589 thousand (31 December 2021: RMB324,074 thousand). The term of the outstanding bills receivable is within one year.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

XIII. Notes to the Company's financial statements *(continued)*

3. Other receivables

(1) Analysis by customer type:

Customer type	2022	2021
Amounts due from related parties	139,995	60,777
Amounts due from third parties	793,153	764,762
Sub-total	933,148	825,539
Less: Provision for bad and doubtful debts	(761,072)	(756,486)
Total	172,076	69,053

(2) The ageing analysis is as follows:

Aging	2022	2021
Within 1 year (inclusive)	174,866	69,030
Over 1 year but within 2 years (inclusive)	1,935	23
Over 2 years but within 3 years (inclusive)	–	–
Over 3 years	756,347	756,486
Total	933,148	825,539

The ageing is counted starting from the date when other receivables are recognized.

(All amounts in thousands of Renminbi Yuan unless otherwise stated)

XIII. Notes to the Company's financial statements *(continued)*

3. Other receivables *(continued)*

(3) Others by provisioning method:

	2022					2021				
	Book value		Provision for bad and doubtful debts		Carrying amount	Book value		Provision for bad and doubtful debts		Carrying amount
Category	Amount	Percentage (%)	Amount	Percentage (%)		Amount	Percentage (%)	Amount	Percentage (%)	
Individual assessment	761,072	81.56	761,072	100.00	–	756,347	91.62	756,347	100.00	–
Collective assessment	172,076	18.44	–	–	172,076	69,192	8.38	139	0.20	69,053
Total	933,148	100.00	761,072	81.56	172,076	825,539	100.00	756,486	91.64	69,053

(4) Movements of provisions for bad and doubtful debts

	Stage 1					Stage 3		
	12-month ECL (collective)		12-month ECL (individual)		Sub-total	Lifetime ECL-Credit impaired		Total
	Book value	Provision for bad and doubtful debts	Book value	Provision for bad and doubtful debts		Book value	Provision for bad and doubtful debts	
Balance at 31 December 2021	69,053	–	–	–	–	756,486	(756,486)	(756,486)
Additions during the year	–	–	–	–	–	4,725	(4,725)	(4,725)
Recoveries or reversals during the year	–	–	–	–	–	(139)	139	139
Balance at 31 December 2022	172,076	–	–	–	–	761,072	(761,072)	(761,072)

As at 31 December 2022 and 31 December 2021, the Company has no other receivables under Stage 2.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

XIII. Notes to the Company's financial statements *(continued)*

3. Other receivables *(continued)*

(4) Movements of provisions for bad and doubtful debts *(continued)*

As at 31 December 2022, the amount receivable from Jinyong company, a subsidiary within the original scope of merger, was RMB756,347thousand (31 December 2021: RMB756,347 thousand). Jinyong company started to stop production in August 2008 and entered bankruptcy liquidation procedure in August 2019. The Company believes that the other receivables are difficult to recover, so the bad debt provision are fully accrued. As at 31 December 2022, the bankruptcy liquidation procedure has not been completed.

For the twelve months ended 31 December 2022, the Company has fully recovered or reversed the amount of other receivables of RMB139 thousand which had been fully set aside for bad debts in previous years. (for the twelve months ended 31 December 2021: Nil)

For the twelve months ended 31 December 2022, the Company has not written off significant other receivables (For the twelve months ended 31 December 2021: Nil).

(5) Others categorised by nature

Nature of other receivables	2022	2021
Receivable from Jinyong company	756,347	756,347
Accounts due from related parties	139,995	60,777
Rent receivable	140	17
Water, electricity and gas charges receivable	278	86
Prepayment for share repurchase	27,573	–
Others	8,815	8,312
Sub-total	933,148	825,539
Less: provisions for bad and doubtful debts	(761,072)	(756,486)
Total	172,076	69,053

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

XIII. Notes to the Company's financial statements *(continued)*

3. Other receivables *(continued)*

(6) Five largest others by debtor as at 31 December 2022

Debtor	Nature of the receivable	Balance at the end of the year	Ageing	Percentage of ending balance of others (%)	Ending balance of provision for bad and doubtful debts
Zhejiang Jinyong Acrylic Fiber Co., Ltd.	reimbursed expenses	756,347	Over 3 years	81.05%	(756,347)
China International United Petroleum and Chemicals Co., Ltd.	Business transaction	133,820	Within 1 year (inclusive)	14.34%	–
China International Capital Corporation Hong Kong Securities Limited	Prepayment for share repurchase	27,573	Within 1 year (inclusive)	2.95%	–
Sinopec Materials & Equipment Co., Ltd.	Business transaction	2,795	Within 1 year (inclusive)	0.30%	(2,795)
Linde-SPC Gases Company Limited	Business transaction	2,190	Within 1 year (inclusive)	0.24%	–
Total		922,725		98.88%	(759,142)

4. Long-term equity investment

Item	Note	2022	2021
Subsidiaries	(1)	2,048,328	2,048,328
Associates	(2)	2,539,038	3,393,937
Joint ventures	(3)	250,000	50,000
Sub-total		4,837,366	5,492,265
Less: Impairment provision for long-term equity investment		–	–
Total		4,837,366	5,492,265

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

XIII. Notes to the Company's financial statements *(continued)*

4. Long-term equity investment *(continued)*

(1) Subsidiaries

Name of subsidiaries	31 December 2021	Additional/ negative investment	31 December 2022	Impairment provision	Cash dividends declared in current year
Toufa	2,031,496	–	2,031,496	–	–
Jinmao	16,832	–	16,832	–	35,000
Total	2,048,328	–	2,048,328	–	35,000

(2) Associates

The information relating to the associates of the Company, Shanghai Secco and Chemical Industry is disclosed in Note VI.2.

(3) Joint venture

The information relating to the joint venture of the Company, Shanghai Jinshan Baling New Materials Co., Ltd., is disclosed in Note VI.2.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

XIII. Notes to the Company's financial statements *(continued)*

5. Fixed assets

(1) Fixed assets

	Buildings	Plant and machinery	Vehicles and other equipment	Total
Cost				
31 December 2021	3,319,981	42,658,370	1,929,061	47,907,412
Reclassification in current year	(3,662)	(35,712)	39,374	–
Increase				
– Purchase	131	183,596	37,772	221,499
– Transfer from construction in progress	609,303	1,759,254	88,972	2,457,529
– Transfer from investment properties	47	–	–	47
– Others	1,208	–	–	1,208
Decrease				
– Disposal	(2,540)	(378,702)	(48,484)	(429,726)
31 December 2022	3,924,468	44,186,806	2,046,695	50,157,969
Accumulated depreciation				
31 December 2021	2,367,427	31,733,306	1,456,337	35,557,070
Reclassification in current year	787	(6,340)	5,553	–
Increase				
– Charge for current year	84,742	1,235,557	123,504	1,443,803
– Transfer from investment properties	45	–	–	45
Decrease				
– Disposal	(2,419)	(331,183)	(46,940)	(380,542)
Transfer to investment properties	(1,307)	–	–	(1,307)
31 December 2022	2,449,275	32,631,340	1,538,454	36,619,069
Provision for impairment				
31 December 2021	59,712	1,348,640	8,967	1,417,319
Reclassification in current year	2,146	(2,202)	56	–
Increase	–			
– Charge for current year	984	283,624	1,652	286,260
Decrease	–	(4,264)	–	(4,264)
31 December 2022	62,842	1,625,798	10,675	1,699,315
Carrying amount				
31 December 2022	1,412,351	9,929,668	497,566	11,839,585
31 December 2021	892,842	9,576,424	463,757	10,933,023

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

XIII. Notes to the Company's financial statements *(continued)*

5. Fixed assets *(continued)*

(1) Fixed assets *(continued)*

(i) Due to further deterioration of market conditions in 2022, certain production units, including ethylene Glycol Unit 1 and ethylene Glycol Unit 2 of the Intermediate Petrochemical product segment, were not able to produce products at expected selling prices that would cover the increase in their production and operating costs, and the Company's management believes that there are indications of impairment of assets related to certain production units.

For the twelve months ended 31 December 2022, the Company conducts impairment tests on the assets related to the certain production facilities, according to Note III.18. The recoverable amount of the assets related to the certain production facilities is RMB265,377 thousand, and the Company will set aside the asset impairment reserve of RMB212,410 thousand to the recoverable amount for the related fixed assets.

The recoverable amount of the asset or cash generating unit is determined based on the present value of the asset's projected future cash flows. The Company calculates the present value of projected future cash flows based on important assumptions such as product sales growth rate and associated cost growth rate (the "forecast growth rate") and discount rate in accordance with the approved five-year financial budget. In the above significant assumptions, the projected growth rate is projected based on historical operating experience and the expectations of market participants, consistent with the forecasts in relevant industry reports, and the pre-tax discount rate used to evaluate the present value of the projected future cash flows is 9.00%, reflecting the special risks of the Company.

During 2022, in addition to the above assets or cash generating units, some of the Company's production units have been discontinued or their production processes have fallen behind. The Company expects that the use of the fixed assets related to these production plants will not produce economic benefits in the future, and the relevant fixed assets cannot be used for other purposes due to customization. As a result, impairment loss of RMB49,230 thousand and RMB24,620 thousand were made separately against the carrying amounts of synthetic fiber segment and resin and resins and plastics segment, respectively.

Based on the above impairment tests, the Company recognized an impairment loss on fixed assets of RMB286,260 thousand in 2022.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

XIII. Notes to the Company's financial statements *(continued)*

5. Fixed assets *(continued)*

(1) Fixed assets *(continued)*

As at 31 December 2022 and 31 December 2021 the Company had no pledged fixed assets.

(ii) For the twelve months ended 31 December 2022, the amount of fixed assets transferred from construction in progress was RMB2,457,529 thousand (for the twelve months ended 31 December 2021, RMB1,678,321 thousand).

(iii) As at 31 December 2022, the cost of temporarily idle fixed assets was RMB3,358,312 thousand, the accumulated depreciation was RMB2,685,006 thousand, the provision for impairment was RMB493,944 thousand and the carrying amount was RMB179,362 thousand (31 December 2021: the cost of temporarily idle fixed assets was RMB3,553,001 thousand, accumulated depreciation was RMB2,867,318 thousand, related impairment provision was RMB552,580 thousand, and the carrying amount of these assets was RMB133,103 thousand, respectively).

(iv) As at 31 December 2022, the carrying amount of fixed assets leased out under operating leases was RMB50,923 thousand (31 December 2021: RMB50,733 thousand).

(v) As at 31 December 2022 and 31 December 2021, the Company had no fixed assets pending certificates of ownership.

6. Operating income and operating costs

Items	Note	2022	2021
Income from principal activities	(1)	70,112,942	77,711,400
Income from other operating activities		403,542	459,227
Total		70,516,484	78,170,627

Items	Note	2022	2021
Cost of principal activities	(1)	61,409,711	60,426,129
Cost of other operating activities		257,448	345,999
Total		61,667,159	60,772,128

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

XIII. Notes to the Company's financial statements *(continued)*

6. Operating income and operating costs *(continued)*

(1) Income and cost from principal activities

The principal business of the Group mainly belongs to the petrochemical industry.

Analysis by product is as follows:

	2022		2021	
	Income from principal activities	Cost from principal activities	Income from principal activities	Cost from principal activities
Petroleum products	51,153,867	41,092,010	55,074,158	38,276,985
Intermediate petrochemicals	11,606,826	12,032,494	12,086,644	11,655,393
Resins and plastics	6,389,203	6,826,289	8,726,645	7,996,938
Synthetic fibres	413,981	831,944	1,381,442	1,912,126
Others	549,065	626,974	442,511	584,687
Total	70,112,942	61,409,711	77,711,400	60,426,129

The operating income of the Company is recognized at a point in time.

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

XIII. Notes to the Company's financial statements *(continued)*

7. Investment Income ("-" for losses)

	Note	2022	2021
Investment accounted for using the cost method		23,565	10,100
Investment accounted for using the equity method	(1)	(221,213)	774,784
Structured deposits income		11,124	82,266
Loss on disposal of derivative financial instruments		(19,218)	10,010
Discount loss of receivables		(1,031)	(1,605)
Others		2,702	–
Total		(204,071)	875,555

There are no severe restrictions on the investee's ability to transfer investment income to the Company.

(1) Income from investment in associates accounted for using the equity method is as follow:

	2022	2021
Shanghai Secco	(382,017)	633,403
Chemical Industry	160,804	141,381
Total	(221,213)	774,784

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

XIII. Notes to the Company's financial statements *(continued)*

8. Supplementary information on cash flow statements

(1) Reconciliation from net (loss)/profit to cash flow from operating activities

	2022	2021
Net (loss)/profit	(2,818,753)	1,985,363
Add: Provisions for impairment of assets	811,475	738,339
Impairment credit losses	4,742	1,331
Depreciation of investment properties	16,391	15,088
Depreciation of fixed assets	1,443,803	1,570,330
Depreciation of right-of-use assets	12,149	12,841
Amortization of intangible assets	12,287	12,286
Amortization of long-term deferred expense	266,571	290,277
Net losses/(gains) on disposal of long-term assets	25,736	(48,517)
Losses/(gains) from changes in fair value"	8,987	(8,987)
Financial expenses ("-" for income)	(306,866)	(323,437)
Investment income ("-" for decrease)	204,071	(875,555)
Decrease in deferred tax assets ("-" for increase)	(796,593)	47,803
Amortization of deferred income ("-" for decrease)	21,774	(10,713)
Decrease in inventories ("-" for increase)	(1,842,564)	(2,191,525)
Decrease in operating receivables ("-" for increase)	(985,627)	(122,029)
Increase in operating payables ("-" for decrease)	(3,598,153)	3,939,108
Increase of reserve	23,181	70,911
Net cash outflow/(inflow) generated in operating activities	(7,497,389)	5,102,914

(2) Movement of cash and cash equivalent

	2022	2021
Cash and cash equivalents at the end of the year	671,538	4,927,519
Less: Cash and cash equivalents at the beginning of the year	(4,927,519)	(5,460,067)
Net decrease in cash and cash equivalents	(4,255,981)	(532,548)

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

I. Non-recurring items

	2022	2021
(Losses)/gains on disposal of non-current assets	(26,767)	48,671
Government grants recorded in profit or loss	43,055	45,944
Employee reduction expenses	(33,739)	(12,232)
(Losses)/gains from changes in fair value of financial assets and liabilities	(8,987)	8,987
Gains from structured deposits income	11,124	97,921
(Losses)/gains from disposal of derivative financial instruments	(18,864)	9,859
Discount loss of receivables	(3,148)	(4,685)
Gains on entrusted loans	2,704	–
Other non-operating income and expenses other than those mentioned above	(60,087)	(57,733)
Income tax effect for the above items	12,692	(44,887)
Effect on non-controlling interests after tax	718	556
Total	(81,299)	92,401

Basis of preparation for extraordinary profit and loss

Pursuant to Announcement [2008] Explanatory Announcement No.1 on Information Disclosure for Companies Offering Their Securities to the Public issued by China Securities regulatory commission (CSRC), extraordinary profit and loss arises in various trading and issues that have no direct relation with the normal operations of a company, or that are related with normal operations but affect the users of the statement to make reasonable judgment of the Company's operation performance and profitability due to the special and occasional nature of such trading and issues.

II. Reconciliation between financial statements prepared under CAS and IFRS

The Company is listed on the Stock Exchange of Hong Kong. The Group prepared financial statements under International Financial Reporting Standards ("IFRS") which has been audited. There are reconciliation items in the consolidated financial report prepared under CAS and IFRS, the reconciliation items and the amount are listed as follows:

	Net (loss)/profit		Net assets	
	2022	2021	2022	2021
Under CAS	(2,868,216)	2,003,681	26,371,386	30,395,431
Adjustments under IFRS				
Government grants (1)	2,010	2,010	(16,023)	(18,033)
Safety production costs (2)	23,906	70,915	–	–
Under IFRS	(2,842,300)	2,076,606	26,355,363	30,377,398

Notes in relation to the reconciliation items:

For the year ended 31 December 2022
(All amounts in thousands of Renminbi Yuan unless otherwise stated)

II. Reconciliation between financial statements prepared under CAS and IFRS

(continued)

(1) Government grants

Under CAS, government subsidies defined as capital contributions according to the relevant government requirements are not considered a government grant, but instead should be recorded as an increase in capital reserves.

Under IFRS, such grants are offset against the cost of asset to which the grants are related. Upon transfer to property, plant and equipment, the grant is recognized as income over the useful life of the property, plant and equipment by way of a reduced depreciation charge.

(2) Safety production costs

Under CAS, safety production costs should be recognized in profit or loss with a corresponding increase in reserve according to PRC regulations. Such reserve is reduced for expenses incurred for safety production purposes or, when safety production related fixed assets are purchased, is reduced by the purchased cost with a corresponding increase in the accumulated depreciation. Such fixed assets are not depreciated thereafter. Under IFRS, expenses are recognized in profit or loss when incurred, and property, plant and equipment are depreciated with applicable methods.

III. Return/(loss) on net assets and earnings/(loss) per share

	Weighted average return/(loss) on net assets (%)		Earnings/(loss) per share (RMB per share)			
			Basic		Diluted	
	2022	2021	2022	2021	2022	2021
Net (loss)/profit attributable to shareholders of the Company	(10.163)	6.727	(0.265)	0.185	(0.265)	0.185
Net (loss)/profit attributable to shareholders of the Company excluding non-recurring items	(9.875)	6.416	(0.258)	0.176	(0.258)	0.176

Written Confirmation Issued by Directors, Supervisors and Senior Management

Pursuant to the relevant requirements of Article 82 of the *Securities Law, Management Measures for Information Disclosure of Listed Companies (2021), Standards for the Contents and Formats of Information Disclosure by Companies Offering to the Public No.2--Contents and Formats of Annual Reports (2021 Revision), and Shanghai Stock Exchange Stock Listing Rules (2023 Revision),* as the Company's directors, supervisors and senior management, we fully understood and reviewed the Company's 2022 Annual Report and issued the written opinions as follows:

1. Confirmation opinions by directors and senior management
   The Company operated in strict accordance with the financial system of listed companies, and the 2022 Annual Report fully, truly and fairly reflected the Company's financial performance and operating results. The formulation and review procedures of the Company's 2022 Annual Report were in compliance with laws and regulations, regulations of China Securities Regulatory Commission, articles of association and relevant internal control systems.
2. Review opinions by supervisors
   (1) The formulation and review procedures of the Company's 2022 Annual Report were in compliance with laws and regulations, articles of association and relevant internal control systems.
   (2) The contents and formats of the Company's 2022 Annual Report met the relevant regulations of China Securities Regulatory Commission and Shanghai Stock Exchange.
   (3) No violation of information confidentiality was found in the Company's personnel involved in the formulation, review and information disclosure of the Company's 2022 Annual Report.
   (4) The Company's 2022 Annual Report fully, truly and fairly reflected the Company's financial performance and operating results.
3. All directors, supervisors and senior management guarantee that the information disclosed in the Company's 2022 Annual Report and summary is true, accurate and complete, promise that there are no false records, misleading statements or major omissions, and bear the legal liabilities for the authenticity, exactness and completeness of the contents.

Signature:

Directors:

Wan Tao　Guan Zemin　Du Jun　Huang Xiangyu　Xie Zhenglin　Peng Kun　Li Yuanqin

Tang Song　Chen Haifeng　Yang Jun　Gao Song

Supervisors:

Ma Yanhui　Zhang Feng　Chen Hongjun　Zhang Xiaofeng　Zheng Yunrui　Choi Ting Ki

Senior Management:

Jin Qiang　Jin Wenmin　Zhou Jijun　Huang Fei　Liu Gang

Company Profile and Key Financial Indicators

(I) Corporate Information

Chinese Name of the Company	中国石化上海石油化工股份有限公司
Chinese Short Name of the Company	上海石化
English name of the Company	Sinopec Shanghai Petrochemical Company Limited
Abbreviation of the English Name of the Company	SPC
Legal representative of the Company	Wan Tao

(II) Contact Persons and Contact Details

	Secretary to the Board	Securities Affairs Representative
Name	Liu Gang	Yu Guangxian
Address	No.48 Jinyi Road, Jinshan District, Shanghai, PRC, Postal Code: 200540	
Tel	8621-57943143	8621-57933728
Fax	8621-57940050	8621-57940050
E-mail	liugang@spc.com.cn	yuguangxian@spc.com.cn

(III) Basic Information

Registered Address*	No.48 Jinyi Road, Jinshan District, Shanghai, PRC
Postal code of the registered office of the Company	200540
Office address of the Company	No.48 Jinyi Road, Jinshan District, Shanghai, PRC
Postal Code of Office Address	200540
Principal Place of Business in Hong Kong	Room 605, Island Place Tower, 510 King's Road, Hong Kong
Website of the Company	www.spc.com.cn
E-mail address	spc@spc.com.cn

* There were no change in registered address of the Company during the Reporting Period

(IV) Information Disclosure and Access

Designated newspapers for the publication of the Company's announcements	"China Securities Journal" and "Securities Times"
Websites for the publication of the Company's annual reports	Shanghai Stock Exchange website, Hong Kong Stock Exchange website and the website of the Company
Place for access to the Company's annual reports	Secretariat Office to the Board, No.48 Jinyi Road, Jinshan District, Shanghai, PRC

(V) Shares Profile of the Company

Share Type	Place of Listing	Stock Short Name	Stock Code
A Shares	Shanghai Stock Exchange	上海石化	600688
H Shares	Hong Kong Stock Exchange	SHANGHAI PECHEM	00338

(VI) Other Relevant Information

Auditor engaged by the Company (Domestic)	Name	KPMG Huazhen LLP
	Address	8th floor, KPMG building, Oriental Plaza, No. 1, East Chang'an Street, Dongcheng District, Beijing, PRC
	Signing Auditors	Wang Wenli, Fang Haijie
Auditor Engaged by the Company (Overseas)	Name	KPMG Public Interest Entity Auditor registered in accordance with the Financial Reporting Council Ordinance
	Address	8th Floor, Prince Building, 10 Chater Road, Central, Hong Kong
	Signing Auditors	Au Yat Fo

Legal Advisors:

PRC Law:	Haiwen & Partners 20th Floor, Fortune & Finance Center No.5 Dong San Huan Central Road Chaoyang District, Beijing, PRC Postal Code: 100020
Hong Kong Law:	Zhong Lun Law Firm 4th floor, Jardine house, 1 Connaught Plaza, central, Hong Kong
United States Law:	Morrison & Foerster 425 Market Street San Francisco, California 94105-2482 U.S.A.

Joint Company Secretaries:
Liu Gang, Chan Sze Ting

Authorised Representatives for Hong Kong Stock Exchange:
Wan Tao, Chan Sze Ting

H Shares Share Registrar:
Hong Kong Registrars Limited
Shops 1712-1716, 17th Floor, Hopewell Centre, 183 Queen's Road East, Wan Chai, Hong Kong

ADR Depositary:
The Bank of New York Mellon
Computershare
P.O. Box 30170
College Station, TX 77842-3170
U.S.A.
Number for International Calls: 1-201-680-6921
Email: shrrelations@cpushareownerservices.com
Website: www.mybnymdr.com

Documents Available for Inspection

(I) The financial statements signed and sealed by the chairman, chief financial officer, general manager of the finance department.

(II) The original audit report containing the signatures of the certified public accountants of the accounting firm.

(III) The originals of all company documents and announcements publicly disclosed in the newspapers designated by CSRC during the Reporting Period.

(IV) Written confirmation of the annual report signed by the Directors, Supervisors and senior management of the Company.

Chairman: Wan Tao
Date of approval by the Board: 22 March 2023