UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 20-F

☐ **REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934**

OR

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2021

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 or 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

OR

☐ **SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15 (d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Date of event requiring this shell company report

For the transition period from__________to__________

Commission file number 1-12158

中国石化上海石油化工股份有限公司
(Exact name of Registrant as specified in its charter)

Sinopec Shanghai Petrochemical Company Limited
(Translation of Registrant's name into English)

The People's Republic of China
(Jurisdiction of incorporation or organization)

No. 48 Jinyi Road, Jinshan District, Shanghai, PRC 200540
(Address of principal executive offices)

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The People's Republic of China
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(Name, Telephone, Email and/or Facsimile number and Address of Company Contact Person)

Securities registered or to be registered pursuant to Section 12(b) of the Act.

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
American Depositary Shares, each representing 100 H Shares, par value RMB1.00 per Share	**SHI**	**New York Stock Exchange**
H Shares, par value RMB1.00 per Share		**New York Stock Exchange***

* Not for trading, but only in connection with the registration of American Depositary Shares. The H Shares are also listed and traded on The Stock Exchange of Hong Kong Limited.

Securities registered or to be registered pursuant to Section 12(g) of the Act.

None
(Title of Class)

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act.

None
(Title of Class)

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report.

3,495,000,000 H Shares, par value RMB1.00 per Share
7,328,813,500 A Shares, par value RMB1.00 per Share

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or (15)(d) of the Securities Exchange Act of 1934. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232,405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or an emerging growth company. See definitions of "large accelerated filer," "accelerated filer," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large Accelerated Filer	☒	Accelerated Filer	☐
Non-Accelerated Filer	☐	Emerging growth company	☐

If an emerging growth company that prepares its financial statements in accordance with U.S.GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards† provided pursuant to Section 13(a) of the Exchange Act. ☐

The term "new or revised financial accounting standard" refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP ☐	International Financial Reporting Standards as issued by the International Accounting Standards Board ☒	Other ☐

If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow. Item 17 ☐ Item 18 ☐

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

(APPLICABLE ONLY TO ISSUERS INVOLVED IN BANKRUPTCY PROCEEDINGS DURING THE PAST FIVE YEARS)

Indicate by check mark whether the registrant has filed all documents and reports required to be filed by Section 12, 13 or 15(d) of the Securities Exchange Act of 1934 subsequent to the distribution of securities under a plan confirmed by a court. * Yes ☐ No ☐

* This requirement does not apply to the registrant in respect of this filing.

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CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This annual report includes "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical facts, included in this annual report that address activities, events or developments which we expect or anticipate will or may occur in the future are hereby identified as forward-looking statements for the purpose of the safe harbor provided by Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. The words such as "believe," "intend," "expect," "anticipate," "project," "estimate," "predict," "plan" and similar expressions are also intended to identify forward-looking statements. These forward-looking statements address, among others, such issues as:

- amount and nature of future development;
- future prices of and demand for our products;
- future earnings and cash flow;
- capital expansion programs;
- future plans and capital expenditures;
- expansion and other development trends of the petrochemical industry;
- expected production or processing capacities, including expected Rated Capacities and primary distillation capacities, of units or facilities not yet in operation;
- expansion and growth of our business and operations; and
- our prospective operational and financial information.

These statements are based on assumptions and analyses made by us in light of our experience and our perception of historical trends, current conditions and expected future developments, as well as other factors we believe are appropriate in particular circumstances. However, whether actual results and developments will meet our expectations and predictions depends on a number of risks and uncertainties which could cause actual results to differ materially from our expectations, including the risks set forth in "Item 3. Key Information — Risk Factors" and the following:

- fluctuations in crude oil and natural gas prices;
- fluctuations in prices of our products;
- failures or delays in achieving production from development projects;
- potential acquisitions and other business opportunities;
- continued availability of capital and financing;
- changes to environmental and economic regulations;
- general economic, market and business conditions, including volatility in interest rates, changes in foreign exchange rates and volatility in commodity markets; and
- other risks and factors beyond our control.

Consequently, all of the forward-looking statements made in this annual report are qualified by these cautionary statements and readers are cautioned not to place undue reliance on these forward-looking statements. These forward-looking statements should be considered in light of the various important factors set forth above and elsewhere in this annual report, including the risks set forth in "Item 3. Key Information – Risk Factors." In addition, we cannot assure you that the actual results or developments anticipated by us will be realized or, even if substantially realized, that they will have the expected effect on us or our business or operations.

Unless otherwise specified, references in this annual report to "U.S. Dollars" or "U.S.$" are to United States Dollars, references to "HK Dollars" or "HK$" are to Hong Kong Dollars and references to "Renminbi" or "RMB" are to Renminbi yuan, the legal currency of the PRC.

We publish our financial statements in Renminbi. Unless otherwise indicated, all translations from Renminbi to U.S. Dollars have been made at a rate of RMB 6.3726 to U.S. $1.00, the noon buying rate on December 30, 2021 as set forth in the H.10 statistical release of the U.S. Federal Reserve Board. We do not represent that Renminbi or U.S. Dollar amounts could be converted into U.S. Dollars or Renminbi, as the case may be, at any particular rate.

CERTAIN TERMS AND CONVENTIONS

References to "we" or "us" or "Company" are references to Sinopec Shanghai Petrochemical Company Limited and our subsidiaries, unless the context requires otherwise. Before our formation, these references relate to the petrochemical businesses carried on by the Complex.

References to "Sinopec Corp." are references to China Petroleum & Chemical Corporation, the controlling shareholder of the Company.

References to the "Sinopec Group" and "Sinopec" are references to China Petrochemical Corporation, the controlling company of Sinopec Corp.

References to the "Complex" are references to Shanghai Petrochemical Complex, our predecessor founded in 1972.

References to "China" or the "PRC" are references to The People's Republic of China which, for the purpose of this annual report and for geographical reference only, excludes Hong Kong Special Administrative Region, Macao Special Administrative Region, and Taiwan.

References to "ADSs" are references to our American Depositary Shares, which are listed and traded on the New York Stock Exchange ("NYSE"). Each ADS represents 100 H Shares.

References to our "A Shares" are references to 7,328,813,500 A Shares of the Company, par value RMB1.00 per share, which are ordinary shares held by Chinese investors.

References to our "H Shares" are references to our overseas-listed foreign ordinary shares, par value RMB1.00 per share, which are listed and traded on The Stock Exchange of Hong Kong Limited ("HKSE") under the number "338."

"Rated Capacity" is the output capacity of a given production plant or, where appropriate, the throughput capacity, calculated by estimating the number of days in a year that the production plant is expected to operate, including downtime for regular maintenance, and multiplying that number by an amount equal to the plant optimal daily output or throughput, as the case may be.

All references to "tons" are references to metric tons.

Unless otherwise noted, references to sales volume are to sales to entities other than us or our divisions and subsidiaries.

ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISORS.

Not applicable.

ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE.

Not applicable.

ITEM 3. KEY INFORMATION.

A. *Capitalization and Indebtedness.*

Not applicable.

B. *Reasons for the Offer and Use of Proceeds.*

Not applicable.

C. *Risk Factors.*

An investment in our ADSs involves significant risks. The risks and uncertainties described below are not the only ones we face. You should consider carefully all of the information in this annual report, including the risks and uncertainties described below and our consolidated financial statements and related notes, before making an investment in our ADSs. Any of the following risks could have a material adverse effect on our business, financial condition and results of operations. In any such case, the market price of our ADSs could decline, and you may lose all or part of your investment.

Business and Operational Risk Factors

The coronavirus pandemic has and could continue to materially and adversely affect our business.

In the beginning of 2020, a novel strain of coronavirus (COVID-19) was reported to have surfaced and then caused a pandemic outbreak. Shanghai has implemented a slew of enhanced measures related to matters such as community prevention and control, patient transport, and disinfection since March 2022. The phased lockdown triggered by the COVID-19 outbreak in Shanghai will remain for the time being. The global outbreak of COVID-19 and related adverse public health developments have had and may continue to have a material adverse impact upon our normal operating activities, the demand for our end products and our financial performance. Our normal operating activities were disrupted by the temporary closure of our offices, suspension of business travel, disruptions to our normal working schedules, various restrictions on our employees' activities and similar disruptive effects to our normal operations. In addition, the global spread of COVID-19, and the implementation by governments around the world of measures intended to slow down the spread, have caused a material reduction in worldwide business activity, resulting in a drop in demand for our products.

We have taken measures in response to the pandemic, including the adoption of more stringent workplace sanitation measures. We will continue to monitor the situation and consider additional measures to protect the health and safety of our employees and to respond to future developments. New outbreaks have occurred and may continue to occur within China and abroad. However, the extent to which these outbreaks impact our results will depend on global trends and future developments that are not within our control, including the emergence of new variants, the availability of effective vaccines, the development and availability of therapeutic treatments for COVID-19, the scope and severity of the outbreaks and the actions taken by governmental authorities to contain any outbreaks. The long-term impact of the COVID-19 pandemic on our performance also depends in large part on the effect of the pandemic on global and regional economies and the response of world financial markets. For example, the lockdown of Shanghai and other municipalities in China in early 2022 may adversely affect the near-term growth of the Chinese economy . An extended outbreak could depress global economic activity, disrupting our operations, reducing demand for our products and adversely impacting our financial performance.

Our operations may be adversely affected by the cyclical nature of the petroleum and petrochemical markets and by the volatility of prices of crude oil and petrochemical products.

Most of our revenues are attributable to the sale of refined oil and petrochemical products, which have historically been cyclical and sensitive to the availability and price of raw materials and general economic conditions. Markets for many of our products are sensitive to changes in industry capacity and output levels, changes in regional and global economic conditions, the price and availability of substitute products and changes in consumer demand, which from time to time have had a significant impact on our product prices in the regional and global markets. Due to the recent extreme volatility in crude oil prices, the decrease in tariff charges, the removal of other restrictions on importation and the Chinese government's gradual relaxation of its control of the allocation of products and pricing, many of our products have become increasingly vulnerable to the cyclical nature of regional and global petroleum and petrochemical markets, which may adversely affect our operations.

We consume large amounts of crude oil to manufacture our products of which more than 95% is typically imported. In 2021, crude oil costs accounted for RMB 43.182 billion, or 58.12% of our consolidated annual cost of sales (68.26% of parent company annual cost of sales). As a result, changes in crude oil prices can affect our profitability. In recent years, due to various reasons, the price of crude oil has fluctuated significantly. The volatility of crude oil prices, as well as in the price of other energy products, has increased significantly as a result of the pending conflict between Russia and Ukraine. Russia is a major supplier of crude oil and natural gas to global markets. The sanctions imposed on Russia by numerous countries may result in a material reduction in oil and gas exports from Russia, which could increase price volatility for such products. We expect that the volatility and uncertainty of the prices of crude oil and petrochemical products will continue, and that increasing crude oil prices and declines in prices of petrochemical products may adversely affect our business and results of operations and financial condition.

Some of our major products are subject to government price controls, and we are not able to pass on all cost increases from rising crude oil prices through higher product prices.

We consume large amounts of crude oil to manufacture our products of which more than 95% is typically imported. We attempt to mitigate the effect of increased costs due to rising crude oil prices. However, our ability to pass on these increased costs to our customers is dependent on market conditions and government regulations. Given that the increase of the sales prices of our products may lag behind the increase of crude oil costs, we may fail to completely cover the increased costs by increasing our sales prices, particularly where government regulations restrict the prices of certain of our fuel products. In particular, gasoline, diesel and jet fuel, and liquefied petroleum gas are subject to government price controls at present. In 2019, 2020 and 2021 approximately 44.81%, 43.64%, and 47.01%, respectively, of our net sales were from such products subject to price controls. Although the current price-setting mechanism for refined petroleum products in China allows the Chinese government to adjust price in the PRC market when the average international crude oil price fluctuates beyond certain levels within a certain time period (see Item 4. Information on the Company – B. Business Overview – Product Pricing), the Chinese government still retains discretion as to whether or when to adjust the prices of the refined oil products. The Chinese government generally exercises certain price control over refined oil products once international crude oil prices experience a sustained rise or become significantly volatile. For instance, some of our fuel products are required to be sold to designated distributors (such as the subsidiaries of Sinopec Corp.). Because we cannot freely sell our fuel products to take advantage of possible opportunities for higher prices, we may not be able to fully cover increases in crude oil prices by increasing the sale prices of our products, which has had and will possibly continue to have a material adverse effect on our financial condition, results of operations and cash flows.

Our development and operation plans have significant capital expenditure and financing requirements, which are subject to a number of risks and uncertainties.

The petrochemical business is a capital intensive business. Our ability to maintain and increase our revenues, net profit and cash flows depends upon continued capital spending. Our current business strategy contemplates capital expenditure for 2022 of approximately RMB 3,500 million (U.S. $548.96 million), which will be provided through financing activities and use of our own capital. Our actual capital expenditures may vary significantly from these planned amounts, subject to our ability to generate sufficient cash flows from operations, investments and other factors that may be beyond our control. In addition, there can be no assurance as to whether, or at what cost, our capital projects will be completed or the success of these projects if completed.

As of March 31, 2022, we had an aggregate outstanding indebtedness of approximately RMB 6,749 million (U.S.$1,058.55 million). Most of our borrowings are with state-controlled banks in China and structured as short term debt obligations with payment due in one year or less. These banks have generally been willing to provide new short term loans while we pay off existing loans. Sinopec Finance Company Limited ("Sinopec Finance"), provided a loan of RMB 700 million (US $109.79 million) for our debt for the year ended December 31, 2021 and for the three months ended March 31, 2022.

Our ability to obtain external financing in the future and our ability to make timely repayments of our debt obligations are subject to a variety of uncertainties, including: our future results of operations, financial condition and cash flows; the condition of the economy in China and the condition of markets for our products; the cost of financing and the condition of financial markets; the issuance of relevant government approvals and other project risks associated with the development of infrastructure in China; and the continuing willingness of banks to provide new loans as we pay down existing debt.

While we anticipate that we will rely less on borrowings to finance capital expenditures and operations, our business, results of operations and financial condition could be adversely affected if we fail to obtain sufficient funding for our operations or development plans.

Our operations are exposed to risks relating to operating hazards and production safety and we have limited insurance coverage for resulting losses.

Our operations involve the handling and storage of explosives and other hazardous articles. In addition, our operations involve the use of heavy machinery, which involves inherent risks that cannot be entirely eliminated through our preventive efforts. As a result, we may encounter fires, explosions and other unexpected incidents during our operations, which may cause personal injuries or death, property damage, environmental damage, interruption of operations and reputational damages to us. Each of such incidents could have a material adverse impact on our financial condition and results of operations.

We maintain a package of insurance coverage plan through Sinopec Group on our property, facilities and inventory. In addition, we maintain insurance policies for such assets as the engineering construction projects and products in transit with third-party commercial insurance companies. Sinopec Group carries out unified insurance for safety production liability insurance and environmental liability insurance. We also insured a safety production liability insurance for 1 year in August 2021. The annual cumulative compensation caps is RMB 135 million and the compensation caps for each accident is RMB 67.5 million. We carry a third party liability insurance with a coverage capped at RMB 50 million in 2022 to cover claims, subject to deductibles, in respect of personal injury, property or environmental damage arising from accidents on our property or relating to our operations other than on our transportation vehicles. Our insurance coverage may not be sufficient to cover all the financial losses caused by operating hazards. Resulting losses required to be compensated or otherwise paid for by us due to such operating hazards that are not fully insured against may have a material adverse effect on our financial condition and results of operations.

We are controlled by Sinopec Corp., whose interests may not be aligned with yours.

As of March 31, 2022, Sinopec Corp. owned 50.44% of our shares. Accordingly, it has voting and management control over us, and its interests may be different from the interests of our other shareholders. Subject to our Articles of Association and applicable laws and regulations, Sinopec Corp. will be in a position to cause us to declare dividends, determine the outcome of corporate actions requiring shareholder approval or effect corporate transactions without the approval of the holders of the H Shares and ADSs. Any such increase in our dividend payout would reduce funds available for reinvestment in our business and any such actions or transactions could adversely affect us or our minority shareholders. Sinopec Corp. may also experience changes in its own business strategy and policies. Although we are not currently aware of any specific changes, they could, in turn, lead Sinopec Corp. to change its policies or practices toward us in ways that we cannot predict, with corresponding unpredictable consequences for our business. Additionally, Sinopec Corp. may leverage its controlling shareholder position to influence our decisions with regard to the manufacturing and operation, allocation of financial resources and appointment and removal of senior management members, which could adversely affect us or our minority shareholders.

We have also engaged from time to time and will continue to engage in a variety of transactions with Sinopec Corp., Sinopec Group, the controlling company of Sinopec Corp., and their various subsidiaries or affiliates which provide a number of services to us, including the supply of raw materials, product distribution and sales agency, project design and installment service, petrochemical industry related insurance and financial services. We also sell oil and petrochemical products to Sinopec Corp. and its affiliates. Our transactions with these companies are governed by a Mutual Product Supply and Sales Services Framework Agreement with Sinopec Corp. and a Comprehensive Services Framework Agreement with Sinopec Group, the terms of which were negotiated on an arm's-length basis. See Item 7. Major Shareholders and Related Party Transactions – B. Related Party Transactions. Our business and results of operations could be adversely affected if either Sinopec Corp. or Sinopec Group refuses to engage in such transactions or if one of them seeks to amend the its contracts with us in a way adverse to us. In addition, Sinopec Corp. has interests in businesses that compete or are likely to compete, either directly or indirectly, with our businesses. Because Sinopec Corp. is our controlling shareholder and its interests may conflict with our own interests, Sinopec Corp. may take actions that favor itself over our interests.

We could face increasing competition in China.

Our principal market, Eastern China, which is comprised of Shanghai, Shandong, Jiangsu, Anhui, Zhejiang, Jiangxi and Fujian, has enjoyed stronger economic growth and a higher demand for petrochemical products than other regions of China. As a result, we believe that our competitors will try to expand their sales and build up their distribution networks in our principal market. We believe this will have an adverse impact on the production and sale of our major products. Moreover, Chinese private enterprises have gradually overcome technological and funding barriers to extend their business from the downstream processing sector to the upstream petrochemical field. These enterprises have advantages in many areas such as flexibility in operation costs, preferential policy treatments and regional presence, and may use these advantages to compete with us in our target market.

We face increasing foreign competition in our lines of business.

China joined the WTO on December 11, 2001 and committed to eliminate some tariff and non-tariff barriers to foreign competition in the domestic petrochemical industry that benefited us in the past. In particular, China:

- has reduced tariffs on imported petrochemicals products that compete with ours;
- increased levels of permitted foreign investment in the domestic petrochemicals industry, allowing foreign investors to own 100% of a domestic petrochemicals company from December 11, 2004;
- has gradually relaxed restrictions on the import of crude oil by non-state-owned companies;
- has granted foreign-owned companies the right to import petrochemical products; and
- has permitted foreign-owned companies to distribute and market fuel products in both retail and wholesale markets in China.

As a result of these measures, we face increasing competition from foreign companies and imports. In addition, competition for our products has increased, as many overseas companies have switched their focus to sales in China. Furthermore, tariff reductions could reduce our profit margins or otherwise negatively impact our revenue from certain products, including a small number of significant products. The Chinese government may also reduce the tariffs imposed on production equipment that we may import in the future.

Cyber attacks and security breaches may threaten the integrity of our intellectual property and other sensitive information and disrupt our business operations, which could adversely affect our reputation, business and financial position.

We face numerous and evolving global cybersecurity threats, which may range from uncoordinated individual attempts to sophisticated and targeted measures directed at us. Cyber attacks and security breaches may include, but are not limited to, attempts to disrupt our operations including our information technology systems and data, gain access to confidential information, insertion of computer viruses, denial of service and other electronic security breaches, whether internal or external through third parties with whom we conduct business. In recent years, a number of major oil and petrochemical companies have been the subject of cyber attacks.

Although we have not experienced any material cybersecurity incidents in the past, we cannot assure you that we will not experience them in the future. Due to the evolving nature of cybersecurity threats, the scope and impact of any future incident cannot be predicted. While we continually work to safeguard our systems and mitigate potential risks, there is no assurance that such actions will be sufficient to prevent cyber attacks or security breaches that manipulate or improperly use our systems or networks, compromise confidential or otherwise protected information, destroy or corrupt data, or otherwise disrupt our operations. The occurrence of such events could disrupt our operations, cause physical harm to people or the environment, damage or destroy assets, compromise business systems, result in proprietary information, including information of our employees, customers, partners and other third parties, being altered, lost, stolen or compromised or otherwise disrupt our business operations. We could incur significant costs to remedy the effects of such a cybersecurity disruption as well as in connection with any resulting regulatory actions and litigation. In addition, a material cybersecurity incident could negatively impact our reputation and our competitive position, which could have an adverse effect on our financial condition and results of operations.

Risks associated with climate change.

In recent years, the petrochemical industry is facing more and more severe challenges as a result of concerns about global climate change. A series of international, domestic and regional agreements to limit greenhouse gas emissions have been signed and come into force. The Paris climate change agreement adopted in December 2015 included binding commitments by countries that have ratified the agreement since November 2016, which may lead to stricter national and regional measures in the near future. Compliance with these measures may lead to higher capital expenditures, tax expenditures, operating costs and other increased costs, resulting in reduced profits and income. Strategic investment may also be adversely affected.

Legal, Regulatory or Political Risk Factors

Our business operations may be adversely affected by present or future environmental regulations.

We are subject to extensive environmental protection laws and regulations in China. These laws and regulations permit:

- the imposition of environmental protection tax for the discharge of waste substances;
- the levy of payments and fines for damages for serious environmental offenses;
- the government to close down or suspend any facility which has caused or may cause environmental damages and require it to correct or stop operations causing environmental damages; and
- lawsuits and liabilities arising from pollutions and damages to the environment and public interests.

Our production operations produce substantial amounts of waste materials (*i.e.*, waste water, waste gas and waste residue). In addition, our production and operations require environmental-related permits that are subject to renewal, modification and revocation. We were subject to various administrative penalties for violations of the relevant PRC environmental laws and regulations in the past years. See Item 4. Information of the Company – B. Business Overview – Environmental Protection. We have established a system to treat waste materials to prevent and reduce pollution. The Chinese government (including the local governments), however, has moved, and may move further, toward the adoption of more regulations and more stringent environmental standards. On May 31, 2021, the Ministry of ecology and environment issued the guidance on strengthening the prevention and control of the source of ecological environment of high energy consumption and high emission construction projects, strictly approving the environmental impact assessment of "two high" projects such as petrochemical and modern coal chemical industry, and resolutely curbing the blind development of "two high" projects. Chinese national or local authorities may also apply more rigorous enforcement of such regulations which would require us to incur additional expenditures on environmental matters. More stringent environmental requirements or a more rigorous enforcement program could impose significant additional costs on us, and may require us to undertake capital investments to conform with the new requirements. We cannot quantify such additional costs at this time.

If the Chinese government changes current regulations that allow us to make payments in foreign currencies, we may be unable to obtain the foreign currency necessary for our business.

The Renminbi currently is not a freely convertible currency. We receive most of our revenue in Renminbi. A portion of our Renminbi revenue must be converted into other currencies to meet our foreign currency needs, which include, among other things:

- debt service costs on foreign currency-denominated debt;
- purchases of imported equipment;
- payment of any cash dividends declared in respect of the H Shares and the ADSs; and
- import of crude oil and other materials.

Under existing foreign exchange regulations in China, we may undertake current account foreign exchange transactions, including the payment of dividends, without prior approval from the State Administration of Foreign Exchange ("SAFE") by producing commercial documents evidencing the foreign exchange transactions, provided that they are processed through Chinese banks licensed to engage in foreign exchange transactions. Foreign exchange transactions under the capital account (international revenues and expenditures that increase or decrease debt or equity, including principal payments in respect of foreign currency-denominated obligations) continue to be subject to limitations and require the prior approval of SAFE. These limitations could affect our ability to obtain foreign exchange through debt financing, or to make capital expenditures in foreign currency. The Chinese government has stated publicly that it intends to eventually make the Renminbi freely convertible in the future. However, we cannot predict whether the PRC government will continue its existing foreign exchange policy and when the PRC government will allow free conversion of Renminbi.

If the Chinese government restricts our ability to make payments in foreign currency, we may be unable to obtain the foreign currency necessary for our business. In that case, our business may be materially adversely affected, and we may default on our obligations.

Changes in the monetary policy and fluctuations in the value of Renminbi may have an adverse impact on Sinopec 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 PRC government has been under international pressure to further ease its exchange rate policy, and may as a result further change its currency policy. Early in 2020, the Renminbi had weakened against the US dollar to levels not seen since 2008, but steadily rebounded at the end of the year.

A small portion of our cash and cash equivalents is denominated in foreign currencies (mainly the U.S. Dollar). As of December 31, 2021, our bank deposits denominated in foreign currencies were equivalent to RMB 166 million. Any increase in the value of Renminbi against other currencies, including the U.S. dollar, may decrease the Renminbi value of our cash and cash equivalents that are denominated in foreign currencies.

Although most of our revenue is denominated in Renminbi, most of our procurement of crude oil, certain equipment and certain debt repayments are denominated in foreign currencies. Any depreciation of the Renminbi in the future would increase our costs and adversely affect profitability. In addition, any depreciation of the Renminbi could adversely affect the value of the dividends of our H Shares and ADSs, which we declare in Renminbi and pay in foreign currencies.

Our business may be limited or adversely affected by government regulations.

The Chinese central and local governments continue to exercise a certain degree of control over the petrochemical industry in China by, among other things:

- mandating distribution channels for our fuel products;
- setting the allocations and pricing of certain resources, products and services;
- assessing taxes and fees payable;
- setting import and export quotas and procedures; and
- setting safety, environmental and quality standards.

As a result, we may face significant constraints on our flexibility and ability to expand our business operations or to maximize our profitability. In the past, we have benefited from favorable regulatory policies. Existing policies that favor our industry may change in the future and our business could be adversely affected by any such changes.

Our development plans may require regulatory approval.

We are currently engaged in a number of construction and expansion projects. Most of our projects are subject to governmental review and approval. The timing and cost of completion of these projects will depend on numerous factors, including approvals from relevant government authorities and general economic conditions in China.

While in general we attempt to obtain governmental approval as far in advance as practicable, we are unable to predict the timing and outcome of these governmental reviews and approvals. If any of our important projects required for our future growth are not approved, or not approved on a timely basis, our results of operations and financial condition could be adversely affected.

Changes in China's economic, political or social conditions or government policies could have a material adverse effect on our business and results of operations.

Substantially all of our operations are conducted in China. Accordingly, our business, prospects, financial condition and results of operations may be influenced to a significant degree by political, economic and social conditions in China generally and by continued economic growth in China as a whole.

The Chinese economy differs from the economies of most developed countries in many respects, including the amount of government involvement, level of development, growth rate, control of foreign exchange and allocation of resources. Although the Chinese government has implemented measures emphasizing the utilization of market forces for economic reform, the reduction of state ownership of productive assets and the establishment of improved corporate governance in business enterprises, a substantial portion of productive assets in China is still owned by the government. In addition, the Chinese government continues to play a significant role in regulating industry development by imposing industrial policies. The Chinese government also exercises significant control over China's economic growth through allocating resources, controlling payment of foreign currency-denominated obligations, setting monetary policy, and providing preferential treatment to particular industries or companies.

While the Chinese economy has experienced significant growth over the past decades, growth has been uneven, both geographically and among various sectors of the economy. The Chinese government has implemented various measures to encourage economic growth and guide the allocation of resources. Some of these measures may benefit the overall Chinese economy, but may have a negative effect on us. Our financial condition and results of operations may be adversely affected by government control over capital investments or changes in tax regulations that are applicable to us. In addition, the Chinese government has implemented in the past certain measures, including interest rate increases, to control the pace of economic growth. These measures may cause decreased economic activity in China, and since 2012, the rate of China's economic growth has slowed down. Any prolonged slowdown in the Chinese economy may reduce the demand for our products and services and materially and adversely affect our business and results of operations.

Interpretation and enforcement of Chinese laws and regulations is uncertain.

The Chinese legal system is based on statutory law. Under this system, prior court decisions may be cited as persuasive authority, but do not have the binding effect of precedents. Since 1979, the Chinese government has been developing a comprehensive system of commercial laws and considerable progress has been made in the promulgation of laws and regulations dealing with economic matters, such as corporate organization and governance, foreign investment, commerce, taxation and trade. Because these laws, regulations and legal requirements are relatively new or otherwise undeveloped and not all accessible to the public and because prior court decisions have little precedential value, the interpretation and enforcement of these laws, regulations and legal requirements involve greater uncertainty than in other jurisdictions.

You may not enjoy shareholders' protections that you would be entitled to in other jurisdictions.

As most of our business is conducted in China, our operations are governed principally by the laws of China. Despite the continuing improvement of the PRC Company Law and Securities Law, Chinese legal provisions for the protection of shareholders' rights and access to information are different from those applicable to companies formed in the United States, Hong Kong, the United Kingdom and other developed countries or regions. You may not enjoy shareholders' protections under Chinese law that you would be entitled to in other jurisdictions. We are a foreign private issuer, and therefore exempt from certain rules under the Exchange Act that are applicable to U.S. domestic public companies, such as rules relating to the having a majority of independent directors; independent audit committee members, compensation committee members and nominating committee members; obtaining shareholder approval for certain issuances of securities; or certain reporting requirements and certifications. Significant differences between our corporate governance practices and those of U.S. issuers listed on the NYSE are further described under Item 16G. Corporate Governance. Because of these exemptions, shareholders may be afforded fewer protections than they otherwise would under the NYSE corporate governance requirements applicable to U.S. domestic issuers, or shareholders may not be afforded the same information generally available to shareholders holding shares in public companies organized in the United States or traded on the NYSE that are not foreign private issuers.

Our Articles of Association require you to submit your disputes with us and other persons defined by our Articles of Association regarding the Company's affairs to arbitration. You will have no legal right to a court proceeding with respect to such disputes.

Our Articles of Association require holders of our H Shares or ADSs having a claim against, or a dispute with, us, our directors, supervisors, executive officers or a holder of our A Shares relating to any rights or obligations conferred or imposed by our Articles of Association, the PRC Company Law or other relevant Chinese laws or regulations relating to our affairs, to submit such claim or dispute to arbitration with the China International Economic and Trade Arbitration Commission or to the Hong Kong International Arbitration Center. Our Articles of Association further provide that any arbitration decisions with respect to such disputes or claims shall be final and binding on all parties. As a result, you will have no legal right to a court proceeding with respect to such disputes.

Our ADSs may be delisted under the Holding Foreign Companies Accountable Act if the PCAOB is unable to inspect auditors who are located in China. The delisting of our ADSs, or the threat of their being delisted, may materially and adversely affect the value of your investment. Additionally, the inability of the PCAOB to conduct inspections deprives our investors with the benefits of such inspections.

The Holding Foreign Companies Accountable Act, or the HFCA Act, was enacted on December 18, 2020. The HFCA Act states if the SEC determines that we have filed audit reports issued by a registered public accounting firm that has not been subject to inspection by the PCAOB for three consecutive years beginning in 2021, the SEC shall prohibit our shares or ADSs from being traded on a national securities exchange or in the over the counter trading market in the U.S. Furthermore, on June 22, 2021, the U.S. Senate passed the Accelerating Holding Foreign Companies Accountable Act, which, if enacted, would amend the HFCAA and require the SEC to prohibit an issuer's securities from trading on any U.S. stock exchanges if its auditor is not subject to PCAOB inspections for two consecutive years instead of three.

Our auditor, the independent registered public accounting firm that issues the audit report included elsewhere in this 20-F, as an auditor of companies that are traded publicly in the United States and a firm registered with the PCAOB, is subject to laws in the United States pursuant to which the PCAOB conducts regular inspections to assess its compliance with the applicable professional standards. Since our auditor is located in China, a jurisdiction where the PCAOB has been unable to conduct inspections without the approval of the Chinese authorities, our auditor is currently not inspected by the PCAOB. Our Audit Committee is aware of these limitations, but believes that it is important for us to use an auditor based in China as that is the principal location of our assets and operations.

The PCAOB's inability to conduct inspections in China prevents it from fully evaluating the audits and quality control procedures of our independent registered public accounting firm. As a result, we and investors in our ordinary shares are deprived of the benefits of such PCAOB inspections. The inability of the PCAOB to conduct inspections of auditors in China makes it more difficult to evaluate the effectiveness of our independent registered public accounting firm's audit procedures or quality control procedures as compared to auditors outside of China that are subject to the PCAOB inspections, which could cause investors and potential investors in our stock to lose confidence in our audit procedures and reported financial information and the reliability and quality of our audited financial statements. In addition, under changes to the PRC Securities Law that became effective in March 2020, the SEC and other foreign securities regulators are not permitted to directly conduct investigations or depositions in China and no entity or individual is permitted to provide any document or material in connection with securities business to any offshore securities regulatory authority without the permission of the China Securities Regulatory Commission and the relevant departments of PRC State Council. These restrictions may further erode confidence in our financial reporting.

On December 2, 2021, the SEC adopted final rules relating to the implementation of certain disclosure and documentation requirements of the HFCA Act. On December 16, 2021, the PCAOB designated China and Hong Kong as jurisdictions where the PCAOB is not allowed to conduct full and complete audit inspections. If the SEC determines that, for any year commencing with our 2021 fiscal year our auditors were not subject to inspection by the PCAOB, then we will be required to comply with the disclosure requirements set forth in these rules and establish that we are not owned or controlled by a governmental entity in our jurisdiction. The SEC will publicly identify companies subject to these disclosure requirements on the SEC's website. An initial trading prohibition would not be imposed until we have been identified by the SEC in this manner for three consecutive years, during such period of time we would need to identify and engage an accounting firm that is subject to PCAOB inspections to avoid such trading prohibition.

The SEC may propose additional rules or guidance that could impact us if our auditor is not subject to PCAOB inspection. For example, on August 6, 2020, the President's Working Group on Financial Markets, or the PWG, issued the Report on Protecting United States Investors from Significant Risks from Chinese Companies to the then President of the United States. This report recommended the SEC implement five recommendations to address companies from jurisdictions that do not provide the PCAOB with sufficient access to fulfil its statutory mandate. Some of the concepts of these recommendations were implemented with the enactment of the HFCA Act. However, some of the recommendations were more stringent than the HFCA Act. For example, if a company's auditors were not subject to PCAOB inspection, the report recommended that the transition period before a company would be delisted would end on January 1, 2022. If our securities could be delisted or prohibited from being traded "over-the-counter" earlier than would be required by the HFCA Act and are unable to be listed on another securities exchange by then, such a delisting would substantially impair your ability to sell or purchase our ADSs when you wish to do so, and the risk and uncertainty associated with a potential delisting would have a negative impact on the price of our ADSs.

If remedial measures are imposed on the "big four" PRC-based accounting firms, including our predecessor independent registered public accounting firm and successor independent registered public accounting firm, we might not be able to timely file future financial statements in compliance with the requirements of the Exchange Act. This could result in a suspension of trading or a delisting or deregistration of our ADSs.

Starting in 2011, the Chinese affiliates of the "big four" accounting firms, including our predecessor independent registered public accounting firm and successor independent registered public accounting firm, were affected by a conflict between the United States and Chinese law. Specifically, for certain United States listed companies operating and audited in China, the SEC and the PCAOB sought to obtain from the Chinese accounting firms access to their audit work papers and related documents. The firms were, however, advised and directed that under Chinese law they could not respond directly to the United States regulators on those requests, and that requests by foreign regulators for access to such papers in China had to be channeled through the CSRC.

In late 2012, this impasse led the SEC to commence administrative proceedings under Rule 102(e) of its Rules of Practice and also under the Sarbanes-Oxley Act of 2002 against the PRC-based accounting firms, including predecessor independent registered public accounting firm and successor independent registered public accounting firm. In January 2014, an administrative law judge reached an initial decision to impose penalties on the firms including a temporary suspension of their right to practice before the SEC. The accounting firms filed a petition for review of the initial decision. On February 6, 2015, before a review by the Commissioners of the SEC had taken place, the firms reached a settlement with the SEC. Under the settlement, the SEC accepts that future requests by the SEC for the production of documents will normally be made to the CSRC. The firms will receive matching requests, and are required to abide by a detailed set of procedures with respect to such requests, which in substance require them to facilitate production via the CSRC. If they fail to meet specified criteria, the SEC retains authority to impose a variety of additional remedial measures on the firms depending on the nature of the failure. Remedies for any future noncompliance could include, as appropriate, an automatic six-month bar on a single firm's performance of certain audit work, commencement of a new proceeding against a firm, or in extreme cases the resumption of the current proceeding against all four firms. Under the terms of the settlement, the underlying proceeding against the four PRC-based accounting firms was deemed dismissed with prejudice four years after entry of the settlement. The four-year mark occurred on February 6, 2019.

In the event that the SEC brings new administrative proceedings, listed companies in the United States with major PRC operations may find it difficult or impossible to retain auditors in respect of their operations in the PRC, which could result in financial statements being determined to not be in compliance with the requirements of the Exchange Act. Moreover, any negative news about any such future proceedings against these audit firms may cause investor uncertainty regarding PRC-based, United States listed companies and the market price of the ADSs may be adversely affected.

If our independent registered public accounting firm were denied, even temporarily, the ability to practice before the SEC and we were unable to timely find another registered public accounting firm to audit and issue an opinion on our consolidated financial statements, our consolidated financial statements could be determined not to be in compliance with the requirements of the Exchange Act. Such a determination could ultimately lead to the delisting of the ADSs from the NYSE or deregistration with the SEC, which would substantially reduce or effectively terminate the trading of the ADSs in the United States.

We may be or become a passive foreign investment company, which could result in adverse U.S. federal income tax consequences to U.S. investors.

Generally, if, for any taxable year, at least 75% of our gross income is passive income, or at least 50% of the value of our assets is attributable to assets that produce passive income or are held for the production of passive income, we would be characterized as a passive foreign investment company ("PFIC") for U.S. federal income tax purposes. Since PFIC status depends on the composition of our income and the composition and value of our assets from time to time, there can be no assurance that we are not currently a PFIC or that we will not be considered a PFIC for the current year, or for any future taxable year. If we are characterized as a PFIC, U.S. investors may suffer adverse tax consequences, including increased U.S. tax liabilities and reporting requirements. For further discussion of the adverse U.S. federal income tax consequences of our possible classification as a PFIC, see Item 10. Additional Information – E. Taxation – U.S. Taxation.

We could be sanctioned or otherwise penalized under relevant U.S. laws if we engage in business with certain entities in Iran or Russia and such transactions are determined by the U.S. governmental authorities to violate U.S. laws.

We have in the past sourced a small portion of crude oil from Iran. The United States has adopted a number of measures since 1996 that provide for the possible imposition of sanctions against non-U.S. companies engaged in certain activities in and with Iran in the energy and other sectors, including, the Iran Threat Reduction and Syria Human Rights Act of 2012 ("ITRSHRA") enacted August 10, 2012 and the Iran Freedom and Counter-Proliferation Act ("IFCA") enacted January 2, 2013, Section 1245 of the National Defense Authorization Act of 2012 ("NDAA") enacted December 31, 2011, and Executive Order 13846 of August 6, 2018 that was issued in connection with the termination of the participation by the United States in the Joint Comprehensive Plan of Action, or JCPOA, that became effective January 16, 2016, and resulted in the waiver of certain U.S. sanctions against non-U.S. persons engaging in certain transactions with Iran. The withdrawal was effected in two stages that resulted on November 5, 2018, in the complete re-imposition of the U.S. sanctions that were waived under the JCPOA. On November 5, 2018, the United States also granted a 180-day waiver (that is potentially renewable) under Section 1245 of the NDAA to China (and seven other countries) allowing for the purchase of petroleum from Iran under specified conditions. The NDAA waiver does not authorize transactions that remain prohibited under other U.S. sanctions laws. On April 22, 2019, the U.S. Secretary of State announced that the United States would not grant any further waivers under the NDAA. In February 2021, U.S. President announced that the U.S. would not lift economic sanctions on Iran until Iran complies with the terms of the JCPOA.

The sanctionable activities include certain investments, the provision of goods, services, technology, or support that could contribute to the development of petroleum and petrochemical resources or the production of refined petroleum products in Iran, the exportation of refined petroleum products to Iran, the transportation of crude oil from Iran, or the engagement in a significant transaction for the purchase or acquisition of petroleum or petroleum products from Iran, and the engagement in transactions with certain Iranian specially designated nationals and blocked persons ("SDNs") as identified and published by U.S. Department of the Treasury's Office of Foreign Assets Control, or OFAC, the agency primarily responsible for administering U.S. sanctions and embargoes.

We have sourced a small portion of our crude oil from Iran in the past through Sinopec Corp., our current controlling shareholder, and independent third parties, and Iran may continue to be the ultimate source of a small portion of our crude oil. In addition, Sinopec Corp. and Sinopec Group, the controlling shareholder of Sinopec Corp., have engaged in operations in or purchasing crude oil sourced from Iran and may continue to do so in the future. We have no control over the activities of Sinopec Group or Sinopec Corp. in connection with any activities that they may conduct in Iran.

If our purchases of crude oil from Iran and transactions related thereto are determined to be sanctionable activities by the U.S. President and/or the relevant U.S. governmental authorities, we may be subject to five or more of the twelve sanctions options available under the Iran Sanctions Act of 1996 (as amended) ("ISA") and the ITRSHRA, which include restrictions on bank financing, outright blocking of the Company's property within any U.S. jurisdiction, under the control of U.S. persons anywhere in the world, and prohibition of U.S. persons from investing or purchasing a significant amount of equity or debt instruments of the Company. Similar sanctions may also be imposed under Executive Order 13846, the IFCA, and other U.S. laws. In addition, many states in the United States have adopted legislation requiring state pension funds to divest themselves of securities in any company with active business operations in Iran. We cannot assure that we or any of our affiliates will not be sanctioned by the U.S. President and/or the relevant U.S. governmental authorities in light of the activities by us or our affiliates in Iran. The imposition of any such sanctions on us or our affiliates will have a negative impact on our business, reputation or stock price. In addition, purchase of crude oil by Sinopec Corp. subsidiaries that supply us with raw materials may from time to time be sourced from National Iranian Oil Company. This entity has been identified by the U.S. government as an SDN and sanctioned under various laws, including for assisting the government of Iran to avoid sanction and for engaging in activities related to nuclear proliferation. Under Executive Order 13846, the U.S. President can sanction non-U.S. companies that engage in transactions with SDNs such as the National Iranian Oil Company. To the extent we indirectly (or directly) purchase raw materials from this entity, we risk potential U.S. government sanctions. Even absent any U.S. government sanctions, we risk adverse publicity in the world markets, which may impair our reputation and business.

In addition, the conflict between Russia and Ukraine has resulted in the imposition of new sanctions on the Russian energy sector and greater scrutiny of pre-existing sanctions. The continuation of the conflict may result in the imposition of additional or more severe sanctions, and may also generate a higher level of sanctions enforcement activity. The International Emergency Economic Powers Act currently prohibits dealings with designated Russian persons and entities if the transaction involves a nexus to the U.S., such as payment in U.S. dollars. Under U.S. law, penalties could be imposed upon us even if we purchase crude oil or natural gas through a third party, and we are not aware that the purchase was made from an entity subject to U.S. sanctions. The sanctions regime relating to the Russian energy sector is continuing to evolve, and no assurance can be given that the United States or other jurisdictions will not seek to impose penalties upon us if they believed that we had engaged in sanctionable activities. If we were to become involved in sanctions proceedings, our business reputation could be harmed and we could incur substantial costs in order to defend the proceedings or pay any resulting penalties

Sinopec Group, the controlling shareholder of Sinopec Corp. which is our current controlling shareholder, or its affiliates' current or future activities in certain countries are the subject of economic sanctions under relevant U.S. laws and could result in negative media and investor attention to us and possible imposition of sanctions on Sinopec Group, which could materially and adversely affect our shareholders.

Sinopec Group undertakes, from time to time and without our involvement, overseas investments and operations in the oil and gas industry, including the exploration and production of oil and gas, refining and Liquefied Natural Gas, or LNG, projects. Sinopec Group's overseas asset portfolio includes oil and gas development projects in Iran, Sudan and Syria, countries subject to U.S. sanctions and embargoes. We cannot predict the interpretation or implementation of government policy at the U.S. federal, state or local levels with respect to any current or future activities by Sinopec Group or its affiliates in countries or with individuals or entities that are the subject of U.S. sanctions. Similarly, we cannot predict whether U.S. sanctions will be further tightened, or the impact that such actions may have on Sinopec Group. It is possible that the United States could subject Sinopec Group to sanctions due to these activities. Certain U.S. state and local governments and colleges have restrictions on the investment of public funds or endowment funds, respectively, in companies that are members of corporate groups with activities in certain countries that are the subject of U.S. sanctions. These investors may not wish to invest, and may divest their investment, in us because of our relationship with Sinopec Group and its investments and activities in those U.S. government sanctioned countries. It is possible that, as a result of activities by Sinopec Group or its affiliates in countries that are the subject of U.S. sanctions, we may be subject to negative media or investor attention, which may distract management, consume internal resources and affect investors' perception of our company.

Further, the ISA authorizes the imposition of sanctions on companies that engage in certain activities in and with Iran, especially in Iran's energy sector. It is possible that Sinopec Group or its affiliates engage in activities that are targeted for sanction purposes by the ISA or other U.S. laws. If the U.S. President determines that Sinopec Group or one of its affiliates in fact engaged in the targeted activities, he would be required under the ISA to impose on Sinopec Group or its affiliates at least five sanctions from among twelve sanctions options available under the ISA, which range from restrictions on U.S. exports or bank financing to outright blocking of Sinopec Group or its affiliate's property within the United States or in the possession or control of U.S. persons anywhere in the world. In addition, the IFCA requires the U.S. President to block the property of persons and entities within U.S. jurisdiction or control of U.S. persons if he determines that, among other things, such persons or entities are engaged in certain transactions involving the energy, shipping or shipbuilding sectors of Iran or with certain SDNs. It also requires the U.S. President to impose five or more sanctions under the ISA on a person that he determines has knowingly, on or after July 1, 2013, sold, supplied or transferred to or from Iran precious metals or certain other materials (including graphite, aluminum, steel, coal and certain software) if used for specified purposes. If the U.S. President determines that Sinopec Group, or an entity it owns or controls engages in any such activities and if the most extreme sanction under the ISA or other U.S. sanctions laws, blocking, were applied to Sinopec Group's property, including controlled subsidiaries, Sinopec Group could be prohibited from engaging in business activities in the United States or with U.S. individuals or entities, and U.S. transactions in our securities and distributions to U.S. individuals and entities with respect to our securities could also be prohibited.

In addition, pursuant to the IFCA, Executive Order 13846 and other U.S. laws, the U.S. government can sanction financial institutions anywhere in the world that engage in certain Iran-related transactions. Such sanctions include prohibiting the financial institution from opening, or imposing strict conditions on maintaining, a correspondent or payable through account in the United States. The potential for financial institutions to be sanctioned for Iran related activities may impact our ability to engage in financial transactions related to Iran transactions.

General Risk Factors

The trading prices of our ADSs and H Shares have been volatile and may continue to be volatile regardless of our operating performance.

The trading prices of our ADSs and H Shares have been and may continue to be subject to wide fluctuations. The market price for our ADSs may continue to be volatile and subject to wide fluctuations in response to factors including the following:

- actual or anticipated fluctuations in our quarterly results of operations;
- changes in financial estimates by securities research analysts;
- conditions in petroleum and petrochemical markets;
- changes in the operating performance or market valuations of other petroleum and petrochemical companies;
- announcements by us or our competitors of new products, acquisitions, strategic partnerships, joint ventures or capital commitments;
- fluctuations of exchange rates between RMB and the U.S. Dollar; and
- general economic or political conditions in China or elsewhere in the world.

In addition, the stock market in general, and the market prices for companies with operations in China in particular, have experienced volatility that often has been unrelated to the operating performance of such companies. The securities of some PRC-based companies that have listed their securities in the United States have experienced significant volatility since their initial public offerings in recent years, including, in some cases, substantial declines in the trading prices of their securities. The trading performances of these companies' securities after their offerings may affect the attitudes of investors towards Chinese companies listed in the United States in general, which consequently may impact the trading performance of our ADSs, regardless of our actual operating performance. In addition, any negative news or perceptions about inadequate corporate governance practices or fraudulent accounting, corporate structure or other matters of other Chinese companies may also negatively affect the attitudes of investors towards Chinese companies in general, including us, regardless of whether we have engaged in any inappropriate activities. In particular, the global financial crisis and the ensuing economic recessions in many countries have contributed and may continue to contribute to extreme volatility in the global stock markets. These broad market and industry fluctuations may adversely affect the market price of our ADSs.

ITEM 4. INFORMATION ON THE COMPANY.

A. History and Development of the Company

General Information

We were established in the People's Republic of China as a joint stock limited company under the PRC Company Law on June 29, 1993 as Shanghai Petrochemical Company Limited. On October 12, 2000, we changed our name to Sinopec Shanghai Petrochemical Company Limited. Our registered office is at No. 48 Jinyi Road, Jinshan District, Shanghai, China 200540. Our telephone number there is (86-21) 5794-1941. Our company website is *www.spc.com.cn*. The SEC maintains an Internet site at *www.sec.gov* that contains reports, proxy and information statements, and our other information that file electronically with the SEC.

Our Predecessor

Our predecessor, the Complex, was founded in 1972 as one of the first large scale Chinese petrochemical enterprises using advanced imported technology and equipment. Prior to June 29, 1993, the Complex was wholly-owned by Sinopec Group, at the time a ministerial level enterprise (before its restructuring in 1998). The Complex's location was chosen because of accessibility by water and land transportation to Shanghai, a major industrial city of China, and the availability of reclaimable land. The Complex was initially under the administration of the Ministry of Textile Industry and in 1983 was placed under the administration of Sinopec.

Construction Projects

The Complex and we, as its successor, have completed six major stages of construction. The first stage of construction (1972-1976) included reclamation of land and the installation of 18 production units. The second stage of construction (1980-1986) increased the Complex's capacity for processing crude oil and doubled its capacity for synthetic fiber production. The third stage of construction (1987-1992) primarily consisted of the installation of a 300,000 ton Rated Capacity ethylene unit, an additional crude oil refining unit and other units for the production of petrochemical products. The third stage of construction completed our transition from a synthetic fiber producer to a highly integrated producer of a wide variety of petrochemical products. The fourth stage of construction (2000-2002) mainly included the 700,000 ton Ethylene Expansion Project and Coal-Fired Power Plant Expansion Project. The fifth stage of construction (2003-2009) was mainly designed to optimize our structure and realize sustainable development, and mainly included 3,300,000t/a diesel hydrogenation unit, 1,200,000t/a delayed coking unit and other projects implemented for removing "bottlenecks" in refinery, the building of new 600,000t/a paraxylene hydrocarbon complex unit, 150,000t/a C5 segregation unit, 380,000t/a ethane unit, *etc.*.

The Company commenced the sixth stage of construction in 2010 (the "Phase 6 Project") and completed the project in December 2012. The key component of the Phase 6 Project was the refinery revamping and expansion project. The Phase 6 Project also included the technology development and fine chemicals projects. The purpose of the Phase 6 Project was to improve the Company's overall industrial structure, core competitiveness and the capability of maintaining sustainable developments. The Phase 6 Project was focused on the objective to achieve intensive utilization of natural resources and the build-up of a complete set of facilities, in accordance with the fundamental industrial model of integrating oil refining and petrochemical production. Through this project, the Company further enhanced its oil refining process and strengthened and expanded the Company's core businesses while continuing to explore the development of fine chemicals and products with high value added.

Over the past four decades, the Company has built up an infrastructure system to support its production needs. The Company has its own facilities to supply water, electricity, steam and other utilities and to treat waste water, as well as ocean and inland waterway wharfs and railroad and road transportation facilities.

Our Initial Public Offering and Listing

We were established as a subsidiary of Sinopec on June 29, 1993. In preparation for our initial public offering of ordinary shares, all assets and liabilities of the Complex were transferred either to us or to Sinopec Shanghai Jinshan Industrial Company ("JI"), a separate subsidiary of Sinopec. The Complex's non-core businesses and assets, such as housing, stores, schools, transportation and medical services, were transferred to JI. The Complex's core business and assets were transferred to us. The Complex then ceased to exist as a legal entity. In 1998, Sinopec was restructured into a limited liability company under the name of China Petrochemical Corporation ("Sinopec Group"). On February 25, 2000, Sinopec Group transferred its interest in us to its subsidiary, Sinopec Corp. In 1997, JI was restructured and its subsidiaries were either transferred to Sinopec or Shanghai Jinshan District.

Our H Shares commenced listing on the HKSE on July 26, 1993. Our ADSs, each representing 100 H Shares, are listed on the NYSE. Our A Shares are listed on the Shanghai Stock Exchange. We were the first Chinese joint stock limited company to have securities concurrently traded in Hong Kong, the United States and China. On November 8, 1993, our A Shares were included in the Shanghai Stock Exchange Stock Index.

A Share Reform

Pursuant to regulations issued by the CSRC, we were required to obtain shareholder approval for and implement certain share reform. As a result of such share reform, all non-publicly tradable A Shares of the Company would be converted into publicly tradable A Shares and may be sold publicly on the Shanghai Stock Exchange subject to any applicable lock-up period.

In connection with the share reform, the Distribution Proposal regarding 2013 Interim Distribution of Cash Dividend and the Conversion of Capital Fund and Surplus Reserve into Shares of the Company ("Proposal") was approved at the Company's 2013 First Extraordinary General Meeting, 2013 First A Shareholders Class Meeting and 2013 First H Shareholders Class Meeting held on October 22, 2013. According to the Proposal, based on the Company's total share capital of 7,200,000,000 shares as of June 30, 2013, RMB2,421 million of the capital surplus of the Company from its share premium account was used to fund the issue of 3.36 new bonus shares with respect to every 10 issued and outstanding shares, the surplus reserve was used to fund the issue of 1.64 new bonus shares with respect to every 10 issued and outstanding shares, and an interim cash dividend of RMB0.50 (tax included) for every 10 issued and outstanding shares was distributed to all shareholders.

In addition, Sinopec Corp. undertakes under the Proposal that it shall not, within 12 months from the date on which Sinopec Corp. becomes entitled to trade, deal in or transfer its non-publicly tradable shares of the Company in the market (meaning the first trading day after the implementation of the Proposal), trade such shares in the market. Also, after the expiration of the aforesaid 12-month term, the amount of existing non-publicly tradable shares to be disposed of by Sinopec Corp. through trading on the stock exchange shall not represent more than 5% of the total number of our shares held by Sinopec Corp. within the next 12 months, and not more than 10% within the next 24 months.

Immediately upon completion of the conversion of capital surplus and surplus reserve into new shares of the Company, the total number of A Shares of the Company reached, as of December 4, 2013, 7,305,000,000, and the total amount of H Shares of the Company reached 3,495,000,000. Therefore, the Company's total share capital consists of 10,800,000,000 shares. Sinopec Corp., being the controlling shareholder of the Company, holds 5,460,000,000 A Shares, representing 50.56% of the total share capital of the Company.

The share certificates of new H Shares issued in connection with the share reform were dispatched and the cash dividend was paid to the holders of H Shares on December 4, 2013. The dealings in the new H Shares commenced on December 5, 2013.

The Company exercised its Share Option Incentive Scheme for the first time in August 2017, and the second time in January 2018, and the total number of shares of the Company increased by 14,176, 600 shares and 9,636,900 shares, respectively, upon exercise. Immediately upon completion of the exercise of Share Option Incentive Scheme on February 14, 2018, the total number of A Shares of the Company reached, as of December 4, 2013, 7,328,813,500, and the total amount of H Shares of the Company reached 3,495,000,000.

Description of Principal Capital Expenditures and Divestitures

For a description of capital expansion projects related to our facilities, see Item 4. Information on the Company – D. Property, Plant and Equipment – Capital Expansion Program.

B. Business Overview

We are one of the major petrochemical companies in China based on 2021 net sales and ethylene production. Our highly integrated petrochemical complex processes crude oil into a broad range of products in four major product areas:

- synthetic fibers,
- resins and plastics,

- intermediate petrochemicals, and
- petroleum products.

Based on 2021 sales volumes, we are a leading Chinese producer of synthetic fibers and resins and plastic products. We believe that we are also a leading competitor in sales of petroleum products and intermediate petrochemicals in our regional markets.

Our net sales by business lines as a percentage of total net sales in each of 2019, 2020 and 2021 are summarized as follows:

Net Sales of RMB88,055.7 million in 2019

Synthetic fibers	2.45%
Resins and plastics	11.33%
Intermediate petrochemicals	11.71%
Petroleum products	48.98%
Trading of petrochemical products	24.63%
Others	0.90%
Total	100.00%

Net Sales of RMB61,560.9 million in 2020

Synthetic fibers	2.39%
Resins and plastics	15.30%
Intermediate petrochemicals	13.33%
Petroleum products	48.96%
Trading of petrochemical products	18.81%
Others	1.21%
Total	100.00%

Net Sales of RMB 75,888.8 million in 2021

Synthetic fibers	1.81%
Resins and plastics	13.13%
Intermediate petrochemicals	14.21%
Petroleum products	55.19%
Trading of petrochemical products	14.56%
Others	1.10%
Total	100.00%

We derive a substantial portion of our revenues from customers in Eastern China (principally Shanghai and its six neighboring provinces), an area that has experienced economic growth above the national average in recent years. Shown by geographic region and exports, our net sales by business lines as a percentage of total net sales for each of 2019, 2020 and 2021 are as follows:

2019 Net Sales by Region (%)

	Eastern China	Other parts of China	Exports
Synthetic fibers	89.32	10.68	0.00
Resins and plastics	83.40	16.60	0.00
Intermediate petrochemicals	93.88	5.42	0.70
Petroleum products	85.40	0.55	14.05
Trading of petrochemical products	48.48	48.26	3.26
Total net sales	78.36	3.36	18.28

2020 Net Sales by Region (%)

	Eastern China	Other parts of China	Exports
Synthetic fibers	89.85	10.15	0.00
Resins and plastics	91.93	8.07	0.00
Intermediate petrochemicals	94.72	4.06	1.22
Petroleum products	91.35	0.24	8.41
Trading of petrochemical products	61.08	5.61	33.31
Total net sales	86.92	2.64	10.45

2021 Net Sales by Region (%)

	Eastern China	Other parts of China	Exports
Synthetic fibers	91.68	8.32	0.00
Resins and plastics	94.99	5.01	0.00
Intermediate petrochemicals	97.12	1.18	1.70
Petroleum products	91.80	0.39	7.81
Trading of petrochemical products	64.54	3.11	32.35
Total net sales	89.28	1.43	9.29

Business Strategies

Our 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 Company’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 a wide product chain, diversified products and close monitoring of the market to enhance competitiveness. Under the guidance of the above development strategy, according to the requirements of North-South Transformation Policy raised by Shanghai Government, the Company will (a) actively promote the transition from oil refining to chemical industry, the transition from chemical industry to materials, the transition from materials to high-end products, and the transition from parks to ecology, (b) carry out comprehensive technological transformation and quality upgrades, and (c) further optimize refining product structure to better meet the market needs. The Company will seek to 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 should help the North-South transformation and the construction of Carbon Valley Green Bay and local industrial parks in Jinshan District. The Company will seek to develop wind, light, fire, and biological integrated power generation and green hydrogen production technology, with a view towards realizing 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 plans to 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.

In 2022, Sinopec Group will continue to adhere to the market-oriented, efficiency-centered strategy, consolidate the foundation of environmental protection, optimize production and operation, improve corporate governance efficiency with a focus on building talent teams, achieve high-quality development of the Company and strive to create better economic benefits.

In 2022, the Company is looking to process a total of 13.65 million tons of crude oil and produce a total of 7.57 million tons of refined oil, 0.8252 million tons of ethylene, 0.666 million tons of paraxylene, 0.431 million tons of polyethylene, 0.453 million tons of polypropylene, 0.103 million tons of ethylene glycol, and 0.02 million tons of acrylic fiber. To achieve our business objectives in 2022, we intend to pursue the following strategies:

- Focus on green and clean energy for consolidating environmental protection

The Company will seek to comprehensively promote the establishment of the HSSE management system and establish and improve the PDCA closed-loop management mechanism. Under the key theme of "identifying major risks, eliminating major hidden dangers, and preventing major accidents", the Company seeks to strengthen risk management and control in key areas and key links, and continue to tighten contractor safety management and control. Furthermore, the Company will endeavor to continue to improve employees' safety awareness and skills and promote the creation of a culture that values safety. The Company will also emphasize implementing a green and clean strategy and strengthen carbon emission management to realize stable and standard- meeting emission of waste gas and wastewater to ensure that VOCs' average concentration at the boundary was less than 100 micrograms/m3 and strengthen carbon emission management. The Company also seeks to make a good effort in the supply of anti-epidemic materials, in dealing with emergencies and the workforce's stability to ensure the safety and physical and mental health of employees, and to strengthen employee safety education and comprehensively improve employee health management standards.

- Focus on improving quality and efficiency through the continuous optimization of production and operation

The Company intends to optimize its overall planning for operations shutdown and start-up and strengthen the plant's management and control during the shutdown and start-up phase. The Company shall also seek to improve its technical and economic indicators by improving safety management and its key control and maintenance plans. The Company also intends to optimize its systems to further improve the accuracy and reliability of crude oil comparison and selection, production and operation, and product structure optimization. The Company shall also further expand varieties in crude oil procurement and enhance deployment flexibility and will endeavor to reduce crude oil procurement costs. Furthermore, the Company strives to accurately grasp market conditions and adjust marketing strategies and product structures to maximize benefits. The Company shall also emphasize flexibly adjusting the yield of refined oil products and diesel-gasoline ratio, raise the total volume of high-grade gasoline, and develop new channels for exporting gasoline and jet fuel. The Company shall also seek to take advantage of market opportunities and devote efforts in developing new products and specialized materials. The Company intends to optimize its public projects and promote the optimization of its storage and transportation logistics system, and optimization its oil refining business. As a significant step forward, the Company is planning to implement full process safety management while strengthening its process stability and equipment integrity management, and continuously upgrade the automation and intelligence of its equipment. The Company will exert strict control of "Three Smalls" and eliminate "Three Nons". Special competitions on the reliability of production equipment will continue to take place, while the "The Day of Excellence" activities are continuing to mobilize employees to eliminate safety risks in time, avoid accidents, and strengthen the smooth separation of the equipment.

- Advance reformations further and raise efficiencies in corporate governance

With a focus on its strategic planning, the Company seeks to explore its path in organizational reorganization along the business or industrial chain to establish an organizational system which is in line with the management scope. The Company plans to reorganize its organizations and streamline work processes as well as integrate positions, and focus on key tasks in the reform, such as the reformation of "three systems", the reformation of its scientific research regime, and a sound market-oriented operating system. The Company shall continue to promote its process management to improve the efficiency of business collaboration between different departments. The Company shall also strive to strengthen the management of investment enterprises, and incorporate wholly-owned and controlling subsidiaries into the Company's integrated management system. The Company shall also fully carry out benchmarking and upgrading, and strengthen cost target management across its entire staff , while further tapping potentials and raise efficiency, with strict control on various expenses and expenditures. The Company also plans to integrate business and finance, and transformation from accounting finance to management finance. The Company also intends to implement transparent management, optimize business processes, improve management efficiency and quality, and makes good use of information technology to quickly and effectively convey the Company's decisions and plans to, and deployment at, the grass-roots level. The Company is also establishing a retroactive investigation mechanism designed to ensure all the employees are clear about the goals and responsibilities and provided with proper motivation.

- Focus on creativity-driven development so as to realize high-quality corporate development

In accordance with the "3060" national carbon emission requirement ("3060" refers to having carbon dioxide emissions peak by 2030 and achieving carbon neutrality by 2060), the Company's ultimate goal is to ensure "zero carbon emissions" and guarantee coordination of carbon reduction and transformation and development. The Company promoted the construction of large ton carbon fiber, hundred-ton high performance carbon fiber pilot plant project, 3rd circuit 220 kV power supply line project. We will speed up the construction of hydrogen energy demonstration projects and launch the thermoplastic elastomer project. The Company shall emphasize tackling key core technologies such as carbon fiber, increase investment in research and development, and improve the collaborative innovation mechanism. The Company shall also explore opportunities in differentiated high value-added products, and strive to build a new material industry cluster with the carbon fiber industry as its core and utilize polyester, polyolefin, elastomer, C5 downstream fine chemical new materials as the keys to seek breakthroughs and developments. The Company also promotes the construction of a data governance system and the application of advanced control and optimization technologies, and deepens the application of intelligent security by promoting the construction of an integrated platform for intelligent marketing and accelerating the advancement of digital transformation.

- Focus on team building and cementing solid foundation for development

The Company shall further empower the Company through recruiting talents and improve the recruitment of new graduates. The Company is devising a five-year training program for new college graduates and building a talent team with engineering thinking. The Company shall also clarify its employment orientation and evaluate the officer and talent selection and appointment mechanism. The Company continues to explore channels to select and appoint officers by introducing experienced talent through the selection and appointment of professional managers to nurture more young officers. The Company is also looking to uphold the pioneering spirit of the base-level and the public and improve staff medical services and improve medical protection standards to raise its staff's happiness index while further enhancing the cohesion of the staff team.

Principal Products

We produce four principal types of products with different specifications, including synthetic fibers, resins and plastics, intermediate petrochemicals and petroleum products. We use many of the important petroleum products and intermediate petrochemicals we produce in producing our own downstream products.

The following table shows a comparison of the production volume and sales volume in 2020 and 2021 by our major products.

	Production			Sales		
Products	2021 (10,000 tons)	2020 (10,000 tons)	Year-on-year change	2021 (10,000 tons)	2020 (10,000 tons)	Year-on-year change
Diesel[Note1]	338.80	398.21	-14.92%	338.10	398.61	-15.18%
Gasoline	339.64	327.30	3.77%	340.23	328.18	3.67%
Jet Fuel[Note1]	118.45	112.45	5.34%	99.57	99.43	0.14%
Paraxylene	49.63	66.24	-25.08%	46.53	45.64	1.95%
Benzene[Note2]	30.67	37.21	-17.58%	29.99	33.14	-9.51%
Ethylene Glycol	15.07	23.67	-36.33%	4.14	12.73	-67.48%
Ethylene Oxide	33.56	31.30	7.22%	32.78	30.53	7.37%
Ethylene[Note2]	71.28	82.52	-13.62%	—	—	—
Polyethylene	49.62	58.12	-14.62%	49.63	57.85	-14.21%
Polypropylene	45.59	49.29	-7.51%	42.26	45.16	-6.42%
Polyester Pellet[Note2]	34.34	33.99	1.03%	30.24	29.33	3.10%
Acrylic	7.10	11.55	-38.53%	7.32	11.69	-37.38%
Polyester Staple	2.62	3.37	-22.26%	2.73	3.40	-19.71%

Notes: 1. Excludes sales volume of proceeds on order.
2. The difference between production and sales are internal sales.

The above-mentioned sales volume does not include the trading of our petrochemical products.

The following table shows our 2021 net sales by major products as a percentage of total net sales together with the typical uses of these products.

Product	% of net sales	Typical Use
SYNTHETIC FIBERS		
Polyester staple fiber	0.22	Textiles and apparel
Acrylic staple fiber	1.52	Cotton type fabrics, wool type fabrics
Others	0.07	
Sub-total	**1.81**	
RESINS AND PLASTICS		
Polyester chips	2.22	Polyester fibers, films and containers
Polypropylene pellets	4.80	Films, ground sheeting, wire and
cable compound and otherinjection molding products such as housewares and toys Polyethylene pellets	4.19	Films or sheets, injection molding
products such as housewares, toys and household electrical appliances and automobile parts Polyvinyl alcohol ("PVA")	0.01	PVA fibers, building coating materials and textile starch
Others	1.91	
Sub-total	**13.13**	
INTERMEDIATE PETROCHEMICALS		
Ethylene	0.00	Feedstock for polyethylene, ethylene glycol, polyvinyl chloride and other
intermediate petrochemicals which can be further processed into resins, plastics and synthetic fiber.		
Ethylene oxide	2.91	Intermediate products for the chemical and pharmaceutical
industry, including dyes, detergents and adjuvant		

Product	% of net sales	Typical Use
Benzene	2.42	Intermediate petrochemical products, styrene, plastics, explosives, dyes, detergents, epoxies and polyamide fiber
Paraxylene	3.44	Intermediate petrochemicals and polyester
Butadiene	0.82	Synthetic rubber and plastics
Ethylene glycol	0.25	Fine chemicals
Others	4.37	
Sub-total	**14.21**	
PETROLEUM PRODUCTS		
Gasoline	22.70	Transportation fuels
Diesel	18.13	Transportation fuels and agricultural machinery fuels
Jet Fuel	4.83	Transportation fuels
Others	9.53	
Sub-total	**55.19**	
Trading of petrochemical products	14.56	Import and export trade of petrochemical products (purchased from domestic and overseas suppliers)
Others	1.10	
Total	**100.00**	

The following table provides a detailed description of our major products by industry segment, primary upstream raw materials, transport and storage method, primary downstream application fields and key price-influencing factors:

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
Paraxylene	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

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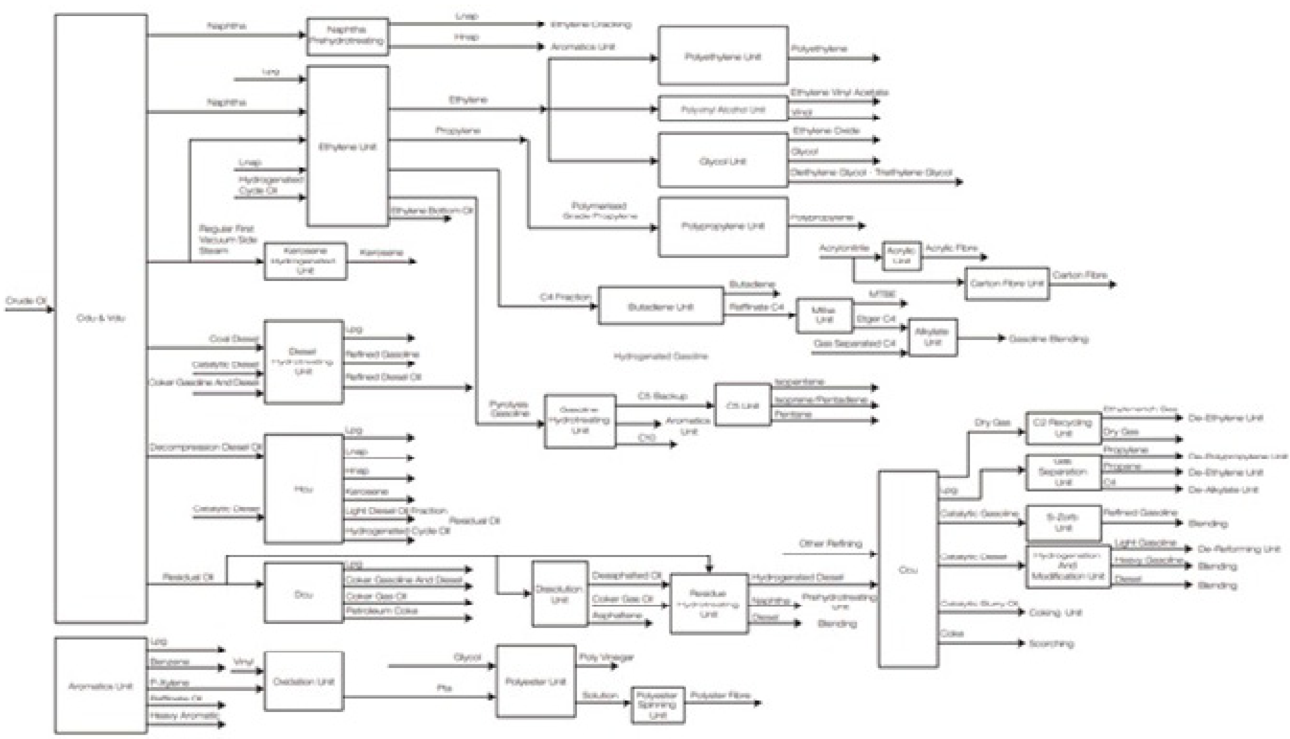
Product	Industry segment	Primary upstream raw material	Transport/storage method	Primary downstream application fields	Key price-influencing factors
Ethylene Oxide	Intermediate petrochemicals	Naphtha	Road transportation, pipeline transportation/ storage tank	Chemical and medical industry intermediate products, including dyes, detergents and auxiliary	International crude oil price, market supply- demand condition
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
Polyethylene	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
Polypropylene	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
Polyester	Synthetic fibres	Polyester	Road transportation, shipping and rail transportation/warehousing	Texture, apparel	Raw material price and market supply-demand condition

Production 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.



Intermediate Petrochemicals

Ethylene – Ethylene is either directly processed into polypropylene resins or processed into other intermediate petrochemicals. The most important of these is MEG. MEG is a key ingredient in polyester. It is produced by oxidizing ethylene in the ethylene oxide /ethylene glycol unit. Ethylene is also used to produce vinyl acetate which is processed into PVA.

Propylene – Propylene is either processed directly into polypropylene resins or is further processed into other intermediate petrochemicals such as acrylonitrile, acetonitrile, hydroxyl acetonitrile and sodium cyanide. Acrylonitrile is used in producing acrylics.

Vacuum gas oil – VGO is passed through the hydrocracker, and the resulting heavy naphtha is fed into the aromatics plants to produce paraxylene and benzene. Paraxylene is processed into PTA, one of the principal raw materials in producing polyester.

Resins and Plastics and Synthetic Fibers

We process our intermediate petrochemical products into five kinds of synthetic fiber raw materials: (1) polyester, (2) acrylonitrile, (3) polypropylene, (4) polyethylene, and (5) PVA. Each of these five products has its own production line or lines. We further process polyester and acrylonitrile into various types of synthetic fibers.

Polyester – MEG and PTA are fed into a polymerization unit which produces polyester chips and polyester melt. Both chips and melt are used as raw materials in the production of polyester staple and filaments. Some chips are also sold to third parties.

Polyester staple fiber is a multi-strand fiber cut into short lengths which can be spun into fabric on its own or blended with cotton, wool or flax to produce textiles. Polyester filaments are a class of more highly processed polyester materials which have been drawn and oriented to produce a long thread-like fiber.

Acrylonitrile – We produce polyacrylonitrile by feeding acrylonitrile into a polymerization unit. By passing the polyacrylonitrile through the fiber unit, acrylic fiber and acrylic staple fiber are produced, including cotton and wool type staple fibers. Wool acrylic staple fiber can be processed into acrylic wool strips.

Polypropylene – We produce polypropylene resins by feeding propylene into a polymerization unit. Our fiber grade polypropylene resin is the main ingredient for polypropylene fiber production.

Polyethylene – We have three sets of units producing polypropylene, two of which produce low-density polyethylene ("LDPE") using the kettle type process, and the other unit produces all density polypropylene products using the Borstar bimodal process.

PVA – PVA granules are produced from vinyl acetate, derived from ethylene.

Raw Materials

In 2021, we continued to strengthen our advantages in refining and chemical integration and leverage the strong adaptability of our refining plants to process more high-sulfur crude oil; we used a Process Industry Modeling System to determine the cost performance of crude oil to further improve the cost control of crude oil purchases; and the total volume of the top ten main types of oil purchased in the whole year of 2021 accounted for 82.94% of the total purchase of crude oil.

To enhance the overall profitability, we optimized our ethylene cracking stocks, adjusted and improved our natural gas and fuel gas structure, optimized our hydrogen system, reduced the emission and increased the efficiency of flare gas, increased the outputs of gasoline and aviation kerosene, and optimized naphtha, residual oil and wax oil processing lines. We further optimized the structure of our finished oil products, achieving a diesel to gasoline ratio of 0.99:1 for 2021. We strengthened our tracking of the margin contribution of our units, and continuously carried out daily profitability measurement for each product so as to promptly detect changes in profitability, quickly adjust the load and running schedule of our production units and afford priority to the production of products with high profitability and market demand.

Crude Oil

Crude oil is our primary raw material and the most significant raw material we purchase from outside sources. In 2021, crude oil accounted for approximately 58.12% of our consolidated annual cost of sales (68.26% of parent company annual cost of sales). Accordingly, the supply and price of crude oil are key factors in determining our profitability.

Supply and Transportation – The crude oil required by us is purchased through Sinopec Corp., as an agent, from foreign sources and Shanghai Nanguang Petrochemical Co., Ltd., as an agent, from domestic sources. During 2021 we did not experience any significant problems in obtaining sufficient crude oil to meet our production needs.

Sinopec Group is responsible for preparing an annual plan on demand and supply for crude oil and petroleum products that forms the basis of the Chinese government's annual "balancing plan" which effectively dictates our planned volume of crude oil processing in each year. Likewise, under the "balancing plan," some of our petroleum products are designated for sale to the subsidiaries of Sinopec Group or other designated customers at market prices and we must consult Sinopec Group to sell elsewhere.

We have received confirmation from Sinopec Corp. that it will purchase on our behalf 13.65 million tons of imported crude oil in 2022. Sinopec Corp. has further confirmed that, subject to China's national crude oil policy and our actual production needs, it will continue to purchase on our behalf sufficient quantities and appropriate types of crude oil, including domestic offshore and imported crude oil, to satisfy our anticipated annual needs. We anticipate that we will fully utilize our supply of crude oil in 2022. We believe that the mix of crude oil feedstock currently available is satisfactory for our 2022 production capacity and targets. Additionally, as part of China's commitment at its accession into WTO, certain non-state-owned enterprises have been granted an increasing amount of quota to import crude oil. Although we do not expect to obtain crude oil through this channel in the foreseeable future due to the current crude oil supply system, this may provide us with an alternative source of crude oil supply.

Crude Oil Mix – Our refining equipment is designed to process certain grades of crude oil. Therefore, the origin and quality of the crude oil available can be important to our business. We believe that as we have been significantly increasing usage of imported crude oil, we will continue to be able to obtain from the market such imported crude oil that is compatible with our refining equipment. The overall mix of foreign versus domestic crude oil we process in 2022 will depend on a variety of factors, including the amount of future supply of domestic offshore crude oil and the availability, price, quality, processing profitability and compatibility with our refining capabilities of imported crude oil. Provided there are no significant modifications to the existing channels of crude oil supply, we believe that sufficient supplies of crude oil will be available on the domestic or international markets for our 2022 production capacity and goals.

In 2021, our crude oil was sourced as follows:

Domestic offshore crude oil	1.05%
Imported crude oil	98.95%
Total:	100.00%

We expect that we will continue to rely principally on foreign sources for our crude oil supply. However, we believe that we will be able to maintain our processing efficiency through technological adjustments of our equipment and quality control and that increased use of imported oil will not materially adversely impact our business and results of operations.

Foreign and domestic offshore crude oil is supplied by tanker and pipeline to our oil terminal wharf and oil storage tank. See Item 4.D. Property, Plants and Equipment -Wharfs.

In the past, we have not experienced disruption in our crude oil supply. The crude oil for our atmosphere vacuum distillation facility is mainly supplied from the Ningbo-Shanghai-Nanjing oil pipeline. Due to our ability to obtain crude oil from multiple sources, we are able to meet our normal requirements for crude oil.

Pricing – The price of domestic crude oil shall apply the market –adjusted rate and the imported crude oil is generally sold to us at prevailing international market prices. The average cost of imported crude oil and domestic offshore crude oil in 2021 was RMB 3261.98 (U.S.$ 505.61) per ton and RMB 3716.11 (U.S.$ 576.01) per ton, respectively. In 2021, we processed 13,626,501 tons of imported crude oil and 137,858 tons of domestic offshore crude oil (including 404,700 tons of crude oil processed on a sub-contract basis).

Until March 2001 the Chinese government implemented a unified pricing system for crude oil. Each month, the National Development and Reform Commission ("NDRC") established an indicative price for each grade of domestic onshore crude oil based on comparable international market prices, inclusive of any duties that would have been imposed had the oil been imported. The actual price for domestic onshore oil would be such indicative price plus a surcharge. This surcharge was determined by China National Petroleum Corporation and Sinopec Group to reflect any transportation and other miscellaneous costs that would have been incurred in having the oil delivered to various refineries. Beginning March 2001, NDRC ceased publishing an indicative price. Instead, the indicative price for domestic onshore oil has been calculated and determined directly by China National Petroleum Corporation and Sinopec Group based on the principles and methods formerly applied by NDRC.

On January 13, 2016, NDRC issued the *Circular on Several Issues on Further Improving the Pricing Mechanism of Refined Oil* (Fa Gai Jia Ge [2016] No. 64) to adjust the existing refined oil pricing mechanism, which include, among other things, (i) setting a price floor of U.S.$40 for the downward adjustment of the crude refined oil. When the international crude oil price drops to U.S.$40 per barrel or below, i.e., the adjustment price floor, the refined oil price in China shall no longer be adjusted downwards; and (ii) creating a reserve for risks associated with the adjustment and control of oil prices. When the international crude oil price drops to U.S.$40 per barrel or below, all unadjusted amount shall be allocated to the reserve above mentioned for use for the purpose of energy saving or reduction of emission, improving the oil quality and securing a safe supply of oil.

We purchase crude oil through Sinopec Corp. and its affiliates from the sources selected and in the quantities confirmed by the Company at market prices. On this basis, we believe that changes in crude oil prices should not have a material effect on our competitiveness with other domestic producers. Nevertheless, any increase in the price of crude oil could have an adverse impact on our profitability to the extent that we are unable to pass cost increases on to our customers.

In 2021, the price of international crude oil market fluctuated and rose. The annual average price of West Texas Intermediate (WTI) crude oil was $68.21/barrel, an increase of 74.1% over the previous year; the average price of Brent crude oil was $70.89/barrel, an increase of 70.0%; and the average price of Dubai crude oil was $69.23/barrel, an increase of 64.1%.

As of December 31, 2021, Sinopec Group had processed a total of 13.7644 million tons of crude oil (of which 404.7 thousand tons were processed on order), indicating a year-on-year decrease of 6.18%, mainly due to the implementation of the largest overhaul in the Company's history this year. The cost of crude oil processing for the whole year of 2021 was RMB3,232.29/ton, representing an increase of RMB 852.27 /ton or 35.81% from the same period last year. The annual crude oil processing total cost increased by RMB9.222 billion from the same period last year or 27.15%, accounting for 58.12% of the total cost of sales.

Coal

Most of the coal used for electricity generation is purchased through a unified system of procurement by Sinopec Corp.. Coal is transported by rail from the mines to Qinhuangdao port and shipped by barge to Jinshanwei where it is delivered to the plant via a company-owned wharf and conveyer system. Our cost is primarily dependent on coal price and transportation charges.

We expect that our total requirement for coal to generate electricity in 2022 will be approximately 2 million tons. In 2021, we consumed approximately 1.7521 million tons of coal, a decrease of 138,700 tons from 2020 of 1.8908 million tons.

Other Raw Materials

We produce most of the raw materials used as feedstock for our operations. If any of these raw materials, other than ethylene, becomes unavailable from internal production, we believe that there are sufficient alternative sources at reasonable prices and the unavailability of raw materials from internal sources will not have a significant effect on our operations and profitability.

We purchase some ancillary raw materials from outside sources. These raw materials include natural gas, methanol, ammonia, sodium hydroxide, sulfur, acetone, acrylonitrile, PTA, propylene and a variety of catalytic agents. In 2021, the total cost of these materials accounted for approximately 15.73 % of our total cost of sales. We do not expect any difficulties in obtaining a supply of any of these ancillary raw materials in amounts sufficient to meet our needs in the foreseeable future.

Sales and Marketing

Distribution

The distribution of our fuel products is subject to government regulations. We are required to sell certain refined products to the subsidiaries of Sinopec Group or customers designated by Sinopec Group. Since the second half of 2005, Sinopec Group has executed reforms to its system of selling petrochemical products and implemented what it refers to as a "Five Consolidations" strategy featuring "consolidated marketing strategy, consolidated promotion, consolidated logistics optimization, consolidated sales and consolidated branding." As a result, the sales of our major petrochemical products are now conducted in a consolidated manner by sales agents designated by Sinopec Group. However, we have the autonomy to decide on the distribution method of our other products in accordance with market conditions. The products we sold in 2021 that were subject to planned distribution by Sinopec Group, sales by agents and sales based on our own discretion accounted for 59.86%, 32.09% and 8.05%, respectively, of the total sales volume in 2021.

We generally sell our products to larger trading companies and industrial users with whom we have long-standing relationships, including Sinopec Group or customers designated by Sinopec Group. We believe that the transition to sales of major petrochemical products by agents designated by Sinopec Group will increase our distribution efficiency, reduce horizontal competition and enhance our overall bargaining power, by allowing us to benefit from Sinopec Group's extensive and highly specialized sales network. It will also allow us to focus more of our resources on reducing production costs and enhancing our technical support.

We use long term contracts to sell most of our products. We did not experience significant write-offs or defaults on our accounts receivable or other trading accounts in 2021. In general we managed to maintain a stable correlation between production and sales in 2021.

Product breakdown

Synthetic Fibers – In 2021, 34.49% of our synthetic fiber products were purchased by provincial and municipal government trading companies that act as intermediaries between us and end-users. List of customers each accounting for more than 20% of the sales in this segment: Shaoxing Xiangyu Green Packing Co., Ltd: 27.44%. List of customers each accounting for more than 10% of the sales in this segment: China SDIC International Trade Co., Ltd: 10.81%.

Resins and Plastics – In 2021, approximately 61.60% of our resins and plastics sales were to provincial and municipal government trading companies and approximately 38.4% were sold to industrial users. No single customer accounted for more than 5% of our sales of resins and plastics in 2021.

Intermediate Petrochemicals – We sell a variety of intermediate petrochemical products, among which the sale volume of p-xylene, ethylene oxide was relatively high in 2021. Shanghai SECCO Petrochemical Company Limited ("SECCO") is the principal outside consumer of our petroleum benzene. In 2021, we sold 0.1582 million tons of petroleum benzene to SECCO, representing 52.75% of our total 2021 production of such product. List of customers each accounting for more than 10% of sales in this segment: SECCO: 52.75%; Sinopec Shanghai Gaoqiao Petrochemical Co., Ltd.: 22.16%; Zhejiang Baling Hengyi Caprolactam Co., Ltd.: 14.27%.

Jiaxing Petrochemical Company Limited, Oriental Petrochemical (Shanghai) Corporation and Zhejiang Dushan Energy Co., Ltd. are the outside consumers of our paraxylene. In 2021, we sold 0.254 million tons, 0.153 million and 0.059 million tons of paraxylene, representing 54.62%, 32.77% and12.61% of our total 2021 production of such product, to Jiaxing Petrochemical Company Limited, Oriental Petrochemical (Shanghai) Corporation respectively and Zhejiang Dushan Energy Co., Ltd., at prices mutually agreed upon by the relevant parties.

Petroleum Products – In 2021, our primary gasoline and diesel customer was East China Branch of Sinopec Sales Company Limited ("SINOPEC East China Company").

Trading of Petrochemical Products – In 2021, our largest trading customer for petrochemical products was Sinopec Chemical Commercial Holding Company Limited.

Major Suppliers and Customers

Sinopec Group's top five suppliers in 2021 were China International United Petroleum & Chemical Co., Ltd., Sinochem Oil Co. Ltd., SECCO, SINOPEC East China Company, and Sinopec Commercial Reserve Co., Ltd.. Total procurement costs involving these five suppliers, which amounted to RMB 48,010.6 million, accounted for 69.01 % of the total procurement costs of Sinopec Group for the year. Among the top five suppliers, the purchase amount of related parties was RMB44,075.2 million, accounting for 63.36% of the total annual purchase amount. The procurement from the largest supplier amounted to RMB 35,378.0 million, representing 50.85 % of the total costs of purchases by Sinopec Group for the year.

Sinopec Group's top five customers in 2021 were SINOPEC East China Company, China International United Petroleum & Chemical Co., Ltd., SECCO, Sinopec Sales Company Limited and Sinopec Refinery Sales Co., Ltd.. Total sales to these five customers amounted to RMB 57,169.8 million, representing 64.09% of Sinopec Group's total turnover for the year. Among the sales of the top five customers, the sales of related parties was RMB57,169.8 million, accounting for 64.09% of the total annual sales. Sales to Sinopec Group's largest customer amounted to RMB44,565.3 million, representing 49.96% of Sinopec 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 Sinochem Oil Company Limited; SECCO is an associate company of the Company; China International United Petroleum & Chemical Co., Ltd., East China Branch of Sinopec Sales Company Limited, East China Branch of Sinopec Sales Co., Ltd., Sinopec Sales Company Limited and Sinopec Refinery Sales Co., Ltd. are subsidiaries of Sinopec Corp., a controlling shareholder of the Company. Sinopec Commercial Reserve Co., Ltd. is a subsidiary of Sinopec Group, the ultimate controlling shareholder of the Company.

Product Pricing

Most of our products are permitted to be sold at market prices. However, four types of petroleum products (gasoline, diesel and jet fuel, and liquefied petroleum gas) that we sell are subject to varying degrees of government pricing control and are, accordingly, sold at prices set by the Chinese government. In 2019, 2020 and 2021, approximately 44.81%, 43.64% and 47.01% of our net sales, respectively, were from products subject to price controls. Price controls may apply to these products in various ways. Such price controls are sometimes applied exclusively to our products, exclusively to our competitors' products or sometimes applied to neither our products nor our competitors' products. The Chinese government has adopted changes to the pricing mechanism for domestic refined oil to be indirectly aligned with international crude oil prices in a controlled manner through use of certain formula(s).

For products that are not subject to price controls, we set our prices with reference to prices in the major Chinese chemical commodities markets in Shanghai and other parts of China. We also monitor pricing developments in major international commodities markets, particularly in Southeast Asia. In most cases, we revise product prices each month, or more frequently during periods of price volatility. Due to our economies of scale, brand recognition and high quality of products, we believe that we can continue to price our products competitively.

Competition

We compete principally in the Chinese domestic market where 90.77% of our products in volume were sold in 2021. In addition, we believe the limitation in transportation infrastructure in China and the difficulties involved in transporting petrochemical products force petrochemical companies in China, including us, to compete primarily on a regional basis. In 2021, 89.28% of our net sales were made to customers in Eastern China.

Our Competitive Advantages

We believe our primary competitive advantages are quality of product, pricing, brand recognition, geographic location and vertical integration. We have received many prizes and awards from both central and local government authorities for high product quality. Furthermore, our location on the outskirts of the densely populated and highly industrialized Shanghai area places us in close proximity to many of our customers. This location also gives us convenient access to ocean transport and inland waterways, which results in a competitive advantage in terms of transportation cost and reliability and punctuality of product delivery.

We believe that our vertical integration in business model represents a significant competitive advantage over non-integrated competitors in China, both in terms of reliability in delivery and price. For most downstream products, our vertical integration results in significant savings on transportation and storage costs which would be incurred by less vertically integrated facilities.

The Domestic Competitive Environment

Prior to 1993, because distribution and pricing of our products were determined in accordance with the state plan, we did not operate in a competitive environment. With the liberalization of control over pricing and product allocation by the Chinese government, competition in the domestic market has been gradually increasing. At the same time, Chinese private enterprises have gradually overcome technological and funding barriers to extend their business from the downstream processing sector to the upstream petrochemical field. These enterprises have advantages in many areas such as flexibility in operation costs, preferential policy treatment and regional presence, and may use these advantages to compete with us in markets for our products.

Foreign Competition and the World Trade Organization

China joined the WTO on December 11, 2001. As part of its membership commitments, China agreed to eliminate certain tariff and non-tariff barriers to foreign competition in the domestic petrochemical industry that benefited us in the past. In accordance with its WTO commitments, China:

- has reduced tariffs on imported petrochemicals products that compete with ours;
- increased levels of permitted foreign investment in the domestic petrochemicals industry, allowing foreign investors to own 100% of a domestic petrochemicals company from December 11, 2004;
- has gradually relaxed restrictions on the import of crude oil by non-state owned companies;
- has granted foreign-owned companies the right to import petrochemical products; and
- has permitted foreign-owned companies to distribute and market fuel products in both retail and wholesale markets in China.

As a result of these measures, we are facing increasing competition from foreign companies and imports. On the other hand, we think that China's WTO entry and increasing foreign investments in China have contributed and will continue to contribute to the growth of investment and business in China, resulting in an increase in sales opportunities for us.

Our Competitive Position

In the following discussion, internal consumption of resins and intermediate petrochemicals produced by integrated manufacturers in the production of downstream products are treated as sales.

Synthetic Fibers

In 2021, we had an approximate0.23% share of total domestic polyester and acrylic consumption while imports had an approximate 0.86% share.

The following table summarizes the competitive position of our principal synthetic fibers according to domestic sales in 2021.

Product	Our share of domestic consumption (%)	Our competitive ranking	Location of principal domestic competitor	Principal domestic competitor's share of consumption (%)	Imports' share of consumption (%)
Acrylic	13.85	2	Jilin Province	36.12	14.62

Sources: Zhuochuang Information (www.chem99.com).

Resins and Plastics

In 2021, we had an approximate 1.49% share of total domestic resins and plastics consumption while imports had an approximate 21.28% share. The following table summarizes the competitive position of our principal resins and plastics products according to domestic sales in 2021.

Product (%)	Our share of domestic consumption	Our competitive ranking	Location of principal domestic competitor	Principal Domestic competitor's Share of consumption (%)	Imports' share of consumption (%)
Polyester chips	1.78	4	Jiangsu Province	4.86	2.14
Polyethylene	1.34	24	Guangdong Province	2.04	39.45
Polypropylene	1.49	31	Zhejiang Province	3.40	10.43

Sources: Zhuochuang Information (www.chem99.com).

Intermediate Petrochemicals

In 2021, we were one of the largest sellers of intermediate petrochemicals in China, holding an approximate 1.32% share of total domestic consumption, while imports had an approximate 16.64% share of domestic consumption. Ethylene glycol, paraxylene, benzene and butadiene are our major intermediate petrochemical products. In 2021, we were a major producer of ethylene, paraxylene and benzene in China. The following table summarizes the competitive position of our principal intermediate petrochemicals according to domestic sales in 2021.

Product	Our share of domestic consumption (%)	Our competitive ranking	Location of principal domestic competitor	Principal Domestic competitor's Share of consumption (%)	Imports' share of consumption (%)
Ethylene glycol	0.73	8	Zhejiang Province	5.85	41.06
Paraxylene	1.42	13	Zhejiang Province	11.32	39.04
Benzene	1.75	5	Zhejiang Province	7.41	16.87
Butadiene	2.34	27	Jiangsu Province	2.50	6.21

Sources: Zhuochuang Information (www.chem99.com).

Petroleum Products

In 2021, we had an approximate 2.32% share of total domestic petroleum products market while imports had an approximate 7.38% share. Although we have one of the largest refining capabilities in China, we use most of our refining capacity to produce feedstock for our own downstream processing of petrochemical products.

The domestic markets for each of our major petroleum products are geographically concentrated because these markets tend to be highly localized with individual producers controlling a large share of the markets in their locality. In 2021, we sold approximately 91.80% of our petroleum products in Eastern China.

Research and Development, Patents and Licenses, etc.

We have a number of technology development units, including Advanced Materials Innovation Research Institute, the Petrochemical Research Institute, the Plastics Research Institute, and the Environmental Protection Research Institute. These units are charged with various research and development tasks with respect to new technology, new products, new production processes and equipment and environmental protection. Our research and development expenditures in 2019, 2020 and 2021 were RMB 93.0 million, RMB 110.6 million and RMB 94.3 million, respectively. The increase was mainly due to the increase in research and development investment in projects related to carbon fiber.

We are not, in any material aspect, dependent on any patents, licenses, industrial, commercial or financial contracts, or new production processes.

Investments

We established SECCO, a Sino-foreign equity joint venture, in late 2001 with BP Chemicals East China Investments Limited ("BP") and Sinopec Corp., primarily to build and operate a 900,000 ton Rated Capacity ethylene petrochemical manufacturing facility. SECCO completed construction and commenced its manufacturing operations in 2005. In 2009, SECCO had expanded the capacity of certain facilities to 1,090,000 tons of ethylene per annum. We own 20% of the equity interest of SECCO, while BP and Sinopec Corp. own 50% and 30% interests in SECCO, respectively. In October 2017, BP transferred its 50% equity interests in SECCO to a subsidiary of Sinopec Corp., Sinopec Shanghai Gaoqiao Petrochemical Co., Ltd. As a result of equity transfer, we, Sinopec Corp. and Sinopec Shanghai Gaoqiao Petrochemical Co., Ltd. own 20%, 30% and 50% interests in SECCO, respectively, and SECCO was converted into a PRC domestic company. The registered capital of SECCO is RMB7,800,811,272.00, all of which had been fully contributed by the shareholders in accordance with their equity percentages in SECCO as of October 18, 2017.

In 2021, SECCO achieved a sales revenue of RMB 29.72 billion (U.S.$ 4.61 billion), representing an increase of 37.40% from its sales revenue of RMB 21.63 billion (U.S.$ 3.31 billion) in 2020. SECCO produced 269,564 tons of ethylene in 2021, representing a decrease of 20,032 tons over the previous year. SECCO had a net profit of RMB 3.13 billion (U.S.$ 485.47 million) in 2021, representing a decrease of RMB 0.72 billion (U.S.$ 111.67 million) over the previous year.

Environmental Protection

We are subject to national and local environmental protection regulations, which currently impose a graduated schedule of fees for the discharge of waste substances, require the payment of fines for pollution and provide for the forced closure of any facility that fails to comply with orders requiring it to cease or cure certain environmentally damaging practices. We have established environmental protection systems which consist of pollution control facilities to treat certain of our waste materials and to safeguard against accidents. Because of the nature of our business, however, we store a significant amount of waste substances in the plants and discharge them into the environment after making such waste substances meet the discharge standards. In 2021, the Company paid a total of RMB 11.45 million in environmental taxes, a decrease of 24.67% compared with 2020.

We were subject to various administrative penalties for its violations of the relevant PRC environmental laws and regulations in the past three years. In 2021, we were subject to two administrative penalty for violations of the relevant PRC environmental laws and regulations, with fines of RMB 0.3798 million.

We believe our environmental protection facilities and systems are adequate for the existing national and local environmental protection regulations. In 2021, we continued to carry out various energy-saving and emissions reduction measures in accordance with the relevant domestic energy conservation and emissions reduction requirements, and achieved all energy-saving and emissions reduction goals set by the Chinese government during the year.

During 2021, the Company's overall level of energy consumption per RMB 10,000 of product value was 0.991 ton of standard coal, increased by 33.38% from the previous year. As compared with 2020, the total volume of chemical oxygen demand, sulfur dioxide, nitrogen oxides decreased 1.92%, 4.96%,and 12.78%, respectively. The volume of annual average cumulative average VOCs concentration at the plant boundary is 104.09 micrograms/m^3, an increase of 5.86% compared with last year. At the same time, the comprehensive compliance rate of effluent wastewater was 99.95%, the compliance rate of controlled waste water and waste gas emissions reached 100%, and all hazardous waste was disposed of properly at 100%. The average heat efficiency of heaters was 93.08%, which was similar to the prior year.

Insurance

We currently participate in a package of insurance coverage plan through Sinopec Group as its controlled subsidiary, which, as of December 31, 2021, was approximately RMB 43.31 billion (U.S.$ 6.81 billion) on our property and facilities and approximately RMB 2,273.03 million (U.S.$ 357.61 million) on our inventory. In addition, we maintain insurance policies for such assets as engineering construction projects and products in transit with third-party's commercial insurance company. The Sinopec Group insurance coverage is compulsory and applies to all enterprises controlled by Sinopec Group, pursuant to guidelines of Sinopec Group which may not be legally enforceable against Sinopec Group. Thus, there are uncertainties under Chinese law as to what percentage insurance claims we may demand against Sinopec Group.

We carry a third party liability insurance with a coverage capped at RMB 50 million to cover claims, subject to deductibles, in respect of personal injury, property or environmental damage arising from accidents on our property or relating to our operations other than on our transportation vehicles. We have not had a third party liability claim filed against us during the last five years. Since business interruption insurance is not customary in China, we do not carry such insurance.

Cyber Security

We have implemented policies and procedures intended to prevent cyber incidents and to identify and respond to unauthorized intrusions. With respect to our internal internet policies on cybersecurity, we have established an information safety management system and issued internal regulations on cybersecurity, internal hardware and data safety systems and we are gradually implementing measures relating to the office environment information safety management, information system access control, protection from any malicious software, and internal review and audit of information safety risks, in order to prevent loss of information due to cybersecurity incidents, network outages or hardware incidents. In 2021, we did not experience any material cybersecurity incidents or related losses.

Government Regulations

Following the development of several major oil fields and a growth in demand for petroleum and petrochemical products in China in the early 1970s, the Chinese government organized petroleum refining and petrochemical production and processing plants into large complexes that would permit integrated production of petroleum products, intermediate petrochemicals, resins and plastics, and synthetic fibers.

Although the Chinese government is liberalizing its control over the petroleum and petrochemical industries in China, significant government regulations that limit the business strategies available to us remain. Central government agencies and their local or provincial level counterparts do not own or directly control our production plants. However, they exercise significant control over the petrochemical industry in areas such as pricing, production quotas, quality standards, allocation of raw materials and finished products, allocation of foreign exchange and Renminbi loans for capital construction projects. The Chinese government's intentions with respect to the development objectives and policies for the petrochemical industry are stated as part of the Five Year Plans for National Economic and Social Development formulated every five years. These plans at both the national and Shanghai municipality level have identified the petrochemical industry as a "development industry."

Historically, we were supervised by Sinopec, a ministry-level enterprise under the direct supervision of the State Council, China's highest administrative body. As a result of a governmental restructuring in 1998, we became subject to the administration of the State Bureau of Petroleum and Chemical Industry. After its functions were terminated in March 2001, we became subject to the administration of the State Economic and Trade Commission. The State Economic and Trade Commission was dissolved in March 2003 and its function in directing the reform and management of state-owned enterprises was assumed by the State-owned Assets Supervision and Administration Commission, its function in industry planning and policy making was assumed by NDRC, and its functions in administering domestic trade, coordinating and implementing import and export plans of critical industrial products and raw materials were assumed by the Ministry of Commerce. Since then, we have been subject to the industrial oversight of these three governmental agencies at the national level.

As part of this restructuring, Sinopec was also restructured in July 1998. The succeeding entity, Sinopec Group, was authorized to conduct petrochemical business and to control the exploration of crude oil and natural gas and crude oil refining, mainly in the southern and eastern regions of China. China Petroleum and Natural Gas Corporation, another major state-owned petrochemical company, was also restructured, renamed China National Petroleum Corporation and authorized to conduct the same type of business, mainly in the northern and western regions of China. On December 31, 1999, Sinopec Group completed a reorganization pursuant to which certain of its core oil and gas and chemical operations and businesses and related assets and liabilities were transferred to its subsidiary, Sinopec Corp., currently our controlling shareholder.

Business Operations Relating to Iran and other U.S. Sanctioned Countries

In 2021, we sourced no crude oil from Iran.

In addition, based on feedback to our inquiries to Sinopec Corp., in 2021, it did not source any of its refinery throughputs of crude oil from Iran. Based on Sinopec Corp.'s internal reports and statistics, Sinopec Corp. recorded no revenue or net profit from its trading activities with Iranian companies.

In addition, based on feedback to our inquiries to Sinopec Group, the controlling shareholder of Sinopec Corp., Sinopec Group engaged in a small amount of business activities in Iran such as providing engineering services and designs. Sales revenue and profits from these business activities accounted for 0.021% and 0.43% of its total unaudited sales revenue and profits respectively.

We have no performance obligations under any contract to continue to purchase crude oil sourced from Iran in 2022.

C. Organizational Structure.

Our Subsidiaries

As of December 31, 2021, our significant subsidiaries are listed below. All of the subsidiaries named below are incorporated in China.

Subsidiary Name	Our ownership interest (%)	Our voting power (%)
Shanghai Petrochemical Investment Development Company Limited	100.00	100.00
China Jinshan Associated Trading Corporation	67.33	67.33
Shanghai Jinchang Engineering Plastics Company Limited	74.25	71.43
Shanghai Golden Phillips Petrochemical Company Limited	100.00	100.00
Shanghai Jinshan Trading Corporation	67.33	67.33
Zhejiang Jinlian Petrochemical Storage and Transportation Company Limited	100.00	100.00

Sinopec Corp.

We are a member of a group (defined as a parent and all its subsidiaries) for purposes of the disclosure rules of the SEC. The parent company of this group is Sinopec Corp., our controlling shareholder. Sinopec Corp. is operated by separate management and from time to time uses its interest as a shareholder to direct our policies and management.

Sinopec Corp. is the largest integrated petroleum and petrochemical company in China and one of the largest in Asia in terms of operating revenues. Sinopec Corp. is one of the largest refiners, distributors and marketers of gasoline, diesel, jet fuel and most other major refined products in China and Asia with principal markets in the eastern and southern regions of China. Sinopec Corp. is also a producer and distributor of petrochemicals in China and additionally explores, develops and produces crude oil and natural gas principally to supply its refining and chemical operations.

Subsidiaries

Details of Sinopec Corp.'s principal subsidiaries are given in the table below. Except for Sinopec Kantons Holdings Limited and Sinopec Overseas Investment Holding Limited, which are incorporated in Bermuda and Hong Kong respectively, all of the below principal subsidiaries are incorporated in China.

Name of Company	Particulars of issued capital (millions)	Type of legal entity	Percentage of equity held by Sinopec Corp. and its subsidiary (%)	Principal activities
Sinopec International Petroleum Exploration and Production Company Limited	RMB8,250	Limited company	100.00	Investment in exploration, development, production, sales of petroleum and natural gas and other areas
Sinopec Great Wall Energy and Chemical Company Limited	RMB22,761	Limited company	100.00	Coal chemical industry investment management, production and sale of coal chemical products
Sinopec Yangzi Petrochemical Company Limited	RMB15,651	Limited company	100.00	Manufacturing of intermediate petrochemical products and petroleum products
Sinopec Yizheng Chemical Fiber Limited Liability Company	RMB4,000	Limited company	100.00	Production and sale of polyester chips and polyester fibers
Sinopec Lubricant Company Limited	RMB3,374	Limited company	100.00	Production and sale of lubricant products, lubricant base oil, and petrochemical materials
Sinopec Qingdao Petrochemical Company Limited	RMB1,595	Limited company	100.00	Manufacturing of intermediate petrochemical products and petroleum products
Sinopec Chemical Sales Company Limited	RMB1,000	Limited company	100.00	Marketing and distribution of petrochemical products
China International United Petroleum & Chemical Company Limited	RMB5,000	Limited company	100.00	Trading of crude oil and petrochemical products
Sinopec Overseas Investment Holding Limited	U.S.$3,009	Limited company	100.00	Investment of overseas business and equity interests management
Sinopec Catalyst Company Limited	RMB1,500	Limited company	100.00	Production and sale of catalyst products
China Petrochemical International Company Limited	RMB1,400	Limited company	100.00	Trading of petrochemical products
Sinopec Beihai Refining and Chemical Limited Liability Company	RMB5,294	Limited company	98.98	Import and processing of crude oil, production, storage and sales of petroleum and petrochemical products
Sinopec Qingdao Refining and Chemical Company Limited	RMB5,000	Limited company	85.00	Manufacturing of intermediate petrochemical products and petroleum products
Sinopec Hainan Refining & Chemical Company Limited	RMB9,606	Limited company	100.00	Manufacturing of intermediate petrochemical products and petroleum products
Sinopec Marketing Co.	RMB28,403	Limited company	70.42	Marketing and distribution of refined petroleum products
Shanghai SECCO Petrochemical Company Limited	RMB500	Limited company	67.59	Manufacturing and sales of petrochemical products
Sinopec-SK (Wuhan) Petrochemical Company Ltd.	RMB7,193	Limited company	59.00	Production, sale, research and development of petroleum products, petrochemical products, ethylene and downstream derivatives
Sinopec Kantons Holdings Limited	HK$248	Limited company	60.33	Provision of crude oil jetty services and natural gas pipeline transmission services
Sinopec Shanghai Gaoqiao Petrochemical Company Limited	RMB10,000	Limited company	55.00	Manufacturing of intermediate petrochemical products and petroleum products
Sinopec Shanghai Petrochemical Company Limited	RMB10,824	Limited company	50.44	Manufacturing of synthetic fibers, Resin and plastics, intermediate petrochemical products and petroleum products
Fujian Petrochemical Company Limited	RMB10,492	Limited company	50.00	Manufacturing of plastics, intermediate petrochemical products and petroleum products

D. Property, Plant and Equipment.

Real Property

Our corporate headquarters and production facilities, occupying an area of approximately 7.03 square kilometers, are located in Jinshanwei, approximately 75 kilometers from downtown Shanghai. The total gross floor area of all our production and other facilities is approximately 2 million square meters. We own all of the buildings and facilities located at the site. We have the right to use the land upon which our buildings and facilities are located for a term of 50 years beginning in 1993 without the payment of any rent or usage fees other than land use taxes. We also have the right to transfer our land use rights to third parties without any payment to the Chinese government, so long as the use of the land remains the same as when the land use right was granted to us and the terms of the land use right we received will be applicable to any transferees.

Plants and Facilities

The following tables set forth the Rated Capacities of our principal production units. The actual production capacity of a production unit can exceed the Rated Capacity and may be further increased without increasing the Rated Capacity through technical improvements or expansion of such unit. The utilization rate of a production unit is based upon the Rated Capacity rather than actual production capacity and may vary with technical enhancements, changes in production management and scheduling of maintenance.

The following table sets forth the Rated Capacities and weighted average utilization rates of our principal production units for petroleum products and intermediate petrochemicals in 2021:

Production Unit (number of units)	Rated Capacity (tons)	Utilization Rate (%)
Crude oil distillation units (2)	14,000,000	95.32
Hydrocracker (2)	3,000,000	89.14
Ethylene unit	700,000	105.97
*Aromatics units (2)	835,000	100.15
PTA unit	400,000	80.32
Ethylene oxide / ethylene glycol units (2)	525,000	86.26
Cracking and catalyzing	3,500,000	104.87
Delayed coking (2)	2,200,000	88.90
Diesel oil hydrogenation units (2)	3,850,000	90.87
**Acrylonitrile unit	650,000	93.23
C5 segregation units (2)	205,000	139.51

* The No. 1 paraxylene unit (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.

Our two crude oil distillation units were designed and built in China. In 2021, the actual quantity of crude oil we processed was approximately 13.7644 million tons. Our hydrocracker uses technology from United Oil Products Corporation of the United States. Our second ethylene unit uses technology from ABB Lummus Global Inc. of the United States. The aromatics unit uses technology from Universal Oil Products Corporation of the United States. The PTA unit uses technology from Mitsui Petrochemical Corporation of Japan. The ethylene oxide / ethylene glycol unit was constructed using technology from Scientific Design Corporation of the United States.

The following table sets forth the Rated Capacities and weighted average utilization rates of our principal production units for resins and plastics and synthetic fibers in 2021:

Production Unit (number of units)	Rated Capacity (tons)	Utilization Rate (%)
*Polyester units (3)	550,000	88.53
**Polyester staple units (2)	158,000	88.27
Polyester filament unit	21,000	—
Acrylic staple fiber units (3)	141,000	107.19
Polypropylene units (3)	408,000	88.56
Polypropylene units (3)	400,000	96.41
Vinyl acetate unit	86,000	105.22

* No. 3 polyester fibre facility (100,000 tons/year) was discontinued on 1 September 2013.

** No. 1 Polyester staple fibre facility (4,000 tons/year) was suspended for the whole year.

Our polyester units use technology from Kanebo Corporation of Japan and E.I. Dupont DeNemours & Co. Inc. of the United States. The polyester staple units use technology from Teijin of Japan and Jima of Germany as well as Chinese technology. The polyester filament units use technology from Murata Manufacturing Company Limited and Teijin Corporation of Japan, Barmag AG of Germany and E.I. Dupont DeNemours & Co. Inc. We produce polyethylene in three units; two LDPE units which use technology from Mitsubishi Petrochemical Corporation of Japan and BASF LDPE of Germany; and one high-density polypropylene unit uses the Borstar bimodal polyethylene technology from Northern European Chemical Engineering Company.

The acrylic fiber units were built domestically, based on a design of equipment which had been imported into China in the 1960s and that we substantially improved. In 1996, we acquired two additional acrylic fiber units which use technology from the Kawasaki Corporation of Japan. We produce polypropylene in three identical units using technology from Himont Corporation of Italy. The PVA unit uses technology acquired from Kuraray Corporation of Japan.

Power Facilities

Our electricity requirements are currently supplied by our own 425 megawatt coal-fired power plant and petroleum coke power plant. These power plants are designed to provide sufficient power supply needed by our facilities. We are connected to the Eastern China electricity grid, which provides a back-up source of power in case of a shortfall in our self-generated power supply.

Other Facilities

We also have facilities to produce industrial water, steam, hydrogen, oxygen and nitrogen which we use in our production facilities.

Maintenance

We engage in production stoppages for facility maintenance and repairs and implement our routine monthly maintenance and repair plans according to the needs of our production facilities, our requirements for product quality, and our commitment to security and environmental protection. The technicians in our facility management department have responsibility for the daily management of maintenance and repair work. We also outsource facility maintenance and repair projects to qualified contractors.

In 2021, Sinopec Group focused on building up and implementing stable production as its top priority in production management, and implemented and consolidated its foundation in production operation while cementing safety management. The Company seeks to implement the HSSE management system and put into practice process safety management, and further enhance its ensure equipment integrity assurance regime. We did not encounter serious accidents involving production safety, environmental pollution or occupational poisoning in 2021. Among the 58 major indicators that measure technical and economic capacity, 33 exceeded those of the previous year with a year-over-year growth rate of 58.90%.

Transportation-Related Fixtures

Crude oil, our principal raw material, is transported by pipeline and oil tanker to a crude oil terminal wharf and storage tanks. Our products leave the factory by water, rail, road and pipeline. In 2021, approximately 91.28% of our products by sales volume were picked up by customers from our premises, and the others were delivered by us. Our major ethylene customer is supplied via a pipeline. And some of the products were transported using our facilities.

Wharfs

We own one chemical wharf at Jinshan with five berths of 3,000, 5,000, 10,000, 10,000 and 30,000 tons. We also own a connecting pipeline capable of loading up to approximately 4.6 million tons of chemical products annually onto ocean-going barges and ships. In 2021, products representing 29.65% of total sales volume were shipped from the wharf. We also have a facility to load ships and barges which use the region's inland waterways. In 2021, products representing 3.22% of total sales volume were shipped from these facilities. We believe that we have a competitive advantage because a greater proportion of our products are shipped by water as opposed to rail and truck, which is subject to capacity constraints on China's rail and highway networks. Additionally, we own facilities for receiving crude oil and coal at docks that we own and transporting such materials by pipeline or conveyor to our production facilities.

Rail

We own a railroad loading depot with an annual capacity of 500,000 tons. The depot provides access via a spur line to the national Chinese railway system. In 2021, products representing 0.12% of total sales volume were transported from the factory by rail.

Capital Expansion Program

We have planned or started a number of other principal capital expansion projects. In 2019, 2020 and 2021, we invested RMB 1.8 billion, RMB 2.1 billion and RMB 3.533 billion, respectively, in capital expansion projects. We expect that total investment in the projects described below will be approximately RMB 3.5 billion in 2022.

Increasing Quality of Oil Products

In 2016, we launched No. 2 Diesel Hydrogenation Unit Reconstruction and Diesel Quality Upgrading Project so as to further improve the quality of oil products and perfect oil product structure. In 2017, we launched an oil cleaning project with 400,000 tons/year clean gasoline components units, which was completed and put into operation in 2020.

Expansion of New and Existing Downstream Petrochemical Products

As a large-scale integrated petrochemical enterprise, we produce a wide range of intermediate and downstream petrochemical products. In order to adapt to the changes in the world's energy market and the development trends in the oil and chemical products market in China, we will seek to further integrate the existing refining, olefin and aromatic processing chains, and further develop our chemical business.

To take advantage of our specialty in producing acrylics fiber and to improve our industrial structure and upgrade certain products, we plan to construct a carbon fiber project with a capacity of 1,500 tons/year. Sinopec Corp. approved the basic design for this project in December 2010; pile foundation construction was commenced in December 2010; civil engineering was commenced in February 2011 and one series of facilities under phase I were launched for trial operation in 2012. Subject to the market conditions, we commenced the construction of Phase II of the Project in April 2019, and completed the mid-term delivery of it in March 2021. We commenced raw silks (24,000 ton/year) and 48K large-tow carbon fiber (12,000 ton/year) project in November 2020, and plan to complete Phase I mid-term delivery of them in June 2022.

Upgrading Environmental Protection Facilities Projects

To enhance our capacity for sustainable development and response to the government requirements of environmental protection, we intend to increase our capital expenditures on a series of environmental projects, mainly including 400,000 tons/year clean gasoline components units, transformation project for "ultra clean discharge" work in cogeneration unit, transformation of No. 2 olefin cracking burner, and Thermoelectric Department's renovation project involving furnaces Nos. 3 and 4 meeting emission standards. All the projects were completed in 2020.

ITEM 4A. UNRESOLVED STAFF COMMENTS.

None.

ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS.

General

You should read the following discussion and analysis in conjunction with our audited financial statements and our selected financial data, in each case, together with the accompanying notes included elsewhere in this annual report. Our audited financial statements have been prepared in accordance with IFRS, as issued by the International Accounting Standards Board.

Critical Accounting Policies

The following discussion and analysis of our financial condition and results of operations are based on our consolidated financial statements. The preparation of financial statements in conformity with IFRS requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during 2021. Our financial condition and results of operations are sensitive to accounting methods, assumptions and estimates that underlie the preparation of our financial statements. We based our assumptions and estimates on historical experience and on various other assumptions that we believe to be reasonable and which form the basis for making judgments about matters that are not readily apparent from other sources. On an on-going basis, our management evaluates its estimates. Actual results may differ from those estimates as facts, circumstances and conditions change.

Our principal accounting policies are set forth in Note 2 to our consolidated financial statements and the changes in accounting policies are set forth in Note 2.1(c). The selection of critical accounting policies, the judgments and other uncertainties affecting application of those policies and the sensitivity of reported results to changes in conditions and assumptions are factors to be considered when reviewing our financial statements. We believe the following critical accounting policies involve the most significant judgments and estimates used in the preparation of our financial statements.

Classification of Financial Assets

The classification depends on the Company's business model for managing the financial assets and the contractual terms of the cash flows. The Company 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 Company 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.

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 shown at the lower of cost and net realizable value.

Impairments for non-current assets

At the end of each reporting period, the Company 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 Company 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 Company'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.

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 Company'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.

A. Operating Results

The following discussion covers the years ended December 31, 2020 and 2021. For the discussion covering the year ended December 31, 2019, please refer to Item 5A of the Company's Form 20-F for the year ended December 31, 2020 filed with the SEC on April 29, 2021.

Government Policies

The impact of government economic, fiscal, and monetary policies can materially affect our financial condition, results of operations, and cash flows (see Item 3. Key Information—D. Risk Factors).

In particular, we consume large amounts of crude oil to manufacture our products of which more than 95% is typically imported. We attempt to mitigate the effect of increased costs due to rising crude oil prices. However, our ability to pass on these increased costs to our customers is dependent on government regulations, among other factors. Given that the increase of the sales prices of our products can lag behind the increase of crude oil costs, we sometimes fail to completely cover the increased costs by increasing our sales prices, particularly where government regulations restrict the prices of certain of our fuel products such as gasoline, diesel and jet fuel, and liquefied petroleum gas. In 2019, 2020 and 2021, approximately 44.81%, 43.64% and 47.01% of our net sales were from such products subject to price controls. Although the current price-setting mechanism for refined petroleum products in China allows the Chinese government to adjust price in the PRC market when the average international crude oil price fluctuates beyond certain levels within a certain time period (see Item 4. Information on the Company – B. Business Overview – Product Pricing), the Chinese government still retains discretion as to whether or when to adjust the prices of the refined oil products. The Chinese government generally exercises certain price control over refined oil products once international crude oil prices experience a sustained rise or become significantly volatile. Moreover, the Chinese government controls the distribution of many fuel products in China. For instance, some of our fuel products are required to be sold to designated distributors (such as the subsidiaries of Sinopec Corp.). Because we cannot freely sell our fuel products to take advantage of opportunities for higher prices, we may not be able to fully cover increases in crude oil prices by increases in the sale prices of our products, which has had and will continue to have a material adverse effect on our financial condition, results of operations and cash flows.

In addition, the exchange rates between the Renminbi and the U.S. Dollar or other foreign currencies are affected by Chinese government policies. In particular, the value of the Renminbi is only permitted to fluctuate within a narrow and managed band against a basket of certain foreign currencies. The Chinese government continues to receive significant international pressure to liberalize its currency policy. Most of our revenue is denominated in Renminbi, and most of our purchase of crude oil and some equipment and repayment of certain borrowings are made in foreign currencies. Historically, the trend for appreciation of the Renminbi was helpful to us since our imported crude oil purchases constitute such a large portion of our total costs. However, the recent depreciation of the Renminbi increased our costs and affected our capacity of making profits. In addition, any depreciation of the Renminbi could adversely affect the value of the dividends of our H Shares and ADSs, which we pay in foreign currencies.

Further appreciation in the value of Renminbi against foreign currencies (including the U.S. Dollar) may cause a decrease in the value of our cash and cash equivalents that are denominated in foreign currencies.

Summary

In 2021, the global economy began to recover from the impacts of the most severe economic crisis since the Great Depression in the 1930s under the global COVID-19 pandemic situation. Major developed economies, emerging markets and developing economics generally experienced Gross Domestic Product (GDP) growth. Facing a complicated domestic and global situation, especially under the difficulties caused by the COVID-19 pandemic, China had adhered closely to the principle of seeking progress while maintaining stability and coordinated epidemic prevention and control together with economic and social development to guarantee the restoration of economic stability. In 2021, China's GDP saw growth of 8.1%, an increase of 5.8% year-on-year, though such rate of growth is expected to decelerate in 2022.

In 2021, the Company actively responded to the complex and severe domestic and international economic and industry situations. At the same time as pandemic prevention, Sinopec Group focused its attention on main contradictions, system optimization, and pandemic prevention to transform potential crises into opportunities and to achieve a level of operation results with the joint efforts of all staff.

The following table sets forth our sales volumes and net sales for the years indicated:

	Year ended December 31,								
	2019			2020			2021		
	Sales Volume ('000 tons)	Net Sales (RMB million)	% of Total Net Sales	Sales Volume ('000 tons)	Net Sales (RMB million)	% of Total Net Sales	Sales Volume ('000 tons)	Net Sales (RMB million)	% of Total Net Sales
Synthetic fibers	177.9	2,158.9	2.5	151.4	1,472.4	2.4	101.9	1,374.8	1.8
Resins and plastics	1,292.4	9,979.9	11.3	1,365.4	9,419.7	15.3	1,254.9	9,962.7	13.1
Intermediate petrochemicals	2,193.7	10,313.6	11.7	2,168.0	8,205.8	13.3	1,989.1	10,780.5	14.2
Petroleum products	10,294.6	43,125.9	49.0	10,347.7	30,139.6	49.0	10,065.0	41,884.4	55.2
Trading of petrochemical products	—	21,690.7	24.6	—	11,577.3	18.8	—	11,051.4	14.6
Others	—	786.7	0.9	—	746.1	1.2	—	835.0	1.1
Total	13,958.6	88,055.7	100.0	14,032.5	61,560.9	100.0	13,410.9	75,888.8	100.0

The following table sets forth a summary statement of our consolidated statements of operations for the years indicated:

	Year ended December 31,					
	2019		2020		2021	
	RMB million	% of Net sales	RMB million	% of Net sales	RMB million	% of Net sales
Synthetic fibers						
Net sales	2,158.9	2.5	1,472.4	2.4	1,374.8	1.8
Operating expenses	(2,699.2)	(3.1)	(1,836.6)	(3.0)	(2,228.9)	(2.9)
Segment loss	(540.3)	(0.6)	(364.2)	(0.6)	(854.1)	(1.1)

	Year ended December 31,					
	2019		2020		2021	
	RMB million	% of Net sales	RMB million	% of Net sales	RMB million	% of Net sales
Resins and plastics						
Net sales	9,979.9	11.3	9,419.7	15.3	9,962.7	13.1
Operating expenses	(9,578.5)	(10.9)	(8,157.6)	(13.3)	(9,910.5)	(13.1)
Segment profit	401.4	0.4	1,262.1	2.0	52.2	0.1
Intermediate petrochemicals						
Net sales	10,313.6	11.7	8,205.8	13.3	10,780.5	14.2
Operating expenses	(9,899.6)	(11.2)	(7,624.2)	(12.4)	(11,415.6)	(15.0)
Segment profit/(loss)	414.0	0.5	581.6	0.9	(635.1)	(0.8)
Petroleum products						
Net sales	43,125.9	49.0	30,139.6	49.0	41,884.4	55.2
Operating expenses	(42,420.4)	(48.2)	(32,338.3)	(52.5)	(38,917.4)	(51.3)
Segment profit/(loss)	705.5	0.8	(2,198.7)	(3.5)	2,967.0	3.9
Trading of petrochemical products						
Net sales	21,690.7	24.6	11,577.3	18.8	11,051.4	14.6
Operating expenses	(21,637.5)	(24.5)	(11,535.3)	(18.7)	(11,007.7)	(14.5)
Segment profit	53.2	0.1	42.0	0.1	43.7	0.1
Others						
Net sales	786.7	0.9	746.1	1.2	835.0	1.1
Operating expenses	(500.0)	(0.6)	(535.1)	(0.9)	(976.5)	(1.3)
Segment profit/(loss)	286.7	0.3	211.0	0.3	(141.5)	(0.2)
Total						
Net sales	88,055.7	100.0	61,560.9	100.0	75,888.8	100.0
Operating expenses	(86,735.2)	(98.5)	(62,027.1)	(100.8)	(74,456.6)	(98.1)
Profit/(loss) from operations	1,320.5	1.5	(466.2)	(0.8)	1,432.2	1.9
Net finance income	363.0	0.4	332.3	0.5	414.6	0.5
Investment income	—	—	—	—		
Share of profit of associates and jointly controlled entities	972.6	1.1	724.7	1.2	874.3	1.2
Profit before income tax	2,656.1	3.0	590.8	0.9	2,721.1	3.6
Income tax	(429.0)	(0.5)	65.6	0.1	(644.5)	(0.9)
Net profit	2,227.1	2.5	656.4	1.0	2,076.6	2.7
Attributable to:						
Equity shareholders of the Company	2,215.7	2.5	645.1	1.0	2,073.4	2.7
Non-controlling interests	11.4	0.0	11.3	0.0	3.2	0.0
Net profit	2,227.1	2.5	656.4	1.0	2,076.6	2.7

Net sales represent sales revenue of the respective segments after sales taxes and surcharges. Operating expenses here represent cost of sales, selling and administrative expenses and other operating expenses /income, as allocated to respective segments.

Year ended December 31, 2021 compared with year ended December 31, 2020

Net sales

In 2021, net sales of the Company amounted to RMB75,888.8 million, an increase of 23.27% from the previous year's RMB61,560.9 million. As of December 31, 2021, the weighted average prices (excluding tax) of synthetic fibers, resins and plastics, intermediate petrochemical products and petroleum products of the Company increased by 38.73%, 15.08%, 43.19% and 42.87% year-on-year respectively. The total volume of our products was 13.45 million tons in 2021, representing a decrease of 3.66% over the previous year. Our production/sales ratio was 100.05%, and the trade receivables recovery rate was 100%. Our total amount of sales from export was RMB 8.2 billion, an increase of 6.49% compared with 2020.

(i) Synthetic fibers

In 2021, the Company's net sales of synthetic fiber products amounted to RMB1,374.8 million, representing a decrease of 6.63% from the previous year's RMB1,472.4 million, which was mainly due to the reduction in production resulted from the overhaul and perennial loss of acrylic fiber, and the lower sales during the Reporting Period resulted from the decrease of sales of synthetic fiber products. Sales volume of synthetic fibers decreased by 32.69% year-on-year, while the weighted average sales price increased by 38.73%. Meanwhile, the sales volume of acrylic fibers, the main product of the synthetic fibers segment, decreased by 36.90% year-on-year. Net sales of acrylic fibers, polyester fibers and other products accounted for 84.10%, 12.11% and 3.79% of the total sales of synthetic fibers segment respectively.

Net sales of synthetic fibers accounted for 1.8% of the Company's net sales in the current year, representing a decrease of 0.6 percentage points from the previous year.

(ii) Resins and plastics

In 2021, the Company's net sales of resins and plastics products amounted to RMB9,962.7 million, an increase of 5.76% from the previous year's RMB9,419.7 million, which was mainly due to the scene of the downstream market rebounded, and the sales prices of resin and plastic products generally rose, resulting in the increase of sales during the Reporting Period. The weighted average sales price of resins and plastics increased by 15.08%, while the sales volume of resins and plastics products decreased by 8.09% year-on-year. Meanwhile, the weighted average sales price of polyethylene and polypropylene increased by 18.23% and 11.68%, and the weighted average sales price of polyester chips increased by 28.93% year-on-year. The sales of polyethylene, polypropylene, polyester chips and other products accounted for 43.23%, 36.57%, 16.89% and 3.31% of the total sales of resins and plastics segment respectively.

The net sales of resins and plastics accounted for 13.10% of the Company's net sales in the current year, a decrease of 2.2 percentage points from the previous year.

(iii) Intermediate petrochemicals

In 2021, the Company's net sales of intermediate petrochemical products amounted to RMB10,780.5 million, an increase of 31.38% from the previous year's RMB8,205.8 million, which was mainly due to the rise in unit price of intermediate petrochemical products driven by the sharp rise in international crude oil prices. The weighted average sales price of intermediate petrochemical products increased by 43.19% year-on-year, and its sales volume decreased by 8.25% year-on-year. The sales of p-xylene, ethylene oxide, pure benzene, ethylene glycol and other products accounted for 24.24%, 20.52%, 17.01%, 1.78% and 36.45% of the total sales of intermediate petrochemical products respectively.

The net sales of intermediate petrochemical products accounted for 14.2% of the Company's net sales in the current year, an increase of 0.9 percentage points from the previous year.

(iv) Petroleum products

In 2021, the Company's net sales of petroleum products amounted to RMB41,884.4 million, an increase of 38.97% from the previous year's RMB30,139.6 million, which was mainly due to the rise in the price of petroleum products driven by the sharp rise in international crude oil prices. The weighted average sales price of petroleum products increased by 42.87% year-on-year, and sales volume decreased by 2.73%.

The net sales of petroleum products accounted for 55.2% of the Company's net sales in the current year, an increase of 6.2 percentage points from the previous year.

(v) Trading of petrochemical products

In 2021, the Company's net sales of trading of petrochemical products amounted to RMB11,051.4 million, a decrease of 4.54% from the previous year's RMB11,577.3 million. Mainly due to the decrease in customer purchase demand of the subsidiary China Jinshan Associated Trading Corporation and Shanghai Jinshan Trading Corporation, the sales of this year decreased by RMB57 million and RMB769 million respectively.

The net sales of trading of petrochemical products accounted for 14.6% of the Company's net sales in the current year, a decrease of 4.2 percentage points from the previous year.

(vi) Others

In 2021, the Company's net sales of other products amounted to RMB835.0 million, an increase of 11.92% from the previous year's RMB746.1 million.

The net sales of other products accounted for 1.1% of the Company's net sales in the current year, a decrease of 0.1 percentage points from the previous year.

Cost of sales and operating expenses

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

In 2021, the Company's cost of sales and expenses amounted to RMB74,456.6 million, an increase of 20.04% from RMB62,027.1 million in 2020. Cost of sales and expenses of synthetic fibers, resins and plastics, intermediate petrochemical products, petroleum products, petrochemical products and other products amounted to RMB2,228.9 million, RMB9,910.5 million, RMB11,415.6 million, RMB38,917.4 million, RMB11,007.7 million and RMB976.5 million respectively, representing an increase of 21.36%, an increase of 21.49%, an increase of 49.73%, an increase of 20.34%, a decrease of 4.57% and an increase of 82.49% year-on-year respectively.

Compared with the last year, the cost of sales and expenses of synthetic fibers, resins and plastics, intermediate petrochemical products, petroleum products, petrochemical products increased this year, which was mainly due to the sharp increase in crude oil prices and thus the increase in corresponding costs.

- ***Cost of sales***

In 2021, the Company's cost of sales amounted to RMB74,298.0 million, an increase of 20.03% from previous year's RMB61,901.1 million, which was mainly due to the rise in crude oil prices leading to the rise in costs and the lower-than-expected operating benefits of certain production facilities in 2021, and a number of production facilities were idle or backward production technology, resulting in the provision for impairment of long-term assets of RMB587.6 million. Cost of sales accounted for 97.90% of the net sales this year.

- ***Selling and administrative expenses***

In 2021, the Company's sales and administrative expenses amounted to RMB368.2 million, a decrease of 24.29% from the previous year's RMB486.3 million. This was primarily due to the handling and miscellaneous handling fees with amount of RMB 120.9 million were reclassified to cost of sales.

- ***Other operating income***

In 2021, the Company's other operating income amounted to RMB125.3 million, a decrease of 15.74% from previous year's RMB148.7 million. This was mainly due to the decrease of RMB25 million in subsidies of R&D projects, leading to a reduction in other operating income.

- ***Other operating expenses***

In 2021, the Company's other operating expenses amounted to RMB44.7 million, an increase of 80.97% from previous year's RMB24.7 million. This was primarily due to an increase in other operating expenses as a result of the increase of RMB17.0 million for the purchases of rights of carbon emission during the year.

Profits from operations

In 2021, the Company's operating profit amounted to RMB1,432.2 million, an increase of RMB1,898.4 million from the operating loss of RMB466.2 million in the previous year. Profit from operations was significantly higher as a result of the increase in the price of crude oil and the impact of the domestic economy recovery from COVID-19's influence on downstream demand.

(i) Synthetic fibers

In 2021, the operating loss of synthetic fibers amounted to RMB854.1 million, an increase of RMB489.9 million from the operating loss of RMB364.2 million in the previous year. The weak market demand of the textile industry, the downstream market of synthetic fibers segment, together with the low capacity utilization rate impacted from major overhaul resulted in increase of operating losses in the synthetic fibers sector during the Reporting Period. Due to a number of production facilities were idle or backward production technology, the long-term asset impairment provision of RMB135.7 million was made for the synthetic fiber segment in 2021.

(ii) Resins and plastics

In 2021, the operating profit of resins and plastics amounted to RMB52.2 million, a decrease of RMB1,209.9 million from the operating profit of RMB1,262.1 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 supply in the downstream market was saturated, and thus the increase in sales price was lower than that in cost price.

(iii) Intermediate petrochemicals

In 2021, the operating loss of intermediate petrochemical products amounted to RMB635.1 million, a decrease of RMB1,216.7 million from the operating profit of RMB581.6 million in the previous year. The decrease in gross profit of petrochemical products as compared with the previous period was mainly because the rise in international crude oil prices resulted in the sharp rise in costs while the supply in the downstream market was saturated, and thus the increase in sales price was lower than that in cost price. In 2021, provision for impairment of long-term assets of RMB296.3 million was made for some devices as increasing production cost is not expected to be covered by the estimated selling price of the products due to deteriorating market conditions.

(iv) Petroleum products

In 2021, the operating profit of petroleum products amounted to RMB2,967.0 million, an increase of RMB5,165.7 million from the operating loss of RMB2,198.7 million in the previous year. The increase in operating profit in the year was mainly due to an increase of sales price driven by a rise in international crude oil price.

(v) Trading of petrochemical products

In 2021, the operating profit of the trading of petrochemical products amounted to RMB43.7 million, an increase of RMB1.7 million from the operating profit of RMB42.0 million in the previous year, which was no significant change compared with the previous year.

(vi) Others

In 2021, the Company's other operating loss amounted to RMB141.5 million, a decrease of RMB352.5 million from the other operating profit of RMB211.0 million in the previous year, this was primarily due to higher gross loss on spontaneous power sales driven by the rise of coal prices.

Net finance income

In 2021, the Company's net financial income amounted to RMB414.6 million, an increase of RMB82.3 million from the net financial income of RMB332.3 million in the previous year, mainly due to an increase in the average balance of deposit during the Reporting Period, resulting in an increase of our interest income by RMB77.6 million from RMB431.2 million in 2020 to RMB508.8 million in 2021.

Profit before taxation

In 2021, the Company's profit before taxation amounted to RMB2,721.1 million, an increase of RMB2,130.3 million from the profit before taxation of RMB590.8 million in the previous year.

Income tax

The income tax expense of the Company amounted to RMB644.5 million in 2021 and the income tax benefit amounted to RMB65.6 million in 2020. This was primarily due to an increase in the profit before taxation of the Company which lead to a rise in tax payable. In accordance with The Enterprise Income Tax Law of the PRC (amended in 2018), the income tax rate applicable to the Company in 2021 is 25% (2020: 25%).

The effective rate for income tax was 23.68% in 2021, as compared to -11.10% in 2020.

Profit for the year

In 2021, the Company's profit after tax amounted to RMB2,076.6 million, an increase of RMB1,420.2 million from the profit after tax of RMB656.4 million in the previous year.

B. Liquidity and Capital Resources.

We strive to always have sufficient liquidity to meet our liabilities when due, preparing for both normal and stressed conditions, without incurring unacceptable losses or risking damage to our reputation.

Our primary sources of funding have been cash provided by our operating activities and short term and long term borrowings. Our primary uses of cash have been for cost of sales, other operating expenses and capital expenditures. We prepare monthly cash flow budgets to ensure that we will always have sufficient liquidity to meet our financial obligations as they become due. We arrange and negotiate financing with financial institutions and maintain a certain level of standby credit facilities to reduce liquidity risk. We believe that our current cash on hand, expected cash flows from operations and available standby credit facilities from financial institutions will be sufficient to meet our working capital requirements and repay our short term borrowings and obligations when they become due. In addition, we will continue to optimize our fund raising strategy from short and long term perspectives to take advantage of low interest rates by issuing corporate bonds or debts with low financing costs.

The following table sets forth a condensed summary of our consolidated statement of cash flows for the years ended December 31, 2019, 2020 and 2021.

	Year Ended December 31,		
	2019	2020	2021
	(RMB million)		
Net cash generated from operating activities	5,057.8	1,679.9	3,950.0
Net cash used in investing activities	(4,623.2)	(3,997.5)	(2,359.4)
Net cash (used in)/generated from financing activities	(1,737.4)	1,681.8	(3,393.1)
Net increase/(decrease) in cash and cash equivalents	(1,302.8)	(525.9)	(1,802.5)

Net cash generated from operating activities

The net cash generated from operating activities amounted to RMB 3,950.0 million in 2021, representing an increase in cash inflows of RMB 2,270.1 million as compared to the net cash inflows of RMB 1,679.9 million in 2020. During the reporting period, with profitability in operating, the Company's cash inflows generated from operating activities in 2021 amounted to RMB 4,411.7 million, an increase of RMB 2,416.6 million from the cash inflows generated from operating activities of RMB 1,995.1 million in 2020. The income tax paid in 2021 amounted to RMB 351.6 million, an increase of RMB 107.7 million from the income tax paid of RMB 243.9 million in the previous year.

The net cash generated from operating activities amounted to RMB1,679.9 million in 2020, representing a decrease in cash inflows of RMB3,377.9 million as compared to the net cash inflows of RMB5,057.8 million in 2019. During the reporting period, with profitability in operating, the Company's cash inflows generated from operating activities in 2020 amounted to RMB1,995.1 million, a decrease of RMB3,660.6 million from the cash inflows generated from operating activities of RMB5,655.7 million. The income tax payable in 2020 amounted to RMB243.9 million, a decrease of RMB290.6 million from the income tax payable of RMB534.5 million in the previous year.

Net cash used in investing activities

Our net cash used in investing activities decreased from RMB 3,997.5 million in 2020 to RMB 2,359.4 million in 2021. This was primarily due to the proceeds from capital reduction of an associate. According to the resolution of the Board of Directors on 9 July 2021, the Company, Sinopec Corp., and Sinopec Shanghai Gaoqiao Petrochemical Company Limited approved to reduce their paid-in capital in SECCO, an associate of the Company, by a total amount of RMB 7,300,811 thousand in proportion to their shareholding ratios of 20%, 30% and 50% respectively. Among them, the Company reduced its investment cost in SECCO by approximately RMB 1,460,258 thousand and the Company has received the amount of the capital reduction in December 2021.

Our net cash used in investing activities increased from RMB 4,623.2 million in 2019 to RMB 3,997.5 million in 2020. This was primarily due to the increase in the amount of structured deposits and fixed deposits.

Net cash used in financing activities

Our net cash used in financing activities was RMB 3,393.1 million in 2021 as compared to net cash generated from financing activities was RMB 1,681.8million in 2020. The decrease was mainly due to net cash outflow resulted from repayment of short-term bonds and issuance of short-term bonds.

Our net cash inflows generated from financing activities was RMB 1,681.8 million in 2020 as compared to our net cash used in financing activities was RMB 1,737.4 million in 2019. The increase was primary because we issued 169-day short-term bonds of face value RMB 3.0 billion.

Borrowings and banking facilities

Due to the Company's net profit position and the reduced capital expenditure, the Company managed to maintain the balance of cash and cash equivalents at a prudent level in 2021. Our total borrowings at the end of 2021 amounted to RMB 1,559.8 million, representing an increase of RMB 11.8 million as compared to RMB 1548.0 million at the end of the previous year. See Item 11 Quantitative and Qualitative Disclosures about Market Risk – Interest Rate Risk for more information on the maturity and the interest rate of the borrowings. We have generally been able to arrange short term loans with several PRC financial institutions as and when needed. The debt obligations as of December 31, 2020 and 2021 were as follows.

	Year Ended December 31,	
	2020	2021
Debt instruments	(RMB million)	
Short term bank loans (1)	1,548.0	1,559.8
Long term bank loans	—	700.0
	1,548.0	2,259.8

(1) As of December 31, 2021, no borrowings were secured by the way of property, plant and equipment. We obtained a credit rating of AAA for financing loans, assessed by Shanghai Huajie Credit Rating & Investors Service Co., Ltd., a credit rating agency authorized by the Shanghai Branch of the People's Bank of China. As of December 31, 2021, the current assets exceeded current liabilities by RMB 5,136.5 million. The liquidity of the Company is primarily dependent on the ability to maintain adequate cash inflow from operations, the renewal of its short-term bank loans and on its ability to obtain adequate external financing to support its working capital and meet its debt obligation when they become due. We assessed that all the facilities could be renewed upon their expiration dates. We have carried out a detailed review of the cash flow forecast for the 12 months ending December 31, 2021. Based on such forecast, we believe that we will be able to renew these facilities when they expire based on our well-established relationships with various lenders and adequate sources of liquidity exist to fund our working capital and capital expenditure requirements.

In light of our good credit standing and various financing channels, we believe that we will not experience any difficulty in obtaining sufficient financing for our operations.

We managed to maintain our gearing ratio at a safe level by enhancing controls over both liabilities (including borrowings) and financing risks. We generally do not experience any seasonality in borrowings. However, due to the nature of the capital expenditures plan, long term bank loans can be arranged in advance of expenditures while short term borrowings are used to meet operational needs. The terms of our existing borrowings do not restrict our ability to pay dividends on our shares.

Gearing ratio

As of December 31, 2021, our gearing ratio was 35.26%, while as of December 31, 2020, our gearing ratio was 34.25%. The ratio is calculated using this formula: total liabilities divided by total assets.

Capital expenditure

In 2021, our capital expenditure amounted to RMB 3,533 million, representing an increase of 67.68% as compared to RMB 2,107.0 million in capital expenditure in 2020. Major projects include the following:

Major Project	Total amount of project investment RMB million	Amount of project Investment in 2021 RMB million	Project progress as of December 31, 2021
Shanghai Jinshan baling New Material Co., Ltd	400.0	50.0	Paid in RMB50 million
Sinopec Shanghai raw silks (24,000 ton/year) and 48K large-tow carbon fiber (12,000 ton/year) project	3,489.6	1,000.0	Under construction
Oil cleaning project 400,000 tons/year clean gasoline components units	781.7	40.0	Put into operation
Second stage of PAN (Polyacrylonitrile) based carbon fiber project with annual production of 1,500 tons	847.8	8.4	Put into operation
Security risk rectification project of the central control room of the olefin section	99.9	32.5	Under construction
Shanghai Petrochemical third circuit 220kV power incoming line project	507.1	250.0	Under construction
Energy saving transformation of three GK-VI cracking furnaces in the old area of No. 2 olefin unit of olefin Department	92.3	70.9	Put into operation
Seawall safety hazard treatment project	256.1	150.1	Under construction

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 RMB1,931 million.

The Company's capital expenditures for 2022 are estimated at approximately RMB3,500 million.

Proposed Dividend Distribution

A dividend for the year ended December 31, 2021 of RMB 0.10 per share (including tax), based on 10,823,813,500 shares outstanding, amounted to a total dividend of RMB 1,082,381,350, was proposed by the Board of Directors on March 23, 2022. The proposal remains to be approved at our 2021 Annual General Meeting.

C. Research and Development, Patents and Licenses, etc.

We have a number of technology development units, including the Petrochemical Research Institute, the Plastics Research Institute, the Polyester Fiber Research Institute, the Acrylic Fiber Research Institute and the Environmental Protection Research Institute. These units are charged with various research and development tasks with respect to new technology, new products, new production processes and equipment and environmental protection. Our research and development expenditures in 2019, 2020 and 2021 were RMB 93.0 million, RMB 110.6 million and RMB 94.30 million, respectively. The increase was mainly due to the increase in research and development investment in projects related to the carbon fiber.

We are not, in any material aspect, dependent on any patents, licenses, industrial, commercial or financial contracts, or new production processes.

D. Trend Information

The International Monetary Fund advised in its January 2022 edition of *World Economic Outlook* that the global economy grew 5.9% in 2021 and is projected to have a continued moderate recovery of about 4.4 percent in 2022 and 3.8 percent in 2023. In spite of swift vaccine research and roll-out, 2022 began with the spread of a new Omicron COVID-19 variant rather than a full restoration of a pre-pandemic state. The global economic recovery is still clouded by the following challenges: rising energy costs, higher than anticipated inflation, prolonged pandemic disruptions due to more variants, supply chain disruptions, geo-political tensions such as the Russia-Ukraine conflict and related sanctions, and ongoing climate emergencies and natural disasters.

Despite China's initial quick recovery since the beginning of the pandemic, it still faces lower private consumption and real estate and construction sector slowness as a result of its zero-tolerance COVID-19 policies. . However, China still enjoys positive economic development factors: 2022 is the second year of the "14th Five-Year Plan" which represents the three major objectives to be completed on schedule, and a new development pattern with the domestic big circle as the main body and the domestic and international double circle promoting each other is being accelerated. China is expected to continue to implement a proactive fiscal policy and a prudent monetary policy so as to keep providing necessary support for economic recovery. It is expected that China's economic growth is going to operate within a reasonable range.

In 2021, oil prices saw a significant recovery since the beginning of the COVID-19 pandemic. Global oil demand is on track to rebound to pre-pandemic levels even in light of a surge of new COVID-19 cases at the end of 2021. At the same time, production by OPEC+, the U.S. and non-OPEC countries has been increasing the global supply of oil. However, geo-political factors such as the Russian-Ukraine conflict and sanctions imposed upon various Russian entities pose challenges for oil supply and likely will raise overall energy prices in 2022. On the political stage, the degree of support for energy development in the US and the positioning of Sino-US relations are still uncertain. Whether Sino-US trade frictions will increase and the trend of US crude oil production and export are factors that may affect the oil price trends in 2022.

The domestic petrochemical industry is currently facing the challenge of a downward economic cycle. During the "14th Five-Year Plan" period, China's refining and chemical industry is set to enter a full phase of new release in capacity and fierce competition. Industry integration, transformation and upgrading are also phasing in. Oversupply is further seen in the refined oil market. The transformation of chemical products towards the higher end and the more environmentally friendly will become a new trend. Driven by new energy, new materials, and the new economy, clean, digital, and diversified developments are now the key trends in developments upon the phasing in of a new energy regime in social development. These new developments will impact the energy supply from petrochemical companies, which will put severe pressure on petrochemical companies' profitability.

E. Critical Accounting Estimates

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 shown at the lower of cost and net realizable value.

Impairments for non-current assets

At the end of each reporting period, the Company 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 Company 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 Company'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.

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 Company'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.

F. Other Information

Purchase, Sale and Investment

Except as disclosed in this report, during the year ended December 31, 2021, we engaged in no material purchase or sale of our subsidiaries or associated companies or any other material investments.

Pledge of Assets

As of December 31, 2021, we did not pledge any of our property or equipment.

ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES.

A. Directors and Senior Management.

The following table sets forth certain information concerning our directors, executive officers and members of our supervisory committee ("Supervisory Committee"). The current term for our directors, executive officers and members of our Supervisory Committee is three years, which term will end in June 2023.

Name	Age	Position
Directors		
Wu Haijun	60	Executive Director, Chairman of the Board of Directors, Chairman of Strategy Committee, and Member of Nomination Committee
Guan Zemin	58	Executive Director, Vice-Chairman of the Board of Directors, Vice-Chairman of Strategy Committee, and President
Du Jun	52	Executive Director, Vice President and Chief Finance Officer
Huang Xiangyu	54	Executive Director and Vice President
Xie Zhenglin	57	Non-executive Director and Member of Strategy Committee
Peng Kun	56	Non-executive Director
Li Yuanqin	49	Independent Director, and Chairman of Audit Committee
Tang Song	42	Independent Director, and Member of Audit Committee
Chen Haifeng	48	Independent Director, Member of Audit Committee and Member of Nomination Committee
Yang Jun	65	Independent Director, Chairman of Remuneration and Appraisal Committee and Chairman of Nomination Committee
Gao Song	52	Independent Director, Member of Remuneration and Appraisal Committee and Member of Strategy Committee
Supervisory Committee		
Ma Yanhui	51	Chairman of the Supervisory Committee
Zhang Feng	53	Employee Supervisor
Chen Hongjun	51	Employee Supervisor
Zhang Xiaofeng	52	Supervisor
Zheng Yunrui	57	Independent Supervisor
Choi Tingki	68	Independent Supervisor
Senior Management		
Jin Qiang*	57	Vice President
Jin Wenmin*	57	Vice President
Huang Fei*	45	Vice President
Liu Gang	50	Secretary of the Board of Directors

* Mr. Jin Qiang, Mr. Jin Wenmin and Mr. Huang Fei requested to the Board of Directors on February 15, 2022 to cease to serve as executive directors and directors due to changes in their work. Mr. Jin Qiang, Mr. Jin Wenmin and Mr. Huang Fei resigned from their positions and their resignation reports were delivered to the Board of Directors on February 15, 2022.

Directors

Wu Haijun, born in August 1962 is the Executive Director, Chairman, Chairman of the Strategy Committee and member of the Nomination Committee, Director of SECCO and Chairman of Shanghai Chemical Industry Park Development Co., Ltd.. Mr. Wu joined the Shanghai Petrochemical Complex (the "Complex") in 1984 and has held various positions, including Deputy Director and Director of the Company's No.2 Chemical Plant, as well as manager of the Chemical Division. He was Vice President of the Company from May 1999 to March 2006 and Director of the Company from June 2004 to June 2006. Mr. Wu was manager and Secretary of the Communist Party Committee of the Chemical Sales Branch of Sinopec Corp from December 2005 to March 2008. From December 2005 to April 2010, he was Director of the Chemical Business Department of Sinopec Corp. From April 2010, he was appointed as a Director of SECCO. From April 2010 to February 2011, Mr. Wu was President of SECCO. From April 2010 to August 2018, he was appointed Secretary of the Communist Party Committee of SECCO and in June 2010 he was appointed Director of the Company. From June 2010 to December 2017, he served as Vice President of the Company. From February 2011 to March 2015, he acted as Vice President of SECCO, and was President of SECCO from March 2015 to December 2017. From December 2017 to January 2019, Mr. Wu was appointed Chairman of SECCO. From December 2017 to August 2018, he was the Company's Deputy Party Secretary. He has served as President of the Company from December 2017 to September 2018. In December 2017, he was appointed as Chairman of the Company. In January 2018, he was appointed as Chairman of Shanghai Chemical Industry Park Development Co, Ltd. and was appointed as Secretary to the Communist Party Committee of the Company in August 2018. Mr. Wu graduated from the East China Institute of Chemical Technology in 1984, majoring in chemical engineering, and obtained a Bachelor's degree in engineering. In 1997, he obtained a Master's degree in business administration from the China Europe International Business School. He is a Professorate senior engineer by title.

Guan Zemin, born in December 1964, is serving as Deputy Chairman, Executive Director, Deputy 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. He was appointed Deputy Secretary of the Company in December 2019. 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, Du Jun, born in March 1970, is the Deputy President, Chief Financial Officer of the Company, Chairman of China Jinshan Associated Trading Corporation ("Jinshan Associated Trading") and a Director of the Shanghai Chemical Industry Park Development Co., Ltd.. Mr. Du Jun started his career in 1990 and has successively served the Chief of Second Division of the Secretary of President's Office of the Sinopec Yangzi Petrochemical Company Ltd., Deputy Director of Finance Office and Deputy Director of Finance Department of Sinopec Yangzi Petrochemical Co., Ltd. From August 2004 to July 2007, he served as Director of Finance Department of Sinopec Yangzi Petrochemical Co., Ltd.. From July 2007 to August 2012, he served as Director of Finance Department of Sinopec Yangzi Petrochemical Company Limited. From August 2012 to August 2016, he served as Chief Accountant of Sinopec Yangzi Petrochemical Company Limited. From December 2015 to September 2020, he served as Supervisor of BASF-YPC Company Limited. From June 2016 to September 2020, he served as Director of Sinopec Yangzi Petrochemical Company Limited. From August 2016 to September 2020, he served as Chief Accountant of Sinopec Yangzi Petrochemical Company Limited. From September 2020, he served as the Deputy General Manager and the Chief Financial Officer of the Company. He served as the Chairman of the Jinshan Associated Trading, and as Director of the Shanghai Chemical Industry Park Development Co., Ltd. since December 2020. Mr. Du Jun graduated from Southeast University with a Bachelor's degree in Industrial Corporate Management in 1990. He obtained a Master's degree in Business Administration (MBA) from Southeast University in 2004. He is a Professorate senior accountant by title.

Huang Xiangyu, born in March 1968, is serving as the Executive Director and Deputy President of the Company. Mr. Huang started his career in 1990 and joined the 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. From November 2011 to January 2020, he served as the Chief Engineer of the Acrylic Fiber Department. 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. From June 2020, he was an Executive Director of the Company. Mr. Huang graduated from the Organic Chemical Major of 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.

External Directors

Xie Zhenglin, born in February 1965, is currently serving as an Non-Executive Director, member of the Strategy Committee, Deputy President of Chemical Service Department of the Sinopec Corp., and General Manager of Sinopec Group Assets Management Co., Ltd.. Mr. Xie started his work in 1989, served as Principal Staff Member of State Price Control Bureau and State Development Planning Commission, and started to work in Sinopec Group in September 1995, successively served as Deputy Director and Director of the Comprehensive Division of the Finance Department, Deputy Director of Capital Management Department, 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 Deputy Chairman and director of the China Merchants Energy Shipping Co., Ltd. (listed on the Shanghai Stock Exchange, Stock Code: 601872). Mr. Xie served as Director of Assets Management Department of Sinopec Corp., and Executive Director and General Manager of Sinopec Assets Management from April 2014 to December 2019. 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 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 serving as a Non-Executive Director, the General Manager of Human Resource Department, Minister of Party Committee Organization Department, and Director of Office of Veteran Cadres of the Company. Mr. Peng joined the Complex in 1986 and served as Deputy Director of General Affairs Office, Department of Chemical Engineering, General Research Institute, 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 with a degree in Engineering Management in July 2004 and obtained senior professional and technical title.

Independent Directors

Li Yuanqin, born in July 1973, is an Independent Non-Executive Director, Chairman of the Audit Committee and member of the Strategy 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 Shanghai New World Co., Ltd. (listed on Shanghai Stock Exchange, stock code: 600628), 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). From April 2000 to March 2003, Li served at the Settlement Department at the headquarters of ICBC. From June 2006 to September 2009, she was the lecturer at the School of Management at Shanghai University. From September 2009 to March 2019, she was the associate professor at the School of Management at Shanghai University. She has been the professor at the School of Management and the associate head of the Department of Accountancy of Shanghai University since March 2019 and 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 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 of the Company, Dean Assistant of School of Accountancy, Shanghai University of Finance and Economics, Professor and PH. D graduate student supervisor. Mr. Tang finished his undergraduate study in June 2003 at 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 Lecturer in School of Accountancy, Shanghai University of Finance and Economics from June 2010 to July 2012. He served as associate professor at 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 the Shanghai Stock Exchange, stock code: 605222) since July 2019, and as an Independent Director for the Shanghai Universal Biotech Co., Ltd since May 2020. He served as the independent non-executive director, member of the audit committee and member of the strategy committee of the company since June 2020. Mr. Tang served as an Independent Director for the Wuxi Commercial Mansion Grand Orient Co., Ltd. (listed on Shanghai Stock Exchange, stock code: 600327) since November 2020.

Chen Haifeng, born in January 1974, is serving as an Independent Non-Executive Director of the Company, member of the Audit Committee and the Nomination committee, 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 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 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 the 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, the Remuneration and Appraisal Committee Director (vice president level) of Gansu Gangtai Holding (Group) Co., Ltd. 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 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) since April 2015 and Director (Vice President level) of Gansu Gangtai Holding (Group) Co., Ltd. since September 2017. He served as the independent non-executive director, chairman of the nomination committee and chairman of the remuneration and assessment committee of the company since June 2020.

Gao Song, born in June 1970, is serving as an Independent Director, member of remuneration and appraisal committee and Strategy Committee, 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 Director of Marketing Department of Shanghai Guanshengyuan Group Co., Ltd.. From March 1998 to May 2002 and General Manager of Shanghai Aichu Food Co., Ltd.. From May 2002 to March 2007. He has served as Professor of Business School of East China University of Science and Technology and 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, chairman of the remuneration and appraisal committee and member of the strategy committee of the company.

Supervisory Committee

The Company has a Supervisory Committee whose primary duty is to supervise senior management of the Company that includes the Board of Directors, managers and senior officers. The function of the Supervisory Committee is to ensure that senior management of the Company act in the interests of the Company, its shareholders and employees and in compliance with PRC law. The Supervisory Committee reports to the shareholders in the general meeting. The Articles of Association provide the Supervisory Committee with the right to investigate the business and the financial affairs of the Company and to convene shareholder's meetings from time to time. The Supervisory Committee currently comprises of seven members, three of whom are employee representatives and four of whom are external supervisors, including one independent supervisor.

Ma Yanhui, born in February 1971, is a Supervisor, the Chairman of Supervisory Committee,, the Deputy Secretary of the Communist Party 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 Secretary of Office of Yanhua Refinery, Secretary and Deputy Director of Yanhua Office 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 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 the 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 the 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 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 currently serving as External Supervisor, Deputy General Manager of the Enterprise Reform and Legal Department of Sinopec Group and Deputy Director of the Company's Commission Office for Public Sector Reform. Mr. Zhang currently holds the position of supervisor of Sinopec Insurance Limited, Sinopec Oilfield Equipment Corporation and Sinopec Petroleum Reserve Company Limited. 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 has served as Deputy Director of the Legal Department of Sinopec Group from January 2018 to December 2019. He has also served as Deputy General Manager of the Enterprise Reform and Legal Department of Sinopec Group and Deputy Director of the Company's Commission Office for Public Sector Reform since December 2019. 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, and he is a senior economist.

Independent Supervisor

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 Language. 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 2021, he served as the external supervisor of Zhejiang Weihai Construction Group Co., Ltd. (listed on Shenzhen Stock Exchange, stock code: 002586). 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 Xuzhou and Wuxi. Mr. Zheng was appointed as an advisory expert on Civil and administrative cases of the Supreme 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.

Cai Tingki, born 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 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. He joined KPMG in the same year and has held various positions, including 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 Company. Mr. Jin was Deputy Chief Engineer of SINOPEC Zhenhai Refining & Chemical Company from March 2007 to October 2011, and was appointed Vice President of the Company in October 2011. In June 2014, Mr. Jin was appointed 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 the 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 company, 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 April2013 to February 2017, Mr. Jin was appointed as Head of Production Department of the Company. From May 2013 to August 2016, Mr. Jin was appointed as Assistant to the General Manager of the Company and was appointed Vice President of the Company in September 2016. He was appointed Executive Director of the Company in June 2018. Mr. Jin graduated from the Shanghai Second Polytechnic University in July 2003. He is a senior engineer by professional title.

Huang Fei, born in January 1977, is serving as Deputy President of the Company. Mr. Huang joined Sinopec Shanghai Petrochemical Company Limited 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 SECCO. From February 2020, he served as the Deputy President of the Company. From June 2020, he served as the Executive Director, Secretary to the Board, Joint Company Secretary 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 of directors, 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 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 of directors 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.

B. Compensation.

The aggregate amount of cash compensation we paid to our directors, supervisors and executive officers during the year ended December 31, 2021 was approximately RMB 12.42 million. In addition, directors and supervisors who are also officers or employees receive certain other benefits-in-kind, such as subsidized or free health care services, housing and transportation, which large Chinese enterprises customarily provide to their employees. No benefits are payable to members of the board or the Supervisory Committee or the executive officers upon termination of their relationship with us.

Name	Position with the Company	Salaries and other benefits (RMB'000) (before tax)	Retirement scheme contributions* (RMB'000) (before tax)	Discretionary bonus (RMB'000) (before tax)	Fees (RMB'000) (before tax)	Total Remuneration in 2021 (excluding share options) (RMB'000) (before tax)
Wu Haijun	Chairman & Executive Director	324	49	768	—	1,141
Guan Zemin	Executive Director, Vice Chairman & President	407	49	767	—	1,223
Du Jun	Executive Director Vice President & Chief Financial Officer	373	49	617	—	1,039
Huang Xiangyu	Executive Director & Vice President	276	48	684	—	1,008
Xie Zhenglin	Independent Director	—	—	—	—	—
Peng Kun	Independent Director	186	46	631	—	863
Li Yuanqin	Independent Director	—	—	—	150	150
Tang Song	Independent Director	—	—	—	150	150
Chen Haifeng	Independent Director	—	—	—	150	150
Yang Jun	Independent Director	—	—	—	150	150
Gao Song	Independent Director	—	—	—	150	150
Ma Yanhui	Chairman of Supervisory Committee	350	49	682	—	1,081
Zhang Feng	Supervisor	169	42	584	—	795
Chen Hongjun	Supervisor	178	41	603	—	822
Zheng Yunrui	Independent Supervisor	100	—	—	—	100
Choi Tingki	Independent Supervisor	100	—	—	—	100
Jin Qiang*	Vice President	378	49	682	—	1,109
Jin Wenmin*	Vice President	265	49	684	—	998
Huangfei*	Vice President	251	46	683	—	980

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

C. Board Practices.

Board of Directors

Our Board of Directors consists of eleven members. Our Directors are elected at meetings of our shareholders, and, unless they resign at an earlier date, are deceased or removed, will serve three-year terms. The Directors shall be eligible for reelection upon expiry of their terms of office; however, the combined tenure of an Independent Non-executive Director may not exceed a total of six years. The term of our current Board of Directors will expire in June 2023. None of our Directors have entered into any service contracts with us or any of our subsidiaries providing for benefits upon termination of appointment or employment (with the exception of compensation required by Chinese labor law).

Independent Board Committee

We formed an Independent Board Committee on June 18, 2020, which consists of five Independent Non-executive Directors. The current members are Ms. Li Yuanqin, Mr. Tang Song, Mr. Chen Haifeng, Mr. Yang Jun and Mr. Gao Song. The Independent Board Committee advised our shareholders other than Sinopec Corp. and its associates in respect of the terms of the continuing connected transactions under the renewed Mutual Product Supply and Sale Services Framework Agreement with Sinopec Group and Sinopec Corp. and the renewed Comprehensive Services Framework Agreement with Sinopec Group and the proposed caps on annual transaction values thereof for the three years ending December 31, 2022.

Supervisory Committee

The Supervisory Committee is responsible for ensuring that our Directors and senior officers act in the interests of our company or those of our shareholders or employees and that they do not abuse their positions and powers. The Supervisory Committee has no power to overturn the decisions or actions of our Directors or officers and may only recommend that they correct any acts that are harmful to our interests or the interests of our shareholders or employees. The Supervisory Committee is currently composed of seven members appointed for a three year term. The term of the current members will expire in June 2023. Supervisory Committee members have the right to attend meetings of our Board of Directors, inspect our financial affairs and perform other supervisory functions.

Remuneration and Appraisal Committee

We formed a remuneration and appraisal committee on December 25, 2001 which consists of three Directors. As of December 31, 2021, the members of the remuneration committee are Mr. Yang Jun (Chairman of the Committee), Mr. Tang Song and Mr. Gao Song. The key responsibility of the Remuneration Committee is to formulate and review the remuneration policy and plan for the Directors and executive officers, formulate the standards for evaluation of the Directors and executive officers and conduct such evaluations. The members of the remuneration and appraisal committee will hold office for the same term as their directorships which will expire in June 2023.

Audit Committee

We formed an audit committee on June 15, 1999 which consists of three Directors. As of December 31, 2021, the members are Ms. Li Yuanqin (Chairman of the Committee), Mr. Tang Song and Mr. Chen Haifeng. The key responsibility of the Audit Committee is to advise the Board on the appointment, dismissal, remuneration and terms of engagement of external auditors, review and supervise our financial reporting process, internal controls and risk management systems, and review our connected transactions. The members of the audit committee will hold office for the same term as their directorships which will expire in June 2023.

Nomination Committee

We formed a nomination committee on June 27, 2012 which consists of three Directors. As of December 31, 2021, the members are Mr. Yang Jun (Chairman of the Committee), Mr. Chen Haifeng and Mr. Wu Haijun. The key responsibility of the Nomination Committee is to review the Board composition, make recommendations to the Board on the procedures and criteria for the selection and appointment of Directors and senior management and assess the independence of Independent Non-executive Directors. The members of the audit committee will hold office for the same term as their directorships which will expire in June 2023.

Strategy Committee

We formed a strategy committee on June 15, 2017 which consists of three Executive Directors, one Non-executive Directors and one Independent Non-executive Director. As of December 31, 2021, the members are Mr. Wu Haijun (Chairman of the Committee), Mr. Guan Zemin (Vice-Chairman of the Committee), Mr. Xie Zhenglin, Mr. Huang Fei and Mr. Gao Song. The key responsibility of the Strategy Committee is to conduct researches and give recommendations to the Board on major investment decisions, projects and major issues that affect our development, and monitor our long-term development strategic plan. The members of the audit committee will hold office for the same term as their directorships which will expire in June 2023.

Summary Corporate Governance Differences

There are significant differences between our corporate governance practices and those of U.S. issuers listed on the NYSE. Pursuant to Section 303A.11 of the NYSE listing Manual, we have provided a statement of these differences under Item 16G. Corporate Governance.

D. Human Capital Resources.

As of December 31, 2021, we had 8230 employees.

The following table shows the approximate number of employees we had at the end of the last three years by the principal business function they performed:

	December 31,		
	2019	2020	2021
Management	1081	1066	1044
Engineers, technicians and factory personnel	5430	5094	5070
Accounting, marketing and others	2367	2306	2116
Total	8878	8466	8230

Approximately32.17% of our work force are graduates with a bachelor's degree or higher. In addition, we offer our employees opportunities for education and training based upon our development plans and requirements and the individual performance of each employee.

A system of labor contracts has been adopted in our Company. The contract system imposes discipline, provides incentives to adopt better work habits and gives us greater management control over our work force. We believe that by linking remuneration to productivity, the contract system has also improved employee morale. As of December 31, 2021, almost all of the work force was employed pursuant to labor contracts which specify the employee's position, responsibilities, remuneration and grounds for termination. The contracts generally have short terms of one to five years and may be renewed with the agreement of both parties. The remaining personnel are employed for an indefinite term.

We have a labor union that protects employees' rights, aims to assist in the fulfillment of our economic objectives, encourages employee participation in management decisions and assists in mediating disputes between us and union members. We have not been subject to any strikes or other labor disturbances which have interfered with our operations, and we believe that our relations with our employees are good.

Total remuneration of our employees includes salary and bonuses. Employees also receive certain benefits in terms of housing, education and health services that we subsidize, and other miscellaneous subsidies. In 2021, we incurred RMB 3,456.77 million in employment costs.

In compliance with Shanghai regulations, we and our employees participate in a defined contribution government pension scheme under which all employees upon retirement are entitled to receive pensions. In order to safeguard and properly enhance the living level of retired employees and improve the medium and long term incentive system, the Company established an enterprise annuity plan. According to the plan, to the extent that the employees volunteer for the related payments and have been with the Company for one year or more, such employees are entitled to participate in the enterprise annuity plan. We will make payments to match the payments made by the employees after giving considerations to our profitability, the employee's work responsibilities, contributions, and treatments post retirement based on the principle of universal benefits. We have 19274 retired employees under the above retirement insurance plans. During 2021, we terminated employment with 236 persons (including the retired and voluntary leave), accounting for 2.79% of 8,466 employees we had as of January 1, 2021.

In addition to the pension benefits, pursuant to the relevant laws and regulations of the PRC, we and our employees participate in defined social security contributions for employees, such as a housing fund, basic medical insurance, supplementary medical insurance, unemployment insurance, injury insurance and maternity insurance.

E. Share Ownership.

The table below sets forth information regarding the beneficial ownership of our shares held by our directors, supervisors and executive officers as of March 31, 2022:

Name	Position held	Number of Shares held (shares)	Percentage of total issued shares of the Company (%)	Percentage of total issued A shares (%)
Jin Qiang	Vice President	301,000 A shares (L)	0.002781	0.00411
Jin Wenmin	Vice President	175,000 A shares (L)	0.001617	0.00239
Huang Xiangyu	Executive Director and Vice President	140,000 A shares (L)	0.001293	0.00190
Zhang Feng	Supervisor	10,000 A shares (L)	0.000092	0.00014
Chen Hongjun	Supervisor	31,400 A shares (L)	0.000290	0.00043

(L): Long position

Share Option Incentive Scheme

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 2021, 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.

ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS.

A. Major Shareholders.

Sinopec Corp. owns 50.44% of our share capital and is able to exercise all the rights of a controlling shareholder, including the election of directors and voting on amendments to our Articles of Association.

The diagram below sets forth the information on the ownership and controlling relationship between our Company, Sinopec Corp., and Sinopec Group.

The table below sets forth information regarding ownership of our shares as of March 31, 2022 by all persons who we know own more than five percent of our A shares and our H Shares. Our major shareholders listed below do not have voting rights different from those of our other shareholders.

Name of shareholders	Interests held (shares)	Percentage of total issued shares of the Company (%)	Percentage of total issued shares for this category (%)
Sinopec Corp.	5,460,000,000 A Shares(L) Shares of legal person	50.44(L)	74.50(L)
The Bank of New York Mellon Corporation	313,748,444 H Shares (L)	2.90	8.98
	287,320,400 H Shares (S)	2.65	8.22
	25,929,544 H Shares (P)	0.24	0.74
Hung Hin Fai(1)	211,008,000 H Shares (L)	1.95	6.04
Chan Kin Sun(2)	200,020,000 H Shares (S)	1.85	5.72
	200,020,000 H Shares (L)	1.85	5.72

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

Notes:

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

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

As of March 31, 2022, a total of 3,495,000,000 H Shares were outstanding, and a total of 7,328,813,500 A Shares were outstanding.

The Bank of New York Mellon has advised us that, as of March 31, 2021, 2,831,513 ADSs, representing the equivalent of 283,151,300 H Shares, were held of record by 74 other registered shareholders domiciles in and outside of the United States. We have no further information as to our shares held, or beneficially owned, by U.S. persons.

To the best of our knowledge, except as disclosed above, we are not directly or indirectly controlled by another corporation, any foreign government, or any other natural or legal person, severally or jointly.

We are not aware of any arrangement that may at a subsequent date result in a change of control of our company.

B. Related Party Transactions.

Intercompany service agreements and business-related dealings

The Company entered into the Mutual Product Supply and Sales Services Framework Agreement and Comprehensive Services Framework Agreement (the "Framework Agreement") with Sinopec Corp., the controlling shareholder of the Company, and Sinopec Group, the actual controller of the Company on 23 October 2019. Pursuant to the Framework Agreement, The Company conducted a series of continuing connected transactions related to daily operation with Sinopec Group, Sinopec Corp. and their associates. The Framework Agreement is valid for three years and expires on 31 December 2022. The Framework Agreement and the transaction ceiling for 2020-2022 have been deliberated and approved at the first extraordinary general meeting of the Company in 2019. 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 23 October 2019.

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 purchases by us of crude oil and related materials from, and sales of petroleum products by us to, Sinopec Corp. and its associates were conducted in accordance with the State's relevant policy and applicable State tariffs or State guidance prices. As long as the State does not lift its control over purchases of crude oil, sales of petroleum products and pricing thereof, such connected transactions will continue to occur. We sell petrochemicals to Sinopec Corp. and its associates and Sinopec Corp. and its associates act as agents for the sales of petrochemicals in order to reduce our inventories, expand their trading, distribution and sales networks and improve our bargaining power with our customers. We lease part of the properties to Sinopec Corp. and its associates in consideration of their good financial background and credit standing. We accept construction and installation, engineering design, insurance agency and financial services relating to the petrochemical industry from Sinopec Group and its associates in order to secure steady and reliable services at reasonable prices.

The prices of the continuing connected (*i.e.*, related-party) transactions conducted between the Company and Sinopec Group, Sinopec Corp. and its associates are determined by the parties involved after consultation pursuant to (1) the fixed price of the state; or (2) the guiding price of the state; or (3) market prices, and the conclusion of agreements for the connected transactions are in compliance with the needs of the Company's production and operation. Therefore the above continuing connected transactions do not cause a material impact on the Company's independence.

The table below sets forth certain relevant information regarding our continuing connected transactions with Sinopec Corp. and Sinopec Group under the Mutual Product Supply and Sales Services Framework Agreement and the Comprehensive Services Framework Agreement in 2021.

Unit: RMB'000

Type of major transactions	Connected parties	Annual cap for 2021	Transaction Amount during the reporting Period	Percentage Of the total Amount of the same type of transaction (%)
Mutual Product Supply and Sales Services Framework Agreement				
Purchases of raw materials	Sinopec Corp., Sinopec Group and their associates	74,111,000	51,521,921	74.21%
Sales of petroleum and petrochemical products	Sinopec Group, Sinopec Corp. and their associates	66,021,000	60,926,642	68.30%
Property leasing	Sinopec Group, Sinopec Corp. and their associates	37,000	35,403	43.21%
Agency sales of petrochemical	Sinopec Corp. and its associates	168,000	110,552	100.00%
Comprehensive Services Framework Agreement				
Construction, installation and engineering design services	Sinopec Group, Sinopec Corp. and their associates	1,074,000	785,216	50.89%
Petrochemical industry insurance services	Sinopec Group and its associates	130,000	108,850	100.00%
Financial services	Associate of Sinopec Group (Sinopec Finance)	200,000	824	0.16%
Storage services agreement				
Storage services	Associate of Sinopec Group (Baishawan Branch)	114,000	114,000	83.01%

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 related party 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 Company and confirmed that: the above continuing connected transactions 1) are entered into in the daily business of the Company; 2) generally or better; 3) according to the agreement on the transaction, the terms are fair and reasonable and in line with the overall interests of the shareholders of the Company; and 4) the transaction amount in the Reporting Period was within the annual maximum limit.

HKSE connected transactions rules

We are required by HKSE listing rules to obtain advance shareholder approval for certain transactions with related parties such as Sinopec Group, Sinopec Corp., or its associates. We comply with such HKSE listing rules by obtaining advance shareholder approval at least every three years for the renewal of our framework agreements (*e.g.*, the Mutual Product Supply and Sales Services Framework Agreement and the Comprehensive Services Framework Agreement) with Sinopec Corp. and Sinopec Group for setting maximum aggregated annual values spent on the supply of products and services under these agreements. The independent non-executive directors will need to confirm each year, upon reviewing our continuing connected transaction, that these transactions are conducted in the ordinary and usual course of our business, on normal commercial terms and in accordance with the terms of these agreements.

C. Interests of Experts and Counsel.

Not applicable.

ITEM 8. FINANCIAL INFORMATION.

A. Consolidated Statements and Other Financial Information.

Please see Item 18. Financial Statements for our audited consolidated financial statements filed as part of this annual report.

Litigation

Neither we nor any of our subsidiaries is a party to, nor is any of our or their property the subject of any legal or arbitration proceedings which may have significant effects on our financial position or profitability or cash flows. We are not aware of any litigation or arbitration proceedings in which any of our directors, any member of our senior management or any of our affiliates is an adverse party or has a material adverse interest.

Dividend Policy

Our Board of Directors may propose dividend distributions subject to the approval of the shareholders. The Articles of Association also provide that, the aggregate profits distributed in cash in the recent three years shall not be less than 30% of the average annual distributable profits within such three-year period. Shareholders receive dividends in proportion to their shareholdings.

The Articles of Association require that cash dividends and other distributions in respect of H Shares be declared in Renminbi and paid by us in Hong Kong Dollars while cash dividends and other distributions in respect of our A Shares be paid in Renminbi. If we record no profit for the year, we may not distribute dividends in such year.

We expect to continue to pay dividends, although there can be no assurance as to the particular amounts that might be paid from year to year. Payment of future dividends will depend upon our revenue, financial condition, future earnings and other factors. See Item 5. Operating and Financial Review and Prospects and Item 3. Key Information – A. Selected Financial Data – Dividends.

B. Significant Changes.

No significant change has occurred since the date of the financial statements included in this annual report.

ITEM 9. THE OFFER AND LISTING.

A. Offer and Listing Details

The principal trading market for our H Shares is the HKSE. The ADSs, each representing 100 H Shares, have been issued by The Bank of New York Mellon as a depositary under a Deposit Agreement with us and are listed on the NYSE under the symbol “SHI.” We have also listed our A Shares on the Shanghai Stock Exchange. Prior to our initial public offering on July 26, 1993 and subsequent listings on the HKSE and NYSE, there was no market for our H Shares or the ADSs. Public trading in our A Shares commenced on November 8, 1993.

B. Plan of Distribution

Not applicable.

C. Markets

Our H Shares are listed for trading on the HKSE (Code: 00338), our ADSs are listed for trading on the NYSE under the symbol “SHI” and our A Shares are listed for trading on the Shanghai Stock Exchange (Code: 600688).

D. Selling Shareholders

Not applicable.

E. Dilution

Not applicable.

F. Expenses of the Issuer

Not applicable.

ITEM 10. ADDITIONAL INFORMATION.

A. Share Capital

Not applicable.

B. Memorandum and Articles of Association.

We are a joint stock limited company established in accordance with the PRC Company Law and certain other laws and regulations of the PRC. We are registered with the Shanghai Administration of Industry and Commerce with business license number 91310000132212291W.

The following is a summary based upon provisions of our Articles of Association as currently in effect, the PRC Company Law (1993) (as amended) and other selected laws and regulations applicable to us. You should refer to the text of the Articles of Association and to the texts of applicable laws and regulations for further information.

Our Articles of Association provide, at article 12, that our purpose is:

- to build and operate a diversified industrial company which will be one of the world's leading petrochemical companies;
- to promote the development of the petrochemical industry in China through the production of a broad variety of outstanding products; and
- to practice advanced, scientific management and apply flexible business principles, and to develop overseas markets for our products so that we and our shareholders receive reasonable economic benefits.

Our scope of business is limited to matters approved by Chinese authorities. Article 13 provides that our primary business scope includes:

Refining crude oil, petroleum products, petrochemical products, synthetic fibers and monomers, plastic products, raw materials for knitting and textile products, preparation of catalysts and recover waste catalysts, power, heat, water and gas supply, water treatment, railway cargo loading and unloading, inland water transport, wharf operation, warehousing, design, research and development, technology development, transfer, consultancy and other services, property management, lease of self-owned premises, internal staff training, design and fabrication of various advertisements, release of advertisements on self-owned media and quality technology services (administrative license should be obtained when required). We may adjust these subject to approval by governmental authorities.

The following discussion primarily concerns our shares and the rights of our shareholders. Holders of our ADSs will not be treated as our shareholders and will be required to surrender their ADSs for cancellation and withdrawal from the depositary facility in which the H Shares are held in order to exercise shareholder rights in respect of H Shares.

A Shares and overseas-listed foreign invested H Shares are both ordinary shares in our share capital. A Shares are shares we issue to domestic Chinese investors for subscription in Renminbi, while H Shares are shares we issue for subscription in other currencies to investors from Hong Kong, Macau, Taiwan and outside of China.

Sources of Shareholders' Rights

China's legal system is based on written statutes and is a system in which decided legal cases have little precedent value. China's legal system is similar to civil law systems in this regard. In 1979, China began the process of developing its legal system by undertaking to promulgate a comprehensive system of laws. In December 1993, the Standing Committee of the 8th National People's Congress adopted the PRC Company Law. Although the PRC Company Law is expected to serve as the core of a body of regulatory measures, which will impose a uniform standard of corporate behavior on companies and their directors and shareholders, only a limited portion of this body of regulatory measures has so far been promulgated.

Currently, the primary sources of shareholder rights are the Articles of Association, the PRC Company Law and the HKSE listing rules, which, among other things, impose standards of conduct, fairness and disclosure on us, our directors and our controlling shareholder. To facilitate the offering and listing of shares of Chinese companies overseas, and to regulate the behavior of companies whose shares are listed overseas, the former State Council Securities Committee and the former State Commission for Restructuring the Economic System issued the Mandatory Provisions for articles of association of Companies Listing Overseas on August 27, 1994. These provisions have been incorporated into our Articles of Association and any amendment to those provisions will only become effective after approval by the companies approval department authorized by the State.

In addition, upon the listing of and for so long as the H Shares are listed on the HKSE, we will be subject to those relevant ordinances, rules and regulations applicable to companies listed on the HKSE, the Securities and Futures Ordinance and the Codes on Takeovers and Mergers and Share Repurchases.

Unless otherwise specified, all rights, obligations and protections discussed below derive from our Articles of Association and/or the PRC Company Law.

Enforceability of Shareholders' Rights

There has not been any public disclosure in relation to the enforcement by holders of H Shares of their rights under the charter documents of joint stock limited companies or the PRC Company Law or in the application or interpretation of the Chinese or Hong Kong regulatory provisions applicable to Chinese joint stock limited companies.

In most states of the United States, shareholders may sue a corporation "derivatively." A derivative suit involves the commencement by a shareholder of a corporate cause of action against persons who have allegedly wronged the corporation, where the corporation itself has failed to enforce the claims directly. This would include suits against corporate officers, directors, or the controlling shareholder. This type of action is brought based upon a primary right of the corporation, but is asserted by a shareholder on behalf of the corporation. In accordance with the PRC Company Law, if a company incurs losses due to the violation of any provision of laws, administrative regulations or the Company's articles of association by any of its directors, supervisors and officers during his/her discharge of duties entrusted by the Company, or due to any other person's infringement of the Company's legal rights or interests, the shareholders of the Company may take legal action before a court under the PRC Company Law.

Our Articles of Association provide that all differences or claims

- between a holder of H Shares and us;
- between a holder of H Shares and any of our directors, supervisors, manager or other senior officers; or
- between a holder of H Shares and a holder of A Shares,

involving any right or obligation provided in the Articles of Association, the PRC Company Law or any other relevant law or administrative regulation which concerns our affairs must, with certain exceptions, be referred to arbitration at either the China International Economic and Trade Arbitration Commission in China or the Hong Kong International Arbitration Center. Our Articles of Association also provide that the arbitration will be final and conclusive. On June 21, 1999, an arrangement was made between Hong Kong and China for the summary mutual enforcement of each other's arbitration awards in a manner consistent with the United Nations Convention on the Recognition and Enforcement of Foreign Arbitral Awards and practices that occurred before the handover of Hong Kong to China. This arrangement was approved by the Supreme Court of China and the Hong Kong Legislative Council, and became effective on February 1, 2000.

All of our directors and officers reside outside the United States (principally in China) and substantially all of our assets and of those persons are located outside the United States. Therefore, you may not be able to effect service of process within the United States against any of those persons. In addition, China does not have treaties providing for the reciprocal recognition and enforcement of judgments of courts within the United States or most other countries that are members of the Organization for Economic Cooperation and Development. This means that administrative actions brought by regulatory authorities such as the SEC, and other actions which result in foreign court judgments could only be enforced in China if the judgments or rulings do not violate the basic principles of the law of China or the sovereignty, security and social public interest of the society of China, as determined by a People's Court of China which has jurisdiction for recognition and enforcement of judgments. We have been advised by our Chinese counsel, Haiwen & Partners, that there is doubt as to the enforceability in China of any actions to enforce judgments of United States courts arising out of or based on the ownership of our H Shares or ADSs, including judgments arising out of or based on the civil liability provisions of United States federal or state securities laws.

Restrictions on Transferability and the Share Register

All fully paid up H Shares will be freely transferable in accordance with the Articles of Association unless otherwise prescribed by law and/or administrative regulations. Under current laws and regulations, H Shares may be traded only among investors who are not Chinese persons, and may not be sold to Chinese investors. Consequences under Chinese law of a purported transfer of H Shares to Chinese investors are unclear.

As provided in our Articles of Association, we may refuse to register a transfer of H Shares without providing any reason unless:

- all relevant transfer fees and stamp duties are paid;
- the instrument of transfer is accompanied by the share certificates to which it relates and any other evidence reasonably required by our board to prove the transferor's right to make the transfer;
- there are no more than four joint holders as transferees; and
- the H Shares are free from any lien of ours.

Additionally, no transfers of shares may be registered within the 30 days prior to a shareholders' general meeting or within five days before we decide on the distribution of dividends.

We are required to keep a register of our shareholders which shall be comprised of various parts, including one part which is to be maintained in Hong Kong in relation to H Shares listed on the HKSE. Shareholders have the right to inspect the share register. For a reasonable fee, shareholders may copy any part of the share register, obtain background information regarding our directors, supervisors, manager and other senior officers, minutes of shareholder general meetings and reports regarding our share capital and any share repurchases in the prior year.

Dividends

Upon approval by ordinary resolution at a shareholders' meeting, our Board of Directors may propose dividend distribution at any time. The Articles of Association permits dividends issued in the form of cash or shares. Special resolution of the shareholders' general meeting is required for dividends issued in the form of shares.

Dividends may only be distributed, however, after allowance has been made for:

- recovery of losses, if any;
- allocations to the statutory common reserve fund; and
- allocations to a discretionary common reserve fund.

The Articles of Association require us to appoint on behalf of the holders of H Shares a receiving agent which is registered as a trust corporation under the Trustee Ordinance of Hong Kong to receive dividends we declare in respect of the H Shares on behalf of the H shareholders. The Articles of Association require that cash dividends and other distributions in respect of H Shares be declared in Renminbi and paid by us in Hong Kong Dollars while cash dividends and other distributions of the A Shares shall be paid in Renminbi.

If we record no profit for the year, we may not normally distribute dividends for the year.

Dividend payments may be subject to Chinese withholding tax. See Item 10. Additional Information – E. Taxation.

Voting Rights and Shareholders' Meetings

Our Board of Directors must convene a shareholders' annual general meeting once every year within six months from the end of the preceding financial year. Our board must convene an extraordinary general meeting within two months of the occurrence of any one of the following events:

- where the number of directors is less than five as required by the PRC Company Law or two-thirds of the number specified in our Articles of Association;
- where our unrecovered losses reach one-third of the total amount of our share capital;
- where shareholder(s) holding 10% or more of our issued and outstanding voting shares request(s) in writing; or
- whenever our board deems necessary or our Supervisory Committee so requests.

Meetings of a special class of shareholders must be called in specified situations when the rights of the holders of that class of shares may be varied or abrogated, as discussed below. The Board of Directors, the Supervisory Committee, and shareholders individually or collectively holding 3% or more of our total voting shares are entitled to make written proposals to a shareholders' meeting. Shareholders individually or collectively holding more than 3% of our total shares may submit written interim proposals to the convener of a shareholders' meeting ten days before the meeting.

All shareholders' meetings must be convened by our board by notice given to shareholders by personal service, mail or announcement in the newspaper not less than 45 days before the meeting. Based on the written replies we receive 20 days before a shareholders' meeting, we will calculate the number of voting shares represented by shareholders who have indicated that they intend to attend the meeting. We can convene the shareholders' general meeting if the number of voting shares represented by those shareholders is more than one-half of our total voting shares. Otherwise, we shall, within five days, inform the shareholders again of the motions to be considered and the date and venue of the meeting by way of public announcement. After the announcement is made, the shareholders' meeting may be convened. Our accidental omission to give notice of a meeting to, or the non-receipt of notice of a meeting by, a shareholder will not invalidate the proceedings at that shareholders' meeting. However, an extraordinary shareholders meeting cannot conduct any business not contained in the notice of meeting.

Shareholders at meetings have the power, among other things, to decide on our operational policies and investment plans, to approve or reject our proposed annual budget, approve our profit distribution plans, an increase or decrease in share capital, the issuance of debentures, our merger or liquidation and any amendment to our Articles of Association. Shareholders also have the right to review any proposals by a shareholder owning 3% or more of our shares.

In general, holders of H Shares and A Shares vote together as a single class at all meetings and on all matters. However, the rights of a class of shareholders may not be varied or abrogated, unless approved by both a special resolution of all shareholders at a general shareholders' meeting and by a special resolution of shareholders of that class of shares at a separate meeting. Our Articles of Association specify, without limitation, that the following amendments would be deemed to be a variation or abrogation of the rights of a class of shareholders:

- increasing or decreasing the number of shares of a class or of a class having voting or distribution rights or privileges equal or superior to that class;
- removing or reducing rights to receive dividends in a particular currency;
- creating shares with voting or distribution rights superior to shares of that class;
- restricting or adding restrictions to the transfer of ownership of shares of that class;
- allotting and issuing rights to subscribe for, or to convert into, shares of that class or another class;
- increasing the rights or privileges of any other class; or
- modifying the provision of our Articles of Association that specifies which amendments would be deemed a variation or abrogation of the rights of a class of shareholder.

For votes on any of these matters, or any other matter that would vary or abrogate the rights of the A Shares or H Shares, the holders of A Shares and H Shares are deemed to be separate classes and vote separately. However, "Interested Shareholders" are not entitled to vote at class meetings. The meaning of "Interested Shareholder" depends on the proposal to be voted on at the class meeting:

If the proposal is for us to repurchase our shares either from all shareholders proportionately or by purchasing share on a stock exchange, an "Interested Shareholder" is our controlling shareholder;

- If the proposal is for us to repurchase our shares from a shareholder by a private contract, an "Interested Shareholder" is the shareholder whose shares would be repurchased;
- If the proposal is for our restructuring, an "Interested Shareholder" is any shareholder that has an interest in the restructuring different from the other shareholders of the class or who bears a burden under the proposed restructuring that is less than proportionate to his shareholdings of the class.

Our Articles of Association specifically provide that an issue of up to 20% of A and H Shares would not be a variation or abrogation of the rights of A shareholders or H shareholders, therefore, separate approval of the A shareholders or H Shareholders would not be required.

Each share is entitled to one vote on all matters submitted to a vote of our shareholders at all shareholders' meetings, except for meetings of a special class of shareholders where only holders of shares of the affected class are entitled to vote on the basis of one vote per share of the affected class.

Shareholders are entitled to attend and vote at meetings either in person or by proxy. Proxy authorization forms must be in writing and deposited at our company's principal offices, or at such other place specified in the notice of shareholders meeting not less than 24 hours before the time that such meeting will be held or the time appointed for passing upon the relevant resolutions. If a proxy authorization form is signed by a third party on behalf of the relevant shareholder, then such proxy authorization form must be accompanied by the signature authorization letter or other such document authorizing such third party to sign on behalf of the shareholder.

Except for those actions discussed below, which require supermajority votes, or special resolutions, resolutions of the shareholders are passed by a simple majority of the voting shares held by shareholders who are present in person or by proxy. Special resolutions must be passed by more than two-thirds of the voting rights represented by shareholders who are present in person or by proxy.

The following decisions must be adopted by special resolution:

- an increase or reduction of our share capital or the issue of shares of any class, warrants and other similar securities;
- the issue of our debentures;
- our division, merger, dissolution and liquidation;
- amendments to our Articles of Association;

- significant acquisition or disposal of material assets or provision of guarantees conducted within the period of one year with a value exceeding 30% of our latest audited total assets;
- share incentive schemes; and
- any other matters considered by the shareholders in a general meeting and which they have resolved by way of an ordinary resolution to be material and should be adopted by special resolution.

All other actions taken by the shareholders, including the appointment and removal of our directors and independent auditors and the declaration of normal dividend payments, will be decided by an ordinary resolution of the shareholders.

Our listing agreement with the HKSE provides that we may not permit amendments to certain sections of our Articles of Association that are subject to the Mandatory Provisions. These sections include provisions relating to (i) varying the rights of existing classes of shares, (ii) voting rights, (iii) our ability to purchase our own shares, (iv) rights of minority shareholders and (v) procedures on liquidation. In addition, certain amendments to the Articles of Association require the approval and assent of Chinese authorities.

Board of Directors

Our Articles of Association authorize 11 to 15 directors. Directors are elected by shareholders at a general meeting for a three year term from among candidates nominated by the Board of Directors or by shareholders holding 3% or more of our shares (Independent Directors may be nominated by shareholders each holding 1% or more of our shares). Because our directors do not serve staggered terms, the entire Board of Directors will stand for election, and could be replaced, every three years. Our directors are not required to hold any shares in us, and there is no age limit requirement for the retirement or non- retirement of our directors.

In addition to obligations imposed by laws, administrative regulations or the listing rules of the stock exchanges on which our shares are listed, the Articles of Association place on each of our directors, supervisors, manager and any other senior officers a duty to each shareholder, in the exercise of our functions and powers entrusted to them:

- not to cause us to exceed the scope of business stipulated in our business license;
- to act honestly in what he considers our best interests;
- not to expropriate our assets in any way, including (without limitation) usurpation of opportunities which may benefit us; and
- not to expropriate the individual rights of shareholders, including (without limitation) rights to distributions and voting rights, except according to a restructuring which has been submitted to the shareholders for their approval in accordance with the Articles of Association.

Our Articles of Association further place on each of our directors, supervisors, manager and other senior officers:

- a duty, in the exercise of their powers and discharge of their duties, to exercise the care, diligence and skill that a reasonably prudent person would exercise in comparable circumstances;
- a fiduciary obligation, in the discharge of his duties, not to place himself or herself in a position where his or her interests may conflict with his or her duty to us; and
- a duty not to cause a person or an organization related or connected to him or her in specified relationships to do what they are prohibited from doing.

We pay all expenses that our directors incur for their services as directors. Directors also receive compensation for their services under service contracts that are negotiated by the Board of Directors and approved by the shareholders.

Subject to the stipulations of relevant laws and regulations, the shareholders in a general meeting may by ordinary resolution remove any director before the expiration of his term of office. Except for the restrictions placed on the controlling shareholder, discussed below, our shareholders in general meeting have the power to relieve a director or supervisor from liability for specific breaches of duty.

Cumulative voting is required for a meeting of shareholders held for the election of two or more of our directors or supervisors as long as more than 30% of our outstanding shares are held by a single shareholder. Cumulative voting allows shareholders to cast a number of votes for a candidate equal to the number of shares held multiplied by the number of directors being elected at the shareholders' meeting. If a shareholder attempts to cast more votes than he is entitled to under this system, all of the shareholder's votes will be invalid and will be deemed an abstention.

More than one third of our directors of board must be independent from our shareholders and not hold any office with us (each, "Independent Director"). At least one Independent Director must be an accounting professional and all Independent Directors must possess a basic knowledge of the operations of a listed company and be familiar with relevant laws and rules and have at least five years working experience in law, economics or other area required for the fulfillment of responsibilities as an Independent Director. Independent Directors may not serve for terms exceeding six years. In addition, there are specific persons who are disqualified from acting as Independent Director. These include:

- immediate family members of persons who work for us or our associated entities;
- persons or their immediate family who hold one percent or more of our shares or are among our ten largest shareholders;
- any persons that satisfied the foregoing conditions within the past one year;
- persons providing financial, legal, consultation or other services to us or our associated entities;
- persons who already serve as Independent Director for five other listed companies; and
- anyone identified by the CSRC as unsuitable for serving as an Independent Director.

If the resignation of an Independent Director would cause our Board of Directors to have less than one third Independent Directors, the resignation will only become effective after a new Independent Director has been appointed.

Our Board will be required to meet at least four times each year. Directors who miss two consecutive Board meetings without appointing an alternate director to attend on their behalf will be proposed for removal at the next shareholders' meeting, provided that Independent Directors may miss three consecutive meetings in person before being proposed for removal.

Directors may not vote on any matter in which he has a material interest, nor will he be counted for purposes of forming a quorum on such a matter.

Board resolutions are passed by a simple majority of the Directors except for the following matters which require the consent of more than two thirds of the Directors:

- proposals for our financial policies;
- the increase or reduction of our registered capital;
- the issue of securities of any kind and their listing;
- any repurchase of our shares;
- significant acquisitions or disposals;
- our merger, division or dissolution; and
- any amendment to our Articles of Association.

Our Board of Directors or Supervisory Committee may nominate candidates for our Board of Directors and Supervisory Committee. In addition, shareholders holding one percent or more of our shares have the right to nominate candidates for Independent Director or Independent Supervisor and shareholders holding three percent or more of our shares have the right to nominate other candidates for Director or Supervisor. For candidates for Director, the nominator and candidates will be responsible for providing truthful and complete information about the candidate for disclosure. Candidates for Independent Director must publicly declare that there does not exist any relationship between himself and us that may influence his independent, objective judgment. The CSRC may veto any candidate for Independent Director.

Any material connected transactions are subject to prior approval by our Independent Directors. Connected transactions are those defined by the HKSE and by Chinese rules and regulations, but would generally include transactions with any of the following:

- any company that, directly or indirectly, controls us or is under common control with us;
- any shareholders owning 5% or more of our shares;
- our directors, supervisors and other senior management;
- any of our key technical personnel or key technology suppliers; and
- any close relative or associate of any of the above.

Our Independent Directors can also propose to the Board of Directors the appointment or removal of our auditors, the convening of a Board meeting, independently appoint external auditors, solicit votes from shareholders and report circumstances directly to shareholders, Chinese securities regulatory authorities or other government departments. Two or more may request that the Board convene an extraordinary meeting of shareholders.

Our Independent Directors will have to express their opinion on specified matters to the Board or to the shareholders at a shareholders' meeting, either by a single unanimous statement or individually. These matters are:

- the nomination, removal and remuneration of directors or senior management;
- any major loans or financial transactions with our shareholders or related enterprises and whether we have taken adequate steps to ensure repayment;
- matters that the Independent Director believes may harm the rights and interests of minority shareholders; and
- any other matter that they are required to opine on by applicable law or rules.

These opinions must be expressed as either, agree, qualified agreement, opposition or unable to form an opinion. All but agreement must also be accompanied by a supporting explanation. If public disclosure of the matter is required, we must also disclose the opinions of our Independent Directors.

Any Independent Director may engage independent institutions to provide independent opinions as the basis of their decision. We must arrange the engagement and bear any costs.

Supervisory Committee

The Supervisory Committee is responsible for supervising our directors and senior officers and preventing them from abusing their positions and powers or infringing upon the rights and interests of our company or those of our shareholders and employees. The Supervisory Committee has no power over the decisions or actions of our directors or officers except for requesting the directors or officers to correct any acts that are harmful to our interests. The Supervisory Committee is composed of six members appointed for a three year term. It has the right to:

- attend the meetings of our Board of Directors;
- inspect our financial affairs;
- supervise and evaluate the conduct of our directors, general manager and other senior officers in order to determine whether they violate any laws, regulations or the Articles of Association in performing their duties;
- require our directors, general manager or other senior officers to correct any act harmful to our interests and those of our shareholders and employees;
- verify financial reports, accounting reports, business reports, profit distribution plans and other financial information proposed to be tabled at the shareholders' general meeting, and entrust registered accountants and practicing accountants to re-review such documents upon its discovery of any problems;
- require the Board of Directors to convene an extraordinary general meeting of shareholders;
- represent us in negotiations with directors or in initiating legal proceedings against a director on our company's behalf;
- conduct investigation into any identified irregularities in our operations, and where necessary, to engage accountants, legal advisers or other professionals to assist in the investigation; and
- any other matters authorized by the Articles of Association.

One third of our Supervisory Committee members must be employee representatives appointed by our employees. The remaining members are appointed by the shareholders in a general meeting, provided that our directors, general manager and senior officers are not eligible to serve as supervisors. The Supervisory Committee must meet at least four times a year. Decisions of the Supervisory Committee can be passed by the consents of over two thirds of all the supervisors. We will pay all reasonable expenses incurred by the Supervisory Committee in appointing professional advisors, such as lawyers, accountants or auditors.

Liquidation Rights

In the event of our liquidation, payment of borrowings out of our remaining assets will be made in the order of priority prescribed by applicable laws and regulations. After payment of borrowings, we will distribute the remaining property to shareholders according to the class and proportion of their shareholdings. For this purpose, the H Shares will rank equally with the A Shares.

Obligation of Shareholders

Shareholders are not obligated to make any further contributions to our share capital other than as agreed by the subscriber of the relevant shares on subscription. This provision means that holders of ADSs will also not be obligated to make further contributions to our share capital.

Duration

We are organized as a stock limited company of indefinite duration.

Increase in Share Capital

The Articles of Association require that approval by a resolution of the shareholders be obtained prior to issuing new shares. New issues of shares must also be approved by the relevant Chinese authorities.

Reduction of Share Capital and Purchase by Us of Our Shares

We may reduce our registered share capital only upon obtaining the approval of the shareholders and, when applicable, relevant Chinese authorities. Repurchases may be made either by way of a general offer to all shareholders in proportion to their shareholdings, by purchasing our shares on a stock exchange or by an off-market contract with shareholders.

Restrictions on Large or Controlling Shareholders

Our Articles of Association provide that, in addition to any obligation imposed by laws and administrative regulations or required by the listing rules of the stock exchanges on which our shares are listed, a controlling shareholder cannot exercise voting rights in a manner prejudicial to the interests of the shareholders generally or of some part of the shareholders:

- to relieve a director or supervisor from his or her duty to act honestly in our best interest;
- to approve the expropriation by a director or supervisor (for his or her own benefit or for the benefit of another person) of our assets in any way, including, without limitation, opportunities which may benefit us; or
- to approve the expropriation by a director or supervisor (for his or her own benefit or for the benefit of another person) of the individual rights of other shareholders, including, without limitation, rights to distributions and voting rights (but not according to a restructuring of our company which has been submitted for approval by the shareholders in a general meeting in accordance with our Articles of Association).

A controlling shareholder, however, will not be precluded by our Articles of Association or any laws and administrative regulations or the listing rules of the stock exchanges on which our shares are listed from voting on these matters.

A controlling shareholder is defined by our Articles of Association as any person who, acting alone or together with others:

- has the power to elect more than one-half of the Board of Directors;
- has the power to exercise, or to control the exercise of, 30% or more of our voting rights;
- holds 30% or more of our issued and outstanding shares; or
- has *de facto* control of us in any other way.

Minutes, Accounts and Annual Report

Our shareholders may inspect copies of the minutes of the shareholders' general meetings during our business hours free of charge. Shareholders are also entitled to receive copies of these minutes within seven days of receipt of the reasonable charges we may require.

Our fiscal year is the calendar year ending December 31. Each fiscal year, we must mail our financial report to shareholders not less than 21 days before the date of the shareholders' annual general meeting. These and any interim financial statements must be prepared in accordance with Chinese accounting standards and, for so long as H Shares are listed on the HKSE, must also be prepared in accordance with or reconciled to either Hong Kong accounting standards or international accounting standards. The financial statements must be approved by an ordinary resolution of the shareholders at the annual general meeting.

Independent auditors are appointed each year by the shareholders at the annual meeting.

C. Material Contracts.

We have not entered into any material contracts in the last two years other than in the ordinary course of business and other than those described in Item 4. Information on the Company or elsewhere in this annual report on Form 20-F.

D. Exchange Controls.

Our Articles of Association require that cash dividends on our H Shares be declared in Renminbi and paid in HK Dollars. The Articles of Association further stipulate that unless otherwise provided in law and administrative regulations, such dividends must be converted to HK Dollars at a rate equal to the average of the closing exchange rates for HK Dollars as announced by the Chinese Foreign Exchange Trading Center for the calendar week preceding the date on which the dividends are declared.

The Renminbi currently is not a freely convertible currency. SAFE, under supervision of the People's Bank of China ("PBOC"), controls the conversion of Renminbi into foreign currency. Chinese governmental policies were introduced in 1996 to reduce restrictions on the convertibility of Renminbi into foreign currency for current account items. In recent years, the Chinese government has gradually simplified and improved the foreign exchange administration policies in relation to capital items, such as the cancellation of foreign exchange registration and approval for domestic and overseas foreign direct investment. However, foreign exchange control over the capital items is not completely abolished. The limitations on foreign exchange could affect our ability to obtain foreign exchange through borrowings or equity financing, or to obtain foreign exchange for capital expenditures.

On July 21, 2005, the Chinese government changed its policy of pegging the Renminbi to the U.S. Dollar. Under the new policy, the Renminbi is permitted to fluctuate within a narrow and managed band against a basket of certain foreign currencies. Since the adoption of this new policy, the value of the Renminbi has fluctuated daily within a narrow band, but overall has appreciated against the U.S. Dollar. Nevertheless, the Chinese government continues to receive significant international pressure to further liberalize its currency policy which could result in a further and more significant appreciation in the value of the Renminbi against the U.S. Dollar. While the impact of the foregoing developments is not entirely clear, it appears that the trend in the Chinese government's foreign exchange policy is toward easier convertibility of the Renminbi.

The holders of the ADSs will receive the HK Dollar dividend payments in U.S. Dollars at conversion rates related to market rates and subject to fees as set forth in our Deposit Agreement with The Bank of New York Mellon, as Depositary. The HK Dollar is currently linked to and trades within a narrow band against the U.S. Dollar at a rate that does not deviate significantly from HK$7.80 = U.S.$1.00. The Hong Kong government has stated its intention to maintain such link, although there can be no guarantee that such link will be maintained.

E. Taxation

PRC Taxation

The following is a summary of those taxes, including withholding provisions, to which United States security holders are subject under existing Chinese laws and regulations. The summary is subject to changes in Chinese law, including changes that could have retroactive effect. The summary does not take into account or discuss the tax laws of any country other than China, nor does it take into account the individual circumstances of a security holder. This summary does not purport to be a complete technical analysis or an examination of all potential tax effects under such laws and regulations.

Tax on Dividends

For an Individual Investor

According to the Individual Income Tax Law of the People's Republic of China, as amended on August 31, 2018 and effective on January 1, 2019 (the "Individual Income Tax Law") dividends paid by Chinese companies to individual investors are subject to Chinese withholding tax at a flat rate of 20%. As for a foreign individual investor that neither has a domicile nor resides in China, or that has no domicile and has resided in China for no more than one year, the dividends received by such an investor in China are generally subject to a withholding tax at a flat rate of 20% under the individual income tax law, subject to exemption or reduction by an applicable income tax treaty. According to the State Administration of Taxation's tax treatments with regard to the dividends of H Shares paid by onshore non-foreign invested enterprises listed on the HKSE, we will withhold and pay the individual income tax at the tax rate of 10% for individual shareholders who are residents of Hong Kong, Macau, or countries which have entered into tax treaties with China, which provide for a 10% dividends tax rate, and we will temporarily withhold and pay the individual income tax at the tax rate of 10% for individual shareholders who are residents of countries which have entered into tax treaties with China, which provide for a less than 10% dividends tax rate. Shareholders of H Shares may directly or through our Company apply to the in-charge tax authority for the preferential treatments provided by the relevant tax treaties.

Upon the approval by the in-charge tax authority, the excessive amount being paid will be refunded. For individual shareholders who are residents of countries which have entered into tax treaties with China providing for a more than 10% but less than 20% dividends tax rate, we will withhold and pay the individual income tax at the specific tax rate required therein. We will withhold and pay the individual income tax at the dividends tax rate of 20% for individual shareholders who are residents of countries which have not entered into any forms of tax treaties with China or in circumstances other than above described.

For a Corporation

According to the Enterprise Income Tax Law of the People's Republic of China ("Enterprise Income Tax Law") and its implementation rules, as amended on December 29, 2018, dividends by Chinese resident enterprises to non-resident enterprises are ordinarily subject to a Chinese withholding tax levied at a flat rate of 10%. For purposes of the Enterprise Income Tax Law, a "Chinese resident enterprise" is an enterprise which is either (i) set up in China in accordance with PRC laws or (ii) set up in accordance with the laws of a foreign country (region) but whose actual administrative headquarters is in China. For purposes of the Enterprise Income Tax Law, a "non-resident enterprise" is an enterprise which is set up in accordance with the laws of a foreign country (region) and whose actual administrative headquarters is located outside China but which has either (i) set up a legal presence in China or (ii) has income originating from China despite not having formally set up a legal presence in China. The State Administration of Taxation issued a *Circular on Issues Relating to the Withholding of Enterprise Income Tax for Dividends Distributed by Resident Enterprises in China to Non-resident Enterprises Holding H-shares of the Enterprises* (Guo Shui Han [2008] No. 897) on November 6, 2008, which further clarifies that Chinese resident enterprises should, in distributing dividends for 2008 or any year hereafter to non-resident enterprises holding H-shares of the Chinese resident enterprise, withhold enterprise income tax for such dividends at a tax rate of 10%. After receiving dividends, non-resident enterprises holding H-shares of any Chinese resident enterprise can, on their own or through an agent, file an application to the relevant taxation authorities for such dividends to be covered by any applicable tax treaty (or other arrangement). The relevant taxation authorities should, upon reviewing and verifying the application and supporting materials to be correct, refund the difference between the tax levied and the tax payable calculated at a tax rate specified by the applicable tax treaty (or other arrangement).

Capital Gains Tax

For an Individual Investor

So far as we are aware, in practice, capital gains derived by a foreign individual investor from the sale of overseas-listed shares are temporarily exempted from individual income tax.

For a Corporation

According to the Enterprise Income Tax Law and its implementation rules, a non-resident enterprise is subject to a 10% withholding tax for capital gains derived from the disposal of overseas-listed shares unless such payment is exempted or deducted pursuant to applicable double taxation treaties or otherwise. According to the Circular issued by the State Administration of Taxation on Issues regarding Income Tax Payable by Foreign Invested Enterprises, Foreign Enterprises and Individuals for Capital Gains Derived from the Disposal of Shares (Equity Interests) and Dividends (Guoshuifa [1993] No. 45), capital gains derived by a non-resident enterprise from the disposal of overseas-listed shares are temporarily exempted from withholding tax in China. However, this circular has been revoked in 2011. Therefore, technically, PRC withholding tax should be applied to non-resident enterprises on capital gains derived from the disposal of overseas-listed shares unless it is tax exempted under the applicable double tax treaty. So far as we are aware, practically, there is no consistent enforcement of the collection of such withholding tax in China at current stage. However, we are aware of cases where the PRC tax authorities try to levy PRC withholding tax when they became aware of the disposal of the overseas- listed shares that the profits from the disposal of shares are derived from China.

Tax Treaties

China has an income tax treaty with the United States that currently limits the rate of Chinese withholding tax to 10% for dividends paid to individuals and corporations that qualify for treaty benefits. However, this treaty does not offer reduced tax rates for capital gains.

However, if certain conditions under the double tax treaty are satisfied (*e.g.*, the shareholding in H-shares is less than 25% and the H-share company is not 'land rich'), the capital gains may be exempted from the 10% PRC withholding tax.

Stamp Tax

While no express exemption exists for the imposition of Chinese stamp tax on transfers of Overseas Shares pursuant to the Provisional Regulations of the People's Republic of China Concerning Stamp Tax, as amended on January 8, 2011, we are not aware of any circumstance under which Chinese stamp tax has actually been imposed on the transfer of Overseas Shares.

Estate or Gift Tax

China does not currently impose any estate or gift tax.

U.S. Taxation

The following is a summary of the material U.S. federal income tax consequences of the ownership and disposition of H Shares or ADSs to U.S. Holders (as defined below). The following discussion is not exhaustive of all possible tax considerations. This summary is based upon the Internal Revenue Code of 1986, as amended (the "Code"), regulations promulgated under the Code by the U.S. Treasury Department (including proposed and temporary regulations), rulings, current administrative interpretations and official pronouncements of the Internal Revenue Service ("IRS"), and judicial decisions, all as currently available and all of which are subject to differing interpretations or to change, possibly with retroactive effect. Such change could materially and adversely affect the tax consequences described below. No assurance can be given that the IRS will not assert, or that a court will not sustain, a position contrary to any of the tax consequences described below.

This discussion does not address state, local, or foreign tax consequences, or the net investment income tax consequences, of the ownership and disposition of H Shares or ADSs. (See "PRC Taxation" above).

This summary is for general information only and does not address all aspects of U.S. federal income taxation that may be important to a particular holder in light of its investment or tax circumstances or to holders subject to special tax rules, such as: banks; financial institutions; insurance companies; dealers in stocks, securities, or currencies; entities treated as partnerships for U.S. federal income taxes or partners therein; traders in securities that elect to use a mark-to-market method of accounting for their securities holdings; tax-exempt organizations; real estate investment trusts; regulated investment companies; qualified retirement plans, individual retirement accounts, and other tax-deferred accounts; expatriates of the United States; individuals subject to the alternative minimum tax; persons holding H Shares or ADSs as part of a straddle, hedge, conversion transaction, or other integrated transaction; persons who acquired H Shares or ADSs pursuant to the exercise of any employee stock option or otherwise as compensation for services; persons actually or constructively holding 10% or more of the voting power or value of our stock; U.S. Holders (as defined below) whose functional currency is other than the U.S. Dollar; and persons holding our H Shares or ADSs in connection with a trade or business conducted outside the United States.

This discussion is not a comprehensive description of all of the U.S. federal tax consequences that may be relevant with respect to the ownership and disposition of H Shares or ADSs. We urge you to consult your own tax advisor regarding your particular circumstances and the U.S. federal income and estate tax consequences to you of owning and disposing of H Shares or ADSs, as well as any tax consequences arising under the laws of any state, local, or foreign or other tax jurisdiction and the possible effects of changes in U.S. federal or other tax laws.

This summary is directed solely to U.S. Holders (defined below) who hold their H Shares or ADSs as capital assets within the meaning of Section 1221 of the Code, which generally means as property held for investment. For purposes of this discussion, the term "U.S. Holder" means a beneficial owner of H Shares or ADSs that is any of the following:

- a citizen or resident of the United States or someone treated as a U.S. citizen or resident for U.S. federal income tax purposes;
- a corporation (or other entity taxable as a corporation for U.S. federal income tax purposes) created or organized in or under the laws of the United States, any state thereof, or the District of Columbia; or
- a trust or estate, the income of which is subject to U.S. federal income taxation regardless of its source.

ADSs

As it relates to the ADSs, this discussion is based in part upon the representations of the depositary and the assumption that each obligation in the Deposit Agreement and any related agreement will be performed in accordance with its terms.

Generally, a holder of ADSs will be treated as the owner of the underlying H Shares represented by those ADSs for U.S. federal income tax purposes. Accordingly, no gain or loss will be recognized if the holder exchanges ADSs for the underlying H Shares represented by those ADSs. The holder's adjusted tax basis in the H Shares will be the same as the adjusted tax basis of the ADSs surrendered in exchange therefor, and the holding period for the H Shares will include the holding period for the surrendered ADSs.

TAXATION OF U.S. HOLDERS

The discussion in "Distributions on H Shares or ADSs" and "Dispositions of H Shares or ADSs" below is based on the assumption that we will not be treated as a PFIC for U.S. federal income tax purposes. For a discussion of the rules that apply if we are treated as a PFIC, see the discussion in "Passive Foreign Investment Company" below.

Distributions on H Shares or ADSs

General. Subject to the discussion in "Passive Foreign Investment Company" below, if you actually or constructively receive a distribution on H Shares or ADSs, you must include the distribution in gross income as a taxable dividend on the date of your (or in the case of ADSs, the depositary's) receipt of the distribution, but only to the extent of our current or accumulated earnings and profits, as calculated under U.S. federal income tax principles. Such amount must be included without reduction for any foreign taxes withheld. Dividends paid by us will not be eligible for the dividends received deduction allowed to corporations with respect to dividends received from certain domestic corporations. Dividends paid by us may or may not be eligible for preferential rates applicable to qualified dividend income, as described below.

To the extent a distribution exceeds our current and accumulated earnings and profits, it will be treated first as a non-taxable return of capital to the extent of your adjusted tax basis in the H Shares or ADSs, and thereafter as capital gain. Preferential tax rates for long term capital gain may be applicable to non-corporate U.S. Holders.

We do not intend to calculate our earnings and profits under U.S. federal income tax principles. Therefore, you should expect that a distribution generally will be reported as a dividend even if that distribution would otherwise be treated as a non-taxable return of capital or as capital gain under the rules described above.

Qualified Dividend Income. With respect to non-corporate U.S. Holders (*i.e*., individuals, trusts, and estates), dividends that are treated as qualified dividend income ("QDI") are taxable at a maximum tax rate of 20%. Among other requirements, dividends generally will be treated as QDI if either (i) our H Shares or ADSs are readily tradable on an established securities market in the United States, or (ii) we are eligible for the benefits of a comprehensive income tax treaty with the United States which includes an information exchange program and which is determined to be satisfactory by the U.S. Treasury. It is expected that our ADSs will be "readily tradable" as a result of being listed on the NYSE.

In addition, for dividends to be treated as QDI, we must not be a PFIC (as discussed below) for either the taxable year in which the dividend was paid or the preceding taxable year. Please see the discussion under "Passive Foreign Investment Company" below. Additionally, in order to qualify for QDI treatment, you generally must have held the H Shares or ADSs for more than 60 days during the 121-day period beginning 60 days prior to the ex-dividend date. However, your holding period will be reduced for any period during which the risk of loss is diminished.

Moreover, a dividend will not be treated as QDI to the extent you are under an obligation (whether pursuant to a short sale or otherwise) to make related payments with respect to positions in substantially similar or related property. Since the QDI rules are complex, you should consult your own tax advisor regarding the availability of the preferential tax rates for dividends paid on H Shares or ADSs.

Foreign Currency Distributions. A dividend paid in foreign currency (*e.g.*, Hong Kong Dollars or Chinese Renminbi) must be included in your income as a U.S. Dollar amount based on the exchange rate in effect on the date such dividend is received, regardless of whether the payment is in fact converted to U.S. Dollars. If the dividend is converted to U.S. Dollars on the date of receipt, you generally will not recognize a foreign currency gain or loss. However, if you convert the foreign currency to U.S. Dollars on a later date, you must include in income any gain or loss resulting from any exchange rate fluctuations. The gain or loss will be equal to the difference between (i) the U.S. Dollar value of the amount you included in income when the dividend was received and (ii) the amount that you receive on the conversion of the foreign currency to U.S. Dollars. Such gain or loss generally will be ordinary income or loss and U.S. source for U.S. foreign tax credit purposes.

Foreign Tax Credits. Subject to certain conditions and limitations, any foreign taxes paid on or withheld from distributions from us and not refundable to you may be credited against your U.S. federal income tax liability or, alternatively, may be deducted from your taxable income. This election is made on a year-by-year basis and applies to all foreign taxes paid by you or withheld from you that year.

Distributions will constitute foreign source income for foreign tax credit limitation purposes. The foreign tax credit limitation is calculated separately with respect to specific classes of income. For this purpose, distributions characterized as dividends distributed by us generally will constitute "passive category income" or, in the case of certain U.S. Holders, "general category income." Special limitations may apply if a dividend is treated as QDI (as defined above).

Since the rules governing foreign tax credits are complex, you should consult your own tax advisor regarding the availability of foreign tax credits in your particular circumstances.

Dispositions of H Shares or ADSs

Subject to the discussion in "Passive Foreign Investment Company" below, you generally will recognize taxable gain or loss realized on the sale or other taxable disposition of H Shares or ADSs equal to the difference between the U.S. Dollar value of (i) the amount realized on the disposition (*i.e.*, the amount of cash plus the fair market value of any property received), and (ii) your adjusted tax basis in the H Shares or ADSs. Such gain or loss will be a capital gain or loss. Capital gain from the sale or other taxable disposition of H Shares or ADSs held by certain non-corporate U.S. Holders will be taxed at preferential rates if such H Shares or ADSs have been held for more than one year and certain other requirements are met. The deductibility of capital losses is subject to limitations. Any gain or loss recognized generally will be treated as gain or loss from sources within the United States for U.S. foreign tax credit limitation purposes.

If you receive currency other than U.S. Dollars upon the disposition of H Shares or ADSs, the tax consequences will generally be as described under "—Foreign Currency Distributions" above.

Passive Foreign Investment Company

Generally, if, for any taxable year, at least 75% of our gross income is passive income, or at least 50% of the value of our assets is attributable to assets that produce passive income or are held for the production of passive income, we would be characterized as a passive foreign investment company ("PFIC") for U.S. federal income tax purposes. Since PFIC status depends on the composition of our income and the composition and value of our assets from time to time, there can be no assurance that we will not be considered a PFIC for the current year until its close, or for any future taxable year. If we are characterized as a PFIC, U.S. investors may suffer adverse tax consequences, including increased U.S. tax liabilities and reporting requirements. For further discussion of the adverse U.S. federal income tax consequences of our possible classification as a PFIC, see Item 10. Additional Information – E. Taxation – U.S. Taxation.

Certain "look through" rules apply for purposes of the income and asset tests described above. If we own, directly or indirectly, 25% or more of the total value of the outstanding shares of another corporation, we generally will be treated as if we (a) held directly a proportionate share of the other corporation's assets, and (b) received directly a proportionate share of the other corporation's income. In addition, passive income does not include any interest, dividends, rents, or royalties that are received or accrued by us from a "related person" (as defined in Section 954(d)(3) of the Code), to the extent such items are properly allocable to income of such related person that is not passive income.

Under the income and asset tests, our PFIC status must be determined annually at the end of each year based upon the composition of our income and the composition and valuation of our assets, all of which are subject to change. In determining whether we are a PFIC, we rely on a current valuation of our assets including goodwill, not reflected in our financial statements, and our projection of our income for the current year. We determine the value of our assets in large part by reference to the market value of our ordinary shares at the end of each quarter. We believe this valuation approach is reasonable. However, the IRS may successfully challenge our valuation of our assets, and the market price of our ordinary shares may fluctuate.

Because the PFIC determination is highly fact intensive and made at the end of each taxable year, there can be no assurance that we will not be a PFIC for the current or any future taxable year or that the IRS will not challenge our determination concerning our PFIC status.

Default PFIC Rules under Section 1291 of the Code. If we are treated as a PFIC with respect to a U.S. Holder, the U.S. federal income tax consequences to the U.S. Holder of the ownership and disposition of ordinary shares will depend on whether such U.S. Holder makes an election to treat us as a qualified electing fund ("QEF") under Section 1295 of the Code (a "QEF Election") or a mark-to-market election under Section 1296 of the Code (a "Mark-to-Market Election"). A U.S. Holder owning ordinary shares while we were or are a PFIC that has not made either a QEF Election or a Mark-to-Market Election will be referred to in this summary as a "Non-Electing U.S. Holder."

If you are a Non-Electing U.S. Holder, you will be subject to the default tax rules of Section 1291 of the Code with respect to:

- any "excess distribution" paid on ordinary shares, which means the excess (if any) of the total distributions received by you during the current taxable year over 125% of the average distributions received by you during the three preceding taxable years (or during the portion of your holding period for the ordinary shares prior to the current taxable year, if shorter); and
- any gain recognized on the sale or other taxable disposition (including a pledge) of ordinary shares.

Under these default tax rules:

- any excess distribution or gain will be allocated ratably over your holding period for the ordinary shares,
- the amount allocated to the current taxable year and any period prior to the first day of the first taxable year in which we were a PFIC will be treated as ordinary income in the current year,
- the amount allocated to each of the other years will be treated as ordinary income and taxed at the highest applicable tax rate in effect for that year, and
- the resulting tax liability from any such prior years will be subject to the interest charge applicable to underpayments of tax.

In addition, notwithstanding any election you may make, dividends that you receive from us will not be eligible for the preferential tax rates applicable to QDI (as discussed above in “Distributions on H Shares or ADSs”) if we are a PFIC either in the taxable year of the distribution or the preceding taxable year, but will instead be taxable at rates applicable to ordinary income.

Special rules for Non-Electing U.S. Holders will apply to determine U.S. foreign tax credits with respect to foreign taxes imposed on distributions on H Shares or ADSs.

If we are a PFIC for any taxable year during which you hold H Shares or ADSs, we will continue to be treated as a PFIC with respect to you for all succeeding years during which you hold H Shares or ADSs, regardless of whether we actually continue to be a PFIC.

If we are treated as a PFIC in any year with respect to you, you will be required to file an annual return on IRS Form 8621 regarding distributions received on H Shares or ADSs and any gain realized on the disposition of H Shares or ADSs.

QEF Election. We currently do not intend to prepare or provide you with certain tax information that would permit you to make a QEF Election to mitigate the adverse tax consequences associated with owning PFIC stock.

Mark-to-Market Election. U.S. Holders may make a Mark-to-Market Election, but only if the H Shares or ADSs are marketable stock. The mark-to-market election is available only for “marketable stock,” which is stock that is traded in other than de minimis quantities on at least 15 days during each calendar quarter on a qualified exchange or other market, as defined in the applicable U.S. Treasury regulations. There can be no assurances, however, that our H Shares or ADSs will be treated, or continue to be treated, as marketable stock.

If you own (or owned) H Shares or ADSs while we are (or were) a PFIC and you make a Mark-to-Market Election, you generally will not be subject to the default rules of Section 1291 of the Code discussed above. Rather, you generally will be required to recognize ordinary income for any increase in the fair market value of the H Shares or ADSs for each taxable year that we are a PFIC. You will also be allowed to deduct as an ordinary loss any decrease in the fair market value to the extent of net marked-to-market gain previously included in prior years. Your adjusted tax basis in the H Shares or ADSs will be adjusted to reflect the amount included or deducted.

The Mark-to-Market Election will be effective for the taxable year for which the election is made and all subsequent taxable years, unless the H Shares or ADSs cease to be marketable stock or the IRS consents to the revocation of the election. You should consult your own tax advisor regarding the availability of, and procedure for making, a Mark-to-Market Election.

Since the PFIC rules are complex, you should consult your own tax advisor regarding them and how they may affect the U.S. federal income tax consequences of the ownership and disposition of H Shares or ADSs.

Information reporting regarding specified foreign financial assets

Certain U.S. Holders who are individuals (and under proposed regulations, certain entities) may be required to report information relating to an interest in our H Shares or ADSs, subject to certain exceptions (including an exception for shares held in accounts maintained by U.S. financial institutions). U.S. Holders are urged to consult their tax advisors regarding their information reporting obligations, if any, with respect to their ownership and disposition of our H Shares or ADSs. In the event a U.S. Holder does not file such required reports, the statute of limitations on the assessment and collection of U.S. federal income taxes of such U.S. holder for the related tax year will not close before such report is filed.

If you are a U.S. Holder, you are urged to consult with your own tax advisor regarding the application of the specified foreign financial assets information reporting requirements and related statute of limitations tolling provisions with respect to our H Shares and ADSs.

Information Reporting and Backup Withholding

Generally, information reporting requirements will apply to distributions on H Shares or ADSs or proceeds from the disposition of H Shares or ADSs paid within the United States (and, in certain cases, outside the United States) to a U.S. Holder unless such U.S. Holder is an exempt recipient, such as a corporation. Furthermore, backup withholding (currently at 24%) may apply to such amounts unless such U.S. Holder (i) is an exempt recipient that, if required, establishes its right to an exemption, or (ii) provides its taxpayer identification number, certifies that it is not currently subject to backup withholding, and complies with other applicable requirements.

A U.S. Holder may generally avoid backup withholding by furnishing a properly completed IRS Form W-9.

Backup withholding is not an additional tax. Rather, amounts withheld under the backup withholding rules may be credited against your U.S. federal income tax liability. Furthermore, you may obtain a refund of any excess amounts withheld by filing an appropriate claim for refund with the IRS and furnishing any required information in a timely manner.

F. Dividends and Paying Agents.

Not applicable.

G. Statement by Experts.

Not applicable.

H. Documents on Display.

We are subject to the periodic reporting and other informational requirements of the Securities Exchange Act of 1934, as amended, or the Exchange Act. Under the Exchange Act, we are required to file reports and other information with the SEC. Specifically, we are required to file annually a Form 20-F no later than four months after the close of each fiscal year, which is December 31 of each year. The SEC also maintains a Web site at www.sec.gov that contains reports, proxy and information statements, and other information regarding registrants that make electronic filings with the SEC using its EDGAR system. As a foreign private issuer, we are exempt from the rules under the Exchange Act prescribing the furnishing and content of quarterly reports and proxy statements, and officers, directors and principal shareholders are exempt from the reporting and short- swing profit recovery provisions contained in Section 16 of the Exchange Act.

I. Subsidiary Information.

Not applicable.

ITEM 11. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.

Our market risk exposures primarily consist of fluctuations in oil and gas prices, exchange rates and interest rates.

Commodity Price Risk

We are exposed to commodity price risk related to price volatility of crude oil and refined oil products.

In 2021, the price of international crude oil market fluctuated and rose. The Company carried out oil lending and return hedging business in April and November respectively, and bought 3.15 million barrels of Dubai swap; Launched fuel oil hedging business in September, October and November, and sold 25000 tons of LSFO swap. The commodity derivatives business carried out mainly belongs to hedging business. The implementation of the above businesses has no risk exposure, the maximum amount of possible loss is RMB50,000 thousand, and the comprehensive income was RMB166 million. At the same time, for the purpose of stabilizing production and operation, the Company locked in the processing profit of high sulfur crude oil, bought 2.7 million barrels of Dubai swap and sold 2.7 million barrels of dated Brent swap in June, July, September and November; The implementation of the above businesses generated investment income of RMB10.01 million and income from changes in fair value of RMB8.99 million.

See Item 3. Key Information – D. Risk Factors—Our operations may be adversely affected by the cyclical nature of the petroleum and petrochemical markets and by the volatility of prices of crude oil and petrochemical products.

Interest Rate Risk

We are subject to risk resulting from fluctuations in interest rates. Our borrowings are fixed and variable rate bank and other borrowings, with original maturities ranging from 1 to 5 years. Accordingly, fluctuations in interest rates can lead to significant fluctuations in the fair value of such debt instruments. We had no program of interest rate hedging activities and did not engage in any such activities in 2020 or 2021.

The following table provides information, by maturity date, regarding our interest rate sensitive financial instruments, which consist of fixed and variable rate short term and long term debt obligations, as of December 31, 2021 and 2020.

	As of December 31, 2021						
	2022	2023	2024	2025	2026	Total Recorded Amount	Fair Value
	(RMB equivalent in thousands, except interest rates)						
Fixed rate bank and other loans							
In U.S. Dollars	—	—	—	—	—	—	—
Average interest rate	—	—	—	—	—	—	—
In RMB	1,500,000	—				1,500,000	1,500,000
Average interest rate(1)	—	—	—	—	—	2.70%	2.70%
Variable rate bank and other loans							
In U.S. Dollars	—	—	—	—	—	—	—
Average interest rate(1)	—	—	—	—	—	—	—
In RMB	59,800	—	700,000	—	—	759,800	759,800
Average interest rate(1)	3.70%	—	1.08 %	—	—	1.29%	1.29%

(1) The average interest rates for variable rate bank and other loans are calculated based on the year end indices.

	As of December 31, 2020						
	2021	2022	2023	2024	2025	Total Recorded Amount	Fair Value
	(RMB equivalent in thousands, except interest rates)						
Fixed rate bank and other loans							
In U.S. Dollars	—	—	—	—	—	—	—
Average interest rate	—	—	—	—	—	—	—
In RMB	1,500,000	—	—	—	—	1,500,000	1,500,000
Average interest rate(1)	2.60%	—	—	—	—	2.60%	2.60%
Variable rate bank and other loans							
In U.S. Dollars	—	—	—	—	—	—	—
Average interest rate(1)	—	—	—	—	—	—	—
In RMB	48,000	—	—	—	—	48,000	48,000
Average interest rate(1)	3.70%	—	—	—	—	3.70%	3.70%

(1) The average interest rates for variable rate bank and other loans are calculated based on the year end indices.

ExchangeRate Risk

We are also exposed to foreign currency exchange rate risk as a result of our foreign currency denominated short term borrowing and, to a limited extent, cash and cash equivalents denominated in foreign currencies. The following table provides information, by maturity date, regarding our foreign currency exchange rate sensitive financial instruments, which consist of cash and cash equivalents, short term debt obligations as of December 31, 2021 and 2020.

	As of December 31, 2021							
	2022	2023	2024	2025	2026	Thereafter	Total Recorded Amount	Fair Value
	(RMB equivalent in thousands, except interest rates)							
On-balance sheet financial instruments								
Cash and cash equivalents:								
In Hong Kong Dollars	—	—	—	—	—	—	—	—
In U.S. Dollars	165,864	—	—	—	—	—	165,864	165,864
In Euro	—	—	—	—	—	—	—	—
In Japanese Yen	—	—	—	—	—	—	—	—
In Swiss Frank	—	—	—	—	—	—	—	—
Debt:								
Fixed rate bank and other loans in U.S. Dollars	—	—	—	—	—	—	—	—
Average interest rate(1)	—	—	—	—	—	—	—	—
Variable rate bank and other loans in U.S. Dollars	—	—	—	—	—	—	—	—
Average interest rate(1)	—	—	—	—	—	—	—	—

(1) The average interest rates for variable rate bank and other loans are calculated based on the year end indices.

	As of December 31, 2020							
	2021	2022	2023	2024	2025	Thereafter	Total Recorded Amount	Fair Value
	(RMB equivalent in thousands, except interest rates)							
On-balance sheet financial instruments								
Cash and cash equivalents:								
In Hong Kong Dollars	—	—	—	—	—	—	—	—
In U.S. Dollars	207,727	—	—	—	—	—	207,727	207,727
In Euro	—	—	—	—	—	—	—	—
In Japanese Yen	—	—	—	—	—	—	—	—
In Swiss Frank	—	—	—	—	—	—	—	—
Debt:								
Fixed rate bank and other loans in U.S. Dollars	—	—	—	—	—	—	—	—
Average interest rate(1)	—	—	—	—	—	—	—	—
Variable rate bank and other loans in U.S. Dollars	—	—	—	—	—	—	—	—
Average interest rate(1)	—	—	—	—	—	—	—	—

(1) The average interest rates for variable rate bank and other loans are calculated based on the year end indices.

ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES.

A. Debt Securities.

Not applicable.

B. Warrants and Rights.

Not applicable.

C. Other Securities.

Not applicable.

D. American Depositary Shares.

In connection with our ADR program, a holder of our ADSs may have to pay, either directly or indirectly, certain fees and charges, as described in Item 12.D.3. In addition, we receive fees and other direct and indirect payments from The Bank of New York Mellon that are related to our ADS as described in Item 12.D.4.

12.D.3 Fees and Charges that a holder of our ADSs May Have to Pay

The Bank of New York Mellon collects its fees for delivery and surrender of ADSs directly from investors depositing shares or surrendering ADSs for the purpose of withdrawal or from intermediaries acting for them. The Bank of New York Mellon also collects fees for making distributions to investors by deducting those fees from the amounts distributed or by selling a portion of distributable property to pay the fees. The Bank of New York Mellon may collect its annual fee for depositary services by deductions from cash distributions.

Persons depositing or withdrawing shares must pay:	For:
$5.00 (or less) per 100 ADSs (or portion of 100 ADSs)	Issuance and withdrawal of ADSs, including issuances resulting from a distribution of shares or rights or other property
A fee equivalent to the fee that would be payable if securities distributed to you had been shares and the shares had been deposited for issuance of ADSs	Distribution of securities distributed to holders of deposited securities which are distributed by The Bank of New York Mellon to ADS registered holders
A fee of $.05 (or less) per ADS (or portion thereof) Registration or transfer fees	Any cash distribution made pursuant to the Deposit Agreement Transfer and registration of shares on our share register to or from the name of the depositary or its agent when you deposit or withdraw shares
Expenses of The Bank of New York Mellon	Cable, telex and facsimile transmissions (when expressly provided in the Deposit Agreement); Converting foreign currency to U.S. Dollars
Taxes and other governmental charges The Bank of New York Mellon or the custodian have to pay on any ADS or share underlying an ADS, for example, stock transfer taxes, stamp duty or withholding taxes	As necessary
Any charges incurred by The Bank of New York Mellon or its agents for servicing the deposited securities	As necessary

12.D.4 Fees and Other Payments Made by the Bank of New York Mellon

From January 1, 2021 through March 31, 2022, a total of U.S.$ 22,774.34 was paid by the Bank of New York Mellon on our behalf for our ADSs program.

The standard out-of-pocket maintenance costs for our ADSs program were U.S.$ 138,260.31, which have been waived by the Bank of New York Mellon.

PART II

ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES.

None.

ITEM 14. MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS.

On May 11, 2011, we entered into an Amended and Restated Deposit Agreement with The Bank of New York Mellon, as Depositary (the " Restated Deposit Agreement"), and updated the form of American Depositary Receipt (the "ADR") evidencing the ADSs issued under the terms of the Restated Deposit Agreement. The Restated Deposit Agreement restates our original Deposit Agreement with The Bank of New York (the predecessor of The Bank of New York Mellon), dated as of July 23, 1993 (as amended, the "1993 Deposit Agreement"), in its entirety.

We and The Bank of New York Mellon entered into the Restated Deposit Agreement to modify the ADSs voting process and to bring our arrangements with The Bank of New York Mellon in line with the current customary market practice regarding depositary arrangements.

By the Restated Deposit Agreement, subject to the Depositary's obligation to notify the owner of ADSs of any meeting of holders of our shares or other deposited securities, and subject further to certain exceptions as provided therein, to the extent that no instructions are received by the Depositary from an owner of ADSs on or before the date established by the Depositary, the Depositary may deem instructions by the owner of the ADS have been given to give a discretionary proxy to a person designated by us to exercise voting rights in the meeting of holders of our shares or other deposited securities.

In addition, the Restated Deposit Agreement amends the 1993 Deposit Agreement, among other things, to (i) provide the American Depositary Shares may be uncertificated securities or certificated securities evidenced by ADRs, and (ii) change the fees and charges of the Depositary, see Item 12D.3 Fees and Charges that a holder of our ADSs May Have to Pay.

The foregoing descriptions of the Restated Deposit Agreement and the ADR do not purport to be complete and are qualified in their entirety by reference to the complete Restated Deposit Agreement and ADR which are incorporated herein by reference to Exhibit 2 and the forms filed on Form F-6 (File number 033-65616) on May 4, 2011.

ITEM 15. CONTROLS AND PROCEDURES.

(a). Disclosure Controls And Procedures.

The term "disclosure controls and procedures" is defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act. These rules refer to the controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files under the Exchange Act is recorded, processed, summarized and reported within required time periods. This includes controls and procedures designed to ensure that information required to be disclosed is accumulated and communicated to our management, including our principal executive officer or officers and principal financial officer or officers, to allow timely decisions regarding required disclosure.

We maintain a written policy adopted by our Board of Directors that governs the collection, coordination and disclosure of information to our shareholders, the public and to governmental and other regulatory bodies. All such disclosures are coordinated by the Secretary to our Board of Directors and subject to execution by either the Chairman of our Board of Directors or, for disclosures by our Supervisory Committee, the Chairman of the Supervisory Committee. Under the policy, all material issues must be disclosed and our disclosures must be true, accurate, complete and timely without any false or misleading statements. Each of our departments and subsidiaries has their own supplemental policies which may be both written and unwritten.

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934) as of the end of the fiscal year covered by this annual report. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that, as of the end of the fiscal year covered by this annual report, our disclosure controls and procedures were effective to ensure that information required to be disclosed in the reports we file under the Exchange Act is accumulated and communicated to the management to allow timely decisions to be made regarding required disclosures, and is recorded, processed, summarized and reported as and when required.

(b). Management's Report on Internal Control over Financial Reporting.

Our management is accountable for establishing and maintaining effective internal control over financial reporting (as defined in Rules 13a-15(f) of the Securities Exchange Act of 1934). The Company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

Because of its inherent limitations, internal control over financial reporting cannot provide absolute assurance of achieving financial reporting objectives and may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become ineffective because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Our management assessed the effectiveness of our internal control over financial reporting based upon the criteria established in *Internal Control-Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) as of December 31, 2021. Based on that evaluation, our management has concluded that our internal control over financial reporting was effective as of December 31, 2021 based on these criteria.

KPMG Huazhen LLP, an independent registered public accounting firm, has audited the consolidated financial statements for the year ended December 31, 2021 included in this annual report on Form 20-F and, as part of the audit, has issued a report, included herein, on the effectiveness of our internal control over financial reporting.

(c). Report of Independent Registered Public Accounting Firm.

Our independent auditors have issued an audit report on the effectiveness of our internal control over financial reporting. This report appears on page F-2.

(d). Changes in Internal Control over Financial Reporting.

For the year ended December 31, 2021, there have been no changes to our internal controls over financial reporting that have materially affected, or are reasonably likely to materially affect our internal control over financial reporting.

ITEM 16A. AUDIT COMMITTEE FINANCIAL EXPERT.

Our Board of Directors has determined that Ms. Li Yuanqin who is currently serving on our audit committee, is an audit committee financial expert and is an Independent Director (under the standards set forth in the NYSE rules and Rule 10A-3 of the Exchange Act).

ITEM 16B. CODE OF ETHICS.

Sinopec Group, the controlling shareholder of Sinopec Corp., adopted a Staff Code in 2014 to provide disciplines and requirements for its staff's conducts, including legal and ethical matters as well as the sensitivities involved in reporting illegal and unethical matters. The Staff Code covers such areas as health, safety and environment, conflict of interests, anti-corruption, protection and proper use of our assets and properties, as well as reporting requirements. The Staff Code also applies to all directors, officers and employees of each subsidiary of Sinopec Group, including us. We have provided all our directors and senior officers with a copy of the Staff Code and required them to comply with in it order to ensure our operations are proper and lawful. We have posted the Staff Code on the following website: http://www.sinopec.com/listco/en/Resource/Pdf/ygsz2014b.pdf.

ITEM 16C. PRINCIPAL ACCOUNTANT FEES AND SERVICES.

The following table summarizes the fees charged by PricewaterhouseCoopers Zhong Tian LLP ("PwC") and KPMG Huazhen LLP, our principal accountant, for services rendered to us during 2020 and 2021 respectively.

	For the year ended December 31, (in thousands of RMB)	
	2020	2021
Audit fees (1)	7,800	6,837
Audit-Related fees (2)	—	—
Tax fees (3)	—	—
All other fees (4)	—	—
Total	7,800	6,837

(1) "Audit fees" means the aggregate fees billed in each of the fiscal years listed for professional services rendered by our principal auditors for the audit of our annual financial statements.

(2) "Audit-Related fees" means the aggregate fees billed in each of the fiscal years listed for assurance and related services by the principal accountant that are reasonably related to the performance of the audit or review of our financial statements and are not reported under audit fees.

(3) "Tax fees" means the aggregate fees billed in each of the fiscal years listed for professional services rendered by the principal accountant for tax compliance, tax advice, and tax planning.

(4) "All other fees" means the aggregate fees billed in each of the fiscal years listed for products and services provided by the our principal accountant, other than the services reported under audit fees, audit-related fees and tax fees.

Audit Committee Pre-approval Policies and Procedures

Our audit committee has adopted procedures which set forth the manner in which the committee will review and approve all audit and non-audit services to be provided by PwC and KPMG Huazhen LLP. The pre-approval procedures are as follows:

- Any audit or non-audit service to be provided to us by the independent accountant must be (i) pre-approved by the audit committee; or (ii) pre-approved by one or several committee members designated by the committee and rectified by the audit committee.

ITEM 16D. EXEMPTIONS FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES.

Not applicable.

ITEM 16E. PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS.

None.

ITEM 16F. CHANGE IN REGISTRANT'S CERTIFYING ACCOUNTANT.

The information required by Item 16F. was previously reported in our Annual Report on Form 20-F for the fiscal year ended December 31, 2020 filed with the SEC on April 28, 2021.

ITEM 16G. CORPORATE GOVERNANCE.

Set forth below is a summary of the significant differences between the corporate governance rules of the NYSE and those of the People's Republic of China for listed companies:

	NYSE Corporate Governance Rules	**The Company's Corporate Governance Practices** (which conform with the corporate governance rules for companies organized and listed in the People's Republic of China)
Director Independence	A listed company must have a majority of independent directors on its board of directors. The board of directors needs to affirmatively determine that the director has no material relationship with the listed company (either directly or as a partner, shareholder or officer of an organization that has a relationship with the company). In addition, a director must meet certain standards to be deemed independent.	It is required in China that no less than 1/3rd of the board members of any listed company must be independent directors, and the listed company must set forth specific requirements for the qualification and election of independent directors in compliance with PRC laws. For example, an independent director shall not hold any other position in the listed company other than being a director and shall not be influenced by the main shareholders or the controlling persons of the listed company, or by any other entities or persons with whom the listed company has a significant relationship. The Company has complied with the relevant Chinese corporate governance rules and has implemented internal rules governing the independence and responsibilities of independent directors. The Company determines the independence of independent directors every year.
	The non-management directors of each listed company must meet at regularly scheduled executive sessions without management.	No similar requirements.

Nominating/Corporate Governance Committee	Listed companies must have a nominating/corporate governance committee composed entirely of independent directors. The nominating/corporate governance committee must have a written charter that addresses: (i) the committee's purpose and responsibilities—which, at minimum, must be to: identify individuals qualified to become board members, consistent with criteria approved by the board, and to select, or to recommend that the board select, the director nominees for the next annual meeting of shareholders; develop and recommend to the board a set of corporate governance guidelines applicable to the corporation; and oversee the evaluation of the board and management; and (i) an annual performance evaluation of the committee.	The board of directors can establish a nominating committee if the shareholders pass resolutions to establish such a committee. A majority of the directors on the committee shall be independent directors, who shall act as the convener. The board of directors, which formulates relevant written guidelines with respect to the nomination of directors, has established a nominating committee with a majority of the members being independent directors. Relevant responsibilities of the nominating committee are similar to those stipulated by the NYSE rules, but the main responsibilities do not include the research and recommendation of corporate governance guidelines, the supervision of the evaluation of the board of directors and management, or the annual evaluation of the committee.
Compensation Committee	Listed companies must have a compensation committee composed entirely of independent directors.	The board of directors can establish a compensation and assessment committee if the shareholders pass resolutions to establish such a committee. A majority of the directors on the committee shall be independent directors, who shall act as the convener.

	The purposes and responsibilities of the compensation committee stated in its charter must include: (1) reviewing and approving the corporate goals and objectives associated the with the CEO's compensation, evaluate the performance of the CEO in fulfilling these goals and objectives, and, either as a committee or together with the other independent directors (as directed by the board), determine and approve the CEO's compensation level based on such evaluation; (2) making recommendations to the board with respect to non-CEO executive officer compensation, and incentive-compensation and equity-based plans that are subject to board approval; and (3) producing a committee report on executive compensation as required by the SEC to be included in the annual proxy statement or annual report filed with the SEC. The charter must also include the requirement for an annual performance evaluation of the compensation committee.	The responsibilities of the compensation and assessment committee include: (1) reviewing the standards for the evaluation of directors and management, evaluate directors and management and report the results of such evaluation to the board of directors; and (2) reviewing compensation policies and benefit plans for directors and executive officers. Unlike the NYSE rules, the PRC rules do not require the committee to produce a report on the executive compensation or make an annual performance evaluation of the committee. In addition, the compensation committee evaluates and reviews the compensation of directors as well as executive officers. The board of directors of the Company has established a compensation evaluation committee with a majority of the members being independent directors who act as the convener, and the committee has established a written charter complying with the domestic corporate governance rules.
Audit Committee	Listed companies must have an audit committee that satisfies the requirements of Rule 10A-3 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). It must have a minimum of three members, and all audit committee members must satisfy the requirements for independence set forth in Section 303A.02 of the NYSE Corporate Governance Rules and , in the absence of an applicable exemption, Rule 10A-3b(1) of the Exchange Act. The written charter of the audit committee must specify that the purpose of the audit committee is to assist the board oversight of the integrity of financial statements, the company's compliance with legal and regulatory requirements, the qualifications and independence of the independent auditors, the performance of the listed company's internal audit function and independent auditors. The written charter must also require the audit committee to prepare an audit committee report as required by the SEC to be included in the listed company's annual proxy statement as well as an annual performance evaluation of the audit committee. The written charter must also address the duties and responsibilities of the audit committee as required under Section 303A.07 of the NYSE Corporate Governance Rules.	The board of directors of a listed company must, through the resolution of the shareholders' meeting, establish an audit committee composed entirely of directors, of which the independent directors are the majority and act as the convener, and, at minimum, one independent director is an accounting professional. The purpose, authority and responsibilities of the audit committee are similar to those stipulated by the NYSE rules, but according to customary practices in China, the Company is not required to make an annual performance evaluation of the audit committee, and the audit committee is not required to prepare an audit report to be included in the Company's annual proxy statement. The board of directors of the Company has established an audit committee that satisfies Rule 10A-3 under the Securities Exchange Act of 1934, as amended and relevant domestic requirements. The audit committee has a written charter.

Strategy Committee	N/A	The board of directors of a listed company can, through the resolution of the shareholders' meeting, establish a strategy committee composed entirely of directors. We formed a strategy committee on June 15, 2017. The key responsibility of the Strategy Committee is to conduct researches and give recommendations to the Board on major investment decisions, projects and major issues that affect our development, and monitor our long-term development strategic plan.
	Each listed company must maintain an internal audit function to provide management and the audit committee with ongoing assessments of the listed company's risk management processes and system of internal controls.	China has a similar regulatory provision, and the Company has an internal audit department.
Equity Compensation	Shareholders must be given the opportunity to vote on all equity compensation plans and material revisions thereto, except for employment inducement awards, certain grants, plans and amendments in the context of mergers and acquisitions, and certain specific types of plans as described under Section 303A.08 of the NYSE Corporate Governance Rules.	The relevant regulations of China require the board of directors propose plans on the amount and types of director compensation for the shareholders' meeting to approve. The compensation plan of executive officers shall be approved by the board and announced at the shareholders' meeting and disclosed to the public upon the approval of the board of directors.
Corporate Governance Guidelines	Listed companies must adopt and disclose corporate governance guidelines involving director qualification standards, director responsibilities, director compensation, director access to management and, as necessary and appropriate, independent advisors, director orientation and continuing education and management succession. The board should conduct a self-evaluation at least annually to determine whether it and its committees are functioning effectively. A listed company must make its corporate governance guidelines available on or through its website.	The CSRC has issued the Corporate Governance Rules, prescribing detailed guidelines on directors of the listed companies, including director selection, the structure of the board of directors and director performance evaluation. The Company has complied with the above mentioned rules.
Code of Ethics for Directors, Officers and Employees	Listed companies must adopt and disclose a code of business conduct and ethics for directors, officers and employees, and promptly disclose any waivers of the code for directors or executive officers. Each listed company may determine its own policies, but all listed companies should address the most important topics, including, among others, conflicts of interest, corporate opportunities, confidentiality, fair dealing, protection and proper use of listed company assets, compliance with laws, rules and regulations (including insider trading laws), and encouraging the reporting of any illegal or unethical behavior.	There is no such requirement for a code for ethics in China. As the directors and officers of the Company have all signed a Director Service Agreement, however, they are bound by their fiduciary duties to the Company. In addition, the directors and officers must perform their legal duties in accordance with the PRC Company Law, relevant requirements of CSRC and Mandatory Provisions to the Charter of Companies Listed Overseas.
	Each listed company CEO must certify to the NYSE each year that he or she is not aware of any violation by the company of NYSE corporate governance listing standards and he or she must promptly notify the NYSE in writing of any non-compliance with any applicable provisions of Section 303A.	No similar requirements.

ITEM 16H. MINE SAFETY DISCLOSURE.

Not applicable.

ITEM 16I. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

PART III

ITEM 17. FINANCIAL STATEMENTS.

SECCO was deemed a significant equity investee for the fiscal years ended December 31, 2019 and December 31, 2020 and a non-significant equity investee for the fiscal years ended December 31, 2021 under Rule 3-09 of Regulation S-X. As such, the financial statements of SECCO required by Rule 3-09 of Regulation S-X are provided as Exhibit 99.1 to this Annual Report on Form 20-F.

ITEM 18. FINANCIAL STATEMENTS.

See pages F-1 to F-214.

ITEM 19. EXHIBITS.

No.	Exhibit
1.1	Translation of the amended and restated Articles of Association of Sinopec Shanghai Petrochemical Company Limited as approved in the First Extraordinary General Meeting of Sinopec Shanghai Petrochemical Company Limited for 2018 on November 8, 2018 (incorporated by reference to our Form 6-K (File No.001-12158) filed with the Commission on November 8, 2018).
2.	Amended and Restated Deposit Agreement between Sinopec Shanghai Petrochemical Company Limited and The Bank of New York Mellon dated May 11, 2011(incorporated by reference to Exhibit 2 of our annual report on Form 20-F (File No. 001-12158) filed with the Commission on April 30, 2012).
4.1	Translation of the renewed Product Supply and Sales Services Framework Agreement among Sinopec Shanghai Petrochemical Company Limited, China Petroleum & Chemical Corporation and China Petrochemical Corporation as approved in the First Extraordinary General Meeting of Sinopec Shanghai Petrochemical Company Limited for 2016 on October 18, 2016 (incorporated by reference to Exhibit 4.1 of our annual report on Form 20-F Amendment No.1 (File No.001-12158) filed with the Commission on September 14, 2017).
4.2	Translation of the renewed Comprehensive Services Framework Agreement between Sinopec Shanghai Petrochemical Company Limited and China Petrochemical Corporation as approved in the First Extraordinary General Meeting of Sinopec Shanghai Petrochemical Company Limited for 2016 on October 18, 2016 (incorporated by reference to Exhibit 4.2 of our annual report on Form 20-F Amendment No.1 (File No.001-12158) filed with the Commission on September 14, 2017).
4.3	Translation of the Property Right Transaction Agreement with Sinopec Sales Company Limited as approved in the eighteenth meeting of the seventh session of the board of directors of Sinopec Shanghai Petrochemical Company Limited on December 5, 2013 (incorporated by reference to Exhibit 4.3 of our annual report on Form 20-F (File No.001-12158) filed with the Commission on April 30, 2014).
4.4	English summary of principal terms of the Share Option Scheme as adopted at the second meeting of the eighth session of the board of directors of Sinopec Shanghai Petrochemical Company Limited on August 15, 2014 (incorporated by reference to Appendix I of our Form 6-K (File No.001-12158) filed with the Commission on November 6, 2014).
8*	A list of subsidiaries of Sinopec Shanghai Petrochemical Company Limited.
12.1*	Certification of President Required by Rule 13a-14(a).
12.2*	Certification of Chief Financial Officer Required by Rule 13a-14(a).
13.1 *	Certification of President Required by Rule 13a-14(b) and Section 1350 of Chapter 63 of Title 18 of the United States Code.
13.2 *	Certification of Chief Financial Officer Required by Rule 13a-14(b) and Section 1350 of Chapter 63 of Title 18 of the United States Code.
99.1*	Financial statements of SECCO
101.INS*	Inline XBRL Instance Document — the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document
101.SCH*	Inline XBRL Taxonomy Extension Schema Document
101.CAL*	Inline XBRL Taxonomy Extension Calculation Linkbase Document

101.DEF *	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB*	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE*	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104*	Cover Page Interactive Data File (embedded within the Inline XBRL document and included in Exhibit 101)

* Filed with this annual report on Form 20-F

SIGNATURES

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on Form 20-F on its behalf.

SINOPEC SHANGHAI PETROCHEMICAL COMPANY LIMITED

Date: April 27, 2022

/s/ DU JUN

Du Jun, Chief Financial Officer

Index to the Financial Statement

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors
Sinopec Shanghai Petrochemical Company Limited:

Opinions on the Consolidated Financial Statements and Internal Control Over Financial Reporting

We have audited the accompanying consolidated statement of financial position of Sinopec Shanghai Petrochemical Company Limited and subsidiaries (the Company) as of December 31, 2021, the related consolidated statement of profit or loss, consolidated statement of profit or loss and other comprehensive income, consolidated statement of changes in equity, and consolidated cash flow statement for the year then ended and the related notes (collectively, the consolidated financial statements). We also have audited the Company's internal control over financial reporting as of December 31, 2021, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2021, and the results of its operations and its cash flows for the year ended December 31, 2021, in conformity with International Financial reporting Standards as issued by the International Accounting Standards Board. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2021, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's consolidated financial statements and an opinion on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Assessment of net realizable value of raw materials, work in progress and finished goods

As discussed in Notes 2.14, 4.2(a) and 21 to the consolidated financial statements, the gross carrying amount of raw materials, work in progress and finished goods, and provision for diminution in value were RMB 5,897,336 thousand and RMB 164,806 thousand, respectively, as at December 31, 2021. 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.

We identified the assessment of net realizable value of raw materials, work in progress and finished goods as a critical audit matter. 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 judgement.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls related to 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, and other costs necessary to make the sale; we evaluated the estimated selling prices 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 we evaluated 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.

Critical Audit Matters (Continued)

Assessment of value in use of certain production facilities

As discussed in Notes 2.12 (b), 4.2(b) and 16 to the consolidated financial statements, the carrying amount of property, plant and equipment was RMB 11,310,032 thousand as of December 31, 2021. During the year ended December 31, 2021, the Company recognized impairment loss on property, plant and equipment in relation to certain production facilities of RMB 259,850 thousand. 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. The Company'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 critical audit matter. A 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 Company'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.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls related to the Company's 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; we assessed the forecasted growth rates adopted in the Company's value in use assessment by comparing them with historical results, future operation plans and external market data; we performed sensitivity analysis over the forecasted growth rates and the discount rate assumptions to assess their impact on the Company's impairment assessment; In addition, we involved valuation professionals with specialized skills and knowledge, who assisted in evaluating the discount rate used by comparing it against discount rate that was independently developed using publicly available industry data.

/s/ KPMG Huazhen LLP

We have served as the Company's auditor since 2021.

Shanghai, China
April 27, 2022

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of Sinopec Shanghai Petrochemical Company Limited

Opinion on the Financial Statements

We have audited the consolidated statement of financial position of Sinopec Shanghai Petrochemical Company Limited and its subsidiaries (the "Company") as of December 31, 2020, and the related consolidated statements of profit or loss, of profit or loss and other comprehensive income, of changes in equity and consolidated cash flow statement for each of the two years in the period ended December 31, 2020, including the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2020, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2020 in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits of these consolidated financial statements in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/PricewaterhouseCoopers Zhong Tian LLP
Shanghai, the People's Republic of China
April 28, 2021

We served as the Company's auditor from 2013 to 2021.

Consolidated statement of profit or loss
for the years ended 31 December 2019, 2020 and 2021

	Note	Year ended 31 December 2019 RMB'000	2020 RMB'000	2021 RMB'000
Revenue	5	100,269,667	74,623,575	89,198,492
Taxes and surcharges		(12,213,927)	(13,062,710)	(13,309,688)
Net sales		88,055,740	61,560,865	75,888,804
Cost of sales	10	(86,467,995)	(61,901,114)	(74,298,048)
Gross profit/(loss)		1,587,745	(340,249)	1,590,756
Selling and administrative expenses	10	(549,885)	(486,323)	(368,243)
Reversal/(provision) of impairment losses on financial assets	3.1 (c)	59	120,916	(1,355)
Other operating income	6	150,714	148,676	125,305
Other operating expenses	7	(21,925)	(24,686)	(44,712)
Other gains - net	8	153,864	115,430	130,481
Profit/(loss) from operations		1,320,572	(466,236)	1,432,232
Finance income	9	416,747	431,228	508,755
Finance expenses	9	(53,784)	(98,954)	(94,186)
Finance income – net		362,963	332,274	414,569
Share of net profits of associates and joint ventures accounted for using the equity method	20	972,593	724,740	874,285
Profit before taxation		2,656,128	590,778	2,721,086
Income tax (expenses)/ benefits	12	(428,963)	65,620	(644,480)
Profit for the year		2,227,165	656,398	2,076,606

Consolidated statement of profit or loss
for the years ended 31 December 2019, 2020 and 2021 (continued)

	Note	Year ended 31 December 2019 RMB'000	2020 RMB'000	2021 RMB'000
Profit attributable to:				
– Equity shareholders of the Company		2,215,728	645,072	2,073,431
– Non-controlling interests		11,437	11,326	3,175
Profit for the year		2,227,165	656,398	2,076,606
Earnings per share attributable to equity shareholders of the Company for the year (expressed in RMB per share)				
Basic earnings per share	13(a)	RMB 0.205	RMB 0.060	RMB 0.192
Diluted earnings per share	13(b)	RMB 0.205	RMB 0.060	RMB 0.192

The notes on pages 17 to 124 form part of these financial statements.

Consolidated statement of profit or loss and other comprehensive income
for the years ended 31 December 2019, 2020 and 2021

	Note	Year ended 31 December 2019 RMB'000	2020 RMB'000	2021 RMB'000
Profit for the year		2,227,165	656,398	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	32	7,449	(11,512)	16,639
Cash flow hedges: net movement in hedging reserve	32	—	—	125,159
Other comprehensive income for the year, net of tax		7,449	(11,512)	141,798
Total comprehensive income for the year		2,234,614	644,886	2,218,404
Attributable to:				
– Equity shareholders of the Company		2,223,177	633,560	2,215,229
– Non-controlling interests		11,437	11,326	3,175
Total comprehensive income for the year		2,234,614	644,886	2,218,404

The notes on pages 17 to 124 form part of these financial statements.

Consolidated statement of financial position
as at 31 December 2020 and 2021

	Note	As at 31 December 2020 RMB'000	2021 RMB'000
Non-current assets			
Property, plant and equipment	16	11,713,022	11,310,032
Right-of-use assets	15	410,801	385,643
Investment properties	17	367,586	352,188
Construction in progress	18	1,710,124	3,293,177
Investments accounted for using the equity method	20	5,387,834	4,088,888
Financial assets at fair value through other comprehensive income	25	5,000	5,000
Time deposits with banks	24	7,042,840	5,581,435
Deferred tax assets	12	252,121	184,143
Other non-current assets	14	424,959	787,807
		27,314,287	25,988,313
Current assets			
Inventories	21	3,888,746	5,923,525
Financial assets at fair value through other comprehensive income	25	1,207,114	1,047,690
Derivative financial instruments	3.1 (a)	—	81,405
Trade receivables	22	113,163	77,425
Other receivables	22	18,101	47,597
Prepayments		19,552	43,686
Amounts due from related parties	22	1,092,316	1,212,331
Cash and cash equivalents	23	6,916,408	5,112,010
Time deposits with banks	24	4,049,443	7,386,607
		17,304,843	20,932,276
Total assets		44,619,130	46,920,589

Consolidated statement of financial position
as at 31 December 2020 and 2021 (continued)

	Note	As at 31 December 2020 RMB'000	2021 RMB'000
Equity and liabilities			
Equity attributable to equity shareholders of the Company			
Share capital	31	10,823,814	10,823,814
Reserves	32	18,374,176	19,418,325
		29,197,990	30,242,139
Non-controlling interests		136,985	135,259
Total equity		29,334,975	30,377,398
Liabilities			
Non-current liabilities			
Borrowings	26	—	700,000
Lease liabilities	15	3,119	1,384
Deferred tax liabilities	12	35,357	33,344
Deferred income	30	13,433	12,720
		51,909	747,448

Consolidated statement of financial position
as at 31 December 2020 and 2021 (continued)

	Note	As at 31 December 2020 RMB'000	2021 RMB'000
Current liabilities			
Borrowings	26	1,548,000	1,559,800
Short-term bonds	27	3,017,811	—
Lease liabilities	15	9,352	3,229
Derivative financial instruments	3.1 (a)	—	23,804
Contract liabilities	29	495,404	424,607
Trade and other payables	28	2,820,083	3,095,694
Amounts due to related parties	28	3,656,841	6,304,816
Current tax liabilities		3,420,824	3,865,231
Staff salaries and welfares payable		244,506	260,096
Income tax payable	12	19,425	258,466
		15,232,246	15,795,743
Total liabilities		15,284,155	16,543,191
Total equity and liabilities		44,619,130	46,920,589

Approved and authorized for issue by the Board of Directors on 27 April 2022.

Wu Haijun)
) Directors
Du Jun)

The notes on pages 17 to 124 form part of these financial statements.

Consolidated statement of changes in equity
for the years ended 31 December 2019, 2020 and 2021

		Attributable to equity shareholders of the Company					
	Note	Share capital RMB'000 (note 31)	Other reserves RMB'000 (note 32)	Retained earnings RMB'000 (note 32)	Total RMB'000	Non-controlling interests RMB'000	Total equity RMB'000
Balance at 1 January 2019		10,823,814	4,361,940	15,160,309	30,346,063	116,378	30,462,441
Changes in equity for 2019							
Profit for the year		—	—	2,215,728	2,215,728	11,437	2,227,165
Other comprehensive income	32	—	7,449	—	7,449	—	7,449
Total comprehensive income for the year		—	7,449	2,215,728	2,223,177	11,437	2,234,614
Dividends proposed and approved	34	—	—	(2,705,952)	(2,705,952)	—	(2,705,952)
Dividend paid by subsidiaries to non-controlling interests		—	—	—	—	(3,266)	(3,266)
Appropriation of safety production fund	32	—	2	(2)	—	—	—
Non-controlling interests of disposed subsidiary		—	—	—	—	6,011	6,011
Balance at 31 December 2019		10,823,814	4,369,391	14,670,083	29,863,288	130,560	29,993,848

Consolidated statement of changes in equity
for the years ended 31 December 2019, 2020 and 2021 (continued)

	Note	Attributable to equity shareholders of the Company				Non-controlling interests RMB'000	Total equity RMB'000
		Share capital RMB'000 (note 31)	Other reserves RMB'000 (note 32)	Retained earnings RMB'000 (note 32)	Total RMB'000		
Balance at 1 January 2020		10,823,814	4,369,391	14,670,083	29,863,288	130,560	29,993,848
Changes in equity for 2020:							
Profit for the year		—	—	645,072	645,072	11,326	656,398
Other comprehensive income	32	—	(11,512)	—	(11,512)	—	(11,512)
Total comprehensive income for the year		—	(11,512)	645,072	633,560	11,326	644,886
Dividends proposed and approved	34	—	—	(1,298,858)	(1,298,858)	—	(1,298,858)
Dividend paid by subsidiaries to non-controlling interests		—	—	—	—	(4,901)	(4,901)
Appropriation of safety production fund	32	—	88,460	(88,460)	—	—	—
Balance at 31 December 2020		10,823,814	4,446,339	13,927,837	29,197,990	136,985	29,334,975

The notes on pages 17 to 124 form part of these financial statements.

Consolidated statement of changes in equity
for the years ended 31 December 2019, 2020 and 2021 (continued)

	Note	Attributable to equity shareholders of the Company				Non-controlling interests RMB'000	Total equity RMB'000
		Share capital RMB'000 (note 31)	Other reserves RMB'000 (note 32)	Retained earnings RMB'000 (note 32)	Total RMB'000		
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	32	—	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	32	—	2,498,808	(2,498,808)	—	—	—
Amounts transferred from hedging reserve to initial carrying amount of hedged items	3.1a(iii)	—	(88,699)	—	(88,699)	—	(88,699)
Dividends proposed and approved	34	—	—	(1,082,381)	(1,082,381)	—	(1,082,381)
Dividends paid by subsidiaries to non-controlling interests		—	—	—	—	(4,901)	(4,901)
Appropriation of safety production fund	32	—	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 17 to 124 form part of these financial statements.

Consolidated cash flow statement
for the years ended 31 December 2019, 2020 and 2021

	Note	Year ended 31 December 2019 RMB'000	2020 RMB'000	2021 RMB'000
Operating activities				
Cash generated from operations	23 (b)	5,655,676	1,995,087	4,411,653
Interest paid		(63,430)	(71,369)	(110,070)
Income tax paid		(534,467)	(243,870)	(351,627)
Net cash generated from operating activities		5,057,779	1,679,848	3,949,956
Cash flows from investing activities				
Dividends received from joint ventures and associates		594,868	561,755	777,220
Interest received from structured deposits		86,848	132,690	97,921
Interest received from related parties		1,295	2,088	—
Interest received from banks excluded structured deposits		445,105	275,626	398,937
(Payments)/proceeds from settlement of derivative financial instruments		(15,316)	(912)	5,674
Payment for the purchase of property, plant and equipment and other long-term assets		(1,430,411)	(1,840,986)	(3,224,000)
Net proceeds from disposal of property, plant and equipment		67,503	59,642	55,254
Cash received from time deposits with maturity less than one year		4,100,000	500,000	3,800,000
Cash received from maturity of structured deposits		3,200,000	10,900,000	8,150,000
Cash payment for investment in structured deposits		(3,800,000)	(7,600,000)	(8,150,000)
Cash payment for investment in time deposits with maturity less than one year		(4,100,000)	(3,000,000)	(3,650,000)
Cash payment for investment in time deposits with maturity more than one year		(3,500,000)	(3,500,000)	(2,000,000)
Acquisition of a subsidiary, net of cash acquired		—	(340,315)	—
Payment for set up of an associate	20	(248,184)	(27,603)	(26,000)
Payment for set up of a joint venture	20	—	—	(50,000)
Payment for equity instruments		(5,000)	—	—
Cash held by the subsidiary before disposal		(404)	—	—
Proceeds from capital reduction of an associate		—	—	1,460,258
Payment for sales of financial assets at fair value through other comprehensive income		(19,513)	(9,513)	(4,685)
Net cash used in investing activities		(4,623,209)	(3,887,528)	(2,359,421)

Consolidated cash flow statement
for the year ended 31 December 2019, 2020 and 2021 (continued)

	Note	Year ended 31 December 2019 RMB'000	2020 RMB'000	2021 RMB'000
Financing activities				
Proceeds from borrowings		4,755,100	3,458,100	14,163,132
Proceeds from short-term bonds		—	2,998,469	5,998,899
Repayments of borrowings		(3,695,208)	(3,460,556)	(13,451,332)
Repayments of short-term bonds		—	—	(9,000,000)
Principal elements of lease payments		(89,124)	(15,586)	(17,544)
Dividends paid by subsidiaries to non-controlling interests		(3,266)	(4,901)	(4,901)
Dividends paid to the Company's shareholders		(2,704,864)	(1,293,736)	(1,081,326)
Net cash (used in) / generated from financing activities		(1,737,362)	1,681,790	(3,393,072)
Net decrease in cash and cash equivalents		(1,302,792)	(525,890)	(1,802,537)
Cash and cash equivalents at the beginning of the year	23	8,741,893	7,449,699	6,916,408
Exchange gains/(losses) on cash and cash equivalents		10,598	(7,401)	(1,861)
Cash and cash equivalents at the end of the year	23	7,449,699	6,916,408	5,112,010

The notes on pages 17 to 124 form part of these financial statements.

Notes to the consolidated 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 2021, total share capital of the Company were RMB10,823,814 thousand, 1 Yuan per share. Detailed changes to share capital refers to note 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 19.

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). 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 comprise the Company and its subsidiaries (together referred to as the "Group") and the Group's interest in associates and a joint venture.

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).

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.

2 Significant accounting policies (continued)

(c) Changes in accounting policies

New and amended standards adopted by the Group

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

- Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16, Interest rate benchmark reform — phase 2
- Amendments to IFRS 16, Covid-19-related rent concessions beyond 30 June 2021

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.

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.

(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.

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 entity'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.

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 profit or loss and other comprehensive income and changes in equity respectively.

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.

2 Significant accounting policies (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.

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.

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.

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.

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 Significant accounting policies (continued)

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.

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 patents and catalysts used in production. These assets are carried at cost less accumulated amortization and impairment losses. Other non-current assets are amortized on a straight-line basis over the respective periods of the rights and the estimated useful lives of the catalysts, as follows:

Intangible assets	10 to 28 years
Long-term prepaid expense	1.5 to 10 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.

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.

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);

2 Significant accounting policies (continued)

2.12 Credit losses and impairment of assets (continued)

(a) Credit losses from financial instruments (continued)

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.

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.

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.

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).

2 Significant accounting policies (continued)

2.12 Credit losses and impairment of assets (continued)

(a) Credit losses from financial instruments (continued)

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.

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.

2 Significant accounting policies (continued)

2.12 Credit losses and impairment of assets (continued)

(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.

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.

2 Significant accounting policies (continued)

2.12 Credit losses and impairment of assets (continued)

Reversals of impairment losses are credited to profit or loss in the year in which the reversals are recognized.

(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.

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.

2 Significant accounting policies (continued)

2.13 Derivative and hedging activities (continued)

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.

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 Significant accounting policies (continued)

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)).

2.17 Cash and cash equivalents

In the consolidated cash flow statement, 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.

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.

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.

(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 Significant accounting policies (continued)

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.

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.

2 Significant accounting policies (continued)

2.25 Provisions and contingent liabilities (continued)

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.

(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 Significant accounting policies (continued)

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.

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.

2 Significant accounting policies (continued)

2.30 Leases (continued)

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.

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.

2 Significant accounting policies (continued)

2.30 Leases (continued)

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	30 - 50 years
Buildings	2 - 8 years
Equipment	2 - 3 years
Others	2 - 4 years

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.

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.

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 statement of financial position:

	As at 31 December	
	2020 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)

(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.

3 Financial risk management (continued)

3.1 Financial risk factors (continued)

(a) Derivatives (continued)

(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:

	RMB'000
Balance at 1 January 2021	—
Effective portion of the cash flow hedge recognized in other comprehensive income	165,576
Amounts reclassified to profit or loss	1,303
Reclassified to the cost of inventory	(88,699)
Related tax	(41,720)
Balance at 31 December 2021	36,460

(iv) Amounts recognized in the 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 statement of profit or loss in relation to derivatives:

	2020 RMB'000	2021 RMB'000
Net gains on commodity swaps contracts not qualifying as hedges included in other gains - net	—	18,997
Net losses on foreign exchange option contracts not qualifying as hedges included in other gains - net	(376)	(151)
Total	(376)	18,846

3 Financial risk management (continued)

3.1 Financial risk factors (continued)

(a) Derivatives (continued)

(iv) Amounts recognized in the statement of profit or loss (continued)

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, crude oil variety and crude 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 2021 in relation to the commodity swaps.

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 RMB 48,614 thousand recognized as derivative financial assets in the consolidated statement of financial position.

(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 2020 and 31 December 2021, the Group used foreign exchange option contracts to mitigate its exposure to foreign exchange risk respect to US dollar.

As at 31 December 2021, there were no foreign exchange options that had not been matured (31 December 2020: Nil).

As at 31 December 2021, if US dollar had weakened/strengthened by 5% against RMB with all other variables held constant, the Group's net profit for the year ended 31 December 2021 would have been RMB2,292 thousand decreased/increased (31 December 2020: RMB 2,401 thousand decreased/increased in net profit) 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.

3 Financial risk management (continued)

3.1 Financial risk factors (continued)

(b) Market risk (continued)

The aggregate net foreign exchange (losses) / gains recognized in the statement of profit or loss were:

	2020 RMB'000	2021 RMB'000
Net foreign exchange gains/(losses) included in other gains – net (note 8)	12,248	(1,861)
Net foreign exchange (losses) included in finance income (note 9)	(5,514)	—
Total net foreign exchange recognized in profit before taxation	6,734	(1,861)

(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 2020 and 31 December 2021, the Group did not enter into any interest rate swap agreements.

3 Financial risk management (continued)

3.1 Financial risk factors (continued)

(b) Market risk (continued)

At the reporting date, the interest rate profile of the Group's interest-bearing financial instruments was as follows.

	2020 RMB'000	2021 RMB'000
Fixed rate:		
Cash and cash equivalents	1,501,330	—
Time deposits with maturity less than one year	4,000,000	7,350,000
Time deposits with maturity more than one year	7,000,000	5,500,000
Borrowings	(1,548,000)	(1,500,000)
Short-term bonds	(3,000,000)	—
Lease liabilities	(12,473)	(4,613)
	7,940,857	11,345,387
Variable rate:		
Cash and cash equivalents	5,415,078	5,112,010
Borrowings	—	(759,800)
	5,415,078	4,352,210

As at 31 December 2021, 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 profit would have increased / decreased by approximately RMB 16,252 thousand (2020: RMB 20,365 thousand), mainly as a result of higher/lower interest on floating rate cash and cash equivalents.

(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 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) (31 December 2020: Nil).

3 Financial risk management (continued)

3.1 Financial risk factors (continued)

(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.

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:

3 Financial risk management (continued)

3.1 Financial risk factors (continued)

(c) Credit risk (continued)

(i) Risk management (continued)

- 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.

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 2021, 69.50% and 81.80% of the total trade receivables were due from the Group's largest customer and the five largest customers respectively within the Group (31 December 2020: 49.79% and 85.28%).

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.

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 2020 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)/ reversal of impairment losses on financial assets within operating 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 2020 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.

The provision/(reversal) for loss allowance was recognized in the statement of profit or loss in (provision)/ reversal 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)/ reversal of impairment losses within operating profit. Subsequent recoveries of amounts previously written off are credited against the same line item.

3 Financial risk management (continued)

3.1 Financial risk factors (continued)

(c) Credit risk (continued)

(ii) Impairment of financial assets (continued)

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 2020 and 31 December 2021, no loss allowance was provided for financial assets at FVOCI.

(iii) (Provision)/ reversal of impairment losses on financial assets recognized in the statement of profit or loss

During the year, the following (losses) /recoveries were recognized in (provision)/reversal of impairment losses on financial assets in relation to impaired financial assets:

	2020 RMB'000	2021 RMB'000
Impairment losses		
- provision in loss allowance for trade receivables	(634)	(1,354)
- provision in loss allowance for other receivables	—	(1)
Recoveries on previously written off receivables (note)	121,550	—
Reversal/(Provision) of impairment losses on financial assets	120,916	(1,355)

Note: For the year ended 31 December 2020, the Group recovered previously written off receivables amounted to RMB121,550 thousand due to the liquidation of Zhejiang Jin Yong Acrylic Fiber Company Limited, a former subsidiary of the Group.

(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.

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.

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 2021, the Group held cash and cash equivalents of RMB 5,112,010 thousand (31 December 2020: RMB 6,916,408 thousand) (note 23), time deposits with banks - current of RMB 7,386,607 thousand (31 December 2020: RMB 4,049,443 thousand) (note 24) and trade receivables (including trade receivables with related parties and those carried at fair value through other comprehensive income ("FVOCI") of RMB 1,568,800 thousand (31 December 2020: RMB 1,469,431 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 statement of financial position date to the contractual maturity date. The amounts disclosed in the table are the contractual undiscounted cash flows.

	As at 31 December 2020				
	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
Non-derivatives					
Borrowings	1,558,702	—	—	—	1,558,702
Short-term bonds	3,023,614	—	—	—	3,023,614
Lease liabilities	9,373	2,136	1,090	103	12,702
Bills payables	26,196	—	—	—	26,196
Trade payables	1,294,138	—	—	—	1,294,138
Other payables	1,498,503	—	—	—	1,498,503
Amounts due to related parties	3,655,724	—	—	—	3,655,724
	11,066,250	2,136	1,090	103	11,069,579
Derivatives					
Derivative financial liabilities	—	—	—	—	—

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
Non-derivatives					
Borrowings	1,578,817	7,665	704,914	—	2,291,396
Lease liabilities	3,814	730	814	—	5,358
Bills payables	562,593	—	—	—	562,593
Trade payables	1,527,706	—	—	—	1,527,706
Other payables	1,003,860	—	—	—	1,003,860
Amounts due to related parties excluded non-financial liabilities	4,910,255	—	—	—	4,910,255
	9,587,045	8,395	705,728	—	10,301,168
Derivatives					
Derivative financial liabilities	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 in order 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.

Consistent with others in the industry, the Group monitors capital on the basis of the gearing ratio. This ratio is calculated as net debt divided by total capital. Net debt is calculated as total borrowings and short-term bonds less cash and cash equivalents. Total capital is calculated as equity as shown in the consolidated statement of financial position plus net debt.

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 2020 and 31 December 2021.

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 2020 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 2020			
	Note	Level 1 RMB'000	Level 2 RMB'000	Level 3 RMB'000	Total RMB'000
Recurring fair value measurements					
Financial assets					
Financial assets at fair value through other comprehensive income					
- Trade and bills receivable	25	—	1,217,114	—	1,217,114
-Equity investments	25	—	—	5,000	5,000
		—	1,217,114	5,000	1,222,114

		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 measured 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	3.1(a)	—	23,804	—	23,804
		—	23,804	—	23,804
Amounts due to related parties – measured at fair value through profit or loss (FVPL)	28	—	1,388,286	—	1,388,286

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 2021, 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 RMB 89,787 thousand (2020: Nil).

During the year ended 31 December 2021, 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.

The following table presents the changes in level 3 items for the periods ended 31 December 2021:

	Equity investments RMB'000	Structured deposits RMB'000	Total RMB'000
As at 31 December 2019	5,000	3,318,407	3,323,407
Acquisitions	—	7,600,000	7,600,000
Disposals	—	(10,900,000)	(10,900,000)
Fair value change	—	(18,407)	(18,407)
As at 31 December 2020	5,000	—	5,000
Acquisitions	—	8,150,000	8,150,000
Disposals	—	(8,150,000)	(8,150,000)
As at 31 December 2021	5,000	—	5,000

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.

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.

4 Critical accounting judgement and estimates (continued)

4.1 Critical accounting judgements in applying the Group's accounting policies (continued)

(a) Classification of financial assets (continued)

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 shown at the lower of cost and net realizable value.

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.

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 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.

5 Segment information and revenue (continued)

5.1 Segment information (continued)

2019	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	66,754,731	24,698,643	10,304,812	2,200,229	21,881,214	1,502,840	127,342,469
Inter segment revenue	(11,868,026)	(14,187,500)	(141,101)	—	(175,200)	(700,975)	(27,072,802)
Revenue from external customers	54,886,705	10,511,143	10,163,711	2,200,229	21,706,014	801,865	100,269,667
Timing of revenue recognition							
- At a point in time	54,886,705	10,511,143	10,163,711	2,200,229	21,695,864	801,865	100,259,517
- Over time	—	—	—	—	10,150	—	10,150
	54,886,705	10,511,143	10,163,711	2,200,229	21,706,014	801,865	100,269,667
Segment result – profit/(loss) from operations	705,469	413,914	401,454	(540,280)	53,214	286,801	1,320,572

5 Segment information and revenue (continued)

5.1 Segment information (continued)

2020	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	49,711,547	19,777,574	9,576,944	1,480,576	12,023,744	1,583,236	94,153,621
Inter segment revenue	(6,631,343)	(11,526,322)	(101,057)	—	(438,634)	(832,690)	(19,530,046)
Revenue from external customers	43,080,204	8,251,252	9,475,887	1,480,576	11,585,110	750,546	74,623,575
Timing of revenue recognition							
- At a point in time	43,080,204	8,251,252	9,475,887	1,480,576	11,583,709	750,546	74,622,174
- Over time	—	—	—	—	1,401	—	1,401
	43,080,204	8,251,252	9,475,887	1,480,576	11,585,110	750,546	74,623,575
Segment result – (loss)/profit from operations	(2,198,705)	581,597	1,262,029	(364,211)	42,039	211,015	(466,236)

5 Segment information and revenue (continued)

5.1 Segment information (continued)

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

5 Segment information and revenue (continued)

5.1 Segment information (continued)

	2019 RMB'000	2020 RMB'000	2021 RMB'000
Segment result – profit/(loss) from operations			
Petroleum products	705,469	(2,198,705)	2,967,030
Intermediate petrochemicals	413,914	581,597	(635,155)
Resins and plastics	401,454	1,262,029	52,215
Synthetic fibres	(540,280)	(364,211)	(854,077)
Trading of petrochemical products	53,214	42,039	43,729
Others	286,801	211,015	(141,510)
Profit/(loss) from operations	1,320,572	(466,236)	1,432,232
Finance income – net	362,963	332,274	414,569
Share of profit of investments accounted for using the equity method	972,593	724,740	874,285
Profit before taxation	2,656,128	590,778	2,721,086

5 Segment information and revenue (continued)

5.1 Segment information (continued)

Other profit and loss disclosures

	2019			2020			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	Depreciation and amortization RMB'000	Impairment loss and credit loss RMB'000	Inventory write-down RMB'000
Petroleum products	(972,688)	38	(167)	(917,637)	—	(138,537)	(975,492)	(94,420)	(782)
Intermediate petrochemicals	(497,469)	(478)	(9,094)	(465,425)	(55,204)	(15,418)	(523,484)	(297,632)	(136,694)
Resins and plastics	(125,464)	6	(12,073)	(138,204)	—	(26,382)	(86,183)	(61,242)	(168)
Synthetic fibres	(68,589)	7	(48,844)	(78,030)	88,550	(39,657)	(132,091)	(135,683)	(13,239)
Trading of petrochemical products	(211)	—	—	(19,938)	—	(788)	(39,125)	—	—
Others	(174,367)	—	—	(207,905)	—	(106)	(209,333)	(28,392)	—
	(1,838,788)	(427)	(70,178)	(1,827,139)	33,346	(220,888)	(1,965,708)	(617,369)	(150,883)

5 Segment information and revenue (continued)

5.1 Segment information (continued)

	As at 31 December	
	2020 Total assets RMB'000	2021 Total assets RMB'000
Allocated assets		
Petroleum products	11,344,760	13,317,338
Intermediate petrochemicals	3,176,092	3,781,785
Resins and plastics	1,654,920	1,395,867
Synthetic fibres	986,391	1,919,194
Trading of petrochemical products	1,357,884	1,348,751
Others	2,432,339	2,700,327
Allocated assets	20,952,386	24,463,262
Unallocated assets		
Investments accounted for using the equity method	5,387,834	4,088,888
Cash and cash equivalents	6,916,408	5,112,010
Time deposits with banks	11,092,283	12,968,042
Deferred tax assets	252,121	184,143
Derivative financial assets	—	81,405
Others	18,098	22,839
Unallocated assets	23,666,744	22,457,327
Total assets	44,619,130	46,920,589

5 Segment information and revenue (continued)

5.1 Segment information (continued)

	As at 31 December	
	2020 Total liabilities RMB'000	2021 Total liabilities RMB'000
Allocated liabilities		
Petroleum products	6,669,419	9,749,806
Intermediate petrochemicals	1,267,313	1,257,436
Resins and plastics	1,233,286	1,327,587
Synthetic fibres	209,621	490,211
Trading of petrochemical products	1,224,420	1,257,750
Others	78,928	112,876
Allocated liabilities	10,682,987	14,195,666
Unallocated liabilities		
Borrowings	1,548,000	2,259,800
Short-term bonds	3,017,811	—
Deferred tax liabilities	35,357	33,344
Derivative financial liabilities	—	23,804
Others	—	30,577
Unallocated liabilities	4,601,168	2,347,525
Total liabilities	15,284,155	16,543,191

	2019 RMB'000	2020 RMB'000	2021 RMB'000
Additions to property, plant and equipment, construction in progress, right-of-use assets, other non-current assets			
Petroleum products	1,024,626	779,392	708,342
Intermediate petrochemicals	204,021	278,788	1,306,813
Resins and plastics	74,633	139,212	44,495
Synthetic fibres	294,515	496,125	1,748,868
Trading of petrochemical products	89	378,292	71,917
Others	103,418	222,080	234,023
	1,701,302	2,293,889	4,114,458

5 Segment information and revenue (continued)

5.2 Revenue

The Group's revenue from external customers are substantially all within Mainland China in 2019, 2020 and 2021. As at 31 December 2020 and 31 December 2021, assets are also substantially all within Mainland China.

Revenue of approximate RMB59,766,489 thousand (2019: RMB42,657,975 thousand, 2020: RMB38,651,385 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

	2019 RMB'000	2020 RMB'000	2021 RMB'000
Government grants (a)	69,678	61,296	35,944
Rental income from investment property (note 17)	76,381	81,608	81,923
Others	4,655	5,772	7,438
	150,714	148,676	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.

7 Other operating expenses

	2019 RMB'000	2020 RMB'000	2021 RMB'000
Cost related to lease of investment properties	(16,199)	(15,625)	(13,439)
Others	(5,726)	(9,061)	(31,273)
	(21,925)	(24,686)	(44,712)

8 Other gains – net

	2019 RMB'000	2020 RMB'000	2021 RMB'000
Net gains /(losses) on disposal of property, plant and equipment and other long-term assets	158,551	(1,212)	48,671
Gains from structured deposits (note a)	85,444	114,283	97,921
Net losses on foreign exchange option contracts	(12,315)	(376)	(151)
Net gains on commodity swaps contracts not qualified for hedging accounting	—	—	18,997
Losses from disposal of a subsidiary	(60,951)	—	—
Impairment losses for investment in an associate	—	—	(28,392)
Net foreign exchange gains / (losses)	2,648	12,248	(1,861)
Losses on sale of FVOCI	(19,513)	(9,513)	(4,685)
Net losses on disposal of inventory	—	—	(19)
	153,864	115,430	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..

9 Finance income and expenses

	2019 RMB'000	2020 RMB'000	2021 RMB'000
Interest income from time deposits with maturity more than 3 months	398,176	339,595	424,696
Interest income from time deposits with maturity less than 3 months	—	83,812	71,402
Others	18,571	7,821	12,657
Finance income	416,747	431,228	508,755
Interest and finance charges paid/payable for lease liabilities and financial liabilities not at fair value through profit or loss	(59,378)	(101,732)	(106,827)
Less: interest expense capitalized into construction in progress	5,594	8,292	12,641
Net interest expenses	(53,784)	(93,440)	(94,186)
Net foreign exchange losses	—	(5,514)	—
Finance expenses	(53,784)	(98,954)	(94,186)
Finance income – net	362,963	332,274	414,569

10 Expense by nature

	2019 RMB'000	2020 RMB'000	2021 RMB'000
Cost of raw materials	57,101,961	42,082,307	54,457,558
Cost of trading products	21,566,364	11,467,420	10,929,127
Employee benefit expenses (note 11)	3,147,372	3,143,219	3,456,765
Depreciation and amortization:			
Property, plant and equipment (note 16)	1,507,804	1,553,039	1,621,459
Investment properties (note 17)	14,694	15,184	15,325
Other non-current assets (note 14)	214,292	226,263	294,617
Right-of-use assets (note 15)	101,998	32,653	34,307
Repairs and maintenance expenses	1,089,829	1,060,624	1,587,955
Changes of work in progress and finished goods	446,779	862,652	(235,402)
Transportation costs	297,416	274,002	238,405
Inventory write-down (note 21)	70,178	220,888	150,883
External processing fee	215,288	215,467	213,691
Commission expense (note 33)	125,641	104,598	110,552
Impairment loss of property, plant and equipment (note 16)	486	87,570	587,622
Impairment loss of investments accounted for using equity method (note 20)	—	—	28,392
Auditors' remuneration – audit services	7,800	7,800	6,837
Expenses relating to short-term leases	2,961	3,731	6,938

11 Employee benefit expenses

	2019 RMB'000	2020 RMB'000	2021 RMB'000
Wages and salaries	1,931,121	2,009,645	2,142,959
Social welfare costs	782,789	714,484	861,375
Others	433,462	419,090	452,431
Total employee benefit expense	3,147,372	3,143,219	3,456,765

(a) Five highest paid individuals

For the years ended 31 December 2019, 2020 and 2021, all 5 individuals with the highest emoluments are directors and supervisors whose emoluments are disclosed in note 38.

(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.

11 Employee benefit expenses (continued)

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 2021, the Group's total contributions to defined contribution retirement plans was RMB 431,818 thousand. (2019: RMB 383,698 thousand, 2020: RMB 342,073 thousand)

(c) As at 31 December 2019, 31 December 2020 and 31 December 2021, there was no material outstanding contribution to the above defined contribution retirement plans.

12 Income tax (expenses)/ benefits

	2019 RMB'000	2020 RMB'000	2021 RMB'000
Current income tax	(460,720)	(37,027)	(590,668)
Deferred taxation	31,757	102,647	(53,812)
Income tax (expenses)/ benefits	(428,963)	65,620	(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		
	2019 RMB'000	2020 RMB'000	2021 RMB'000
Profit before income tax	2,656,128	590,778	2,721,086
Expected PRC income tax at the statutory tax rate of 25%	(664,032)	(147,695)	(680,272)
Tax effect of share of profit of investments accounted for using the equity method	239,562	178,685	214,750
Tax effect of other non-taxable income	7,459	54,379	10,782
Tax effect of additional deductions for R&D expenses	7,500	11,863	12,168
Tax effect of non-deductible loss, expenses and costs	(42,906)	(51,543)	(185,945)
True up for final settlement of enterprise income taxes in respect of previous years	2,618	9,188	—
Tax losses for which no deferred income tax asset was recognized	(9,578)	(2,821)	(21,225)
Utilization of previously unrecognized tax losses	30,414	13,564	157
Tax effect of additional deduction for purchasing environmental protection equipment	—	—	12,446
Derecognition of previously recognized tax losses	—	—	(7,341)
Actual income tax (expenses)/ benefits	(428,963)	65,620	(644,480)

12 Income tax (expenses) / benefits (continued)

The provision for PRC income tax is calculated at the rate of 25% (2019 and 2020: 25%) on the estimated taxable income of the year ended 31 December 2021 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.

(a) Current taxation in the consolidated statement of financial position represents:

	2020 RMB'000	2021 RMB'000
Income tax payable balance at 1 January	226,269	19,425
Provision for current income tax for the year	37,027	590,668
Payment during the year	(243,871)	(351,627)
Income tax payable balance at 31 December	19,425	258,466

(b) Movements in deferred tax assets and liabilities are as follows:

	Balance as at 1 January 2020 RMB'000	Deducted/ (charged) to profit or loss RMB'000	Balance as at 31 December 2020 RMB'000
Deferred tax assets:			
Impairment for bad and doubtful debts and provision for inventories	38,901	18,425	57,326
Provision for impairment losses in property, plant and equipment and construction in progress	207,632	18,803	226,435
Tax losses	1,986	85,813	87,799
Others	88,663	42,323	130,986
	337,182	165,364	502,546
Deferred tax liabilities:			
Gains of financial assets at fair value	(4,604)	4,604	—
Difference in depreciation	(178,800)	(104,939)	(283,739)
Capitalization of borrowing costs	(2,946)	903	(2,043)
	(186,350)	(99,432)	(285,782)
Deferred tax assets – net	150,832	101,289	252,121
Deferred tax liabilities – net	—	(35,357)	(35,357)

12 Income tax (expenses)/ benefits (continued)

(b) Movements in deferred tax assets and liabilities are as follows (continued):

	Balance as at 1 January 2021 RMB'000	Deducted/ (Charged) to profit or loss RMB'000	Deducted/ (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)	—	—
Accruals 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)

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.

12 Income tax (expenses)/ benefits (continued)

(c) Deferred tax assets not recognized:

As at 31 December 2021, 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 RMB29,969 thousand (31 December 2020: RMB29,969 thousand), because it was not probable that the related tax benefit would be realized.

As at 31 December 2021, certain subsidiaries of the Company did not recognize the deferred tax assets in respect of tax losses of RMB350,574 thousand (31 December 2020: RMB72,699 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:

	2020 RMB'000	2021 RMB'000
2022	12,687	65,331
2023	10,415	66,965
2024	38,312	91,901
2025	11,285	41,475
2026	—	84,902
	72,699	350,574

13 Earnings per share

(a) Basic earnings per share

Basic earnings per share is calculated by dividing the profit attributable to equity shareholders of the Company by the weighted average number of ordinary shares in issue during the year.

	2019 RMB'000	2020 RMB'000	2021 RMB'000
Net profit attributable to equity shareholders of the Company	2,215,728	645,072	2,073,431
Weighted average number of ordinary shares in issue (thousand of shares)	10,823,814	10,823,814	10,823,814
Basic earnings per share (RMB per share)	RMB 0.205	RMB 0.060	RMB 0.192

(b) Diluted earnings per share

There were no dilutive potential ordinary shares for the years ended 31 December 2019, 2020 and 2021, therefore diluted earnings per share is the same as basic earnings per share.

14 Other non-current assets

	Intangible assets RMB'000	Long-term prepaid expense RMB'000	Total RMB'000
As at 1 January 2020			
Cost	85,855	463,779	549,634
Accumulated amortization	(68,220)	—	(68,220)
Net book amount	17,635	463,779	481,414
Year ended 31 December 2020			
Opening net book amount	17,635	463,779	481,414
Additions	53	169,755	169,808
Charge for the year	(2,919)	(223,344)	(226,263)
Closing net book amount	14,769	410,190	424,959
As at 31 December 2020			
Cost	85,908	410,190	496,098
Accumulated amortization	(71,139)	—	(71,139)
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	775,963	861,871
Accumulated amortization	(74,064)	—	(74,064)
Net book amount	11,844	775,963	787,807

For the year ended 31 December 2021, the amortization of RMB 294,617 thousand (2019: RMB 214,292 thousand, 2020: RMB226,263 thousand) has been charged in Cost of sales.

15 Leases

(a) Amounts recognized in the statement of financial position

The statement of financial position shows the following amounts relating to leases:

	As at 31 December	
	2020 RMB'000	2021 RMB'000
Right-of-use assets		
Land use rights	397,808	380,764
Buildings	11,221	3,288
Equipment	879	625
Others	893	966
	410,801	385,643
Lease liabilities		
Current	9,352	3,229
Non-current	3,119	1,384
	12,471	4,613

For the year ended 31 December 2021, additions to the right-of-use assets were RMB9,534 thousand (2019: RMB 33,980 thousand, 2020: RMB 109,238 thousand, including 102,283 thousand generated by the acquisition of a subsidiary,).

At 31 December 2021, the lease liabilities were repayable as follows:

	2021 RMB'000
Within 1 year	3,229
After 1 year but within 2 years	672
After 2 years but within 5 years	712
	4,613

15 Leases (continued)

(b) Amounts recognized in the statement of profit or loss

The statement of profit or loss shows the following amounts relating to leases:

	2019 RMB'000	2020 RMB'000	2021 RMB'000
Depreciation charge of right-of-use assets			
Land use rights	(14,814)	(15,965)	(17,044)
Buildings	(12,541)	(15,481)	(15,677)
Equipment	(74,025)	(449)	(399)
Others	(618)	(758)	(1,187)
	(101,998)	(32,653)	(34,307)
Interest expense (included in Finance expenses)	(2,570)	(887)	(537)
Expense relating to short-term leases (included in Cost of sales)	(2,961)	(3,731)	(6,938)

The total cash outflow for leases in 2021 was RMB24,482 thousand (2019: RMB94,441 thousand, 2020: RMB20,204 thousand).

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 2020	3,336,375	41,455,159	1,871,684	46,663,218
Additions	707	228,153	65,380	294,240
Transferred from construction in progress (note 18)	24,199	1,440,695	85,419	1,550,313
Acquisition of subsidiary	124,849	146,172	4,694	275,715
Reclassification	52,599	(55,206)	2,607	—
Disposals	(32,690)	(472,643)	(71,564)	(576,897)
Transferred to investment properties (note 17)	(24,829)	—	—	(24,829)
At 31 December 2020 and 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	3,874,092	43,364,732	1,996,860	49,235,684
Accumulated depreciation:				
At 1 January 2020	(2,310,970)	(30,793,083)	(1,432,530)	(34,536,583)
Charge for the year	(91,070)	(1,367,861)	(94,108)	(1,553,039)
Reclassification	(29,721)	29,635	86	—
Written back on disposals	25,670	430,397	68,698	524,765
Transferred to investment properties (note 17)	9,527	—	—	9,527
At 31 December 2020 and 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
At 31 December 2021	(2,696,149)	(32,276,268)	(1,512,724)	(36,485,141)

16 Property, plant and equipment (continued)

	Buildings RMB'000	Plant and machinery RMB'000	Vehicles and other equipment RMB'000	Total RMB'000
Impairment losses:				
At 1 January 2020	(50,785)	(766,932)	(8,121)	(825,838)
Charge for the year	(3,007)	(84,035)	(528)	(87,570)
At 31 December 2020 and 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	(80,718)	(1,350,826)	(8,967)	(1,440,511)
Net book value:				
At 31 December 2020	1,030,854	10,190,451	491,717	11,713,022
At 31 December 2021	1,097,225	9,737,638	475,169	11,310,032

(i) The Group recognized impairment loss on property, plant and equipment in relation to certain production facilities of RMB 259,850 thousand for the year ended 31 December 2021. 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 4# aromatic joint unit and 3# aromatic joint unit 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 RMB 519,877 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 10% and reflects specific risks relating to the Group.

16 Property, plant and equipment (continued)

(ii) During the year ended 31 December 2021, 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. 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 RMB327,772 thousand was made against the carrying amounts of those assets.

As a result of these assessments, an impairment loss of RMB 587,622 thousand on property, plant and equipment was recognized in "cost of sales" for the year ended 31 December 2021.

For the year ended 31 December 2020, impairment loss of RMB 87,570 thousands has been recognized in Cost of sales for the excess of carrying amount over its recoverable amount.

For the year ended 31 December 2019, the written off of impairment loss of the Group amounted to RMB 51,484 thousands due to the disposal of property, plant and equipment.

17 Investment properties

	RMB'000
Cost:	
As at 1 January 2020	602,659
Transferred from property plant and equipment (note 16)	24,829
At 31 December 2020 and 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	626,414
Accumulated depreciation:	
At 1 January 2020	(235,191)
Charge for the year	(15,184)
Transferred from property plant and equipment (note 16)	(9,527)
At 31 December 2020 and 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	(274,226)
Net book value:	
At 31 December 2020	367,586
At 31 December 2021	352,188

As at 31 December 2021, the Group has no contractual obligations for future repairs and maintenance (31 December 2020: Nil).

Investment properties represent certain floors of an office building leased to other entities including related parties.

17 Investment properties (continued)

a. The fair value of the investment properties of the Group as at 31 December 2021 was estimated by the directors to be approximately RMB 1,217,987 thousand by reference to market values of similar properties in the nearby area (31 December 2020: RMB 1,202,626 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 RMB81,923 thousand was recognized in other operating income by the Group for the year ended 31 December 2021 (2019: RMB76,381 thousand, 2020: RMB81,608 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 :

	2020 RMB'000	2021 RMB'000
Within 1 year	51,396	49,420
Between 1 and 2 years	4,343	39,137
Above 2 years	629	—
	56,368	88,557

18 Construction in progress

	2020 RMB'000	2021 RMB'000
As at 1 January	1,815,549	1,710,124
Additions	1,444,888	3,270,695
Transferred to property plant and equipment (note 16)	(1,550,313)	(1,699,974)
Transferred from property plant and equipment (note 16)	—	12,332
As at 31 December	1,710,124	3,293,177

As at 31 December 2021, the impairment loss in construction in progress was RMB24,486 thousand (2019: RMB34,661 thousand, 31 December 2020: RMB24,486 thousand).

For the year ended 31 December 2021, the group had no impairment write-off due to the disposal of construction in progress (2019: Nil, 2020: RMB 10,175 thousand).

For the year ended 31 December 2021, the Group capitalized borrowing costs amounting to RMB12,641 thousand (2019: RMB5,594 thousand, 2020: RMB8,292 thousand) on qualifying assets. Borrowing costs were capitalized at the weighted average rate of its general borrowings of 2.85% (2019: 3.35%, 2020: 2.79%).

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.

Name of company	Place of incorporation and business	Particulars of paid-up capital '000		Proportion of ownership interest			Principal activity
				Group's effective interest	Held by the Company	Held by a subsidiary	
Shanghai Petrochemical Investment Development Company Limited ("Toufa")	Mainland China	RMB	1,000,000	100.00	100.00	—	Investment management
China Jinshan Associated Trading Corporation ("Jinmao")	Mainland China	RMB	25,000	67.33	67.33	—	Import and export of petrochemical products and equipment
Shanghai Jinchang Engineering Plastics Company Limited ("Jinchang")	Mainland China	USD	9,154	74.25	—	74.25	Production of polypropylene compound products
Shanghai Golden Phillips Petrochemical Company Limited ("Jinfei")	Mainland China	RMB	415,623	100.00	—	100.00	Production of polyethylene products
Shanghai Jinshan Trading Corporation ("JMGJ")	Mainland China	RMB	100,000	67.33	—	67.33	Import and export of petrochemical products
Zhejiang Jinlian Petrochemical Storage and Transportation Co., Ltd. ("Jinlian")	Mainland China	RMB	400,000	100.00	—	100.00	Trading of petrochemical products

19 Subsidiaries (continued)

a. The total comprehensive income attributable to non-controlling interests for the year ended 31 December 2021 is RMB3,175 thousand (2019: loss of RMB11,437 thousand, 2020: RMB11,326 thousand).

b. On 23 August 2019, the Group disposed 75% share of Zhejiang Jin Yong Acrylic Fiber Company Limited, a former subsidiary of the Group, due to its bankruptcy and liquidation. The disposal loss amounted RMB 60,951 thousands was included in Other gains – net (Note 8) for the year ended 31 December 2019.

c. On 30 June 2020, one of the Company's subsidiaries, Toufa acquired 100% share of Zhejiang Zhonghang Oil Petrochemical Storage and Transportation Co., Ltd., renamed as Jinlian, from China Aviation Oil Group Logistics Co., Ltd., with the total purchase consideration of RMB340,369 thousand.

20 Investments accounted for using the equity method

The amounts recognized in the statement of financial position are as follows:

	As at 31 December	
	2020 RMB'000	2021 RMB'000
Associates		
– Share of net assets	5,146,160	3,812,845
Joint ventures		
– Share of net assets	241,674	276,043
As at 31 December	5,387,834	4,088,888

The amounts recognized in the share of net profits of associates and joint ventures accounted for using the equity method are as follows:

	2019 RMB'000	2020 RMB'000	2021 RMB'000
Associates	927,814	678,077	825,132
Joint ventures	44,779	46,663	49,153
	972,593	724,740	874,285

20 Investments accounted for using the equity method (continued)

(a) Investment in associates

	2020 RMB'000	2021 RMB'000
As at 1 January	4,973,464	5,146,160
Additions (note i)	27,603	26,000
Decrease caused by associate's capital reduction (note ii)	—	(1,460,258)
Share of profit	678,077	825,132
Other comprehensive income	(11,512)	16,639
Cash dividends distribution	(521,472)	(712,436)
Impairment (note iii)	—	(28,392)
As at 31 December	5,146,160	3,812,845

Set out below are the material associates of the Group as at 31 December 2021. 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.

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:

Name of company	Form of business structure	Place of incorporation and business	Particulars of paid-up capital '000	Proportion of ownership interest: 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	RMB 500,000	20.00%	20.00%	—	Manufacturing and distribution of chemical products
Shanghai Chemical Industry Park Development Company Limited ("Chemical Industry")	Incorporated	Mainland China	RMB 2,372,439	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	RMB 193,695	40.00%	—	40.00%	Production of resins products
Shanghai Azbil Automation Company Limited ("Azbil")	Incorporated	Mainland China	RMB 24,440	40.00%	—	40.00%	Service and maintenance of building automation systems and products
Shanghai Shidian Energy Company Limited ("Shidian Energy")	Incorporated	Mainland China	RMB 800,000	40.00%	—	40.00%	Electric power supply

There are no contingent liabilities relating to the Group's interest in the associates.

20 Investments accounted for using the equity method (continued)

(a) Investment in associates (continued)

i. In 2019, Toufa invested RMB 320,000 thousands to acquire 40% share of Shidian Energy, of which RMB 71,816 thousands was contributed by property, plant and equipment at fair market price.

In 2020, Toufa invested RMB27,603 thousand to acquire 29% share of Pinghu China Aviation Oil Port Co., Ltd.

In 2021, Toufa invested RMB 26,000 thousand to acquire 13% shares of CRRC Materials Qin Dao Company Limited.

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 RMB 7,300,811,000 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 RMB 1,460,258 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 amounting to RMB 28,392 thousand (2020: Nil) 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.

20 Investments accounted for using the equity method (continued)

(a) Investment in associates (continued)

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:

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 2020	Shanghai Secco RMB'000	Chemical Industry RMB'000	Jinsen RMB'000	Azbil RMB'000	Shidian Energy RMB'000
Current					
– Current assets	10,430,726	4,618,722	74,170	227,172	790,069
– Current liabilities	(2,783,216)	(1,761,431)	(10,481)	(73,450)	(20,650)
Non-current					
– Non-current assets	6,099,126	3,523,528	64,421	3,984	72,441
– Non-current liabilities	(32,482)	(528,237)	—	—	—
Net assets	13,714,154	5,852,582	128,110	157,706	841,860
Group's effective interest	20.00%	38.26%	40.00%	40.00%	40.00%
Group's share of net assets	2,742,832	2,239,198	51,244	63,083	336,744
Unrealized upstream and downstream transaction	(11,285)	—	—	—	(19,343)
Unentitled portion (note i)	—	(331,407)	—	—	—
Carrying value	2,731,547	1,907,791	51,244	63,083	317,401

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.

20 Investments accounted for using the equity method (continued)

(a) Investment in associates (continued)

Summarized statement of comprehensive income for material associates

2019	Shanghai Secco RMB'000	Chemical Industry RMB'000	Jinsen RMB'000	Azbil RMB'000	Shidian Energy RMB'000
Revenue	28,341,032	1,936,537	197,199	297,694	112,143
Post-tax profit/(loss) from continuing operations	3,383,582	609,540	(16,996)	38,448	5,166
Other comprehensive income	—	19,470	—	—	—
Total comprehensive income	3,383,582	629,010	(16,996)	38,448	5,166
Dividend received from the associate	507,400	30,225	—	12,000	—

2020	Shanghai Secco RMB'000	Chemical Industry RMB'000	Jinsen RMB'000	Azbil RMB'000	Shidian Energy RMB'000
Revenue	21,626,059	1,683,096	187,580	340,905	472,640
Post-tax profit/(loss) from continuing operations	2,412,802	404,117	(8,232)	48,264	36,696
Other comprehensive income	—	(30,089)	—	—	—
Total comprehensive income	2,412,802	374,028	(8,232)	48,264	36,696
Dividend received from the associate	473,600	32,522	—	9,200	—

20 Investments accounted for using the equity method (continued)

(a) Investment in associates (continued)

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	—

20 Investments accounted for using the equity method (continued)

(a) Investment in associates (continued)

Aggregate information of associates that are not individually material:

	2020 RMB'000	2021 RMB'000
Aggregate carrying value of investments at 31 December	75,094	100,079
Aggregate amounts of the Group's share of those associates:		
Profit for the year	8,619	5,655
Total comprehensive income	8,619	5,655
Dividend received from the associate	—	6,670

(b) Investment in joint ventures

	2020 RMB'000	2021 RMB'000
As at 1 January	235,294	241,674
Addition (note i)	—	50,000
Share of profit	46,663	49,153
Cash dividends distribution	(40,283)	(64,784)
As at 31 December	241,674	276,043

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	RMB 10,000	50.00%	—	50.00%	Providing inspection and testing service
Shanghai Petrochemical Yangu Gas Development Company Limited ("Yangu Gas")	Incorporated	Mainland China	USD 10,560	50.00%	—	50.00%	Production and sales of industrial gases
Shanghai Jinshan Baling New Materials Co., Ltd. ("Baling Materials") (Note i)	Incorporated	Mainland China	RMB 100,000	50.00%	—	50.00%	Production and sales of new styrene thermoplastic elastomer materials

20 Investments accounted for using the equity method (continued)

(b) Investment in joint ventures (continued)

i. In September 2021, Sinopec Baling Petrochemical Co., Ltd. and the Company jointly established Baling Materials, the Company agreed to make cash contribution of RMB 400,000 thousand to acquire 50% share of Baling Materials.

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 2020

	Linde RMB'000	JYJC RMB'000	Yangu Gas RMB'000
Current			
Cash and cash equivalents	233,898	13,281	62,878
Other current assets (excluding cash)	67,809	6,077	11,812
Total current assets	301,707	19,358	74,690
Total current liabilities	(57,153)	(2,453)	(3,463)
Non-current			
Total non-current assets	147,717	1,800	26,066
Total non-current liabilities	(21,417)	—	—
Net assets	370,854	18,705	97,293
Group's effective interest	50.00%	50.00%	50.00%
Interest in joint ventures	185,427	9,352	48,648
Unrealized downstream transactions	(1,753)	—	—
Carrying value	183,674	9,352	48,648

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

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.

2019

	Linde RMB'000	JYJC RMB'000	Yangu Gas RMB'000
Revenue	414,374	29,290	55,302
Depreciation and amortization	(50,199)	—	(11,272)
Interest income	636	308	1,119
Interest expense	—	—	—
Profit from continuing operations	108,565	3,107	40
Income tax expenses	(28,382)	(777)	—
Post-tax profit from continuing operations	80,183	2,330	40
Other comprehensive income	—	—	—
Total comprehensive income	80,183	2,330	40
Dividend received from joint venture	38,900	453	—

20 Investments accounted for using the equity method (continued)

(b) Investment in joint ventures (continued)

Summarized statement of comprehensive income for joint ventures *(continued)*

2020

	Linde RMB'000	JYJC RMB'000	Yangu Gas RMB'000
Revenue	420,160	21,674	58,463
Depreciation and amortization	(45,756)	(350)	(8,313)
Interest income	2,246	304	1,483
Interest expense	—	—	—
Profit from continuing operations	108,677	2,279	1,830
Income tax expenses	(26,290)	(177)	—
Post-tax profit from continuing operations	82,387	2,102	1,830
Other comprehensive income	—	—	—
Total comprehensive income	82,387	2,102	1,830
Dividend received from joint venture	38,234	1,049	1,000

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	—

21 Inventories

(a) Inventories in the consolidated statements of financial position comprise:

	As at 31 December 2020			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	2,569,136	—	2,569,136	4,391,555	(13,406)	4,378,149
Work in progress	696,227	(122,081)	574,146	795,791	(105,450)	690,341
Finished goods	591,485	(46,652)	544,833	709,990	(45,950)	664,040
Spare parts and consumables	260,431	(59,800)	200,631	249,456	(58,461)	190,995
	4,117,279	(228,533)	3,888,746	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 RMB 70,704,868 thousand for the year ended 31 December 2021 (2019: RMB78,595,380 thousand, 2020: RMB53,622,798 thousand) which excluded an inventory provision of RMB 150,883 thousand (2019: RMB70,178 thousand, 2020: RMB220,888 thousand).

For the year ended 31 December 2021, the Group sold certain finished goods and utilized certain spare parts and consumables which were previously provided for. The related provision of RMB156,149 thousand was reversed and included in cost of sales in the consolidated statement of profit or loss (2019: RMB72,945 thousand, 2020: RMB147,817 thousand).

22 Trade and other receivables

	As at 31 December 2020 RMB'000	As at 31 December 2021 RMB'000
Trade receivables	113,797	79,413
Less: loss allowance	(634)	(1,988)
	113,163	77,425
Amounts due from related parties excluded prepayments and bills receivable	1,055,539	1,153,111
Total trade receivables	1,168,702	1,230,536
Other receivables	18,240	47,737
Less: loss allowance	(139)	(140)
	18,101	47,597
Financial assets measured at amortized cost	1,186,803	1,278,133
Amounts due from related parties - prepayments	26,777	34,220
Amounts due from related parties - bills receivables (note 25)	10,000	25,000
	1,223,580	1,337,353

All of the trade and other receivables are expected to be recovered or recognized as expense within one year.

Amounts due from related parties mainly represent trade-related balances, unsecured in nature and bear no interest.

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 2020 RMB'000	As at 31 December 2021 RMB'000
Within one year	1,167,222	1,230,360
Over one year within two years	1,480	27
Over two years	—	149
	1,168,702	1,230,536

22 Trade and other receivables (continued)

Movements in the loss allowance account in respect of trade and other receivables during the period is as follows:

	Year ended 31 December 2020 RMB'000	2021 RMB'000
Balance at 1 January	139	773
Impairment losses recognized during the year	634	1,355
Balance at 31 December	773	2,128

As at 31 December 2020 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.

23 Cash and cash equivalents

(a) Cash and cash equivalents comprise:

	As at 31 December 2020 RMB'000	As at 31 December 2021 RMB'000
Cash deposits with a related party (note i)	5,667	3,243
Cash at bank and on hand	6,910,741	5,108,767
Cash and cash equivalents in the consolidated statement of financial position	6,916,408	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 generated from operations

Reconciliation of profit before taxation to cash generated from operations

	2019 RMB'000	2020 RMB'000	2021 RMB'000
Profit before taxation	2,656,128	590,778	2,721,086
Adjustments items:			
Interest income from time deposits with maturity more than 3 months	(398,176)	(339,505)	(424,696)
Share of profit of investments accounted for using the equity method	(972,593)	(724,740)	(874,285)
Losses on disposal of subsidiary	60,951	—	—
Net losses/(gains) on foreign exchange option contracts and commodity swaps contracts not qualifying as hedges	12,315	376	(18,846)
Gains from structured deposits	(85,444)	(114,283)	(97,921)
Losses on sale of FVOCI	19,513	9,513	4,685
Interest expense	53,784	64,169	94,186
Foreign exchange (gains)/losses	(18,571)	5,514	1,861
Depreciation of property, plant and equipment	1,507,804	1,553,039	1,621,459
Depreciation of investment property	14,694	15,184	15,325
Depreciation of right-of-use assets	101,998	32,653	34,307
Amortization of other non-current assets	214,292	226,263	294,617
Impairment loss on property, plant and equipment	486	87,570	587,622
Impairment loss on investment accounted for using the equity method	—	—	28,392
(Gains)/losses on disposal of property, plant and equipment and other long-term assets-net	(158,551)	1,212	(48,671)
Profit on operation before change of working capital	3,008,630	1,407,743	3,939,121
Decrease/(increase) in inventories	1,366,441	2,865,687	(2,034,779)
(Increase) / decrease in operation receivables	(92,354)	308,333	49,586
Decrease in operation payables	(487,877)	(1,008,800)	(70,235)
Increase/(decrease) in balances to related parties – net	1,860,836	(1,577,876)	2,527,960
Cash generated from operations	5,655,676	1,995,087	4,411,653

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 31 December 2019 and 1 January 2020	1,547,600	22,043	—	1,569,643
Changes from financing cash flows:				
Proceeds from borrowings	3,458,100	—	—	3,458,100
Proceeds from short-term bonds	—	—	2,998,469	2,998,469
Repayments of borrowings	(3,460,556)	—	—	(3,460,556)
Principal elements of lease payments	—	(15,586)	—	(15,586)
Total changes from financing cash flows	(2,456)	(15,586)	2,998,469	2,980,427
Other changes:				
Addition of lease liabilities	—	6,014	—	6,014
Foreign exchange movements	2,856	—	—	2,856
Issuance costs on short-term bonds	—	—	1,531	1,531
Interest expense	—	—	17,811	17,811
Total other changes	2,856	6,014	19,342	28,212
As at 31 December 2020 and 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)
As at 31 December 2021	2,259,800	4,613	—	2,264,413

23 Cash and cash equivalents (continued)

(d) Total cash outflow for leases

Amounts included in the cash flow statement for leases comprise the following:

	2019 RMB'000	2020 RMB'000	2021 RMB'000
Within operating cash flows	(5,317)	(4,618)	(6,938)
Within financing cash flows	(89,124)	(15,586)	(17,544)
	(94,441)	(20,204)	(24,482)

These amounts relate to the following:

	2019 RMB'000	2020 RMB'000	2021 RMB'000
Lease rentals paid	(94,441)	(20,204)	(24,482)

24 Time deposits with banks

	As at 31 December	
	2020 RMB'000	2021 RMB'000
Time deposits with maturity less than one year	4,049,443	7,386,607
Time deposits with maturity more than one year	7,042,840	5,581,435
	11,092,283	12,968,042

As at 31 December 2021, interest rates of time deposits with maturity less than one year ranged from 3.40% to 3.50% per annum (31 December 2020: 3.15% to 4.10% 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 3.45% to 4.20% per annum, which were presented as non-current assets in the statement of financial position (31 December 2020: 3.85% to 4.20% per annum).

25 Financial assets at fair value through other comprehensive income

	As at 31 December	
	2020 RMB'000	2021 RMB'000
Trade and bills receivable (i)		
- Amounts due from related parties (note 22)	10,000	25,000
- Others	1,207,114	1,047,690
	1,217,114	1,072,690
Equity investments	5,000	5,000
	1,222,114	1,077,690

(i) As at 31 December 2020 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 2021, the Group discounted certain bank acceptance bills to banks for cash proceeds and endorsed certain bank acceptance bills to suppliers for settling trade payables of the same amount on a full recourse basis. 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 2021, 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 RMB 156,737 thousand and RMB 307,275 thousand respectively.

26 Borrowings

	As at 31 December 2020 RMB'000	As at 31 December 2021 RMB'000
Credit loans due within one year		
- Short term bank loan	1,548,000	1,559,800
Credit loans due over one year but within three years		
- Long-term borrowing from a related party (note 33(c))	—	700,000
	1,548,000	2,259,800

(a) The analysis of the repayment schedule of borrowings are as follows:

	2020 RMB'000	2021 RMB'000
Within 1 year or on demand	1,548,000	1,559,800
Over one year but within two years	—	—
Over two years but within three years	—	700,000
	1,548,000	2,259,800

The weighted average interest rate for the Group's short-term bank loan was 2.74% as at 31 December 2021 (2019: 3.35%, 2020: 2.79%,). The interest rate of the Group's long-term borrowings was 1.08% as at 31 December 2021 (2019: Nil, 2020: Nil).

As at 31 December 2020 and 31 December 2021, no borrowings were secured by property, plant and equipment.

27 Short-term bonds

	As at 31 December	
	2020 RMB'000	2021 RMB'000
Short-term bonds	3,017,811	—

In August 2020, the Company issued 169-day short-term bonds of face value RMB3,000,000 thousand to institutional investors in inter-bank bond market. The effective yield of the short-term bonds is 1.70% per annum. The short-term bonds have been settled after their maturity in 2021.

28 Trade and other payables

	As at 31 December	
	2020	2021
	RMB'000	RMB'000
Trade payables	1,294,138	1,527,706
Bills payable	26,196	562,593
Amounts due to related parties exclude advances received	3,655,724	4,910,255
	4,976,058	7,000,554
Dividends payable	29,522	30,577
Construction payable	299,205	487,283
Oil price risk reserve	546,055	—
Accrued expenses	518,333	400,391
Other liabilities	106,634	87,144
	1,499,749	1,005,395
Financial liabilities measured at amortized cost	6,475,807	8,005,949
Amounts due to related parties – advances received	1,117	6,275
Amounts due to related parties – measured at fair value through profit or loss (FVPL) (i)	—	1,388,286
	6,476,924	9,400,510
Total amount due to related parties	3,656,841	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.

As at 31 December 2020 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.

28 Trade and other payables (continued)

As at 31 December 2020 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	
	2020 RMB'000	2021 RMB'000
Within one year	4,973,711	6,990,653
Over one year within two years	1,973	9,527
Over two years	374	374
	4,976,058	7,000,554

29 Contract liabilities

	As at 31 December	
	2020 RMB'000	2021 RMB'000
Contract liabilities	495,404	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 RMB495,404 thousand has been recognized in the current year relates to carried-forward contract liabilities (2019: RMB446,702 thousand, 2020: RMB 579,750 thousand).

30 Deferred income

	2020 RMB'000	2021 RMB'000
As at 1 January	10,005	13,433
Additions	3,865	—
Amortization	(437)	(713)
As at 31 December	13,433	12,720

31 Share capital

	Number of shares '000	*Amount* RMB'000
As at 31 December 2020, 1 January 2021 and 31 December 2021		
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

32 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 (note 3.1(a)) RMB'000	Share premium (note(e)) RMB'000	Safety production fund (note(f)) RMB'000	Retained earnings (note(g)) RMB'000	Total RMB'000
Balance at 1 January 2020	4,072,476	13,739	101,355	17,838	—	106,846	57,137	14,670,083	19,039,474
Total comprehensive income for the year attributable to shareholders of the Company	—	—	—	(11,512)	—	—	—	645,072	633,560
Change in fair value of hedging instruments	—	—	—	—	(63,840)	—	—	—	(63,840)
Reclassified to cost of inventory	—	—	—	—	63,840	—	—	—	63,840
Dividends declared and approved in respect of previous year	—	—	—	—	—	—	—	(1,298,858)	(1,298,858)
Appropriation of safety production fund	—	—	—	—	—	—	88,460	(88,460)	—
Balance at 31 December 2020 and 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	6,571,284	13,739	101,355	22,965	36,460	106,846	186,326	12,379,350	19,418,325

32 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 2021.

(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.

33 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*

33 Related-party transactions (continued)

Names of related parties	Relationship with the 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*
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*

33 Related-party transactions (continued)

Names of related parties	Relationship with the 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 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*
Sinopec Nanguang (Shanghai) Industrial Co., Ltd.	*Subsidiary of the ultimate parent company*
Unipec (Qingdao) International Logistics Company Limited	*Subsidiary of the ultimate parent company*

33 Related-party transactions (continued)

Names of related parties	Relationship with the 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*
Zhongshi Huananjing 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 Group International Travel Agency Agricultural Bank of China	*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*

33 Related-party transactions (continued)

Names of related parties	Relationship with the 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*
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*

33 Related-party transactions (continued)

Names of related parties	Relationship with the 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*
Sinopec Guangzhou Engineering Co., Ltd.	*Subsidiary of the immediate parent company*
Beijing Yanshan Petrochemical Special Equipment Inspection Co., Ltd.	*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*
Sinopec International (Australia) Pty. Ltd.	*Subsidiary of the immediate 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 34.

33 Related-party transactions (continued)

(a) Most of the transactions undertaken by the Group during the year ended 31 December 2021 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 years ended 31 December 2019, 2020 and 2021 were as follows:

	2019 RMB'000	2020 RMB'000	2021 RMB'000
Sales of petroleum products	50,354,162	39,879,549	47,201,755
Sales other than petroleum products	8,642,514	6,790,568	9,439,546
Purchases of crude oil	43,886,966	27,934,926	35,371,820
Purchases other than crude oil	9,579,239	9,937,862	9,008,147
Commission expense	125,619	104,598	110,552
Rental income	31,972	32,829	34,475

33 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 years ended 31 December 2019, 2020 and 2021 were as follows:

	2019 RMB'000	2020 RMB'000	2021 RMB'000
Sales of goods and service fee income			
- Sinopec Group and its subsidiaries	7,724	14,870	36,683
- Associates and joint ventures of the Group	2,843,909	2,019,997	4,248,658
	2,851,633	2,034,867	4,285,341
Purchases			
- Sinopec Group and its subsidiaries	1,918,873	832,617	2,830,256
- Associates and joint ventures of the Group	4,579,969	3,648,664	4,425,698
	6,498,842	4,481,281	7,255,954
Insurance premium expenses			
- Sinopec Group and its subsidiaries	108,223	107,495	108,850
Addition to right-of-use assets			
- Sinopec Group and its subsidiaries	25,935	2,267	1,388
- Joint ventures of the Group	702	—	—
	26,637	2,267	1,388
Interest expense of lease liabilities			
- Sinopec Group and its subsidiaries	2,285	205	247
- Joint ventures of the Group	19	8	24
	2,304	213	271
Interest income			
- Sinopec Finance	1,295	2,088	824
Construction and installation cost			
- Sinopec Group and its subsidiaries	143,560	233,591	785,216
Rental income			
- Associates and joint ventures of the Group	11,370	15,577	14,930
- Sinopec Group and its subsidiaries	461	464	464
	11,831	16,041	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 33(a) and 33(b) were conducted in the ordinary course of business, on normal commercial terms and in accordance with the agreements governing such transactions.

33 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 33(a) and 33(b), are summarized as follows:

	As at 31 December 2020 RMB'000	As at 31 December 2021 RMB'000
Amounts due from related parties		
- Sinopec Corp., its subsidiaries and joint ventures	1,054,127	1,184,117
- Associates and joint ventures of the Group	38,189	28,214
	1,092,316	1,212,331
Amounts due to related parties		
- Sinopec Corp., its subsidiaries and joint ventures	2,505,532	4,475,992
- Sinopec Group and its subsidiaries	889,035	1,672,439
- Associates and joint ventures of the Group	262,274	156,385
	3,656,841	6,304,816
Lease liabilities		
- Sinopec Group and its subsidiaries	8,453	992
- Joint ventures of the Group	574	435
	9,027	1,427
Cash deposits, maturing within three months		
- Sinopec Finance (note d)	5,667	3,243
Long-term borrowings		
- Sinopec Finance	—	700,000

(d) As at 31 December 2020 and 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.

33 Related-party transactions (continued)

(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		
	2019 RMB'000	2020 RMB'000	2021 RMB'000
Short-term employee benefits	9,120	9,859	11,866
Post-employment benefits	225	441	551
	9,345	10,300	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;
- 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 2020 RMB'000	As at 31 December 2021 RMB'000
Sinopec Group and its subsidiaries	145,959	775,007

33 Related-party transactions (continued)

(h) Investment commitments with related parties

	As at 31 December 2020 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	80,000
Capital contribution to Baling Materials (iii)	—	350,000
	191,263	541,263

(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 USD 30,017,000 (RMB 182,804 thousand equivalent) to Shanghai Secco, an associate of the Group. As at 31 December 2021, the Company has contributed RMB 71,541 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 RMB 400,000 thousand to acquire 40% share of Shidian Energy. As at 31 December 2021, Toufa has contributed RMB 320,000 thousand to Shidian Energy, and the rest of the capital contribution to Shidian Energy should be paid before January 2022 in accordance with the agreement.

(iii) Sinopec Baling Petrochemical Co., Ltd. and the Company jointly established Baling Materials on 7 September 2021, each with a cash contribution of RMB 400,000 thousand. As at 31 December 2021, the Company has made a paid-up capital contribution of RMB50,000 thousand.

Except for the above disclosed in notes 33 (g) and 33 (h), the Group had no other material commitments with related parties as at 31 December 2021, which are contracted, but not included in the financial statements.

34 Dividend

(a) Dividends payable to equity shareholders of the Company attributable to the year:

	2020 RMB'000	*2021* RMB'000
Final dividend proposed after the end of the reporting period of RMB 0.10 per ordinary share (2020: RMB 0.10 per ordinary share)	1,082,381	1,082,381

34 Dividend (continued)

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.

(b) Dividends payable to equity shareholders of the Company attributable to the previous financial year, approved and paid during the year

	2020 RMB'000	*2021* RMB'000
Final dividend in respect of the previous financial year, approved and paid during the year, of RMB 0.10 per share (2020: RMB 0.12)	1,298,858	1,082,381

35 Commitments

Capital commitments outstanding at 31 December 2021 not provided for in the financial statements were as follows:

	As at 31 December 2020 RMB'000	As at 31 December 2021 RMB'000
Property, plant and equipment contracted for	585,870	1,176,168

36 Subsequent event

(a) A dividend in respect of the year ended 31 December 2021 of RMB 0.1 per share, amounting to a total dividend of RMB1,082,381 thousands, was proposed by the Board of Directors on 23 March 2022.

(b) Pursuant to [2020] Scp471 approved by China interbank market dealers association, the Company issued a super short-term bonds of RMB1.50 billion to Chinese institutional investors with interest rate of 2.35% per year in January 2022, and will repay the principal and interest upon maturity on 18 May 2022.

Pursuant to [2020] Scp471 approved by China interbank market dealers association, the Company issued another super short-term bonds of RMB1.50 billion to Chinese institutional investors with interest rate of 2.01% per year in March 2022, and will repay the principal and interest upon maturity on 5 July 2022.

37 Statement of financial position and equity movement of the Company

	As at 31 December 2020 RMB'000	As at 31 December 2021 RMB'000
Non-current assets		
Property, plant and equipment	11,279,484	10,914,990
Investment properties	396,676	381,540
Right-of-use assets	296,371	275,924
Construction in progress	1,694,937	3,201,111
Investments in subsidiaries	2,048,328	2,048,328
Investments accounted for using the equity method	4,594,451	3,299,050
Time deposits with banks	7,042,840	5,381,149
Deferred tax assets	238,040	178,084
Other non-current assets	402,304	769,492
	27,993,431	26,449,668
Current assets		
Derivative financial instruments	—	81,405
Inventories	3,685,456	5,726,264
Trade receivables	1,484	149
Other receivables	6,447	8,276
Amounts due from related parties	975,952	1,116,553
Prepayments	6,559	13,790
Financial assets at fair value through other comprehensive income (FVOCI)	735,262	615,689
Time deposits with banks	4,049,441	7,386,605
Cash and cash equivalents	5,460,067	4,927,519
	14,920,668	19,876,250
Current liabilities		
Trade and other payables	2,287,762	2,389,508
Contract liabilities	423,838	376,834
Amounts due to related parties	3,507,497	7,423,883
Staff salaries and welfares payable	239,537	253,800
Borrowings	1,500,000	1,500,000
Short-term bonds	3,017,811	—
Lease liabilities	7,897	1,604
Derivative financial instruments	—	23,804
Income tax payable	—	249,332
Current tax liabilities	3,392,922	3,843,541
	14,377,264	16,062,306
Net current assets	543,404	3,813,944

37 Statement of financial position and equity movement of the Company (continued)

	As at 31 December 2020 RMB'000	As at 31 December 2021 RMB'000
Total assets less current liabilities	28,536,835	30,263,612
Non-current liabilities		
Interest-bearing borrowings	—	700,000
Lease liabilities	1,911	399
Deferred income	13,433	12,720
	15,344	713,119
NET ASSETS	28,521,491	29,550,493
CAPITAL AND RESERVES		
Share capital	10,823,814	10,823,814
Reserves	17,697,677	18,726,679
TOTAL EQUITY	28,521,491	29,550,493

Approved and authorized for issue by the Board of Directors on 27 April 2022.

Wu Haijun)
) Directors
Du Jun)

37 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	Retained earnings RMB'000	Total RMB'000
Balance at 1 January 2020	10,823,814	4,072,476	4,180	101,355	17,838	—	106,846	57,135	14,260,322	29,443,966
Net profit attributable to shareholders of the Company	—	—	—	—	—	—	—	—	387,895	387,895
Dividends proposed and approved	—	—	—	—	—	—	—	—	(1,298,858)	(1,298,858)
Appropriation of safety production fund	—	—	—	—	—	—	—	88,462	(88,462)	—
Change in fair value of hedging instruments	—	—	—	—	—	63,840	—	—	—	63,840
Reclassified to cost of inventory	—	—	—	—	—	(63,840)	—	—	—	(63,840)
Share of other comprehensive income of investments accounted for using the equity method	—	—	—	—	(11,512)	—	—	—	—	(11,512)
Balance at 31 December 2020 and 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	10,823,814	6,571,284	4,180	101,355	22,965	36,460	106,846	177,907	11,705,682	29,550,493

38 Benefits and interests of directors and supervisors

(a) Directors' and supervisors' emoluments:

	2019				
	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	343	26	557	—	926
Shi Wei (*Resigned in December 2019*)	329	26	797	—	1,152
Jin Qiang	289	26	745	—	1,060
Guo Xiaojun (Resigned in December 2019)	283	26	751	—	1,060
Zhou Meiyun	248	26	709	—	983
Jin Wenmin	260	26	721	—	1,007
Independent non-executive directors					
Zhang Yimin	—	—	—	150	150
Liu Yunhong	—	—	—	150	150
Du Weifeng	—	—	—	150	150
Li Yuanqin	—	—	—	150	150
Supervisors					
Ma Yanhui	267	22	685	—	974
Zuo Qiang (Resigned in September 2019)	102	15	324	—	441
Li Xiaoxia (Resigned in September 2019)	102	14	529	—	645
Zhang Feng (Appointed in October 2019)	31	9	107	—	147
Chen Hongjun (Appointed in October 2019)	34	9	110	—	153
Zheng Yunrui	100	—	—	—	100
Cai Tingji	100	—	—	—	100
	2,488	225	6,035	600	9,348

38 Benefits and interests of directors and supervisors (continued)

(a) Directors' and supervisors' emoluments (continued):

	2020				
	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	359	44	799	—	1,202
Guan Zemin *(appointed in February 2020)*	367	41	397	—	805
Jin Qiang	354	44	716	—	1,114
Jin Wenmin	250	44	721	—	1,015
Huang Xiangyu *(appointed in June 2020)*	275	39	440	—	754
Huang Fei *(appointed in June 2020)*	217	39	426	—	682
Zhou Meiyun *(resigned in September 2020)*	181	33	668	—	882
Non-executive directors					
Xie Zhenglin *(appointed in June 2020)*	—	—	—	—	—
Peng Kun *(appointed in June 2020)*	96	25	246	—	367
Independent non-executive directors					
Li Yuanqin	—	—	—	150	150
Tang Song *(appointed in June 2020)*	—	—	—	75	75
Chen Haifeng *(appointed in June 2020)*	—	—	—	75	75
Yang Jun *(appointed in June 2020)*	—	—	—	75	75
Gao Song *(appointed in June 2020)*	—	—	—	75	75
Zhang Yimin *(resigned in June 2020)*	—	—	—	75	75
Liu Yunhong *(resigned in June 2020)*	—	—	—	75	75
Du Weifeng *(resigned in June 2020)*	—	—	—	75	75
Supervisors					
Ma Yanhui	332	42	720	—	1,094
Zhang Feng	148	40	485	—	673
Chen Hongjun	159	38	485	—	682
Zheng Yunrui	100	—	—	—	100
Cai Tingji	100	—	—	—	100
	2,938	429	6,103	675	10,145

38 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

38 Benefits and interests of directors and supervisors (continued)

(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 (2019 and 2020:Nil).

39 Possible impact of amendments, new standards and interpretations issued but not yet effective for the year ended 31 December 2021

Up to the date of issue of these financial statements, the IASB has issued a number of a number of amendments, new standards and interpretations, which are not yet effective for the year ended 31 December 2021 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
Annual Improvements to IFRS Standards 2018-2020	1 January 2022
Amendments to IFRS 3, Reference to the Conceptual Framework	1 January 2022
Amendments to IAS 16, Property, Plant and Equipment: Proceeds before Intended Use	1 January 2022
Amendments to IAS 37, Onerous Contracts – Cost of Fulfilling a Contract	1 January 2022
Amendments to IAS 1, Classification of Liabilities as Current or Non-current	1 January 2023
IFRS 17, Insurance contracts	1 January 2023
Basis for conclusions on IFRS 17	1 January 2023
Illustrative examples on IFRS 17	1 January 2023
Amendments to IFRS 17	1 January 2023
Amendments to IFRS 17, Initial Application of IFRS 17 and IFRS 9 - Comparative Information	1 January 2023
Amendments to IAS 1 and IFRS Practice Statement 2, Disclosure of Accounting Policies	1 January 2023
Amendments to IAS 8, Definition of Accounting Estimates	1 January 2023
Amendments to IAS 12, Deferred Tax related to Assets and Liabilities arising from a Single Transaction	1 January 2023

39 Possible impact of amendments, new standards and interpretations issued but not yet effective for the year ended 31 December 2021 (continued)

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.

Exhibit 8

List of Principal Subsidiaries of Sinopec Shanghai Petrochemical Company Limited

Subsidiary Name	Place of Incorporation	Our ownership interest (%)
Shanghai Petrochemical Investment Development Company Limited	PRC	100.00
China Jinshan Associated Trading Corporation	PRC	67.33
Shanghai Jinchang Engineering Plastics Company Limited	PRC	74.25
Shanghai Golden Phillips Petrochemical Company Limited	PRC	100.00
Shanghai Jinshan Trading Corporation	PRC	67.33
Zhejiang Jinlian Petrochemical Storage and Transportation Company Limited	PRC	100.00

Exhibit 12.1

CERTIFICATION

I, Guan Zemin, certify that:

1. I have reviewed this annual report on Form 20-F of Sinopec Shanghai Petrochemical Company Limited.

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report.

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report.

4. The company's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the company and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the company's internal control over financial reporting that occurred during the period covered by the report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting.

5. The company's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the company's internal control over financial reporting.

Date: April 27, 2022

By: /s/ Guan Zemin
Guan Zemin
President

Exhibit 12.2

CERTIFICATION

I, Du Jun, certify that:

1. I have reviewed this annual report on Form 20-F of Sinopec Shanghai Petrochemical Company Limited.

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report.

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report.

4. The company's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the company and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the company's internal control over financial reporting that occurred during the period covered by the report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting.

5. The company's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the company's internal control over financial reporting.

Date: April 27, 2022

By: /s/ Du Jun

Du Jun
Chief Financial Officer

Exhibit 13.1

906 CERTIFICATION

Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 20549

Ladies and Gentlemen:

In connection with the Annual Report of Sinopec Shanghai Petrochemical Company Limited (the "Company") on Form 20-F for the year ended December 31, 2021, as filed with the Securities and Exchange Commission (the "Report"), I, Guan Zemin, the President of the Company, hereby certify as of the date hereof, solely for purposes of Title 18, Chapter 63, Section 1350 of the United States Code, that to the best of my knowledge:

1. the Report fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934; and

2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company at the dates and for the periods indicated.

This Certification has not been, and shall not be deemed "filed" with the Securities and Exchange Commission.

Date: April 27, 2022

By:	/s/ Guan Zemin
Name:	Guan Zemin
Title:	President

Exhibit 13.2

906 CERTIFICATION

Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 20549

Ladies and Gentlemen:

In connection with the Annual Report of Sinopec Shanghai Petrochemical Company Limited (the “Company”) on Form 20-F for the year ended December 31, 2021, as filed with the Securities and Exchange Commission (the “Report”), I, Du Jun, the Chief Financial Officer of the Company, hereby certify as of the date hereof, solely for purposes of Title 18, Chapter 63, Section 1350 of the United States Code, that to the best of my knowledge:

1. the Report fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934; and
2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company at the dates and for the periods indicated.

This Certification has not been, and shall not be deemed “filed” with the Securities and Exchange Commission.

Date: April 27, 2022

By: /s/ Du Jun
Name: Du Jun
Title: Chief Financial Officer

Exhibit 99.1

Report of Independent Registered Public Accounting Firm

To the Board of Directors of Shanghai Secco Petrochemical Company Limited

We have audited the accompanying financial statements of Shanghai Secco Petrochemical Company Limited (the "Company"), which comprise the balance sheet as of December 31, 2020, and the related income statements, statements of changes in owners' equity and cash flows for the each of the two years in the period ended December 31, 2020.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with the requirements of Accounting Standards for Business Enterprises in the People's Republic of China; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on the financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the Company's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2020, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2020 in accordance with the requirements of Accounting Standards for Business Enterprises in the People's Republic of China.

Other Matter

The accompanying balance sheet of the Company as of December 31, 2021, and the related income statement, statements of changes in owners' equity and cash flows for the year then ended are presented for purposes of complying with Rule 3-09 of SEC Regulation S-X; however, Rule 3-09 does not require the 2021 financial statements to be audited and they are therefore not covered by this report.

/s/PricewaterhouseCoopers Zhong Tian LLP
Shanghai, the People's Republic of China
April 28, 2021

Shanghai Secco Petrochemical Company Limited
Balance sheets as at 31 December 2020 and 2021*
(Expressed in Renminbi Yuan)

	Note	31 December 2020	31 December 2021*
Assets			
Current assets			
Cash at bank and on hand	6	5,220,636,789	3,282,751,042
Accounts receivable	7	311,442,789	251,529,912
Financial assets at fair value through other comprehensive income	8	501,351,308	260,065,209
Advances to suppliers	9	14,331,782	22,771,842
Other receivables	10	2,159,178	41,376,432
Inventories	11	1,491,289,838	2,205,453,196
Current portion of non-current assets	12	100,000,000	—
Other current assets	13	2,789,514,813	2,171,547
Total current assets		10,430,726,497	6,066,119,180
Non-current assets			
Fixed assets	14	3,518,620,901	3,166,903,848
Construction in progress	15	366,781,634	203,497,772
Right-of-use assets	16	5,836,350	367,711
Intangible assets	17	636,781,767	627,505,136
Long term prepaid expenses	18	171,104,899	135,014,349
Deferred tax assets	19	—	48,291,526
Other non-current assets	20	1,400,000,000	1,553,779,369
Total non-current assets		6,099,125,551	5,735,359,711
Total assets		16,529,852,048	11,801,478,891
Liabilities and owner's equity			
Current liabilities			
Accounts payable		1,289,854,156	1,787,137,217
Contract liabilities	21	499,509,916	415,450,821
Employee benefits payable	22	112,141,221	105,573,340
Taxes payable	5(3)	801,649,672	316,126,213
Other payables	23	9,800,936	2,755,463,900
Non-current liabilities maturing within one year	24	5,324,226	111,639
Other current liabilities	25	64,936,289	54,008,607
Total current liabilities		2,783,216,416	5,433,871,737
Non-current liabilities			
Lease liabilities	26	177,384	65,747
Deferred tax liabilities	19	32,303,370	—
Total non-current liabilities		32,480,754	65,747
Total liabilities		2,815,697,170	5,433,937,484
Owners' equity			
Paid-in capital	27	7,800,811,272	500,000,000
Capital surplus	28	1,454,646	1,454,646
Specific reserve	29	—	—
Surplus reserve	30	2,740,182,899	3,052,773,285
Undistributed profits		3,171,706,061	2,813,313,476
Total owners' equity		13,714,154,878	6,367,541,407
Total liabilities and owners' equity		16,529,852,048	11,801,478,891

* Not covered by the independent auditor's report included herein

The accompanying notes form an integral part of these financial statements.

Legal representative	General manager	Head of accounting department	(Company stamp)
Zhang Minglong	Zhang Minglong	Lu Daoqing	

Shanghai Secco Petrochemical Company Limited

Income statements for the year ended 31 December 2019, 2020 and 2021*

(Expressed in Renminbi Yuan)

	Note	2019	2020	2021*
Revenue	32	28,341,032,354	21,626,059,244	29,723,223,208
Less: Cost of sales		22,754,564,625	17,269,274,588	25,170,369,009
Taxes and surcharges	33	127,686,385	47,163,147	68,615,664
Selling and distribution expenses		579,571,851	545,058,651	171,618,022
General and administrative expenses		654,455,677	778,238,133	384,640,241
R&D expenses		4,254,778	10,829,389	15,954,174
Financial income - net	34	(292,922,019)	(162,465,492)	(228,367,775)
Including: Interest expenses		11,596,955	6,019,753	2,682,042
Interest income		304,332,698	172,009,089	232,479,017
Add: Other income	35	23,025,485	10,958,322	16,387,830
Investment income	36	—	58,535,901	46,328,616
Net reversal of impairment losses on financial assets		—	1,040,393	—
Asset impairment losses	37	(25,475,861)	(6,787,522)	(127,513,762)
Losses on disposal of assets		(4,973,598)	—	—
Operating profit		4,505,997,083	3,201,707,922	4,075,596,557
Add: Non-operating income	38	2,928,815	15,062,370	4,305,837
Less: Non-operating expenses	38	1,880,328	8,546,265	13,581,464
Total profit		4,507,045,570	3,208,224,027	4,066,320,930
Less: Income tax expenses	39	1,123,459,835	795,424,371	940,417,068
Net profit		3,383,585,735	2,412,799,656	3,125,903,862
Including: Net profit from continuing operations		3,383,585,735	2,412,799,656	3,125,903,862
Net profit from discontinued operations		—	—	—
Other comprehensive income		—	—	—
Total comprehensive income		3,383,585,735	2,412,799,656	3,125,903,862

* Not covered by the independent auditor's report included herein

The accompanying notes form an integral part of these financial statements.

Legal representative	General manager	Head of accounting department	(Company stamp)
Zhang Minglong	Zhang Minglong	Lu Daoqing	

Shanghai Secco Petrochemical Company Limited

Cash flow statements for the year ended 31 December 2019, 2020 and 2021*

(Expressed in Renminbi Yuan)

	Note	2019	2020	2021*
Cash flows generated from operating activities:				
Cash received from sales of goods or rendering of services		28,004,355,856	21,427,685,227	28,606,446,224
Refund of taxes and surcharges		—	53,504	374,419
Cash received from other operating activities		41,945,698	181,540,815	151,007,619
Sub-total of cash inflows		28,046,301,554	21,609,279,546	28,757,828,262
Cash paid for goods and services		(21,227,092,727)	(16,695,409,936)	(22,606,453,710)
Cash paid to and on behalf of employees		(483,492,318)	(506,833,430)	(577,421,410)
Payments of taxes and surcharges		(1,658,917,753)	(1,209,305,980)	(2,035,109,503)
Cash paid to other operating activities		(75,470,234)	(78,693,377)	(90,970,900)
Sub-total of cash outflows		(23,444,973,032)	(18,490,242,723)	(25,309,955,523)
Net cash flows generated from operating activities	41(1)	4,601,328,522	3,119,036,823	3,447,872,739
Cash flows (used in) / generated from investing activities:				
Cash received from entrusted loans		—	2,000,000,000	2,000,000,000
Cash received from returns on investments		—	62,048,056	49,108,333
Cash received from disposal of fixed assets		1,265,183	1,314,386	—
Cash received from other investing activities		304,332,698	120,834,086	1,252,602,486
Sub-total of cash inflows		305,597,881	2,184,196,528	3,301,710,819
Cash paid to acquire fixed assets, intangible assets and other long-term assets		(306,686,064)	(378,975,254)	(318,538,272)
Cash paid for entrusted loans		—	(4,000,000,000)	—
Cash paid to other investing activities		(90,000,000)	(2,140,000,000)	(1,450,000,000)
Sub-total of cash outflows		(396,686,064)	(6,518,975,254)	(1,768,538,272)
Net cash flows (used in) / generated from investing activities		(91,088,183)	(4,334,778,726)	1,533,172,547
Cash flows used in financing activities:				
Cash received from borrowings		500,000,000	—	—
Sub total of cash inflows		500,000,000	—	—
Cash repayments of borrowings		—	(500,000,000)	—
Cash payments for distribution of profits		(2,537,000,000)	(2,368,000,000)	(3,171,706,061)
Payment for capital reduction		—	—	(4,650,645,401)
Cash payments for interest expenses		(6,550,592)	(5,222,150)	—
Cash paid to other financing activities		(6,123,689)	(6,378,698)	(5,746,724)
Sub-total of cash outflows		(2,549,674,281)	(2,879,600,848)	(7,828,098,186)
Net cash flows used in financing activities		(2,049,674,281)	(2,879,600,848)	(7,828,098,186)
Effect of foreign exchange rate changes on cash and cash equivalents		620,568	(2,504,130)	(832,847)
Net increase / (decrease) in cash and cash equivalents	41(2)	2,461,186,626	(4,097,846,881)	(2,847,885,747)
Add: Cash and cash equivalents at beginning of year		6,817,297,044	9,278,483,670	5,180,636,789
Cash and cash equivalents at end of year	41(3)	9,278,483,670	5,180,636,789	2,332,751,042

* Not covered by the independent auditor's report included herein

The accompanying notes form an integral part of these financial statements.

Legal representative Zhang Minglong	General manager Zhang Minglong	Head of accounting department Lu Daoqing	(Company stamp)

Shanghai Secco Petrochemical Company Limited

Statements of changes in owner's equity for the years ended 31 December 2019, 2020 and 2021*

(Expressed in Renminbi Yuan)

	Note	Paid-in capital	Capital surplus	Specific reserve	Surplus reserve	Undistributed profits	Total owners' equity
Balance at 1 January 2019		7,800,811,272	1,454,646	—	2,160,544,360	2,859,959,209	12,822,769,487
Movements for the year ended 31 December 2019							
Net profit		—	—	—	—	3,383,585,735	3,383,585,735
Profit distribution							
- Appropriation to surplus reserve		—	—	—	338,358,573	(338,358,573)	—
- Distribution for owners		—	—	—	—	(2,537,000,000)	(2,537,000,000)
Specific reserve							
- Accrued		—	—	37,018,671	—	—	37,018,671
- Utilized		—	—	(37,018,671)	—	—	(37,018,671)
Balance at 31 December 2019		7,800,811,272	1,454,646	—	2,498,902,933	3,368,186,371	13,669,355,222
Balance at 1 January 2020		7,800,811,272	1,454,646	—	2,498,902,933	3,368,186,371	13,669,355,222
Movements for the year ended 31 December 2020							
Net profit		—	—	—	—	2,412,799,656	2,412,799,656
Profit distribution	31						
- Appropriation to surplus reserve		—	—	—	241,279,966	(241,279,966)	—
- Distribution for owners		—	—	—	—	(2,368,000,000)	(2,368,000,000)
Specific reserve	29						
- Accrued		—	—	39,036,294	—	—	39,036,294
- Utilized		—	—	(39,036,294)	—	—	(39,036,294)
Balance at 31 December 2020		7,800,811,272	1,454,646	—	2,740,182,899	3,171,706,061	13,714,154,878
Balance at 1 January 2021		7,800,811,272	1,454,646	—	2,740,182,899	3,171,706,061	13,714,154,878
Movements for the year ended 31 December 2021*							
Net profit		—	—	—	—	3,125,903,862	3,125,903,862
Owner's contributions							
- Capital reduction		(7,300,811,272)	—	—	—	—	(7,300,811,272)
Profit distribution	31						
- Appropriation to surplus reserve		—	—	—	312,590,386	(312,590,386)	—
- Distribution for owners		—	—	—	—	(3,171,706,061)	(3,171,706,061)
Specific reserve	29						
- Accrued		—	—	28,523,706	—	—	28,523,706
- Utilized		—	—	(28,523,706)	—	—	(28,523,706)
Balance at 31 December 2021*		500,000,000	1,454,646	—	3,052,773,285	2,813,313,476	6,367,541,407

* Not covered by the independent auditor's report included herein

The accompanying notes form an integral part of these financial statements.

Legal representative	General manager	Head of accounting department	(Company stamp)
Zhang Minglong	Zhang Minglong	Lu Daoqing	

SHANGHAI SECCO PETROCHEMICAL COMPANY LIMITED
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEARS ENDED 31 DECEMBER 2019, 2020 AND 2021 (AMOUNTS FOR THE YEAR ENDED 31 DECEMBER 2021 ARE NOT COVERED BY THE INDEPENDENT AUDITOR'S REPORT INCLUDED HEREIN)
(EXPRESSED IN RENMINBI YUAN)

1 Company status

Shanghai Secco Petrochemical Company Limited ("the Company") was a Sino-foreign equity joint venture established in Shanghai, the People's Republic of China ("the PRC") in 2001 by China Petroleum and Chemical Corporation ("Sinopec Corp."), Sinopec Shanghai Petrochemical Company Limited ("SPC") and BP Chemicals East China Investments Limited ("BPCECIL"). The original registered capital and paid-in capital of the Company both were USD 901,440,964. Sinopec Corp., SPC and BPCECIL held 30%, 20% and 50% equity interest in the Company, respectively. The Company commenced its active operation on 31 March 2005, and the approved period of operation is 50 years.

On 24 October 2013 and 25 November 2013, Sinopec Corp., SPC and BPCECIL amended the Equity Joint Venture Contract and Articles of Association to progressively increase the registered capital of the Company from USD 901,440,964 to USD 1,051,526,582. The total increased registered capital would be contributed by Sinopec Corp., SPC and BPCECIL in proportion to their respective shareholding in the Company by instalments. In 2013 and 2014, the Company received paid-in capital contributed by Sinopec Corp., SPC and BPCECIL in proportion to their respective shareholding in the Company by instalments, totalling to USD 58,430,374 (equivalent to RMB 357,226,095). The capital has been verified by PricewaterhouseCoopers Zhong Tian LLP and Shanghai Huayi Accountant Office Co., Ltd. with verification reports PricewaterhouseCoopers Zhongtian Yanzi (2013) No. 872 and Hua Yanzi (2014) No. 002 issued, respectively.

On 27 April 2017, Sinopec Corp. and Sinopec Shanghai Gaoqiao Petrochemical Company Limited ("Gaoqiao Petrochemical") (subsidiary of Sinopec Corp.) entered into an agreement with BPCECIL, according to which Gaoqiao Petrochemical purchased 50% equity in the Company from BPCECIL. On 26 October 2017, the Company was transformed from a "Sino-foreign joint venture" to an "other limited liability corporation".

According to the resolution of the Board of Directors on 9 July 2021, the Company's paid-in capital has reduced from RMB 7,800,811,272 to RMB 500,000,000, all owners of the Company has reduced their capital in proportion to their shareholding ratios.

The Company's approved scope of business operations mainly comprises the production of ethylene, polyethylene, styrene, polystyrene, propylene, acrylonitrile, polypropylene, butadiene, aromatic hydrocarbons and by-products; sales of these products and purchased raw materials; as well as provision of related after-sales services and technical consultation with respect to such main petrochemical products and by-products; it is also engaged in polymers application development and providing ancillary utilities engineering services to suppliers and processors.

These financial statements were approved for issue by the Company's responsible persons on 23 March 2022.

2 Basis of preparation

The financial statements are prepared in accordance with the Accounting Standards for Business Enterprises—Basic Standard, the specific accounting standards and other relevant regulations issued by the Ministry of Finance on 15 February 2006 and in subsequent periods (hereafter collectively referred to as "the Accounting Standards for Business Enterprises" or "CAS").

The financial statements have been prepared on the going concern basis.

(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 Ministry of Finance ("MOF"). These financial statements present truly and completely the financial position of the Company as at 31 December 2021, 2020 and 2019, and the financial performance and the cash flows of the Company for the years then ended.

(2) Accounting year

The accounting year of the Company is from 1 January to 31 December.

(3) Functional currency and presentation currency

The Company's functional currency is Renminbi and these financial statements are presented in Renminbi.

3 Significant accounting policies and accounting estimates

(1) Translation of foreign currencies

When the Company 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, construction or production of qualifying assets. Non-monetary items that are measured at historical cost in foreign currencies are translated to Renminbi using the exchange rate at the transaction date.

(2) Cash and cash equivalents

Cash and cash equivalents comprise cash on hand, deposits that can be readily withdrawn 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.

(3) Inventories

Inventories include raw materials, work in progress and finished goods, and are measured at the lower of cost and net realizable value.

Cost is determined using the weighted average method. The cost of finished goods and semi-finished products comprise raw materials, direct labor and systematically allocated production overhead based on the normal production capacity. Turnover materials include low value consumables and packaging materials, and are expensed when issued.

Provision for decline in the value of inventories is determined at the excess amount of the carrying amounts of the inventories over their net realizable value. Net realizable value is determined based on the estimated selling price in the ordinary course of business, less the estimated costs to completion and estimated costs necessary to make the sale and related taxes.

The Company adopts the perpetual inventory system.

(4) Fixed assets

Fixed assets comprise buildings, specialized machinery and equipment, general machinery and equipment, office and other equipment. Fixed assets purchased or constructed by the Company are initially measured at cost at the time of acquisition.

Subsequent expenditures incurred for a fixed asset are included in the cost of the fixed asset when it is probable that the associated economic benefits will flow to the Company and the related cost can be reliably measured. The carrying amount of the replaced part is derecognized. All the other subsequent expenditures are recognized in profit or loss for the period in which they are incurred.

(EXPRESSED IN RENMINBI YUAN)

Fixed assets are depreciated using the straight-line method to allocate the cost of the assets to their estimated residual values over their estimated useful lives. For the fixed assets that have been provided for asset impairment loss, the related depreciation charge is prospectively determined based upon the adjusted carrying amounts over their remaining useful lives.

The estimated useful lives, the estimated net residual values expressed as a percentage of cost and the annual depreciation rates of fixed assets are as follows:

	Estimated useful life	*Residual value rate*	*Depreciation rate*
Plant and buildings	12 to 40 years	3%	2.43% to 8.08%
Specialized machinery and equipment	5 to 30 years	3%	3.23% to 19.40%
General machinery and equipment	4 to 20 years	3%	4.85% to 24.25%
Office and other equipment	5 years	0%	20.00%
Motor vehicles	8 to 10 years	3%	9.70% to 12.13%
Machinery and equipment	4 to 14 years	3%	6.93% to 24.25%

The estimated useful life and the estimated net residual value of a fixed asset and the depreciation method applied to the asset are reviewed, and adjusted as appropriate at each year-end.

A fixed asset is derecognized on disposal or when no future economic benefits are expected from its use or disposal. The amount of proceeds from disposals on sale, transfer, retirement or damage of a fixed asset net of its carrying amount and related taxes and expenses is recognized in profit or loss for the current period.

(5) Construction in progress

Construction in progress is measured at actual cost. Actual cost comprises construction costs, installation costs, borrowing costs that are eligible for capitalization and other costs necessary to bring the fixed assets ready for their intended use. Construction in progress is transferred to fixed assets when the assets are ready for their intended use, and depreciation is charged starting from the following month.

(6) Leases

Lease is a kind of contract whereby, within a certain period of time, the lessor transfers the right-of-use of assets to lessee in order to obtain benefits.

(a) The Company as the lessee

The Company recognize the right-of-use assets at the beginning of the lease period and the lease liabilities at the present value of the outstanding lease payments. 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 exercized. 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 Company will be paid from the balance sheet date within one year (including one year) of the lease liabilities, as a non-current liabilities maturing within one year.

The right-of-use assets of the Company including leased houses and buildings, plant and machinery equipment, means of transport and others. The right-of-use assets are initially measured at cost, which includes the initial measurement of the lease liability, the lease payment paid on or before the lease period, the initial direct expenses, etc., and deducts the lease incentive received. Where the Company is able to reasonably determine the ownership of the leased assets upon the expiration of the lease term, depreciation of the leased assets shall be calculated and withdrawn within the remaining service life of the leased assets; If it is not reasonable to determine whether the ownership of the leased asset can be acquired at the end of the lease term, the depreciation shall be calculated within the shorter period between the lease term and the remaining useful life of the leased asset. When the recoverable amount is lower than the book value of the asset, the Company writes down the book value to the recoverable amount.

For short-term leases with a lease term of no more than 12 months, the Company chooses not to recognize the right-of-use assets and lease liabilities, and records the relevant rental expenses into the current profits and losses or related asset costs according to the straight-line method during each period of the lease term.

(7) Intangible assets

Intangible assets are stated in the balance sheet at cost less accumulated amortization (where the estimated useful life is finite) and asset impairment losses (see Note 3(11)(b)).

For an intangible asset with finite useful life, its cost less estimated residual value and accumulated asset impairment losses is amortized using the straight-line method over its estimated useful life. The respective amortization periods for such intangible assets are as follows:

	Amortization period
Land use rights	47 years
Patents	10 years
Software	2 to 10 years

Useful lives and amortization methods of intangible asset with finite useful life are reviewed at least at each year-end.

If the acquisition costs of the land use rights and the buildings located thereon cannot be reasonably allocated between the land use rights and the buildings, all of the acquisition costs are recognized as fixed assets.

(8) Research and development

The expenditure on an internal research and development project is classified into expenditure on the research phase and expenditure on the development phase based on its nature and whether there is material uncertainty that the research and development activities can form an intangible asset at the end of the project.

Expenditure on the research phase is recognized in profit or loss in the period in which it is incurred. Expenditure on the development phase is capitalized only if all of the following conditions are satisfied:

- it is technically feasible to complete the intangible asset so that it will be available for use or sale;
- management intends to complete the intangible asset, and use or sell it;
- it can be demonstrated how the intangible asset will generate economic benefits;
- there are adequate technical, financial and other resources to complete the development and the ability to use or sell the intangible asset; and
- the expenditure attributable to the intangible asset

Other development expenditures that do not meet the conditions above are recognized in profit or loss in the period in which they are incurred. Development costs previously recognized as expenses are not recognized as an asset in a subsequent period. Capitalized expenditure on the development phase is presented as development costs in the balance sheet and transferred to intangible assets at the date that the asset is ready for its intended use.

(9) Long-term prepaid expenses

Long-term prepaid expenses mainly include the catalyst expenditures that have been incurred but should be recognized as expenses over more than one year in the current and subsequent periods. Long-term prepaid expenses are amortized on the straight-line basis over the expected beneficial period and are presented at actual expenditure net of accumulated amortization.

Catalysts are amortized on the straight-line basis over their useful lives of 1.5 to 10 years.

(10) Financial instruments

Financial instruments include cash at bank and on hand, receivables, payables, paid-in capital and etc.

(a) Recognition and initial measurement of financial assets and financial liabilities

A financial asset or financial liability is recognized in the balance sheet when the Company 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 3(16).

(b) Classification and subsequent measurement of financial assets

(i) 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 Company 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.

On initial recognition of an equity investment that is not held for trading, the Company may irrevocably elect to present subsequent changes in the investment's fair value in other comprehensive income. This election is made on an investment-by-investment basis. The instrument meets the definition of equity from the perspective of the issuer.

All financial assets not classified as measured at amortized cost or FVOCI as described above are measured at FVTPL. On initial recognition, the Company 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 Company manages its financial assets in order to generate cash flows. That is, the Company's business model determines whether cash flows will result from collecting contractual cash flows, selling financial assets or both. The Company 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 Company's key management personnel.

In assessing whether the contractual cash flows are solely payments of principal and interest, the Company 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 Company 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.

(ii) 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.

- 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.

- 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.

- 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 undistributed profits.

(c) 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.

(d) 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 Company currently has a legally enforceable right to set off the recognized amounts;
- the Company intends either to settle on a net basis, or to realize the financial asset and settle the financial liability simultaneously.

(e) Derecognition of financial assets and financial liabilities

Financial asset is derecognized when one of the following conditions is met:

- the Company's contractual rights to the cash flows from the financial asset expire;
- the financial asset has been transferred and the Company transfers substantially all of the risks and rewards of ownership of the financial asset; or
- the financial asset has been transferred, although the Company 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 Company derecognizes a financial liability (or part of it) only when its contractual obligation (or part of it) is extinguished.

(f) 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.

(11) Impairment of assets

Except for impairment of assets set out in Notes 3(3) and (15), impairment of assets is accounted for using the following principles:

(a) Impairment of financial instruments

The Company recognizes loss allowances for expected credit loss (ECL) on:

- financial assets measured at amortized cost;
- debt investments measured at FVOCI.

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 Company expects to receive).

The maximum period considered when estimating ECLs is the maximum contractual period (including extension options) over which the Company 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 are always measured at an amount equal to lifetime ECL. ECLs on these financial assets are estimated using a provision matrix based on the Company's historical credit loss experience, adjusted for factors that are specific to the debtors and an assessment of both the current and forecast general economic conditions at the balance sheet date.

Except for trade receivables, the Company 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.

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 Company 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 Company 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 Company.

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 Company assumes that the credit risk on a financial asset has increased significantly if it is more than 30 days past due.

The Company considers a financial asset to be in default when:

- the borrower is unlikely to pay its credit obligations to the Company in full, without recourse by the Company to actions such as realizing security (if any is held); or
- the financial asset is more than 90 days past due.

Credit-impaired financial assets

At each balance sheet date, the Company 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 in interest or principal payments;
- for economic or contractual reasons relating to the borrower's financial difficulty, the Company 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 Company 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 Company 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 Company'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.

(b) Impairment of other 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
- long-term prepaid expenses.

If any indication exists, the recoverable amount of the asset is estimated.

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 recoverable amount of an asset (or asset group, set of asset groups) is the higher of its fair value (see Note 3(12)) less costs to sell and its present value of expected future cash flows.

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 asset 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. Asset impairment losses related to an asset group or a set of asset groups are 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 asset impairment loss is recognized, it is not reversed in a subsequent period.

(12) Fair value measurement

Unless otherwise specified, the Company 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 Company 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.

(13) Employee benefits

Employee benefits refer to all forms of consideration or compensation given by the Company in exchange for service rendered by employees or for termination of employment relationship, which include short-term employee benefits, post-employment benefits, termination benefits and other long-term employee benefits.

(a) Short-term employee benefits

Short-term employee benefits include employee wages or salaries, bonus, allowances and subsidies, staff welfare, premiums or contributions on medical insurance, work injury insurance and maternity insurance, housing funds, union running costs and employee education costs. The short term employee benefits actually occurred are recognized as a liability in the accounting period in which the service is rendered by the employees, with a corresponding charge to the profit or loss for the current period or the cost of relevant assets. Non-monetary benefits are measured at fair value.

(b) Post-employment benefits

The Company classifies post-employment benefit plans as either defined contribution plans or defined benefit plans. Defined contribution plans are post-employment benefit plans under which the Company pays fixed contributions into a separate fund and will have no obligation to pay further contributions; and defined benefit plans are post-employment benefit plans other than defined contribution plans. During the reporting period, the Company’s post-employment benefits mainly include the premiums or contributions on basic pensions and unemployment insurance, both of which belong to defined contribution plans.

Basic pensions

The Company’s employees participate in the basic pension plan set up and administered by local authorities of Ministry of Human Resource and Social Security. Monthly payments of premiums on the basic pensions are calculated according to prescribed bases and percentages by relevant local authorities. When employees retire, the relevant local authorities are obliged to pay the basic pensions to them. The amounts based on the above calculations are recognized as liabilities in the accounting period in which the service has been rendered by the employees, with a corresponding charge to the profit or loss for the current period or the cost of relevant assets.

(c) Termination benefits

The Company provides compensation for terminating the employment relationship with employees before the end of the employment contracts or as an offer to encourage employees to accept voluntary redundancy before the end of the employment contracts. The Company recognizes a liability arising from compensation for termination of the employment relationship with employees, with a corresponding charge to profit or loss for the current period at the earlier of the following dates: 1) when the Company cannot unilaterally withdraw an employment termination plan or a curtailment proposal; 2) when the Company recognizes costs or expenses for a restructuring that involves the payment of termination benefits.

The termination benefits expected to be settled within one year since the balance sheet date are classified as current liabilities.

(14) Provisions

Provisions for product warranties and onerous contracts, are recognized when the Company has a present obligation, it is probable that an outflow of economic benefits will be required to settle the obligation, and the amount of the obligation can be measured reliably.

A provision is initially measured at the best estimate of the expenditure required to settle the related present obligation. Factors surrounding a contingency, such as the risks, uncertainties and the time value of money, are taken into account as a whole in reaching the best estimate of a provision. Where the effect of the time value of money is material, the best estimate is determined by discounting the related future cash outflows. The increase in the discounted amount of the provision arising from passage of time is recognized as interest expense.

The carrying amount of provisions is reviewed at each balance sheet date and adjusted to reflect the current best estimate.

The provisions expected to be settled within one year since the balance sheet date are classified as current liabilities.

(15) Income tax

Current tax and deferred tax are recognized in profit or loss.

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 Company has a legally enforceable right to set them off and also intends either to settle on a net basis or to realise the asset and settle the liability simultaneously.

Deferred tax assets and 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 tax 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.

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 amount 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.

At the balance sheet date, deferred tax assets and 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 assets, and
- 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 assets on a net basis, or to realise the assets and settle the liabilities simultaneously, in each future period in which significant amounts of deferred tax liabilities or assets are expected to be settled or recovered.

(16) Revenue recognition

The Company shall, when the customer acquires control over the relevant goods or services, recognize the income at the amount of consideration to which it is expected to be entitled.

The following is the description of accounting policies regarding revenue from the Company's principal activities:

(a) Sales of goods

The Company manufactures and sells ethylene, polyethylene, styrene, polystyrene, propylene, acrylonitrile, polypropylene, butadiene, aromatic hydrocarbons and other chemical products and plastic raw materials to distributors. Sales are recognized when control of the products has transferred, being when the products are delivered to and accepted by the customer. The Company delivers the products to the specific location in accordance with the sales contract, and recognized as revenues when the customer confirms receipt of the products. Revenue excludes value added tax and is after deduction of any estimated trade discounts.

(17) Government grants

Government grants refer to the monetary or non-monetary assets obtained by the Company from the government, including tax return and financial subsidy.

Government grants are recognized when the grants can be received and the Company can comply with all attached conditions. If a government grant is a monetary asset, it will be measured at the amount received or receivable. If a government grant is a non-monetary asset, it will be measured at its fair value. If it is unable to obtain its fair value reliably, it will be measured at its nominal amount.

Government grants related to assets refer to government grants which are obtained by the Company for the purposes of purchase, construction or acquisition of the long-term assets. Government grants related to income refer to the government grants other than those related to assets.

Government grants related to assets are either deducted against the carrying amount of the assets, or recorded as deferred income and recognized in profit or loss on a systemic basis over the useful lives of the assets. Government grants related to income that compensate the future costs, expenses or losses are recorded as deferred income and recognized in profit or loss, or deducted against related costs, expenses or losses in reporting the related expenses; government grants related to income that compensate the incurred costs, expenses or losses are recognized in profit or loss, or deducted against related costs, expenses or losses directly in current period. The Company applies the presentation method consistently to the similar government grants in the financial statements.

Government grants that are related to ordinary activities are included in operating profit, otherwise, they are recorded in non-operating income or expenses.

(18) Safety production costs

According to the decision of the State Council on Further Strengthening the work of production safety (Guofa No.2 2004), Shanghai Municipal Government to implement the State Council on Further Strengthening corporate safety work notice (Hufufa No.35 2010) and Safe production costs extraction and use of management practices (Caiqi No.16 2012) issued by the Ministry of Finance and the national production safety supervision administration on 2 February 2012, The Company extracted safety production costs in a certain percentage of sales revenue from the dangerous goods in previous year, which is used for safety costs.

The safety production costs, accrued in accordance with the above regulations, shall be charged in relevant costs or profit and loss, and in the specific reserve. Safety production costs, which belong to expenses, directly offset the special reserves. If the costs formed into fixed assets, the special reserves shall be offset according to the cost forming into fixed assets, and recognize the same amount of accumulated depreciation. This fixed asset shall no longer accrue depreciation in the following period.

(19) Profit distributions to owners

Distributions of profit proposed in the profit appropriation plan to 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.

(20) Related parties

If a party has the power to control, jointly control or exercize 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.

(21) Significant accounting estimates and judgements

The Company continually evaluates the critical accounting estimates and key judgements applied based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

(a) Critical judgments in applying the accounting policies

Classification of financial assets

The Company in determining the classification of financial assets involved in the major judgments including business model and contract cash flow characteristics of the analysis.

The Company 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 Company evaluates whether the contract cash flow of financial assets is consistent with the basic loan 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; whether interest include only the time value of money, credit risk, other basic lending risks, and consideration of costs and profits. For example, whether 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.

(b) Critical accounting estimates and key assumptions

The critical accounting estimates and key assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next accounting year are outlined below:

(i) Estimated useful lives and net residual values of fixed assets and other long-term assets

The Company assessed the estimated useful lives of fixed assets and other long-term assets in line with historical experience based on the actual useful lives of assets with similar nature or function. If there are significant changes in estimated useful lives and net residual values, depreciation or amortization expenses for future periods are adjusted.

(ii) Provision for decline in the value of inventories

Any excess of the cost over the net realizable value of each item of inventories is recognized as a provision for decline in the value of inventories. Net realizable value is determined based on the estimated selling price in the ordinary course of business, less the estimated costs to completion and estimated costs necessary to make the sale and related taxes. Management bases the estimates on all available information, including the current market prices of the finished goods and raw materials, costs to completion, costs necessary to make the sale and related taxes. If the actual selling prices are lower or the costs to completion are higher than estimated, the actual allowance for decline in the value of inventories would be higher than estimated.

(iii) Income taxes

As there are some transactions and events for which the ultimate tax determination is uncertain during the ordinary course of business, significant judgement is required from the Company in determining the provision for income taxes. Where the final tax outcome of these matters is different from the amounts that were initially recorded, such differences will impact the income tax and deferred tax provisions in the period in which such determination is made.

(iv) Impairments for non-current assets

At the end of each reporting period, the Company tests for impairment for non-current assets for which certain events or changes in circumstances indicate that the carrying amount may not be recoverable. If circumstances indicate that the carrying amount of non-current assets may not be recoverable, an impairment loss may be recognized in profit or loss for the excess of the carrying amounts over the recoverable amounts.

The recoverable amount of assets or CGUs are 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 The recoverable amount of an asset or a cash-generating unit ("CGU") (a portion of which related to certain production facilities) are the higher of the fair value less costs of disposal and value in use. In estimating the present value of future cash flows, significant judgments are required regarding the volume of production, selling price, related operating costs and discount rate to be used in calculating the present value of the asset or CGUs. In estimating recoverable amounts, the Company uses all relevant information available, including projections of production volumes, selling prices and related operating costs based on reasonable and supportable assumptions.

4 Changes in accounting policies

In 2021, the Company has adopted the following newly revised accounting standards and implementation guidance and illustrative examples issued by the MOF, mainly include:

- The Accounting Treatment of COVID-19-Related Rent Concessions (Caikuai [2020] No.10) and Notice of Extending the Applicable Period of 'Accounting Treatment of COVID-19 Related Rent Concessions' (Caikuai [2021] No.9)
- CAS Bulletin No.14 (Caikuai [2021] No.1) ("Bulletin No.14")

(1) Caikuai [2020] No.10 and Caikuai [2021] No.9

The Accounting Treatment of COVID-19 Related Rent Concessions (Caikuai [2020] No.10) provides practical expedient under certain conditions for rent concessions occurring as a direct consequence of the COVID-19 pandemic. If the company choose to adopt the practical expedient, then there is no need to assess whether there is a lease change or reassess the lease classification. In combination of the requirements of Caikuai [2021] No.9, such practical expedient is only applicable to any reduction in lease payments due before 30 June 2022. Cumulative effects of adopting the above regulations are adjusted to the opening undistributed profits or other comprehensive income for the year 2021. Comparative information is not restated.

The adoption of the above regulations does not have significant effect on the financial position and financial performance of the Company.

(2) Bulletin No.14

Bulletin No.14 takes effect on 26 January 2021 (implementation date).

Benchmark interest rate reform

Bulletin No.14 introduces the accounting and disclosure requirements for the modification of financial instruments and lease liabilities resulting from the benchmark interest rate reform. Transactions related to the benchmark interest rate reform that occurred before 31 December 2020 and during 1 January 2021 to the implementation date are subject to retrospective adjustments. Cumulative effects are adjusted to the opening undistributed profits or other comprehensive income for the year 2021. Comparative information is not restated.

The adoption of Bulletin No.14 does not have significant effect on the financial position and financial performance of the Company.

SHANGHAI SECCO PETROCHEMICAL COMPANY LIMITED
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEARS ENDED 31 DECEMBER 2019, 2020 AND 2021 (AMOUNTS FOR THE YEAR ENDED 31 DECEMBER 2021 ARE NOT COVERED BY THE INDEPENDENT AUDITOR'S REPORT INCLUDED HEREIN)
(EXPRESSED IN RENMINBI YUAN)

5 Taxation

(1) The types of taxes applicable to the Company's include

Tax Name	*Tax basis and applicable rate*
Value added tax ("VAT")	Output VAT is 6% or 9% or 13% of product sales and taxable services revenue, based on tax laws. The basis for VAT payable is to deduct input VAT from the output VAT for the period
City maintenance and construction tax	Before 1 September 2021, 1% of VAT paid; After 1 September 2021, 5% of VAT paid.
Educational surcharge	3% of VAT paid
Local educational surcharge	2% of VAT paid

(2) Income tax

The statutory income tax rate of the Company is 25%. The applicable income tax rate for the year is the statutory rate (2019 and 2020: 25%).

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 RMB 5 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.

(3) Taxes payable

	31 December 2020 RMB	*31 December 2021* RMB
Unpaid VAT	189,015,795	63,240,335
Enterprise income tax payable	529,076,676	173,463,260
Environmental tax payable	65,488,100	65,275,459
Educational surcharge payable	9,196,156	3,162,017
Individual income tax payable	4,661,466	5,008,019
City maintenance and construction tax payable	1,839,231	3,162,016
Unpaid stamp tax	1,622,265	2,065,124
Unpaid land use tax	749,983	749,983
Total	801,649,672	316,126,213

(EXPRESSED IN RENMINBI YUAN)

6 Cash at bank and on hand

	31 December 2020 RMB	*31 December 2021* RMB
Deposits with banks		
- RMB	5,144,434,008	3,246,711,253
- USD (translated into RMB)	36,202,781	36,039,789
Other cash balances (a)	40,000,000	—
Total	5,220,636,789	3,282,751,042

(a) As at 31 December 2020, other cash balances RMB 40,000,000 is deposit for unconditional irrevocable Letter of Guarantee of RMB 400,000,000.

Cash and cash equivalents listed in the cash flow statement:

	31 December 2020 RMB	*31 December 2021* RMB
Cash at bank	5,180,636,789	3,282,751,042
Less: Time deposit (b)	—	950,000,000
Cash and cash equivalents	5,180,636,789	2,332,751,042

(b) As at 31 December 2021, time deposits represent time deposit at bank of 18 months to three years of maturity which will expire within one year, and the annual interest rates are from 3.192% to 3.784% (31 December 2020: Nil).

7 Accounts receivable

(1) Accounts receivable by customer type:

	31 December 2020 RMB	*31 December 2021* RMB
Receivables due from related parties	154,044,971	33,850,641
Accounts receivable from third parties	165,154,703	225,436,156
Sub-total	319,199,674	259,286,797
Less: Provision for bad debts	7,756,885	7,756,885
Total	311,442,789	251,529,912

(EXPRESSED IN RENMINBI YUAN)

(2) The ageing analysis of accounts receivable is as follows:

	31 December 2020 RMB	*31 December 2021* RMB
Within 1 year (inclusive)	311,442,789	251,529,912
Over 1 year but within 2 years (inclusive)	—	—
Over 2 years but within 3 years (inclusive)	—	—
Over 3 years	7,756,885	7,756,885
Sub-total	319,199,674	259,286,797
Less: Provision for bad debts	7,756,885	7,756,885
Total	311,442,789	251,529,912

The ageing is counted starting from the date when accounts receivable are recognized.

(3) Assessment of ECLs on accounts receivable:

For accounts receivables, regardless of whether exists the significant financing component, the Company measures the loss provision according to the lifetime expected credit losses.

(4) Movements of provisions for bad debts:

	2019 RMB	*2020* RMB	*2021* RMB
Balance at the beginning of the year	8,797,278	8,797,278	7,756,885
Additions during the year	—	—	—
Recoveries or reversals during the year	—	(1,040,393)	—
Balance at the end of the year	8,797,278	7,756,885	7,756,885

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8 Financial assets at fair value through other comprehensive income

	31 December 2020 RMB	*31 December 2021* RMB
Financial assets at fair value through other comprehensive income	501,351,308	260,065,209

(1) Due to the requirement of cash management, the Company 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, the Company classified all notes receivable to financial assets measured at fair value and whose changes are included in other comprehensive income.

(2) 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 2020 and 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.

(3) As at 31 December 2020 and 31 December 2021, the Company had no unmatured notes receivable that have been endorsed or discounted.

9 Advances to suppliers

	31 December 2020 RMB	*31 December 2021* RMB
Advances to suppliers	14,331,782	22,771,842

As at 31 December 2020 and 31 December 2021, the Company's prepayment mainly refers to the prepayment of goods purchase, the aging of which is within one year.

(EXPRESSED IN RENMINBI YUAN)

10 Other receivables

	31 December 2020 RMB	*31 December 2021* RMB
Refund of consumption tax payable (a)	—	28,448,944
Property rental deposits	1,472,346	12,911,288
Others	686,832	16,200
Total	2,159,178	41,376,432

As at 31 December 2020 and 2021, all other receivables were aged within one year except for property rental deposits. No other receivables were past due but unimpaired. Provision for bad debts was not required as assessed by management of the Company.

(a) According to regulations of the Interim Measures for Consumption Tax Refunding (Exempting) on Naphtha and Fuel Used in Production of Ethylene and Arene Chemical Products issued by the State Administration of Taxation, eligible enterprises, which use naphtha and fuel to produce ethylene and arene chemical products, can enjoy tax rebate for consumption tax. As at 31 December 2021, the Company had made a tax refund application to the local tax bureau and confirmed that the consumption tax refund of RMB 28,448,944 would be received (31 December 2020: RMB 187,343,266). As at 31 December 2020, the balance was presented in the account of Other current assets.

11 Inventories

(1) An analysis of inventories by category for the year is as follows:

	31 December 2020 RMB	*31 December 2021* RMB
Raw materials	868,768,228	1,321,363,602
Semi-finished products	272,934,389	555,997,481
Finished goods	426,167,130	333,877,632
Goods in transit	—	130,226,977
Sub-total	1,567,869,747	2,341,465,692
Less: Provision for decline in the value of inventories	(76,579,909)	(136,012,496)
Total	1,491,289,838	2,205,453,196

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(2) An analysis of provision for decline in the value of inventories of the Company is as follows:

	Balance at 1 January 2019 RMB	*Provision made for the year* RMB	*Written back during the year Transferred out* RMB	*Balance at 31 December 2019* RMB
Raw materials	77,265,513	2,042,798	(3,915,674)	75,392,637
Semi-finished products	12,046,489	4,834,980	(12,046,490)	4,834,979
Finished goods	19,375,177	2,423,291	(19,375,176)	2,423,292
Total	108,687,179	9,301,069	(35,337,340)	82,650,908

	Balance at 1 January 2020 RMB	*Provision made for the year* RMB	*Written back during the year Transferred out* RMB	*Balance at 31 December 2020* RMB
Raw materials	75,392,637	2,508,089	(5,600,250)	72,300,476
Semi-finished products	4,834,979	2,752,574	(4,834,980)	2,752,573
Finished goods	2,423,292	1,526,859	(2,423,291)	1,526,860
Total	82,650,908	6,787,522	(12,858,521)	76,579,909

	Balance at 1 January 2021 RMB	*Provision made for the year* RMB	*Written back during the year Transferred out* RMB	*Balance at 31 December 2021* RMB
Raw materials	72,300,476	26,762,508	(1,996,635)	97,066,349
Semi-finished products	2,752,573	26,554,107	(2,752,574)	26,554,106
Finished goods	1,526,860	12,392,039	(1,526,858)	12,392,041
Total	76,579,909	65,708,654	(6,276,067)	136,012,496

12 Current portion of non-current assets

	31 December 2020 RMB	*31 December 2021* RMB
Bank deposits	100,000,000	—

As at 31 December 2020, the other non-current assets within one year of RMB 100,000,000 was 18-month bank deposits with the annual rate of 3.192% in Shanghai Rural Commercial Bank, Jinshan branch, which will be due in October 2021.

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13 Other current assets

	Note	*31 December 2020* RMB	*31 December 2021* RMB
Entrusted loans	(1)	2,000,000,000	—
Time deposits	(2)	600,000,000	—
Refund of consumption tax payable	Note 10(a)	187,343,266	—
Others		2,171,547	2,171,547
Total		2,789,514,813	2,171,547

(1) As at 31 December 2020, the entrusted loan of RMB 2,000,000,000 was the entrusted loan lent to Sinopec Corp. through China Merchants Bank, Shanghai branch, with an annual interest rate of 3.55% from 28 August 2020 to 27 August 2021.

(2) As at 31 December 2020, time deposit of RMB 600,000,000 was one-year time deposit with an annual interest rate of 2.25% in Minsheng Bank of China, Jinshan branch, which will be due on 12 August 2021.

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14 Fixed assets

	Plant and buildings RMB	*Machinery and equipment* RMB	*Motor vehicles* RMB	*Office and other equipment* RMB	*Total* RMB
Cost					
Balance at 31 December 2019	1,356,895,824	19,888,882,481	11,963,804	215,862,397	21,473,604,506
Transfers from construction in progress (Note 15)	3,020,477	71,344,872	953,321	17,506,521	92,825,191
Other increases during the year	2,484,547	33,023,075	1,038,226	25,877,835	62,423,683
Disposals during the year	—	(64,550,631)	(2,357,084)	(8,488,360)	(75,396,075)
Balance at 31 December 2020	1,362,400,848	19,928,699,797	11,598,267	250,758,393	21,553,457,305
Less: Accumulated depreciation					
Balance at 31 December 2019	(919,042,418)	(16,426,310,546)	(5,020,144)	(128,305,819)	(17,478,678,927)
Charge for the year	(50,592,366)	(547,935,231)	(1,098,077)	(24,523,504)	(624,149,178)
Decrease during the year	—	57,886,029	1,909,838	8,195,834	67,991,701
Balance at 31 December 2020	(969,634,784)	(16,916,359,748)	(4,208,383)	(144,633,489)	(18,034,836,404)
Carrying amounts					
At 31 December 2020	392,766,064	3,012,340,049	7,389,884	106,124,904	3,518,620,901
At 31 December 2019	437,853,406	3,462,571,935	6,943,660	87,556,578	3,994,925,579

	Plant and buildings RMB	*Specialized machinery and equipment* RMB	*General machinery and equipment* RMB	*Office and other equipment* RMB	*Motor vehicles* RMB	*Machinery and equipment* RMB	*Total* RMB
Cost							
Balance at 31 December 2020	1,362,400,848	19,928,699,797	—	—	11,598,267	250,758,393	21,553,457,305
Transfers from construction in progress (Note 15)	7,354,242	229,893,477	24,174,512	—	—	—	261,422,231
Other increases during the year	1,303,787	29,177,331	10,941,680	3,924,580	—	—	45,347,378
Reclassification during the year	104,437,291	(188,982,524)	325,549,776	21,352,117	(11,598,267)	(250,758,393)	—
Disposals during the year	(991,050)	(50,030,703)	(7,908,577)	(119,347)	—	—	(59,049,677)
Balance at 31 December 2021	1,474,505,118	19,948,757,378	352,757,391	25,157,350	—	—	21,801,177,237
Less: Accumulated depreciation							
Balance at 31 December 2020	(969,634,784)	(16,916,359,748)	—	—	(4,208,383)	(144,633,489)	(18,034,836,404)
Charge for the year	(45,718,875)	(561,948,667)	(33,774,586)	(4,269,835)	—	—	(645,711,963)
Decrease during the year	329,819	38,258,737	7,569,715	116,707	—	—	46,274,978
Reclassification during the year	(77,210,951)	127,193,874	(183,732,050)	(15,092,745)	4,208,383	144,633,489	—
Balance at 31 December 2021	(1,092,234,791)	(17,312,855,804)	(209,936,921)	(19,245,873)	—	—	(18,634,273,389)
Carrying amounts							
At 31 December 2021	382,270,327	2,635,901,574	142,820,470	5,911,477	—	—	3,166,903,848
At 31 December 2020	392,766,064	3,012,340,049	—	—	7,389,884	106,124,904	3,518,620,901

In 2021, the amounts of depreciation expenses charged cost of sales, selling and distribution expenses, general and administrative expenses and research and development expenses were RMB 624,184,556, RMB 235,451, RMB20,778,324 and RMB513,632 (2019: RMB 609,665,198, RMB 1,067,539, RMB 12,461,713 and RMB 25,511; 2020: RMB 610,002,606, RMB 1,120,980, RMB 12,881,160 and RMB 144,432), respectively.

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15 Construction in progress

	RMB
Cost	
Balance at 1 January 2020	264,025,605
Additions during the year	216,939,987
Transferred to fixed assets (note 14)	(92,825,191)
Transferred to intangible assets (note 17)	(21,358,767)
Balance at 31 December 2020	366,781,634
Less: Provision for impairment	
Balance at 1 January 2020 and 31 December 2019	—
Charge for the year	—
Balance at 31 December 2020	—
Carrying amounts	
At 31 December 2020	366,781,634
At 31 December 2019	264,025,605

	RMB
Cost	
Balance at 1 January 2021	366,781,634
Additions during the year	220,463,538
Transferred to fixed assets (note 14)	(261,422,231)
Decrease due to other reasons	(19,425,759)
Transferred to intangible assets (note 17)	(41,094,302)
Balance at 31 December 2021	265,302,880
Less: Provision for impairment	
Balance at 1 January and 31 December 2020	—
Charge for the year	(61,805,108)
Balance at 31 December 2021	(61,805,108)
Carrying amounts	
At 31 December 2021	203,497,772
At 31 December 2020	366,781,634

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The construction in progress balance of the Company is mainly production and environmental protection equipment installation programs.

16 Right-of-use assets

(1) As a lessee

	Buildings RMB	*Vehicles and other equipments* RMB	*Total* RMB
Cost			
Balance at 1 January 2020	4,750,391	341,021	5,091,412
Increase during the year	10,704,710	323,880	11,028,590
Decrease during the year	(4,750,391)	(341,021)	(5,091,412)
Balance at 31 December 2020	10,704,710	323,880	11,028,590
Less: Accumulated depreciation			
Balance at 1 January 2020	(4,344,038)	(227,347)	(4,571,385)
Amortization during the year	(5,544,613)	(167,654)	(5,712,267)
Decrease during the year	4,750,391	341,021	5,091,412
Balance at 31 December 2020	(5,138,260)	(53,980)	(5,192,240)
Carrying amounts			
At 31 December 2020	5,566,450	269,900	5,836,350
At 31 December 2019	406,353	113,674	520,027

	Buildings RMB	*Vehicles and other equipments* RMB	*Total* RMB
Cost			
Balance at 1 January 2021	10,704,710	323,880	11,028,590
Decrease during the year	(5,994,638)	(71,973)	(6,066,611)
Balance at 31 December 2021	4,710,072	251,907	4,961,979
Less: Accumulated depreciation			
Balance at 1 January 2021	(5,138,260)	(53,980)	(5,192,240)
Amortization during the year	(5,360,384)	(108,255)	(5,468,639)
Decrease during the year	5,994,638	71,973	6,066,611
Balance at 31 December 2021	(4,504,006)	(90,262)	(4,594,268)
Carrying amounts			
At 31 December 2021	206,066	161,645	367,711
At 31 December 2020	5,566,450	269,900	5,836,350

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17 Intangible assets

	Land use rights RMB	*Patents* RMB	*Software* RMB	*Total* RMB
Cost				
Balance at 31 December 2019	770,966,668	1,023,538,065	185,704,494	1,980,209,227
- Additions during the year	—	—	2,404,471	2,404,471
- Transferred from construction in progress (Note 15)	—	1,415,094	19,943,673	21,358,767
Balance at 31 December 2020	770,966,668	1,024,953,159	208,052,638	2,003,972,465
Less: Accumulated amortization				
Balance at 31 December 2019	(245,211,653)	(962,302,623)	(105,984,636)	(1,313,498,912)
Provision during the year	(16,429,844)	(11,550,210)	(25,711,732)	(53,691,786)
Balance at 31 December 2020	(261,641,497)	(973,852,833)	(131,696,368)	(1,367,190,698)
Carrying amounts				
At 31 December 2020	509,325,171	51,100,326	76,356,270	636,781,767
At 31 December 2019	525,755,015	61,235,442	79,719,858	666,710,315

	Land use rights RMB	*Patents* RMB	*Software* RMB	*Total* RMB
Cost				
Balance at 31 December 2020	770,966,668	1,024,953,159	208,052,638	2,003,972,465
- Additions during the year	—	—	3,065,615	3,065,615
- Transferred from construction in progress (Note 15)	—	—	41,094,302	41,094,302
Balance at 31 December 2021	770,966,668	1,024,953,159	252,212,555	2,048,132,382
Less: Accumulated amortization				
Balance at 31 December 2020	(261,641,497)	(973,852,833)	(131,696,368)	(1,367,190,698)
Provision during the year	(16,429,844)	(11,201,198)	(25,805,506)	(53,436,548)
Balance at 31 December 2021	(278,071,341)	(985,054,031)	(157,501,874)	(1,420,627,246)
Carrying amounts				
At 31 December 2021	492,895,327	39,899,128	94,710,681	627,505,136
At 31 December 2020	509,325,171	51,100,326	76,356,270	636,781,767

In 2021, the amortization of intangible assets was RMB 53,436,548 (2019: RMB 48,746,949, 2020: RMB 53,691,786).

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18 Long-term prepaid expenses

	Balance at 31 December 2019 RMB	*Additions during the year* RMB	*Amortization during the year* RMB	*Balance at 31 December 2020* RMB
Catalyst	92,032,651	120,303,190	(42,269,451)	170,066,390
Improvements to fixed assets held under operating leases	2,077,018	—	(1,038,509)	1,038,509
	94,109,669	120,303,190	(43,307,960)	171,104,899

	Balance at 31 December 2020 RMB	*Additions during the year* RMB	*Amortization during the year* RMB	*Balance at 31 December 2021* RMB
Catalyst	170,066,390	18,596,307	(53,648,348)	135,014,349
Improvements to fixed assets held under operating leases	1,038,509	—	(1,038,509)	—
	171,104,899	18,596,307	(54,686,857)	135,014,349

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19 Deferred tax assets and liabilities

	Deferred tax assets/(liabilities)		
	Balance at the beginning of 2020 RMB	*Current year increase/ decrease charged to profit or loss* RMB	*Balance at the end of 2020* RMB
Provision for decline in the value of inventories	20,662,727	(1,517,749)	19,144,978
Bad debt provision for accounts receivables	2,199,320	(260,099)	1,939,221
Accrued environmental tax	15,909,685	—	15,909,685
Sales cut-off adjustments	2,673,234	6,867,039	9,540,273
Difference in depreciation of fixed assets (deferred tax assets)	3,212,605	76,992	3,289,597
Undeclared assets disposals	1,572,249	1,669,511	3,241,760
Differences in amortization of long - term prepaid expenses	1,075,218	473,879	1,549,097
Differences in amortization of intangible assets	45,857	(45,857)	—
Difference in depreciation of fixed assets (deferred tax liabilities)	(60,076,596)	(26,841,385)	(86,917,981)
Total	(12,725,701)	(19,577,669)	(32,303,370)

	Deferred tax assets/(liabilities)		
	Balance at the beginning of 2021 RMB	*Current year increase/ decrease charged to profit or loss* RMB	*Balance at the end of 2021* RMB
Provision for decline in the value of inventories	19,144,978	14,858,147	34,003,125
Provision for impairment of fixed assets and construction in progress	—	15,451,277	15,451,277
Bad debt provision for accounts receivables	1,939,221	—	1,939,221
Accrued environmental tax	15,909,685	—	15,909,685
Sales cut-off adjustments	9,540,273	(9,540,273)	—
Difference in depreciation of fixed assets (deferred tax assets)	3,289,597	66,809,389	70,098,986
Undeclared assets disposals	3,241,760	1,998,953	5,240,713
Differences in amortization of long - term prepaid expenses	1,549,097	(1,531,005)	18,092
Difference in depreciation of fixed assets (deferred tax liabilities)	(86,917,981)	(7,451,592)	(94,369,573)
Total	(32,303,370)	80,594,896	48,291,526

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At the balance sheet date, the deferred tax assets and liabilities on the balance sheet, after offsetting each other, were as follows:

	31 December 2020 RMB	*31 December 2021* RMB
Deferred tax assets, net	—	48,291,526
Deferred tax liabilities, net	(32,303,370)	—
Total	(32,303,370)	48,291,526

As at 31 December 2020 and 2021, the Company's deferred tax assets were recognized to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilized in the next year.

20 Other non-current assets

	31 December 2020 RMB	*31 December 2021* RMB
Bank deposits		
- Agricultural bank of China (1)	500,000,000	500,000,000
- China Merchants bank (2)	300,000,000	—
- Rural Commercial bank (3)	100,000,000	—
Time deposits		
- Bank of Communication (4)	500,000,000	—
- China Everbright Bank (5)	—	500,000,000
- China Industrial Bank (6)	—	500,000,000
Construction materials	—	34,874,025
Prepayment for machineries	—	18,905,344
Total	1,400,000,000	1,553,779,369

(1) As at 31 December 2020, bank deposits included three-year deposit of RMB 500,000,000 in Agricultural Bank of China, Shanghai Jinshan branch, with an annual interest rate of 3.784%, which will be due on 28 December 2023.

(2) As at 31 December 2020, bank deposits included three-year deposit of RMB 300,000,000 in China Merchants bank, Shanghai Jinshan branch, with an annual interest rate of 3.7%, which will be due on 27 December 2022. As at 31 December 2021, the balance was presented in the account of Cash at bank in current asset as it will be due within one year.

(3) As at 31 December 2020, bank deposits included 18-month deposit of RMB 100,000,000 in Rural Commercial bank, Shanghai Jinshan branch, with an annual interest rate of 3.192%, which will be due on 7 February 2022. As at 31 December 2021, the balance was presented in the account of Cash at bank in current asset as it will be due within one year.

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(4) As at 31 December 2020, time deposits of RMB 500,000,000 was three-year deposit in Bank of Communications, Shanghai branch, with an annual interest rate of 3.3%, which will be due on 18 January 2022. As at 31 December 2021, the balance was presented in the account of Cash at bank in current asset as it will be due within one year.

(5) As at 31 December 2021, time deposits of RMB 500,000,000 (31 December 2020:Nil) was three-year deposit in China Everbright Bank, Shanghai Nanshi branch, with an annual interest rate of 3.700%, which will be due on 1 February 2024.

(6) As at 31 December 2021, time deposits of RMB 500,000,000 (31 December 2020:Nil) was three-year deposit in China Industrial Bank, Shanghai branch, with an annual interest rate of 3.650%, which will be due on 5 January 2024.

21 Contract liabilities

	31 December 2020 RMB	*31 December 2021* RMB
Advances from customers	499,509,916	415,450,821

22 Employee benefits payable

	Note	*31 December 2020* RMB	*31 December 2021* RMB
Short-term employee benefits	(1)	101,769,050	99,965,532
Defined contribution plans payable	(2)	10,372,171	5,607,808
Total		112,141,221	105,573,340

(1) Short-term employee benefits

	Balance at 31 December 2019 RMB	*Accrued during the year* RMB	*Paid during the year* RMB	*Balance at 31 December 2020* RMB
Wages and salaries, bonus, allowances and subsidies	20,000,000	365,791,386	(365,791,386)	20,000,000
Staff welfare	—	15,851,789	(15,851,789)	—
Social security contributions	3,248,212	25,912,421	(24,507,531)	4,653,102
- Medical insurance	2,329,992	23,961,308	(22,595,827)	3,695,473
- Work injury insurance	417,008	219,128	(214,702)	421,434
- Maternity insurance	501,212	1,731,985	(1,697,002)	536,195
Housing fund	—	30,918,864	(30,918,864)	—
Labour union fee	504,160	7,183,139	(6,855,073)	832,226
Employee education funds	—	4,586,266	(4,586,266)	—
Employees' bonus and welfare fund	76,431,821	—	(148,099)	76,283,722
Termination benefits	—	708,684	(708,684)	—
Total	100,184,193	450,952,549	(449,367,692)	101,769,050

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	Balance at 1 January 2021 RMB	*Accrued during the year* RMB	*Paid during the year* RMB	*Balance at 31 December 2021* RMB
Wages and salaries, bonus, allowances and subsidies	20,000,000	404,673,606	(404,673,606)	20,000,000
Staff welfare	—	17,329,504	(17,329,504)	—
Social security contributions	4,653,102	33,831,726	(35,632,799)	2,852,029
- Medical insurance	3,695,473	29,375,245	(30,679,767)	2,390,951
- Work injury insurance	421,434	2,027,544	(2,239,580)	209,398
- Maternity insurance	536,195	2,428,937	(2,713,452)	251,680
Housing fund	—	34,551,223	(34,551,223)	—
Labour union fee	832,226	7,924,676	(7,927,121)	829,781
Employee education funds	—	5,467,918	(5,467,918)	—
Employees' bonus and welfare fund	76,283,722	—	—	76,283,722
Termination benefits	—	501,130	(501,130)	—
Total	101,769,050	504,279,783	(506,083,301)	99,965,532

(2) Defined contribution plans payable

	Balance at 1 January 2020 RMB	*Accrued during the year* RMB	*Paid during the year* RMB	*Balance at 31 December 2020* RMB
Basic pensions	8,019,397	33,307,409	(32,634,662)	8,692,144
Unemployment insurance	199,431	1,042,063	(1,016,570)	224,924
Supplementary pensions	1,455,103	24,584,068	(24,584,068)	1,455,103
Total	9,673,931	58,933,540	(58,235,300)	10,372,171

	Balance at 1 January 2021 RMB	*Accrued during the year* RMB	*Paid during the year* RMB	*Balance at 31 December 2021* RMB
Basic pensions	8,692,144	48,071,927	(52,737,206)	4,026,865
Unemployment insurance	224,924	714,459	(813,543)	125,840
Supplementary pensions	1,455,103	27,589,451	(27,589,451)	1,455,103
Total	10,372,171	76,375,837	(81,140,200)	5,607,808

23 Other payables

	31 December 2020 RMB	*31 December 2021* RMB
Deposits	9,700,000	9,500,000
Capital reduction payable	—	2,650,165,871
Construction payable	—	92,861,068
Others	100,936	2,936,961
Total	9,800,936	2,755,463,900

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24 Non-current liabilities maturing within one year

	Note	*31 December 2020* RMB	*31 December 2021* RMB
Lease liabilities maturing within one year	26	5,324,226	111,639

25 Other current liabilities

	31 December 2020 RMB	*31 December 2021* RMB
Output VAT to be recognized	64,936,289	54,008,607

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26 Lease liabilities

	31 December 2020 RMB	*31 December 2021* RMB
Lease liabilities	5,501,610	177,386
Less: current portion of non-current liabilities (Note 24)	(5,324,226)	(111,639)
Total	177,384	65,747

As at 31 December 2021, the Company had no lease payments related to lease contracts which had been signed but not been executed (31 December 2020: Nil).

27 Paid-in capital

The Company's paid-in capital and registered capital structure at 31 December is as follows:

	2020		*2021*	
	Amount RMB	*%*	*Amount* RMB	*%*
Sinopec Corp	2,340,387,239	30	150,000,000	30
BPCECI	3,900,165,871	50	250,000,000	50
SPC	1,560,258,162	20	100,000,000	20
Total	7,800,811,272	100	500,000,000	100

According to the resolution of board of directors held on 12 July 2021, the Company's shareholders Sinopec Corp, BPCECI and SPC reduced the capital of the Company by RMB 7,300,811,272 according to their shareholding ratio of 30%,50% and 20%, respectively. As of 31 December 2021, Sinopec Corp, BPCECI and SPC held the Company's registered capital and paid-in capital of RMB 150,000,000, RMB 250,000,000 and RMB 100,000,000 respectively, with a shareholding ratio of 30%, 50% and 20% respectively.

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28 Capital surplus

	31 December 2020 and 2021 RMB
Other capital surplus	
- Transferred from special payable	1,964,000
Foreign currency capital translation difference	(509,354)
Total	1,454,646

29 Specific reserve

	2020 RMB	*2021* RMB
Balance at the beginning of the year	—	—
Increase during the year	39,036,294	28,523,706
Decrease during the year	(39,036,294)	(28,523,706)
Balance at the end of the year	—	—

30 Surplus reserve

	31 December 2019 RMB	*Increase during the year* RMB	*Decrease during the year* RMB	*31 December 2020* RMB
Reserve fund	133,718,997	—	—	133,718,997
Enterprise expansion fund	133,718,996	—	—	133,718,996
Statutory surplus reserve	1,181,242,859	241,279,966	—	1,422,522,825
Discretionary surplus reserve	1,050,222,081	—	—	1,050,222,081
	2,498,902,933	241,279,966	—	2,740,182,899

	31 December 2020 RMB	*Increase during the year* RMB	*Decrease during the year* RMB	*31 December 2021* RMB
Reserve fund	133,718,997	—	—	133,718,997
Enterprise expansion fund	133,718,996	—	—	133,718,996
Statutory surplus reserve	1,422,522,825	312,590,386	—	1,735,113,211
Discretionary surplus reserve	1,050,222,081	—	—	1,050,222,081
	2,740,182,899	312,590,386	—	3,052,773,285

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, and the Company can cease appropriation when the statutory surplus reserve accumulated to more than 50% of the registered capital. The statutory surplus reserve can be used to make up for the loss or increase the share capital after approval from the appropriate authorities. The Company appropriate RMB 312,590,386 according to 10% of the net profit of 2021 (2019: RMB 338,358,573 to the statutory surplus reserve, 2020: RMB 241,279,966 to the statutory surplus reserve).

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31 Undistributed profits

	2020 RMB	*2021* RMB
Undistributed profits at beginning of year	3,368,186,371	3,171,706,061
Add: Net profit for the current year	2,412,799,656	3,125,903,862
Less: Profit distribution		
Profit distribution to equity owners	(2,368,000,000)	(3,171,706,061)
Appropriation to free surplus reserves	(241,279,966)	(312,590,386)
Undistributed profits at end of year	3,171,706,061	2,813,313,476

Pursuant to the resolution at the first meeting of the 24th Meeting of the Board of Directors dated 28 June 2021, the Company made profit distribution to shareholders amounting to RMB 3,171,706,061 for the current year (2019: RMB 2,537,000,000, 2020: RMB 2,368,000,000).

32 Revenue and cost of sales

	2019		*2020*		*2021*	
	Revenue	*Cost of sales*	*Revenue*	*Cost of sales*	*Revenue*	*Cost of sales*
Main operations						
- Sales of olefin	6,841,570,930	(5,681,433,226)	5,098,976,996	(4,246,257,694)	7,113,735,587	(6,326,093,477)
- Sales of polyethylene	5,573,911,137	(4,915,433,797)	4,994,277,463	(3,803,906,817)	5,741,835,673	(5,429,556,673)
- Sales of acrylonitrile	6,655,183,631	(4,884,698,483)	4,418,734,626	(3,676,021,011)	7,476,126,532	(5,536,514,979)
- Sales of styrene	3,671,395,008	(2,935,667,971)	2,394,141,160	(2,178,378,109)	3,407,790,936	(2,933,607,175)
- Sales of polystyrene	3,058,814,520	(2,229,600,357)	2,382,513,536	(1,699,238,708)	3,520,810,677	(2,740,722,490)
- Sales of polypropylene	2,360,998,975	(1,956,936,950)	2,186,126,691	(1,531,787,415)	2,273,269,124	(2,067,997,433)
Other operations	179,158,153	(150,793,841)	151,288,772	(133,684,834)	189,654,679	(135,876,782)
	28,341,032,354	(22,754,564,625)	21,626,059,244	(17,269,274,588)	29,723,223,208	(25,170,369,009)

The Company's revenue is recognized at a certain point of time.

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33 Taxes and surcharges

	2019 RMB	*2020* RMB	*2021* RMB
Educational surcharge	31,297,279	20,293,244	30,855,712
Stamp tax	11,977,922	9,931,997	11,779,005
Environmental protection tax	74,468,532	9,877,785	9,253,559
City maintenance and construction tax	6,941,519	4,058,649	13,725,651
Urban land utilization tax	2,999,933	2,999,933	2,999,933
Others	1,200	1,539	1,804
Total	127,686,385	47,163,147	68,615,664

34 Financial income - net

	2019 RMB	*2020* RMB	*2021* RMB
Interest expenses	11,596,955	6,019,753	2,682,042
Less: interest income	(304,332,698)	(172,009,089)	(232,479,017)
Exchange (gains) / losses net	(616,344)	3,049,923	1,030,046
Others	430,068	473,921	399,154
Total	(292,922,019)	(162,465,492)	(228,367,775)

35 Other income

	2019 RMB	*2020* RMB	*2021* RMB	*Asset-related/ Income-related*
Refund for unemployment insurance	—	—	3,195,900	*Income-related*
Government subsidies for port construction	—	1,769,194	118,083	*Income-related*
Government subsidies for chemical industry zone	9,959,000	6,142,800	12,600,000	*Income-related*
Government subsidies for R&D project	12,294,000	2,623,000	—	*Income-related*
Others	772,485	423,328	473,847	*Income-related*
Total	23,025,485	10,958,322	16,387,830	

36 Investment income

	2019 RMB	*2020* RMB	*2021* RMB
Income from entrusted loans	—	58,535,901	46,328,616

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37 Asset impairment losses

	2019 RMB	*2020* RMB	*2021* RMB
Losses on decline in the value of inventories	(9,301,069)	(6,787,522)	(65,708,654)
Impairment loss of construction in progress	(16,174,792)	—	(61,805,108)
Total	(25,475,861)	(6,787,522)	(127,513,762)

38 Non-operating income and expenses

(1) Non-operating income

	2019 RMB	*2020* RMB	*2021* RMB
Long aging payables not to be paid	—	2,509,172	2,461,634
Suppliers penalty for breach of contracts	1,815,136	11,098,500	—
Gains on retirement of assets	—	—	281,442
Others	1,113,679	1,454,698	1,562,761
Total	2,928,815	15,062,370	4,305,837

(2) Non-operating expenses

	2019 RMB	*2020* RMB	*2021* RMB
Losses on retirement of assets	—	6,071,562	11,930,452
Donation expenses	203,583	2,016,652	200,000
Penalty expenses	1,660,000	450,000	—
Others	16,745	8,051	1,451,012
Total	1,880,328	8,546,265	13,581,464

39 Income tax expenses

(1) Income tax expenses for the year represents

	2019 RMB	*2020* RMB	*2021* RMB
Current tax expenses for the year	1,078,923,279	775,846,702	1,021,011,964
Changes in deferred tax assets/liabilities	44,536,556	19,577,669	(80,594,896)
Total	1,123,459,835	795,424,371	940,417,068

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(2) Reconciliation between income tax expense and accounting profit:

	2019 RMB	*2020* RMB	*2021* RMB
Total profit	4,507,045,570	3,208,224,027	4,066,320,930
Income tax expenses calculated at applicable tax rates	1,126,761,393	802,056,007	1,016,580,232
Costs, expenses and losses not deductible for tax purposes	1,581,459	143,450	2,114,316
Super deduction of R&D expenses	—	—	(3,890,000)
Identify discrepancies arising from unregulated deferred income tax assets in previous years	(2,375,101)	—	(74,148,775)
Deductible temporary differences for which no deferred tax asset was recognized	(2,896,147)	(3,300,003)	—
True up for final settlement of enterprise income tax in respect of previous year	388,231	(3,475,083)	(238,705)
Income tax expenses	1,123,459,835	795,424,371	940,417,068

40 Supplement to income statement

The cost of sales, selling and administrative expenses, general and administrative expenses and R&D expenses in the income statements are listed as follows by nature:

	2019 RMB	*2020* RMB	*2021* RMB
Changes in inventories of finished goods and semi-finished products	63,787,119	19,142,488	(195,053,026)
Consumed raw materials and low value consumables, etc.	21,582,322,285	16,117,811,082	23,345,177,320
Employee benefits	484,452,626	509,886,089	580,655,620
Depreciation and amortization expenses	740,171,099	726,861,191	759,304,007
Transportation costs	434,826,733	410,720,367	453,194,590
Repairs and maintenance expenses	257,022,582	385,416,604	405,370,162
Environment related cost	85,668,630	83,888,263	73,927,998
Commodity storage fees	24,999,282	33,037,958	34,245,243
Insurance expense	29,031,272	22,588,996	22,048,801
Vehicle usage fees	16,022,232	16,144,814	16,172,557
Others	274,543,071	277,902,909	247,538,174
	23,992,846,931	18,603,400,761	25,742,581,446

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41 Supplement to cash flow statement

(1) Reconciliation of net profit to cash flows from operating activities:

	2019 RMB	*2020* RMB	*2021* RMB
Net profit	3,383,585,735	2,412,799,656	3,125,903,862
Add: Losses on provision for decline in the value of inventories	9,301,069	6,787,522	65,708,654
Impairment loss of construction in progress	16,174,792	—	61,805108
Net reversal of impairment losses on financial assets	—	(1,040,393)	—
Depreciation of fixed assets	623,219,961	624,149,178	645,711,963
Amortization of intangible assets	48,746,949	53,691,786	53,436,548
Amortization of long-term prepaid expenses	62,912,839	43,307,960	54,686,857
Depreciation of right-of-use assets	5,291,350	5,712,267	5,468,639
Losses on disposal of fixed assets	4,973,598	6,071,562	11,649,010
Financial income	(297,898,782)	(23,611,698)	(111,432,469)
Investment income	—	(58,535,901)	(46,328,616)
Decrease / (increase) in deferred tax assets	32,744,412	—	(48,291,526)
Increase / (decrease) in deferred tax liabilities	11,792,144	19,577,669	(32,303,370)
Decrease / (increase) in inventories	285,221,405	91,046,499	(779,872,012)
(Increase) / decrease in operating receivables	(65,067,135)	(117,243,028)	440,884,928
Increase in operating payables	480,330,185	56,323,744	845,163
Net cash flows generated from operating activities	4,601,328,522	3,119,036,823	3,447,872,739

(2) Change in cash and cash equivalents:

	2019 RMB	*2020* RMB	*2021* RMB
Cash and cash equivalents at the end of the year	9,278,483,670	5,180,636,789	2,332,751,042
Less: Cash and cash equivalents at the beginning of the year	(6,817,297,044)	(9,278,483,670)	(5,180,636,789)
Net increase/ (decrease) in cash and cash equivalents	2,461,186,626	(4,097,846,881)	(2,847,885,747)

(3) Cash and cash equivalents held by the Company are as follows:

	2019 RMB	*2020* RMB	*2021* RMB
(a) Cash at bank and on hand			
- Bank deposits available on demand	9,278,483,670	5,180,636,789	2,332,751,042
(b) Closing balance of cash and cash equivalents available on demand	9,278,483,670	5,180,636,789	2,332,751,042

42 Risk analysis for financial instruments

Financial instruments and risks

The Company's activities expose it to a variety of financial risks: market risk (primarily foreign exchange risk and interest rate risk), credit risk and liquidity risk. The Company's overall risk management programme focuses on the unpredictability of financial markets and seeks to minimize potential adverse effects on the Company's financial performance.

(1) Market risk

(a) Foreign exchange risk

The Company's major operational activities are carried out in Mainland China. Sales transactions are mainly denominated in RMB while purchase transactions are mainly denominated in USD and RMB. The Company 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 dollars. The Company's finance department is responsible for monitoring the amount of assets and liabilities, and transactions denominated in foreign currencies to minimize the foreign exchange risk. Therefore, the Company may consider entering into forward exchange contracts or currency swap contracts to mitigate the foreign exchange risk. During 2020 and 2021, the Company did not enter into any forward exchange contracts or currency swap contracts.

The financial assets and the financial liabilities denominated in foreign currencies, which are held by the Company, whose recording currencies are RMB, are expressed in RMB as at 31 December 2020 and 2021 as follows:

	31 December 2020		
	USD	*EUR*	*Total*
Financial assets denominated in foreign currency - Cash at bank and on hand	36,202,781	—	36,202,781
Financial liabilities denominated in foreign currency - Payables	(159,470,892)	(2,789,010)	(162,259,902)
Net balance sheet exposure	(123,268,111)	(2,789,010)	(126,057,121)

	31 December 2021		
	USD	*EUR*	*Total*
Financial assets denominated in foreign currency - Cash at bank and on hand	36,039,789	—	36,039,789
Financial liabilities denominated in foreign currency - Payables	(214,584,414)	(724,528)	(215,308,942)
Net balance sheet exposure	(178,544,625)	(724,528)	(179,269,153)

As at 31 December 2021, if the RMB had strengthened/weakened by 10% against the USD while all other variables had been held constant, the Company's net profit for the year would have been approximately RMB 13,390,847 (31 December 2020: approximately RMB 9,245,108 lower/higher) lower/higher for various financial assets and liabilities denominated in USD.

(b) Interest rate risk

The interest rate risk of the Company is mainly generated by short-term loan. Financial liabilities with floating interest rate make the Company face interest rate risk of cash flow, while financial liabilities with fixed interest rate make the Company face interest rate risk of fair value. The Company determines the relative proportions of fixed and floating rate contracts in accordance with prevailing market conditions. As at 31 December 2021, the Company had no interest bearing borrowing (31 December 2020: Nil).

The financial department of the Company headquarters continuously monitors the interest rate level of the Company. Higher interest rates would increase the cost of the new interest-bearing debt and the Company has not yet been paid to the floating interest at a pre-determined rate of interest-bearing debt payments, and our Company's financial performance have a significant adverse impact, management is on the basis of the latest market situation to adjust in time, the adjustment of interest rate swap arrangements may be carried out to reduce the interest rate risk. There is no interest rate swap arrangement for the Company in 2019, 2020 and 2021.

(2) Credit risk

Credit risk is managed on the grouping basis. Credit risk mainly arises from cash at bank, accounts receivable, other receivables and notes receivable.

The Company expects that there is no significant credit risk associated with cash at bank since they are deposited at state-owned banks and other medium or large size listed banks. Management does not expect that there will be any significant losses from non-performance by these counterparties.

In addition, the Company has policies to limit the credit exposure on accounts receivable, other receivables and notes receivable. The Company 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 Company. In respect of customers with a poor credit history, the Company will use written payment reminders, or shorten or cancel credit periods, to ensure the overall credit risk of the Company is limited to a controllable extent.

As at 31 December 2020 and 2021, the Company has no collateral or other credit enhancement held as a result of a material debtor's mortgage.

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(3) Liquidity risk

Cash flow forecasting is performed by the Company. The Company monitors the Company's short-term and long-term liquidity requirements to ensure it has sufficient cash and securities that are readily convertible to cash to meet operational needs, while maintaining sufficient headroom on its undrawn committed borrowing facilities from major financial institutions so that the Company does not breach borrowing limits or covenants on any of its borrowing facilities to meet the short-term and long-term liquidity requirements.

The financial liabilities of the Company at the balance sheet date are analyzed by their maturity dates below at their undiscounted contractual cash flows:

	31 December 2020				
	Within 1 year RMB	*1 to 2 years* RMB	*1 to 2 years* RMB	*Over 5 years* RMB	*Total* RMB
Accounts payable	1,289,854,156	—	—	—	1,289,854,156
Other payables	9,800,936	—	—	—	9,800,936
Lease liabilities	5,464,195	116,496	67,956	—	5,648,647
	1,305,119,287	116,496	67,956	—	1,305,303,739

	31 December 2021				
	Within 1 year RMB	*1 to 2 years* RMB	*1 to 2 years* RMB	*Over 5 years* RMB	*Total* RMB
Accounts payable	1,787,137,217	—	—	—	1,787,137,217
Other payables	2,755,463,900	—	—	—	2,755,463,900
Lease liabilities	116,496	67,956	—	—	184,452
	4,542,717,613	67,956	—	—	4,542,785,569

As at 31 December 2021, the Company had no lease payments related to lease contracts which had been signed but not been executed (as at 31 December 2020: Nil).

43 Fair value estimation

(1) Assets and liabilities measured at fair value

The following table presents the fair value information and the fair value hierarchy, at the end of the current reporting period, of the Company'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 categorized 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 of inputs 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;

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Level 3 inputs: inputs that are unobservable for underlying assets or liabilities.

		31 December 2020			
	Note	*Level 1 fair value measurements* RMB	*Level 2 fair value measurements* RMB	*Level 3 fair value measurements* RMB	*Total* RMB
Financial assets					
Financial assets at fair value through other comprehensive income-Notes receivable	8	—	501,351,308	—	501,351,308

		31 December 2021			
	Note	*Level 1 fair value measurements* RMB	*Level 2 fair value measurements* RMB	*Level 3 fair value measurements* RMB	*Total* RMB
Financial assets					
Financial assets at fair value through other comprehensive income-Notes receivable	8	—	260,065,209	—	260,065,209

(2) Fair value of other financial instruments (items not measured at fair value at the end of the year)

The Company's financial assets and liabilities measured at amortized cost mainly include notes receivable, receivables, other current assets and payables.

As at 31 December 2020 and 2021, the carrying amount of the financial assets and liabilities not measured at fair value is a reasonable approximation of their fair value.

44 Capital management

The Company's capital management policies aim to safeguard the Company's ability to continue as a going concern in order 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 Company may adjust the amount of dividends paid to shareholders, return capital to shareholders, or sell assets to reduce debts.

The Company's total capital is calculated as 'owners' equity' as shown in the balance sheet. The Company is not subject to external mandatory capital requirements, and monitors capital on the basis of gearing ratio.

As at 31 December 2020 and 2021, the gearing ratios of the Company were as follows:

	31 December 2020	*31 December 2021*
Gearing ratio	17.03%	46.04%

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45 Commitments

As at 31 December, the capital commitments of the Company are summarized as follows:

Item	*2020* RMB	*2021* RMB
Contracts for acquisition of fixed assets being or to be executed	90,326,308	47,874,261

46 Subsequent event

(1) Distributions of profit in cash approved after the balance sheet date

The Board of Directors approved on 28 February 2022 a distribution of profit in cash totalling RMB 2,772,190,652, including distribution of profit in cash to Sinopec Corp. of RMB 831,657,196, distribution of profit in cash to Sinopec Shanghai Petrochemical Company Limited of RMB 554,438,130, and distribution of profit in cash to Sinopec Shanghai Gaoqiao Petrochemical Company Limited of RMB 1,386,095,326. This distribution of profit in cash has not been recognised as a liability at the balance sheet date. The above profit distributions to owners are in accordance with their actual ratios of contribution to the registered capital.

47 Related parties and related party transactions

(1) Information about the investor of the Company is listed as follows:

Investor name	*Registered place*	*Business nature*	*31 December 2020 and 2021 Shareholding percentage*
Sinopec Corp.	Beijing, the PRC	Oil and gas exploration, development, production and marketing, crude oil processing, oil products production, trading and distribution	30%
Sinopec Shanghai Petrochemical Company Limited	Shanghai, the PRC	Crude oil processing, petroleum products, chemical products and synthetic fibres, etc.	20%
Sinopec Shanghai Gaoqiao Petrochemical Company Limited	Shanghai, the PRC	Crude oil processing, petroleum products, chemical products and storage, etc.	50%

(2) Nature of related parties that do not control or are not controlled by the Company

Name of entity	Relationship with the Company
China Petroleum and Chemical Corporation Zhenhai Refining Branch	Branch of Sinopec Corp.
China International United Petroleum and Chemical Company Limited	Subsidiary of Sinopec Corp.
China Petroleum and Chemical Corporation Jinling Branch	Branch of Sinopec Corp.
Sinopec Qingdao Refining&Chemical Company Limited	Subsidiary of Sinopec Corp.
China Petroleum and Chemical Corporation Guangzhou Branch	Branch of Sinopec Corp.
China Jinshan Associated Trading Corporation	Subsidiary of SPC
Shanghai Jinshan Hotel Co., Ltd.	Subsidiary of SPCL
Sinopec Chemical Commercial Holding Company Limited Huadong Branch	Subsidiary of Sinopec Corp.

Name of entity	Relationship with the Company
Shanghai Leader Catalyst Company Limited	Subsidiary of Sinopec Corp.
Sinopec Catalyst Company Limited Shanghai Branch	Subsidiary of Sinopec Corp.
China Petroleum and Chemical Corporation Beijing Yanshan Branch	Branch of Sinopec Corp.
Nanjing Yangzi Petrochemical Refining Company Limited	Subsidiary of Sinopec Corp.
Sinopec Catalyst Company Limited Beijing AUDA Branch	Subsidiary of Sinopec Corp.
China Petroleum and Chemical Corporation Shanghai Petrol-Chemical Industry Institute	Subsidiary of Sinopec Corp.
BASF-YPC. Shanghai Company Limited	Joint venture of Gaoqiao Petrochemical
Petro-Cyber Works Information Technology Company Limited	Subsidiary of Sinopec Corp.
Sinopec Hainan Petrochemical Co., Ltd.	Subsidiary of Sinopec Corp.
Sinopec Catalyst Company Limited Nanjing Branch	Subsidiary of Sinopec Corp.
Sinopec Beijing Catalyst Company Limited	Subsidiary of Sinopec Corp.
BASF Gaoqiao Specialty Chemicals (Shanghai) Company Limited	Associated Company of Gaoqiao Petrochemical
Shanghai Sinopec Mitsui Elastomers Company Limited	Associated Company of Gaoqiao Petrochemical

(2) Nature of related parties that do not control or are not controlled by the Company (continued)

Name of entity	Relationship with the Company
Sinopec Shanghai Sales Company Limited	Subsidiary of Sinopec Corp.
Shanghai Jinchang Engineering Plastics Company Limited	Subsidiary of SPC
China Petrochemical International Tianjin Company Limited	Subsidiary of Sinopec Corp.
Yihua Bona Fabric Company Limited	Joint venture of Sinopec Corp.
Petrochemical Engineering Quality Supervision Station	Subsidiary of Sinopec Corp.
Sinopec Ningbo Engineering Company Limited Shanghai Branch	Subsidiary of Sinopec Corp.
China Petroleum and Chemical Co., Ltd., QILU Branch	Subsidiary of Sinopec Corp.
China Sinopec Corporation Qingdao Institute of Safety Engineering	Subsidiary of Sinopec Corp.
China Petroleum and Chemical Corporation Beijing Research Institute of Chemical Industries	Subsidiary of Sinopec Corp.
Information Technology Branch of Sinopec Refining and Chemical Engineering (Group) Co., Ltd.	Subsidiary of Sinopec Corp.
Sinopec Tendering Company Limited	Subsidiary of Sinopec Corp.
Sinopec Consulting Company Limited	Subsidiary of Sinopec Corp.
Shanghai Petrochemical Machinery Manufacturing Company Limited	Subsidiary of Sinopec Corp.
Sinopec Publishing House Co., Ltd.	Subsidiary of Sinopec Corp.
Sinopec Europa Gmbh	Subsidiary of Sinopec Corp.
China petrochemical International Enterprise Company Limited Ningbo Bidding Center	Subsidiary of Sinopec Corp.
Shanghai Chemical Industry Park Logistics Company Limited	Joint venture of SPC
Sinopec Nanjing Engineering Company Limited	Subsidiary of Sinopec Corp.
Shanghai Dongfang Engineering Consultants Co., Ltd.	Subsidiary of Sinopec Corp.
Shanghai Huayi Information Technology Company Limited	Joint venture of Sinopec Corp.

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(3) Significant related party transactions

The Company's pricing on products sold to related parties and raw materials purchased from related parties is negotiated by both parties.

(a) Significant related party transactions

Sales of goods

	2019 RMB	*2020* RMB	*2021* RMB
Sinopec Shanghai Petrochemical Company Limited	3,264,999,401	2,469,008,549	3,096,709,578
Sinopec Shanghai Gaoqiao Petrochemical Company Limited	2,092,647,270	1,609,838,063	2,344,682,615
Shanghai Sinopec Mitsui Elastomers Company Limited	424,750,545	313,324,007	542,433,412
China Jinshan Associated Trading Corporation	369,403,703	300,543,910	395,108,984
Sinopec Chemical Commercial Holding Company Limited Huadong Branch	187,725,566	137,036,739	104,461,770
Sinopec Shanghai Sales Company Limited	—	—	9,369,061
Shanghai Jinchang Engineering Plastics Company Limited	—	2,274,336	1,606,018
China Petrochemical International Tianjin Company Limited	68,242,405	11,467,671	—
Yihua Bona Fabric Company Limited	19,537,977	1,428,761	—
Total	6,427,306,867	4,844,922,036	6,494,371,438

Purchase of goods

	2019 RMB	*2020* RMB	*2021* RMB
China Petroleum and Chemical Corporation Zhenhai Refining Branch	3,304,883,614	1,886,994,055	5,055,451,144
Sinopec Shanghai Gaoqiao Petrochemical Company Limited	2,910,396,011	2,416,640,786	3,500,853,274
Sinopec Shanghai Petrochemical Company Limited	1,907,624,450	1,214,059,295	2,806,216,204
Shanghai Jinshan Hotel Co., Ltd.	—	—	143,386
China International United Petroleum and Chemical Company Limited	1,172,266,702	1,789,430,831	1,774,208,796

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China Petroleum and Chemical Corporation Jinling Branch	1,506,898,808	1,350,625,256	1,605,310,945
Sinopec Qingdao Refining&Chemical Company Limited	234,080,117	576,192,296	1,133,704,017
China Petroleum and Chemical Corporation Guangzhou Branch	1,025,342,177	431,135,789	992,405,630
China Jinshan Associated Trading Corporation	760,261,652	511,087,351	745,813,800
Sinopec Chemical Commercial Holding Company Limited Huadong Branch	1,458,417,305	1,285,275,149	611,974,256
Shanghai Leader Catalyst Company Limited	36,235,654	33,549,209	32,657,746
Sinopec Catalyst Company Limited Shanghai Branch	33,933,647	21,991,150	23,561,947
China Petroleum and Chemical Corporation Beijing Yanshan Branch	16,357,331	12,927,351	19,934,903
Nanjing Yangzi Petrochemical Refining Company Limited	13,018,804	13,123,737	13,593,346
Sinopec Catalyst Company Limited Beijing AUDA Branch	12,932,621	14,549,120	13,243,628
China Petroleum and Chemical Corporation Shanghai Petrol-Chemical Industry Institute	—	—	1,979,555
BASF-YPC. Shanghai Company Limited	—	—	1,506,970
Petro-Cyber Works Information Technology Company Limited	—	83,894	197,124
Sinopec Hainan Petrochemical Co., Ltd.	—	160,937,378	—
Sinopec Catalyst Company Limited Nanjing Branch	—	2,653,805	—
Sinopec Beijing Catalyst Company Limited	5,898,896	1,235,865	—
BASF Gaoqiao Specialty Chemicals (Shanghai) Company Limited	7,814,924	157,678	—
Shanghai Jinshan Trading Corporation	32,366,400		
Total	14,438,729,113	11,722,649,995	18,332,756,671

(EXPRESSED IN RENMINBI YUAN)

Purchasing engineering construction and maintenance services

	2019 RMB	*2020* RMB	*2021* RMB
Sinopec Engineering Incorporation	9,435,934	3,481,030	30,735,660
Sinopec Shanghai Engineering Company Limited	70,204,357	3,614,528	8,913,236
Sinopec Ningbo Engineering Company Limited	329,079	6,531,069	3,570,813
Sinopec Ningbo Engineering Company Limited Shanghai Jinshan Branch	18,939,059	5,231,665	3,150,482
Petrochemical Engineering Quality Supervision Station	72,075	499,900	280,300
Sinopec Ningbo Engineering Company Limited Shanghai Branch	—	—	244,268
China Petroleum and Chemical Co., Ltd., QILU Branch	—	—	216,981
Shanghai Chemical Industry Park Logistics Company Limited	—	2,293,009	—
Sinopec Nanjing Engineering Company Limited	1,220,197	441,742	—
Shanghai Dongfang Engineering Consultants Co., Ltd.	—	299,444	—
Sinopec Consulting Company Limited	754,717	—	—
Shanghai Petrochemical Machinery Manufacturing Company Limited	150,094	—	—
Total	101,105,512	22,392,387	47,111,740

(EXPRESSED IN RENMINBI YUAN)

Rental expenses

	2019 RMB	*2020* RMB	*2021* RMB
Sinopec Shanghai Petrochemical Company Limited	2,050,914	2,050,914	2,038,814

Issuing entrusted loan

	2019 RMB	*2020* RMB	*2021* RMB
Sinopec Corp.	—	4,000,000,000	—

Recovering entrusted loan

	2019 RMB	*2020* RMB	*2021* RMB
Sinopec Corp.	—	2,000,000,000	2,000,000,000

Interest income from entrusted loans

	2019 RMB	*2020* RMB	*2021* RMB
Sinopec Corp.	—	58,535,901	46,328,616

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Consulting service fee

	2019 RMB	*2020* RMB	*2021* RMB
Petro-Cyber Works Information Technology Company Limited	3,101,213	23,148,656	14,597,690
China Sinopec Corporation Qingdao Institute of Safety Engineering	2,800,853	3,468,491	2,076,967
China Petroleum and Chemical Corporation Beijing Research Institute of Chemical Industries	1,603,774	1,186,151	558,019
Information Technology Branch of Sinopec Refining and Chemical Engineering (Group) Co., Ltd.	—	—	138,867
Sinopec Tendering Company Limited	—	189,761	94,340
Sinopec Consulting Company Limited	—	—	87,264
Shanghai Petrochemical Machinery Manufacturing Company Limited	—	—	84,528
Sinopec Publishing House Co., Ltd.	—	—	45,871
Sinopec Europa Gmbh	—	576,088	17,369
Shanghai Chemical Industry Park Logistics Company Limited	939,881	1,309,586	—
Sinopec Ningbo Engineering Company Limited	—	188,679	—
China petrochemical International Enterprise Company Limited Ningbo Bidding Center	—	39,057	—
Shanghai Huayi Information Technology Company Limited	7,390,272	—	—
Total	15,835,993	30,106,469	17,700,915

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Transportation service fee

	2019 RMB	*2020* RMB	*2021* RMB
Shanghai Chemical Industry Park Logistics Company Limited	109,660,856	114,227,900	115,224,861

The above transactions with related parties were conducted under normal commercial terms or relevant agreements.

(b) The balances of transactions with related parties as at 31 December are set out as follows:

Accounts receivable

	2020 RMB	*2021* RMB
Shanghai Sinopec Mitsui Elastomers Company Limited	23,901,121	24,609,303
China Jinshan Associated Trading Corporation	15,489,177	5,663,355
Sinopec Chemical Commercial Holding Company Limited Huadong Branch	25,082,111	2,232,207
Sinopec Shanghai Sales Company Limited	—	1,345,776
Sinopec Shanghai Petrochemical Company Limited	89,572,562	—
Total	154,044,971	33,850,641

Financial assets at fair value through other comprehensive income

	2020 RMB	*2021* RMB
China Jinshan Associated Trading Corporation	—	24,480,000
Sinopec Chemical Commercial Holding Company Limited Huadong Branch	33,000,000	—
Total	33,000,000	24,480,000

Advances to suppliers

	2020 RMB	*2021* RMB
Sinopec Beijing Catalyst Company Limited	—	18,280,685

Other current assets-entrusted loans

	2020 RMB	*2021* RMB
Sinopec Corp.	2,000,000,000	—

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Contract Liabilities

	2020 RMB	*2021* RMB
China Jinshan Associated Trading Corporation	—	1,374,802
Yihua Bona Fabric Company Limited	80,387	—
Shanghai Jinchang Engineering Plastics Company Limited	6,240	—
Total	86,627	1,374,802

Accounts payable

	2020 RMB	*2021* RMB
China Petroleum and Chemical Corporation Zhenhai Refining Branch	121,567,901	410,286,919
China International United Petroleum and Chemical Company Limited	124,320,184	164,575,394
Sinopec Shanghai Gaoqiao Petrochemical Company Limited	41,432,579	130,646,973
Sinopec Qingdao Refining&Chemical Company Limited	42,359,460	74,953,420
Sinopec Shanghai Petrochemical Company Limited	12,675,237	22,363,326
Sinopec Catalyst Company Limited Shanghai Branch	12,341,998	17,258,591
Sinopec Chemical Commercial Holding Company Limited Huadong Branch	63,990,530	17,203,042
Shanghai Chemical Industry Park Logistics Company Limited	17,033,990	16,564,103
China Petroleum and Chemical Corporation Jinling Branch	77,117,560	8,361,978
Sinopec Catalyst Company Limited Beijing AUDA Branch	4,849,699	5,160,796
Shanghai Leader Catalyst Company Limited	9,028,567	3,515,961
Sinopec Engineering Incorporation	3,481,030	3,481,030
Sinopec Ningbo Engineering Company Limited	4,254,440	2,335,709
Sinopec Shanghai Engineering Company Limited	2,483,579	1,874,373
China Jinshan Associated Trading Corporation	23,089,682	1,585,234

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Petro-Cyber Works Information Technology Company Limited	18,593,553	1,518,474
Nanjing Yangzi Petrochemical Refining Company Limited	1,257,138	1,456,195
Sinopec Beijing Catalyst Company Limited	1,235,865	1,235,865
China Petroleum and Chemical Corporation Beijing Research Institute of Chemical Industries	591,000	591,000
BASF-YPC. Shanghai Company Limited	—	355,500
China Petroleum and Chemical Corporation Shanghai Petrol-Chemical Industry Insti Tute	—	349,904
Sinopec Ningbo Engineering Company Limited Shanghai Jinshan Branch	5,431,441	158,500
Sinopec Nanjing Engineering Company Limited	751,454	77,403
Sinopec Publishing House Co., Ltd.	—	45,871
China Petroleum and Chemical Corporation Guangzhou Branch	11,479,100	—
Sinopec Catalyst Company Limited Nanjing Branch	2,653,805	—
Shanghai Dongfang Engineering Consultants Co., Ltd.	299,444	—
China Sinopec Corporation Qingdao Institute of Safety Engineering	271,321	—
Shanghai Huayi Information Technology Company Limited	241,662	—
Basf Gaoqiao Specialty Chemicals (Shanghai) Company Limited	157,678	—
Petrochemical Engineering Quality Supervision Station	156,000	—
Sinopec Hainan Petrochemical Co., Ltd.	76,838	—
China Petroleum and Chemical Corporation Beijing Yanshan Branch	3,790	—
Total	603,226,525	885,955,561

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48 Reconciliation to United States generally accepted accounting principles

The financial statements have been prepared in accordance with Accounting Standards for Business Enterprises in the People's Republic of China ("CAS"), which differ in certain respects from accounting principles generally accepted in the United States of America ("U.S. GAAP"). The significant differences are described in the reconciliation tables below. Other differences do not have a significant effect on either net profit or owners' equity. The effects of the significant adjustments to net profit for the years ended 31 December 2019, 2020 and 2021 which would be required if U.S. GAAP were to be applied instead of CAS are summarized as follows:

	2019 RMB	*2020* RMB	*2021* RMB
Net profit under CAS	3,383,585,735	2,412,799,656	3,125,903,862
Adjustments:			
Employees' bonus and welfare fund (a)	(500,000)	(148,099)	—
Net profit under U.S. GAAP	3,383,085,735	2,412,651,557	3,125,903,862

The effects of the significant adjustments to owners' equity as at 31 December 2020 and 2021 which would be required if U.S. GAAP were to be applied instead of CAS are summarized as follows:

	2020 RMB	*2021* RMB
Owners' equity under CAS	13,714,154,878	6,367,541,407
Adjustments:		
Employees' bonus and welfare fund (a)	76,283,722	76,283,722
Owners' equity under U.S. GAAP	13,790,438,600	6,443,825,129

(a) Employees' bonus and welfare fund

In accordance with the Law of the PRC on Chinese-Foreign Equity Joint Ventures and the Company's Articles of Association, the Company appropriated the employees' bonus and welfare fund of net profit after setting off accumulated losses of previous years and before profit distributions to the investors.

The employees' bonus and welfare fund is restricted to fund payments of special bonus to employees and for the collective welfare of employees. None of it is allowed to be transferred to the Company in terms of cash dividends, loans or advances, nor can it be distributed except under liquidation.

Under CAS, appropriation of the employees' bonus and welfare fund is a liability in nature and accounted for as a transfer from undistributed profits to employees' bonus and welfare fund, a liability account. Subsequent payment is accounted for as a release of the Company's liability.

Under U.S. GAAP, appropriation to the employees' bonus and welfare fund is accounted for as a transfer from undistributed profits to the statutory reserves. Subsequent payment is accounted for as expenses or assets based on the usage of the payment, and proportionate undistributed profits and the statutory reserves are reversed concurrently.