

Stock Code: 600320 900947

Stock Name: Zhenhua Heavy Zhenhua B-share

Shanghai Zhenhua Heavy Industries Co., Ltd. Annual Report 2022

CONTENTS

Section I	Definitions	03
Section II	Company Profile and Principal Financial Indexes	04
Section III	Management Discussion and Analysis	08
Section IV	Corporate Governance	22
Section V	Environmental and Social Responsibility	35
Section VI	Important Events	42
Section VII	Changes in Shares and Shareholders' Situation	52
Section VIII	Preference Shares	56
Section IX	Bonds	57
Section X	Financial Report	61

List of Reference Documents	Financial statements affixed with the signature and seal of legal representative, person in charge of accounting work and person in charge of accounting agency.
	Original auditors' report stamped by the accounting firm and signed and stamped with the certified public accountants.
	Original copies of the documents and announcements of the Company published on the newspaper designated by the CSRC in the reporting period.



Important Notice

- 1** The Board of Directors, Board of Supervisors, directors, supervisors and senior executives of the Company hereby guarantee the truthfulness, accuracy and completeness of the contents carried in this annual report, guarantee no false record, serious misleading statement or great omission carried in this annual report and guarantee to assume the legal responsibilities jointly and separately.
- 2** All directors of the Company are present at the board meeting.
- 3** Ernst & Young Hua Ming LLP issues the standard audit report without qualified opinion for the Company.
- 4** Liu Chengyun, the chairman of the Company, Zhu Xiaohuai, person in charge of accounting work, and Sun Guangbo, person in charge of accounting agency (accountant in charge) hereby declare that the financial statements in this annual report are true, accurate and complete.
- 5** Proposal for profit distribution or common reserves capitalizing during the reporting period reviewed by the board of directors
As audited by Ernst & Young Hua Ming LLP, the Company achieved a net profit attributable to the owners of the parent company of approximately RMB 372 million in 2022. As at December 31, 2022, the undistributed profit of the parent company was approximately RMB 2.746 billion. The Board of Directors of the Company, taking into account the Company's business plan and capital demand in 2023, has prepared a profit distribution proposal for 2022: neither profit distribution nor transfer of the capital public reserves into paid-in capital. The profit distribution proposal has yet to be submitted to the 2022 Annual General Meeting of Shareholders for consideration and approval.
- 6** Risk declaration of forward-looking statements
 Applicable Not Applicable
The forward-looking descriptions of future plans and development strategies covered in this report do not constitute substantial commitments by the Company to investors, and investors should be aware of the investment risks.
- 7** Does the Company have non-operating funds occupied by the holding shareholder and its related parties?
No
- 8** Does the Company provide the external guarantees in breach of the stipulated decision-making procedure?
No
- 9** Whether more than half of the directors cannot guarantee the authenticity, accuracy and completeness of the annual report disclosed by the Company?
No
- 10** Major Risk Warning
The company has described the related potential risks in this annual report. Investors may pay attention to the same. Please refer to "Management Discussion and Analysis" and related chapters for the risks the company may be confronted with in the future development.
- 11** Others
 Applicable Not Applicable

Section I | Definitions

I. Definitions

The terms used in this report shall be defined as follows, unless otherwise specified:

Definitions of high frequency terms		
Company, the Company, ZPMC	Refers to	Shanghai Zhenhua Heavy Industries Co., Ltd.
CCCC	Refers to	China Communications Construction Company Ltd.
CCCG	Refers to	China Communications Construction Group Co., Ltd.
CCCG HK	Refers to	CCCG (HK) Holding Limited
"1544" overall development strategy	Refers to	"1" refers to firmly anchoring the goal of building a globally competitive technology-oriented, management-oriented and quality-oriented world-class equipment manufacturing enterprise. "5" refers to working hard on "five types of business", continuously consolidating the traditional primary business of port machinery, offshore engineering and shipping and installation, accelerating the development of growth business such as steel structure, offshore wind power, sky parking and so on, multiplying the after-market services and service innovation, moderately developing the financial investment, making efforts to explore new businesses with broad prospects and competitive advantages in the industry. "4" refers to solidly promoting "four main lines", continuing to strengthen innovation-driven leadership, sustaining deepening the enterprise reform, accelerating the management upgrade and strengthening the Party building. "4" refers to focusing on improving the "four-thinking" ability, improving the ability of strategic thinking, improving the ability of market thinking, improving the ability of innovative thinking, and improving the ability of risk control thinking.
Reporting period	Refers to	From Jan. 1, 2022 to Dec. 31, 2022



Section II | Company Profile and Principal Financial Indexes

1 Company Information

Company name in Chinese	上海振华重工（集团）股份有限公司
Abbreviation of the Company name in Chinese	振华重工
Company name in English	SHANGHAI ZHENHUA HEAVY INDUSTRIES CO., LTD.
Abbreviation of the Company name in English	ZPMC
Legal representative of the Company	Liu Chengyun

2 Contact Information

Secretary of the Board of Directors	
Name	Sun Li
Address	No. 3261, Dongfang Road, Shanghai
Telephone	021-50390727
Fax	021-31193316
E-mail	IR@ZPMC.COM

3 Basic Information

Registered address	No.3470, Pudong South Road, Shanghai
Changes of registered address	N/A
Office address	No. 3261, Dongfang Road, Shanghai
Postal code of office address	200125
Website	http://www.zpmc.com
E-mail	IR@ZPMC.COM

4 Information disclosure and placement location

Newspaper and website for disclosure of the annual report	Shanghai Securities News, www.cnstock.com Hong Kong Wen Wei Po, www.wenweipo.com
Stock exchange website for disclosure of the annual report	www.sse.com.cn
Placement location of the annual report	Office of the board of directors

5 Stock information

Stock Information				
Stock type	Stock exchange	Stock abbreviation	Stock code	Stock abbreviation before change
A-share	Shanghai Stock Exchange (SSE)	Zhenhua Heavy	600320	ZPMC Industries
B-share	Shanghai Stock Exchange (SSE)	Zhenhua B-share	900947	-

6 Other relevant information

Public accounting firm engaged by the Company (domestic)	Name	Ernst & Young Hua Ming LLP
	Office address	Room 01-12, Floor 17th, Ernst & Young Tower Oriental Plaza, No.1 East Changan Street, Dongcheng District, Beijing
	Signed by the Accountants	Gao Chong, Gu Chengli

7 Main accounting data and financial indexes in recent three years**(I) Main accounting data**

Unit: Yuan Currency: CNY

Main accounting data	2022	2021	Year-on-year change (%)	2020
Operating revenue	30,191,792,987	25,977,976,968	16.22	22,655,141,652
Net profit attributable to the shareholders of the listed company	371,937,232	439,839,245	-15.44	422,240,299
Net profit attributable to the shareholders of the listed company after deducting the non-recurring profits and losses	414,835,324	-440,186,675	N/A	-58,462,207
Net cash flows from operating activities	2,568,564,023	2,119,639,518	21.18	819,389,020
	At the end of 2022	At the end of 2021	Year-on-year change (%)	At the end of 2020
Net assets attributable to the shareholders of the listed company	15,168,470,117	14,990,218,631	1.19	14,570,822,140
Total assets	78,213,168,723	78,332,081,199	-0.15	79,320,644,540

(II) Major financial indexes

Major financial indexes	2022	2021	Year-on-year change (%)	2020
Basic earnings per share (RMB/share)	0.07	0.08	-12.50	0.08
Diluted earnings per share (RMB/share)	0.07	0.08	-12.50	0.08
Basic earnings per share after deducting non-recurring profits and losses (RMB/share)	0.07	-0.09	N/A	-0.01
Weighted average ROE (%)	2.39	2.90	-0.51	3.04
Weighted average ROE after deducting non-recurring profits and losses (%)	2.68	-3.48	+6.16	-0.43



Explanations about the main accounting data and financial indexes in the past 3 years as at the end of the reporting period

Applicable Not Applicable

The change in net profit attributable to the shareholders of the listed company after deducting the non-recurring profits and losses was mainly due to the decrease in the impact of items for deducting the non-recurring profits and losses.

The change in basic earnings per share after deducting the non-recurring profits and losses was mainly due to the decrease in the impact of items for deducting the non-recurring profits and losses.

The change in the net cash flows from operating activities was mainly due to the decrease in cash payment for goods purchased and services received by the Company.

8 Differences in accounting data under domestic and overseas accounting standards

(I) Difference in net profits and net assets attributable to the shareholders of the listed company in the financial statements synchronously disclosed under international and China's accounting standards

Applicable Not Applicable

(II) Difference in net profits and net assets attributable to the shareholders of the listed company in the financial statements synchronously disclosed under foreign and China's accounting standards

Applicable Not Applicable

(III) Explanation for differences between the domestic and foreign accounting standards:

Applicable Not Applicable

9 Main financial data in 2022 by quarter

Unit: Yuan Currency: CNY

	Q1 (Jan. to Mar.)	Q2 (Apr. to Jun.)	Q3 (Jul. to Sep.)	Q4 (Oct. to Dec.)
Operating revenue	4,770,429,059	7,725,937,628	6,482,964,267	11,212,462,033
Net profit attributable to the shareholders of the listed company	15,292,041	114,517	51,922,863	304,607,811
Net profit attributable to the shareholders of the listed company after deducting the non-recurring profits and losses	198,022,896	-127,450,338	162,623,826	181,638,940
Net cash flows from operating activities	-891,161,550	761,099,344	659,686,099	2,038,940,130

Explanations about the differences between the quarterly data and the data in periodically disclosed reports

Applicable Not Applicable

10 Non-recurring profit and loss items and amount

Applicable Not Applicable

Unit: Yuan Currency: CNY

Non-recurring profit and loss items	Amount in 2022	Note (if applicable)	Amount in 2021	Amount in 2020
Profit or loss from disposal of non-current assets	66,091,456		240,161,569	36,620,758
Government subsidies included in current profits and losses except for government subsidies closely related to the Company business, in line with national policies and obtained by quota or quantity at unified state standards	106,415,947		81,153,206	97,849,026
Profit or loss on changes in fair values of held-for-trading financial assets, derivative financial assets, held-for-trading financial liabilities and derivative financial liabilities, and investment income obtained from disposal of held-for-trading financial assets, derivative financial assets, held-for-trading financial liabilities, derivative financial liabilities and other credit investment, except for effective hedging operations associated with the Company's normal operations	-214,877,284		643,903,925	356,116,979
Reversal of provision for impairment of receivables subject to separate impairment test			94,986,600	78,007,100

Non-recurring profit and loss items	Amount in 2022	Note (if applicable)	Amount in 2021	Amount in 2020
Other non-operating revenue and expenses except for the above-mentioned items	27,301,769		12,089,008	4,718,614
Less: Affected amount of income tax	11,561,380		179,212,457	77,383,660
Affected amount of minority equity (after tax)	16,268,600		13,055,931	15,226,311
Total	-42,898,092		880,025,920	480,702,506

Description of the recurring profit or loss items defined according to the definitions in “Explanatory Announcement on Information Disclosure of Companies Offering Securities to the Public No. 1 – Non-recurring Profit or Loss”, as well as the recurring profit or loss items defined by the non-recurring profit or loss items listed in “Explanatory Announcement on Information Disclosure of Companies Offering Securities to the Public No. 1 – Non-recurring Profit or Loss”

Applicable Not Applicable

11 Items measured at fair value

Applicable Not Applicable

Unit: Yuan Currency: CNY

Item	December 31, 2021	December 31, 2022	Current change	Impact on current profits
Jiangxi Huawu Brake Co., Ltd.	420,227,264	199,652,466	-220,574,798	-185,262,798
Qingdao Port International Co., Ltd.	364,099,519	348,072,750	-16,026,769	13,048,642
China Railway Signal & Communication Corporation Limited	286,756,480	280,317,612	-6,438,868	15,544,255
Shenwan Hongyuan Group Co., Ltd.	1,119,345	870,116	-249,229	-165,057
COSCO Shipping Holdings Co., Ltd.	72,893,036	40,132,120	-32,760,916	-16,614,465
Equity instrument investment	8,438,278	8,438,278	0	0
Hunan Fengri Power & Electric Co., Ltd.	27,201,190	30,657,862	3,456,672	335,790
CCCC Highway Bridges National Engineering Research Centre Co., Ltd.	20,644,018	22,151,670	1,507,652	0
CCCC National Engineering Research Center of Dredging Technology and Equipment Co., Ltd.	8,673,049	8,938,170	265,121	0
Shenyang Weichen Crane Equipment Co., Ltd.	6,003,344	5,205,300	-798,044	0
Ningbo Weilong Port Machinery Co., Ltd.	2,809,856	5,825,195	3,015,339	0
ZPMC Longchang Lifting Equipment Co., Ltd.	948,588	697,422	-251,166	0
Total	1,219,813,967	950,958,961	-268,855,006	-173,113,633

12 Others

Applicable Not Applicable



Section III | Management Discussion and Analysis

I. Discussion and analysis of the performance

In 2022, the Company adhered to the guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, deeply studied and implemented the spirit of the 20th National Congress of the Communist Party of China, conscientiously implemented the important decisions and plans of the Party Central Committee, the State Council and State-owned Assets Supervision and Administration Commission, effectively fulfilled the duties and obligations under the Company Law and the Articles of Association of the Company, closely focused on the “1544” overall development strategy, upheld the underlying principle of pursuing progress while ensuring stability, paid close attention to the management improvement, cost reduction and efficiency increase and reform and innovation, successfully overcame the internal and external adverse impacts, completed the annual tasks and targets in all respects, and continued to promote the high-quality development of the enterprise.

In accordance with the requirements of the three-year action plan for state-owned enterprise reform, the Company had deepened its reform work comprehensively from perfecting the modern enterprise system with Chinese characteristics, paying adequate attention to the special projects of state-owned enterprise reform, and improving the market-oriented operation mechanism, so as to continuously stimulate the endogenous power of the enterprise to become stronger, better and bigger. The construction of the governance subjects was continuously strengthened, which optimized the governance system and further improved the governance effectiveness; the flat reform of the company’s organization integrated and reorganized the internal resources and further improved the operation and management efficiency; the identification of new performance subjects consolidated the responsibility for performance and further enhanced the production management level; the “three-system” reform was accelerated on a continuing basis, which mobilized the enthusiasm of the cadre team for the undertakings and further released the operation vigor. In reform, it made strong moves across the board, secured major advances in many areas, drove deeper in pursuing progress and made achievements in implementation, and many important indicators of the Company were improved significantly, and the high-quality development of the enterprise reached a new stage.

During the reporting period, the Company realized the operating revenue amounting to RMB 30.192 billion, representing a year-on-year increase of 16.22%; the net profit attributable to the parent company after deducting the non-recurring profits and losses was RMB 0.415 billion, with an increase of RMB 0.855 billion over the same period last year. The new contract value of port machinery business was USD 3.385 billion, with an increase of 5.48% over the same period last year. New contract value of marine engineering and steel structure-related businesses amounted to USD 2.161 billion, with an increase of 88.73% over the same period last year, of which the new orders for steel structure business amounted to USD 0.542 billion, maintaining a steady and progressive development trend.

The market layout of each business segment was continuously optimized, the core advantage of port machinery business was further consolidated, new breakthroughs were made in the development of the offshore engineering market, steel structure and wind power business achieved faster growth, shipping business, parking business, after-market service business and new business were promoted in an orderly manner, and the operating capacity was steadily improved. The cost accounting and control system was established, the construction of a comprehensive budget constraint system was strengthened, the whole process supervision of cost management of key projects was carried out, and the cost control capability was effectively enhanced. The Company actively explored the new model of “open competition mechanism” that integrated scientific and technological breakthrough and incentive to select the best candidates to undertake key research projects and promoted digitalization, standardization and modularization in an orderly manner, so as to continuously upgrade the ability of scientific and technological self-independence and self-improvement.

II. Industrial situation of the Company during the reporting period

The world was undergoing the greatest changes in a century and was entering a new period of fluidity and change, and our country has entered a period of development in which strategic opportunities, risks, and challenges were concurrent and uncertainties and unforeseen factors were rising. As an export-oriented enterprise, the Company was still confronted with the challenges such as supply chain security and stability and bottleneck problems in technical breakthrough. The 20th National Congress of the Communist Party of China clearly defined the goals and tasks for the cause of the Party and the country on a new journey in a new era, and made major plans to promote high-standard opening-up, accelerate the construction of a manufacturing power, and accelerate the green transformation of the development mode. The Central Economic Work Conference stressed that in 2023, we should prioritize stability while pursuing progress, paid attention to “six overall plans” and proposed key tasks such as accelerating the construction of a modern industrial system and vigorously developing the digital economy.

From the perspective of the industrial situation of the Company, the demand for larger, more efficient, lighter, lower carbon and more intelligent port machinery was more obvious. The major port operators have successively formulated the action plans for decarbonization and emission reduction before 2030, and the demand for carbon reduction of equipment

would increase in the future. The Company would actively carry out research on high-end technology, cutting-edge technology and bottleneck technology at home and abroad, and intensify the research and development of lightweight, intelligent and low-carbon port machinery products. In the post-service market, users also had higher requirements on the response speed of maintenance service, after-sales service and spare parts service of the Company. In the offshore engineering business, affected by the Russia-Ukraine War, international crude oil price fell down in fluctuation after rising rapidly in March 2022. The global oil and gas offshore equipment market was in the recovery cycle, but the market outlook was still in "wait-and-see". The Company's offshore engineering business would continue to grasp its own advantages, do well in differentiation development, and actively expand new tracks and international market. The Company closely focused on the key fields of the global offshore engineering business, national demand for capital construction and market demand for large equipment, did well in the supply of large-scale offshore equipment and core support and services. The offshore wind power industry was gradually maturing, the cost was gradually decreasing, and the development prospects were good. China was the world's largest offshore wind power market, and the growth space of the average annual new installation of offshore wind power was full of potential. Since the state revenue did not subsidize the new offshore wind power projects any more, the market competition was becoming more intense, and the Company was making efforts to seize the development opportunities in the wind power business and anchoring on the mature fields to achieve the development by leaps and bounds in the wind power business. As to the steel structure business, viewed from a long term, the capital construction such as highway and railroad bridge still had greater development potential, prefabricated steel structure had a vast market space, and the Company would bring into play the advantages in fabricating the large heavy special steel structure and cultivate differentiated competitive advantages. The Company was continually exploring the emerging businesses, parking business in line with the strategic orientation of "smart city" and "smart transportation", and was in an important period of policy supporting, resource integration and technology integration, no leading enterprise was formed at home. So, it was necessary to strengthen scientific and technical innovation and market development to realize the rapid development and growth. The new energy business and elevator installation business for the old buildings had good market development space and policy supporting.

III. Business of the Company during the reporting period

The Company is a well-known heavy equipment manufacturer and a state-owned company listed on A and B shares, and its holding company is China Communications Construction Group Co., Ltd., which is listed in Fortune global 500. Headquartered in Shanghai, with several production bases in Shanghai and Suzhou, as well as several overseas branches worldwide, the Company had more than twenty 60,000t to 100,000t complete transport vessels which could transport complete large products to the world. At present, the products of the Company have been successfully sold to 106 countries and regions in the world.

The Company upheld the goal of building a world first-class equipment manufacturer with global competitiveness in technology, management and quality, focused on steady growth, project performance, cost reduction and efficiency increase, reform and innovation, risk prevention and control and other key work, continued to consolidate the traditional core business such as port machinery, offshore engineering, shipping, etc., continued to accelerate the development of "large and heavy" steel structure, offshore wind power, smart parking and other growth-oriented business, multiplies development and innovation and post-market service business, moderately developed investment and financial business, and strived to explore new business.

During the reporting period, the port machinery business continued to consolidate its core strength. The market share of the Company's shore bridge products remained up to 70%, maintaining No.1 in the world for 25 consecutive years. The signing of Shuifu Port contract represented an important step of the Company in the inland river port machinery market.

The offshore engineering business focused on the layout optimization. The Company successfully won the bids for the projects, including 4,000t revolving derrick barge of CCCC Third Harbor Engineering Co., Ltd. and 15,000m³ LNG clean energy driven trailing suction hopper dredger of CCCC Shanghai Dredging Co., Ltd. The Company also made great progress in destocking the offshore engineering equipment, and successfully achieved the bareboat chartering and reletting of in-hand drilling platforms.

The steel structure business showed its brand reputation. The largest cable-stayed bridge in West Africa, the Cocody Bridge in Côte d'Ivoire, was successfully closed; Hong Kong's Tseung Kwan O Cross Bay Bridge and Xiamen Xiang'an Bridge were opened to traffic; Peljesac Bridge in Croatia was successfully opened to traffic and won the nomination award of "Outstanding Infrastructure" issued by International Association for Bridge and Structural Engineering.

The shipping business made steady progress. The shipping business fully accomplished the annual targets and tasks. A number of semi-submersible transport ships under the Company actively undertook the multi-voyage transportation of foundation jacket of Seagreen wind power in the North Sea on the return journey to improve the ratio of operation time to total time and made efforts to maximize the benefit.

Wind power business achieved faster growth. The Company successfully won the bid for 1,800t and 2,500t wind power installation platform and the supporting equipment of CCCC Third Harbor Engineering Co., Ltd., with the amount of order over RMB 2.6 billion, which was the offshore wind power project with the largest sum of bid-winning amount in recent year. It completed the construction and lifting of several booster stations and jackets as well as the manufacture of core components for wind power equipment.



Parking business actively cultivated the characteristics. The Company had won the bids for the mechanical parking garage project of CCCC First Highway Consultants Co., Ltd., the mechanical parking garage project of Huawei Bus Station of Chengdu Public Transport Group Co., Ltd. and the mechanical parking garage project of Chongqing Lijia Public Parking Building. Among them, the mechanical parking garage project of Huawei Bus Station of Chengdu Public Transport Group Co., Ltd. firstly adopted the two-story simple bus mechanical parking equipment researched and developed by the Company, which satisfied the demand for intensive parking and reconstruction of the bus stations.

The after-market service showed its business value. All businesses achieved better growth, and the renovation business completed comprehensive targets. In the new energy business, it collaborated to establish CCCC Photovoltaic Technology Co., Ltd., completed the investment in capital, participated in 3 external tendering projects, and achieved the annual operation objectives. In the business of the elevator installation for the old buildings, the trial application of the new materials and new technology achieved good results. In the prefabricated steel structure business, the project of upgrading and renovating the electrical equipment system of two stations in Antarctica was signed and entered the site construction stage.

IV. Analysis of the core competitiveness during the reporting period

√ Applicable □ Not Applicable

1 Leading market position

The Company had independently developed new products and technologies such as the world's first double 40-foot container shore bridge, full-auto double-trolley shore bridge and two-way anti-swing system, which had promoted the technical upgrade of the automated container terminals in the world and become the global trendsetter of port machinery development. The Company had successfully built China's first automated terminal — Xiamen Ocean Gate Automated Terminal of COSCO, Asia's first full-auto terminal — Qingdao Port Full-auto Terminal, and the world's largest single-berth full-auto terminal - Yangshan Full-auto Terminal (Phase IV) of Shanghai Port. The automated terminal equipment and systems provided by the Company had been popularized in nearly 60 automated terminal projects at home and abroad, accounting for more than 70% of automated terminals worldwide. The Company manufactured the world's largest full-revolving crane vessel, namely "Zhenhua 30" Vessel, helping the construction of Hong Kong-Zhuhai-Macao Bridge. The Company also fabricated all of the steel structure for San Francisco-Oakland Bay Bridge, which was regarded as a highly difficult project by the bridge industry in the world.

2 Leading R&D and innovation capability

As one of the first innovative enterprises in China and one of the first national technology innovation demonstration enterprises, the Company has a national enterprise technology center, a national engineering research center of core equipment for offshore lifting and pipe-laying, a national postdoctoral research center, a provincial and ministerial academician and expert workstation, a provincial and ministerial key laboratory and a provincial and ministerial engineering research and development center. By the end of 2022, the Company had applied for a total of 3,524 patents, with 1,940 valid patents and 53 international authorizations. The Company insisted on the combination of independent R&D and industry-university-research, established long-term cooperative R&D relationships with professional research institutions and customers, formed a R&D and innovation platform system to support the high-quality development of the enterprise, and built the strategic force for scientific and technological innovation.

"Tiankun" manufactured by the Company made a breakthrough in the core technology of the large-sized self-propelled cutter suction dredger, making China's design and construction technology of the dredger rank the forefront in the world. The Company independently developed the first intelligent industrial software in the field of product design simulation in the industry, deepening the integration and development of information technology and intelligent equipment. The "Independent Research and Development and Industrialization of Large Offshore Cutter Suction Dredging Equipment" won the Grand Prize of the National Award for Science and Technology Progress, the "Research and Application of Key Technologies for the New Generation Port Container Crane" won the First Prize of the National Award for Science and Technology Progress, the "Key Technologies and Applications of Full-Swing Floating Crane for Offshore Heavy Lifting Equipment" won the Second Prize of the National Award for Science and Technology Progress.

3 Global marketing network and digital supply chain platform

The Company gives full play to its advantages in relevant regions at home and abroad, attracting many customers at home and abroad with quality products and services. The Company has constantly strengthened the global network layout of overseas branches and has established several overseas branches in the world, established good partnership and solid cooperation foundation with local internationally renowned enterprises and upstream and downstream enterprises of the industry, and continuously exerted its localization advantages. Based on its global operation and service network, the Company has provided integrated and lean operation and lifecycle service for global customers in a fast, accurate and comprehensive way. The Company has a service team composed of more than 1,000 high-quality professionals on the site all over the world, which can provide efficient solutions and perfect spare parts service support and supply goods to the world in the shortest time. Terminexus, a wholly-owned subsidiary of the Company, has built the first digital supply chain platform in port machinery industry.

V. Performance during the reporting period

During the reporting period, the Company's operating revenue was steadily rising and its profitability of main business improved significantly. The Company realized the operating revenue amounting to RMB 30.192 billion, representing a year-on-year increase of 16.22%; the net profit attributable to the parent company after deducting the non-recurring profits and losses was RMB 0.415 billion, with an increase of RMB 0.855 billion over the same period last year; the basic earnings per share was RMB 0.07, representing a year-on-year decrease of 12.5%.

1 Analysis of the performance

1. Analysis table of changes in the related items in profit statement and cash flow statement

Unit: Yuan Currency: CNY

Item	Amount in the current period	Amount in the same period of the last year	Change (%)
Operating revenue	30,191,792,987	25,977,976,968	16.22
Operating cost	26,145,431,986	23,498,271,033	11.27
Selling and distribution expenses	176,805,664	115,347,438	53.28
General and administrative expenses	835,690,168	869,195,529	-3.85
Financial expenses	775,079,877	663,827,522	16.76
Research and development expenditures	1,118,337,091	883,154,222	26.63
Net cash flows from operating activities	2,568,564,023	2,119,639,518	21.18
Net cash flows from investing activities	-83,719,029	2,491,026,605	-103.36
Net cash flows from financing activities	-4,723,159,537	-2,979,168,361	N/A
Taxes and surcharges	174,759,457	108,179,417	61.55
Other income	104,014,204	75,986,080	36.89
Investment income (loss expressed with "-")	204,359,358	1,286,473,690	-84.11
Credit impairment losses (loss expressed with "-")	-346,156,434	-155,561,886	N/A
Assets impairment losses (loss expressed with "-")	-92,510,638	-294,180,123	N/A

The change in operating revenue was mainly due to the increase in project delivery of the Company.

The change in operating cost was mainly due to the increase in operating cost as a result of the increase in operating revenue.

The change in selling and distribution expenses was mainly due to the Company's increased efforts in market expansion and marketing.

The change in general and administrative expenses was mainly due to the decrease in the travel expenses of the management personnel of the Company.

The change in financial expenses was mainly due to the increase in exchange losses caused by fluctuations in the exchange rate of RMB against USD.

The change in research and development expenditures was mainly due to the increase in the expensed expenditures for research and development projects of the Company.

The change in the net cash flows from operating activities was mainly due to the decrease in cash payment for goods purchased and services received by the Company.

The change in net cash flows from investing activities was mainly due to the investment recovery by the Company and the decrease in the cash received from investment income.

The change in net cash flows from financing activities was mainly due to the repayment of loans by the Company.

The change in taxes and surcharges was mainly due to the increase of the Company's VAT credit into the scope of surcharge tax collection in accordance with the "Announcement of the Shanghai Municipal Finance Bureau and Shanghai Municipal Tax Service, State Taxation Administration on the Collection of Urban Maintenance and Construction Tax" (HCF [2021] No. 5).

The change in other income was mainly due to the increase in government subsidies received by the Company during the period.

The change in investment income was mainly due to the decrease in the disposal of held-for-trading financial assets of the Company.

The change in credit impairment losses was mainly due to the increase in the Company's provision for bad debts.

The change in assets impairment loss was mainly due to the decrease in the Company's provision for inventory depreciation.

Detailed description of major changes in business type, profit composition or profit sources of the Company in the current period

Applicable Not Applicable



2. Analysis of revenue and cost

√ Applicable □ Not Applicable

During the reporting period, the Company realized the operating revenue amounting to RMB 30.192 billion, representing a year-on-year increase of 16.22%; the operating cost was RMB 26.145 billion, representing a year-on-year increase of 11.27%.

(1) Main business by sector, product, region and sales model

Unit: Yuan Currency: CNY

Main business by product						
Product	Operating revenue	Operating cost	Gross profit rate (%)	Year-on-year change in operating revenue (%)	Year-on-year change in operating cost (%)	Year-on-year change in gross profit rate (%)
Port machinery	20,731,800,489	17,409,218,335	16.03	18.60	11.43	+5.41
Heavy-duty equipment	3,085,509,098	2,851,639,122	7.58	305.92	289.89	+3.80
Engineering construction projects	1,613,996,721	1,618,116,053	-0.26	-27.19	-28.82	+2.28
Steel structure and related income	2,731,132,322	2,634,320,687	3.54	-27.26	-26.21	-1.38
Marine transport and others	1,863,176,191	1,501,571,151	19.41	28.37	30.93	-1.57
Main business by region						
Region	Operating revenue	Operating cost	Gross profit rate (%)	Year-on-year change in operating revenue (%)	Year-on-year change in operating cost (%)	Year-on-year change in gross profit rate (%)
Chinese Mainland	15,851,108,239	13,645,818,402	13.91	17.35	14.80	+1.90
Chinese Mainland (export sales)	968,104,389	915,983,772	5.38	34.65	54.85	-12.34
Europe	877,042,956	866,747,305	1.17	-56.97	-54.04	-6.29
Asia (excluding Chinese Mainland)	7,867,109,144	6,758,431,423	14.09	76.43	60.91	+8.28
North America	2,181,504,594	1,935,410,245	11.28	-32.39	-37.07	+6.59
South America	600,144,518	432,600,416	27.92	190.91	127.62	+20.04
Africa	1,368,578,664	1,184,485,809	13.45	-1.84	-13.51	+11.68
Oceania	312,022,317	275,387,976	11.74	176.85	87.86	+41.81

Explanations for the main business by sector, product, region and sales model

1. The amount listed in "Chinese Mainland (export sales)" in "Main business by region" was the main operation income from the export sales of this Company to the overseas subsidiaries of the Company and then sales to the related projects of the domestic customers.

(2) Analysis table of cost-volume-profit relationship

□ Applicable √ Not Applicable

(3) Fulfillment of major purchasing contracts and sales contracts

√ Applicable □ Not Applicable

Fulfillment of major sales contracts signed by the reporting period

√ Applicable □ Not Applicable

Unit: 10⁹ Yuan Currency: CNY

Subject-matter of contract	The opposite party	Total contracted value	Total amount performed	Amount performed during the reporting period	Amount to be performed	Normally performed or not	Explanation for abnormal performance of the contract
Contract for ECT Terminal of East Port, Sri Lanka	Chairman of Sri Lanka Ports Authority	2.8256	0.90268	0.90268	1.92292	Yes	
General Contract for Intelligent Handling System of No. 9-10 Berth in Dalanping South Port Operation Section, Dalanping Port Area, Qinzhou Port	Honggang Wharf Co., Ltd. in Guangxi Qinzhou Tariff Free Port Area Legal representative: Wen Furong	14.3734	5.74936	1.23734	8.62404	Yes	

Subject-matter of contract	The opposite party	Total contracted value	Total amount performed	Amount performed during the reporting period	Amount to be performed	Normally performed or not	Explanation for abnormal performance of the contract
Procurement of double-trolley quayside container cranes for Phase I project of the Container Terminal Project in East Operation Section of Yantian Port Area, Shenzhen Port (secondary)	Hu Chaoyang	12.93	3.879	3.879	9.051	Yes	

Note: Unit of contracted value of Sri Lanka Project: USD 10⁹

Fulfillment of major purchasing contracts signed by the reporting period

Applicable Not Applicable

(4) Cost analysis table

Unit: Yuan

By product							
Product	Items of cost structure	Amount in the current period	Proportion in total cost in the current period (%)	Amount in the same period of the last year	Proportion of the one in the same period of the last year in total costs (%)	Year-on-year change (%)	Explanatory notes
Port machinery	Raw material cost, labor cost and production cost	17,409,218,335	66.92	15,623,751,962	66.92	11.43	Normal operating fluctuations
Heavy-duty equipment	Raw material cost, labor cost and production cost	2,851,639,122	10.96	731,403,000	3.13	289.89	Normal operating fluctuations
Engineering construction projects	Raw material cost, labor cost and production cost	1,618,116,053	6.22	2,273,212,756	9.74	-28.82	Normal operating fluctuations
Steel structure and related income	Raw material cost, labor cost and production cost	2,634,320,687	10.13	3,570,148,974	15.29	-26.21	Normal operating fluctuations
Marine transport and others	Raw material cost, labor cost and production cost	1,501,571,151	5.77	1,146,871,542	4.91	30.93	Normal operating fluctuations

Other information about cost analysis

None

(5) Changes in consolidation scope attributable to changes in equity of main subsidiaries during the reporting period

Applicable Not Applicable

(6) Significant change or adjustment of business, products or service during the reporting period

Applicable Not Applicable

(7) Particulars about main customers and suppliers

A. Main customers of the Company

Applicable Not Applicable

The sales to the top 5 customers were RMB 5,461,076,400, accounting for 18.09% of the total annual sales; the sales to the related parties among the top 5 customers were RMB 1,290,408,400, accounting for 4.27% of the total annual sales.

Indicate whether sales to a single customer accounted for over 50% of the total sales, there was any new customer in the top five customers, or the Company heavily relied on a few number of customers during the reporting period.

Applicable Not Applicable

B. Main suppliers of the Company

Applicable Not Applicable

The purchases from the top 5 suppliers were RMB 4,186,281,700, accounting for 15.29% of total annual purchases; the purchases from the related parties among the top 5 suppliers were RMB 370,483,900, accounting for 1.35% of total annual purchases.

Indicate whether sales to a single supplier accounted for over 50% of the total sales, there was any new supplier in the top five suppliers, or the Company heavily relied on a few number of suppliers during the reporting period.

Applicable Not Applicable

Other description

None

3. Expenses

Applicable Not Applicable



The change in selling and distribution expenses was mainly due to the Company's increased efforts in market expansion and marketing.

The change in general and administrative expenses was mainly due to the decrease in the travel expenses of the management personnel of the Company.

The change in financial expenses was mainly due to the increase in exchange losses caused by fluctuations in the exchange rate of RMB against USD.

The change in research and development expenditures was mainly due to the increase in the expensed expenditures for research and development projects of the Company.

4.R&D investments

(1) Detail table of R&D investments

Applicable Not Applicable

Unit: Yuan

Current expensed R&D investments	1,118,337,091
Current capitalized R&D investments	4,329,559
Total R&D investments	1,122,666,650
Proportion of total R&D investments in operating revenue (%)	3.72
Proportion of capitalized R&D investments (%)	0.39

(2) Detail table of R&D employees

Applicable Not Applicable

Number of R&D employees in the Company	1,440
Proportion of number of R&D employees in the total employees of the Company (%)	17.76

Educational structure of R&D employees

Educational structure category	Number
Doctor	11
Master	291
Undergraduate	1,043
Junior College	85
Senior high school and below	10

Age structure of R&D employees

Age structure category	Number
Under 30 (exclusive)	227
30-40 (inclusive of 30 and exclusive of 40)	637
40-50 (inclusive of 40 and exclusive of 50)	486
50-60 (inclusive of 50 and exclusive of 60)	90
60 and above	0

(3) Explanation

Applicable Not applicable

(4) Reasons for any significant change in the composition of R&D personnel and the impact on the future development of the Company

Applicable Not applicable

5. Cash flows

Applicable Not Applicable

The change in the net cash flows from operating activities was mainly due to the decrease in cash payment for goods purchased and services received by the Company.

The change in net cash flows from investing activities was mainly due to the investment recovery by the Company and the decrease in the cash received from investment income.

The change in net cash flows from financing activities was mainly due to the repayment of loans by the Company.

2 Explanation for the significant changes in profits due to non-main business

Applicable Not Applicable

3 Analysis of assets and liabilities

Applicable Not Applicable

1. Assets and liabilities

Unit: Yuan

Item	Amount at the end of the current period	Proportion of the amount at the end of the current period in total assets (%)	Amount at the end of the previous period	Proportion of the amount at the end of the previous period in total assets (%)	Year-on-year change (%)	Notes
Monetary funds	2,397,047,713	3.06	4,571,837,584	5.84	-47.57	
Notes receivable	56,114,657	0.07	3,979,800	0.01	1,309.99	
Receivables financing	439,912,428	0.56	245,408,260	0.31	79.26	
Contract assets	3,243,073,136	4.15	1,971,455,850	2.52	64.50	
Assets held for sale	-	0.00	15,167,288	0.02	-100.00	
Non-current assets due within one year	900,213,411	1.15	1,437,034,591	1.83	-37.36	
Short-term borrowings	1,793,682,952	2.29	5,977,692,367	7.63	-69.99	
Tax payable	238,103,875	0.30	167,827,388	0.21	41.87	
Other payables	1,314,688,315	1.68	409,527,645	0.52	221.03	
Non-current liabilities due within one year	6,961,445,218	8.90	2,523,964,018	3.22	175.81	
Other non-current liabilities	181,805,207	0.23	292,297,881	0.37	-37.80	

Other description

The monetary funds decreased primarily driven by the investment recovery by the Company and the decrease in the cash received from investment income, and the increase in cash for repayment of borrowings.

Notes receivable increased primarily driven by the increased commercial acceptance received by the Company.

Receivables financing increased primarily driven by the increased bank acceptance receivable of the Company.

The contract assets increased primarily driven by the increase in the amounts recognized under the time period method by the Company that are not eligible for collection.

The assets held for sale decreased primarily driven by delivery of the fixed assets with sales contracts signed in the previous year.

Non-current assets due within one year decreased primarily driven by the decrease in the Company's long-term receivables due within one year.

The short-term borrowings decreased primarily driven by the decreased short-term borrowings of the Company from banks in the current period.

The tax payable increased primarily driven by the increase in value-added tax and surtax payable by the Company.

Other payables increased primarily driven by the implementation of Asset-Backed Securities Special Plan by the Company.

Non-current liabilities due within one year increased primarily driven by the increase in the long-term bank borrowings of the Company within a year.

Other non-current liabilities decreased primarily driven by the decrease in the Company's output tax to be carried forward.

2. Overseas assets

Applicable Not Applicable

(1) Asset size

Including: overseas assets of 13,485,191,449 (Unit: Yuan, Currency: CNY), accounting for 17.24% of the total assets.

(2) Related explanation for relatively high proportion of overseas assets

Applicable Not Applicable



3. Particulars about main restricted assets as at the end of the reporting period

Applicable Not Applicable

Unit: Yuan Currency: CNY

Item	Book value at the end of the period	Reason for restriction
Monetary funds	21,946,276	Special fund, letter of guarantee from the bank and guarantee fund for L/C collected from the overseas projects and deposited in the overseas supervision account
Fixed assets	2,463,807,041	Collateral for loan
Long-term receivables	2,212,190,758	Hypothecation for loan
Other non-current assets	3,572,872,352	Hypothecation for loan
Contract assets	133,406,311	Hypothecation for loan
Accounts receivable	191,217,707	Hypothecation for loan

4. Other description

Applicable Not Applicable

4 Analysis of operational information of the industry

Applicable Not Applicable

In port machinery market, the Company closely followed the industry development trend, strengthened product innovation research, and maintained its market leadership in the main business field. The Company would continue to expand the after-sales market and promote manufacturing plus services to create a new engine for development.

The marine engineering market was in the upward cycle of the industry, and the Company actively promoted the dissolution of marine engineering inventory and the turnover of idle equipment by strengthening market research and planning. At the same time, the Company brought into play the innovative advantages to strengthen the research and development of cutting-edge technologies and seize the policy dividends of marine power strategy.

In the offshore wind power market, as the central government no longer provided subsidies for new offshore wind power projects, the market competition was becoming increasingly intense. The Company took the implementation of professional wind power operation and maintenance ship projects as the starting point to strengthen the comprehensive advantages such as brand, scientific research and scale.

The parking business was in line with the strategic direction of "smart city" and "smart transportation", and was in an important period of policy support, resource integration and technological integration. There was no leading enterprise in China yet, and the Company should strengthen technological innovation and market exploration for rapid development and growth.

For steel structure business, there would be great development potential in infrastructure such as highways and railway bridges in the long run, and the market space for prefabricated steel structure buildings was vast. The Company focused on the construction advantages of large and heavy special steel structures to cultivate differentiated competitive advantages.

5 Analysis of investment

Overall analysis of external equity investment

Applicable Not Applicable

Unit: Yuan Currency: CNY

Investment amount by the end of reporting period	2,945,400,608
Changes in investment amount	-107,696,340
Investment amount in the same period of the last year	3,053,096,948
Change in investment amount (%)	-4

1. Significant equity investment

√ Applicable □ Not Applicable

Unit: '0,000 Yuan Currency: CNY

Name of invested entity	Main business	Whether the subject is mainly engaged in investment business	Investment manner	Investment amount	Shareholding ratio	Whether to consolidate	Statement item (if applicable)	Fund source	Partner (if applicable)	Investment term (if any)	Progress as at the balance sheet date	Expected earnings (if any)	Impact on current profit or loss	Lawsuit involved or not	Disclosure date (if any)	Disclosure index (if any)
CCCC Photovoltaic Technology Co., Ltd.	Solar power	Yes	Newly established	6,000	30%	No		Photovoltaic power plant assets for equity	CCCC Industrial Investment Holding Company Ltd.		Officially incorporated on July 21, 2022		5,407	No	June 7, 2022	See Extraordinary Announcement No. 2022-014 for details
Total	/	/	/	6,000	/	/	/	/	/	/	/		5,407	/	/	/

2. Significant non-equity investment

□ Applicable √ Not Applicable

3. Financial assets measured at fair value

√ Applicable □ Not Applicable

Unit: Yuan Currency: CNY

Asset class	Beginning balance	Profit or loss on changes in fair values for the period	Accumulated fair value changes recognized in equity	Impairment provision for the period	Amount purchased in the period	Amount sold/ redeemed in the period	Other changes	Ending balance
Stock	1,145,095,644	-276,050,580						869,045,064
Total	1,145,095,644	-276,050,580						869,045,064

Securities investment

√ Applicable □ Not Applicable

Unit: Yuan Currency: CNY

Securities Variety	Stock code	Stock abbreviation	Initial investment cost	Fund source	Book value at the beginning of the period	Profit or loss on changes in fair values for the period	Accumulated fair value changes recognized in equity	Amount purchased in the period	Amount sold in the period	Profit or loss on investments in the period	Book value at the end of the period	Accounting subject
Stock	06198	Qingdao Port	308,515,588	Self-owned funds	364,099,519	-16,026,769				26,430,994	348,072,750	Held-for-trading financial assets
Stock	03969	CRSC	617,854,000	Self-owned funds	286,756,480	-6,438,868				20,920,710	280,317,612	Held-for-trading financial assets
Stock	300095	Huawu Stock	11,071,606	Self-owned funds	420,227,264	-220,574,798				2,225,780	199,652,466	Held-for-trading financial assets
Stock	601919	COSCO SHIPPING HOLDINGS	420,000,000	Self-owned funds	72,893,036	-32,760,916				11,232,314	40,132,120	Held-for-trading financial assets
Stock	000166	Shenwan Hongyuan	200,000	Self-owned funds	1,119,345	-249,229				21,865	870,116	Held-for-trading financial assets
Total	/	/	1,357,641,194	/	1,145,095,644	-276,050,580				60,831,663	869,045,064	/

Private equity investment

□ Applicable √ Not Applicable

Derivatives investment

□ Applicable √ Not Applicable

4. Progress on the major assets restructuring during the reporting period

□ Applicable √ Not Applicable



6 Sales of significant assets and equities

Applicable Not Applicable

7 Analysis of the primary holding companies and the joint-stock companies

Applicable Not Applicable

Unit: Yuan Currency: CNY

Company Name	Main product or services	Registered capital	Asset size	Net profit/(loss)
Nantong Zhenhua Heavy Equipment Manufacturing Co., Ltd.	Installation of heavy port equipment, engineering vessels, heavy metal structure and its parts; manufacturing and installation of gear box, container yard crane, super heavy-duty bridge steel structure, heavy marine machinery equipment; leasing of cranes; specialized contracting of steel structures	2,500,000,000	8,142,368,750	40,349,601
Shanghai Zhenhua Heavy Industries Port Machinery General Equipment Co., Ltd.	Sales of port loading and unloading machine, bulk cargo and container machine, port engineering vessels (including floating engineering crane), material handling mechanical products and parts, sales and technical services, installation and maintenance, technical consultation of all types of machine and equipment, key parts of the raw materials and accessories equipment	2,184,730,000	2,419,404,067	51,750,795
Shanghai Zhenhua Heavy Industries Group (Nantong) Transmitter Co., Ltd.	Construction and installation of large-scale port equipment, engineering vessels, offshore heavy equipment, mechanical equipment, gear box for wind power generation equipment; large-sized reverse branch, transmission mechanism, dynamic positioning, large-sized anchor windlass, offshore oil platform lifting device and components; design and manufacturing of the accessories	738,878,329	2,213,522,865	120,684,118
Shanghai Zhenhua Port Machinery (Hong Kong) Co., Ltd.	Design, manufacturing and sales of port machinery, engineering vessel, steel structure and other parts	HKD 50,000,000	14,099,780,358	120,671,564
Greenland Heavylift (Hongkong) Limited	Marine transport	USD 91,975,158	2,716,839,538	241,097,715
ZPMC Qidong Marine Engineering Co., Ltd.	Machinery manufacturing	303,000,000	1,932,325,820	-76,031,682
CCCC Financial Leasing Co., Ltd.	Finance lease	5,700,000,000	54,071,497,082	1,057,340,236
China Communications construction USA, Inc	Construction of port, waterway, highway and bridge	USD 50,000,000	251,796,686	824,439
Jiangsu Longyuan Zhenhua Marine Engineering Co., Ltd.	Fabrication and installation of steel structure; foundation construction, equipment installation and maintenance of offshore wind power facilities; construction and maintenance of submarine cable system; marine engineering construction, equipment installation and maintenance; leasing of installation equipment	260,000,000	4,280,316,321	153,804,798

8 Particulars about structured entities controlled by the Company

Applicable Not Applicable

VI. Discussion and analysis of the future development of the Company

1 Industrial structure and trend

Applicable Not Applicable

1. International political and economic situation

Entering 2023, the complexity and difficulties of the world economic situation still exist, with geopolitics, food security, energy security, fragile macroeconomics, growing inflation and rising debt crisis continuing to affect global trade and investment, as well as the stability of international financial market. The development risks of export-oriented enterprises in overseas market development, supply chain construction, territorial development and information security will further increase. The Central Economic Work Conference pointed out that the foundation for China's economic recovery is not yet solid, and the triple pressures of demand contraction, supply shock, and weakening expectations are still high. However, it should also be noted that China's economy has strong resilience, great potential, and abundant vitality. The effects of various policies continue to show, and the overall economic operation is expected to rebound in 2023. China will focus on expanding domestic demand, accelerating the construction of a modern industrial system, and making greater efforts to attract and utilize foreign investment, which points out the direction and puts forward higher-level requirements for export-oriented enterprises to improve their operational quality and efficiency, industrial chain construction, scientific and technological research and development, resource utilization, safety and environmental protection, etc.

2. Industrial development

The national policy sets a tone to expand domestic demand, and the industry is facing opportunities for restorative growth. The Central Committee of the Communist Party of China and the State Council issued the "Outline of Strategic Plan for Expanding Domestic Demand (2022-2035)", and the National Development and Reform Commission simultaneously formulated and introduced the "Implementation Plan for Expanding Domestic Demand during the 14th Five-Year Plan Period", proposing to increase investment in the optimization and upgrading of traditional manufacturing industries, expand investment in advanced manufacturing, and improve the quality and efficiency of the manufacturing supply system. A new round of technological revolution represented by digital technology is flourishing worldwide, the industrial digitalization in equipment manufacturing, port industry, marine engineering and other fields has become the trend of the times, and the transformation and upgrading of digital and intelligent manufacturing of companies have become more urgent.

2 Development strategy of the Company

Applicable Not Applicable

1. Overall development strategy

With "1544" overall development strategy as a strategic guide, gradually build the Company into a globally competitive technology-oriented, management-oriented and quality-oriented world-class equipment manufacturing enterprise. Firmly anchor the goal of building a technology-oriented, management-oriented and quality-oriented world-class enterprise, seize the global and national development opportunities, consolidate and bring into full play the enterprise's own advantages, and fully achieve the goal. Work hard on "five types of business", solidly promote "four main lines", and focus on improving the "four-thinking" ability.

2. Measures for industrial development

(1) Firmly making the primary business stronger, better and bigger. The port machinery business will focus on high-end, intelligent and green development, expand the product lines of port machinery, accelerate the application of modern technologies such as 5G and artificial intelligence, increase the efforts in tackling "bottleneck" technologies, consolidate the long-term partnership with major customers at home and abroad, and transform and upgrade from product services and technical services to full-life services, and continue to consolidate the position of "global special champion" and gain-to-scale in port machinery. It will hold up the banner of "chain head of automated terminal industry chain" and further upgrade the Company's leadership in the automated terminal construction. The offshore engineering business will pay close attention to the development trend of the marine economy, synchronously accelerate the market promotion and the technical innovation of offshore engineering products, seize the opportunities of cooperation with important customers, continue to implement various projects such as engineering vessels, crane vessels, wind power installation (service operation) vessels and so on, and improve the level of production performance and cost control of offshore engineering projects. In terms of shipping business, based on upgrading the fleet management and guaranteeing the transportation of the Company's products, it will seize the opportunities of shipping recovery, offshore wind power construction and overseas industrialized infrastructure construction to improve the industrial competitiveness and the scale efficiency of the enterprise.

(2) Increase resources investment to develop the mature new business. Seize the opportunities of "new infrastructure construction", "double-carbon" action and urban transformation, and increase resources investment to develop mature new business such as steel structure, offshore wind power and sky parking. Bring into play the Company's advantages in fabrication and transportation of steel structure, increase the layout of internal and external production and manufacturing resources and accelerate the implementation of the benchmark projects in national strategic regions and overseas steel structure markets such as Australia and Japan. Seize the opportunity of national new energy development, give full play to the Company's unique competitiveness in the field of transportation and installation of offshore wind power equipment, strengthen the professional cooperation with outstanding enterprises in the industry, further excavate the potential of wind power market in important national regions such as Guangdong and overseas regions and strive for winning more general contracting projects for the representative wind power projects, and explore the wind farm service operation market. Bring into full play the demonstration effects of the benchmark parking projects built or in progress, further give play to the advantages in equipment and technology, and gradually explore the construction of intelligent parking full-scene solutions and the whole industry chain service model.

(3) Actively explore new tracks related to the primary business. Seize the opportunity of renewal and reconstruction of old port machinery in global ports and terminals, plan ahead and operate it comprehensively, strive to obtain the paid value-added services with a higher market share in the field of renewal and reconstruction of port machinery, and improve the scale benefit of after-market services. Based on the renewal and renovation of port machinery, with Terminexus online spare parts service platform as the foundation, gradually build a comprehensive digital service platform integrating design, consultation, procurement and service, and construct a new business growth pole with digital service as the main carrier.

(4) Moderate development of investment and financing business related to the primary business. Take advantage of the Company's brand, resources, low financing cost, etc., focus on the primary business, find the right time, and grasp the specific advantages, specific regions and specific partners to carry out investment and financial business. Actively participate in the equity investment of important customers of domestic ports and listed suppliers of supporting parts related to the Company's primary business; invest the projects with low risk and stable benefits such as offshore wind power, steel structure, parking garage, etc.



(5) Accelerate other businesses in a steady and orderly manner. Focus on national strategy, market demand, development advantages, input-output factors, further explore and accelerate the emerging businesses such as assembled building in a steady and orderly manner. As to the assembled building business, give full play to the Company's advantages in design and fabrication of steel structure manufacturing, and actively implement the assembled steel structure benchmark projects. In the fields of marine economy, people's livelihood engineering and new energy, strengthen the situation analysis, accelerate the cultivation of the Company's differentiated advantages, upgrade the business qualification, and actively follow up and implement the projects with obvious advantages and considerable benefits.

3 Operation plan

Applicable Not Applicable

Continuing to consolidate the core position of the port machinery business. The Company will improve the technology accumulation of automated terminals, promote the performance of automated terminals, and vigorously expand the market of automated terminals; further improve the level of product gross margin on the basis of retaining the market share of quayside container crane products; improve the standardization and modularization level of container portal crane products; vigorously develop the bulk cargo machinery and mobile machinery business to further enrich the brand connotation of "Zhenhua Port Machinery".

Expanding the development scale of maring engineering business in an orderly manner. The Company will bring into play its design and manufacturing advantages in dredging vessels, special engineering vessels and key core components, and take its advantageous marine engineering products as a breakthrough to seize the overseas market while retaining its existing market share; continue to make efforts to promote the resolution of offshore inventory, seek durable, reliable, and high-quality long-term rental orders, and actively seek suitable opportunities to facilitate inventory sales.

The Company will make efforts to enhance the brand effect of steel structure business and strengthen the qualification and brand building of steel structure products.

Taking advantage of shipping and installation to actively explore the market. The Company will focus on tracking the market demand of spot marine transportation, continuously improve the market competitiveness of semi-submersible and deck vessel ocean transportation business, give full play to the advantages of floating crane operation, and vigorously expand the port and offshore lifting market.

Striving to seize the market opportunities in wind power business. The Company will give full play to its manufacturing advantages in crane vessel, installation platform, operation and maintenance vessel, booster station module and wind power foundation steel structure to continue to consolidate its core competitiveness in wind power market.

Optimizing and improving the scale and efficiency of parking business. The Company will explore diversified means to quickly make up for the shortcomings of parking business and accelerate market expansion; incorporate the Company's parking equipment and solutions into transportation infrastructure projects; enter more application scenarios through research and development to empower the market; and actively seek for the investment-construction-operation integrated urban parking resources.

Sparing no effort to cultivate the profit growth points of after-market service business. The Company will continue to promote its subsidiaries to deepen the reform work, build the overall supply chain capability from the market end to the delivery end, and strengthen the market layout in line with the characteristics of the after-market business; continue to strengthen the digital construction, build a benchmark MRO (maintenance, repair, operation) service platform in this industry, and establish a direct link between users and ZPMC.

Exploring and implementing emerging businesses. The Company will aim at the development trend of green prefabricated building and rely on physical companies to carry out business; continue to optimize and improve the elevator installation business model, and vigorously promote the development of integrated full lifecycle elevator installation projects; explore cooperation with well-known universities to enter the hazardous waste treatment industry and actively expand equipment procurement, installation, commissioning, and operation and maintenance related hazardous waste treatment businesses. Relying on CCCC Photovoltaic Technology Co., Ltd., the Company will increase market development and investment in photovoltaic projects, do well in the EPC and operation and maintenance of projects, increase the industry-university-research efforts, strive to master the new material technology, and truly intervene in the key links of industry chain.

4 Potential risks

Applicable Not Applicable

1. Market risk

The main business of the Company is closely related to the operation and development of macro economy and the industry cycle of the shipping industry. The complexity and difficulties of world economic situation still exist, with geopolitics, food security, energy security, fragile macroeconomics, growing inflation and rising debt crisis continuing to affect global trade and investment, as well as the stability of international financial markets. The Company will strengthen the scientific study and judgment of the macro political and economic situation, identify the systematic risks in time, and make risk response plans in advance.

2. Interest rate and exchange rate risk

The Company's interest rate risk mainly comes from interest-bearing liabilities. In addition, a certain proportion of overseas business brings a certain scale of foreign exchange revenue and expenditure to the Company. The Company will pay close attention to changes in exchange rates, optimize the structure of foreign currency assets and liabilities, adhere to the concept of exchange rate risk neutrality, incorporate exchange rate fluctuations into daily financial decisions, consider exchange costs into project costs, and prevent exchange rate fluctuations from having a large impact on operating results, so as to achieve sound business development.

3. Raw materials supply risk

As an export-oriented enterprise, the issue of international supply chain security and stability is still serious. The Company will continue to deepen supply chain management in all respects, integrate internal and external resources, promote the systematic construction of supply chain, focus on improving the resilience and security level of the supply chain, enhance the independent controllability of supply, accelerate the localization rate of key systems and important supporting parts such as electric control assembly, cable reel and elevator, and build the core competitiveness and driving force for the development of the Company.

5 Others

Applicable Not applicable

VII.Explanation of circumstances and reasons for non-disclosure by the Company in consideration of inapplicable regulations, state secrets and commercial secrets

Applicable Not applicable



Section IV | Corporate Governance

I. Related information about corporate governance

Applicable Not applicable

In strict accordance with the “Company Law”, “Securities Law”, “Articles of Association” and the requirements of the China Securities Regulatory Commission and Shanghai Stock Exchange on corporate governance, the Company standardized daily operations, strived to enhance corporate governance, further established and improved the internal control system, improved the quality of information disclosure and strengthened the investor relations management continuously as well as safeguarded the legitimate rights and interests of the Company and all shareholders effectively, ensuring the sustainable and stable development of the Company. In 2022, the Company held a total of 9 meetings of the Board of Directors, 6 meetings of the Board of Supervisors and 3 meetings of the General Meeting of Shareholders, and the procedures of convening, holding, voting and disclosure of all meetings were in compliance with laws and regulations and the requirements of the Company’s management system.

The Company focused on improving the governance system and continued to strengthen the corporate governance structure. In 2022, the Company continued to optimize the construction of governance systems, such as the “Articles of Association”, “Rules of Procedure of the Board of Directors” and “Implementation Rules for Specialized Committees of the Board of Directors”, and continuously incorporated the latest requirements such as the reform of state-owned enterprises and regulations of listed companies. The Company organized the revision of the rules of procedure and list for governance bodies to further clarify the boundary of powers and responsibilities of different governance bodies. The Company has made efforts to promote the unification of the authority of the Board of Directors and the authorization of the Board of Directors, formulated implementation plans related to the authority of the Board of Directors, refined the implementation of six important authorities, such as the right to make medium and long-term development decisions, and improved the supporting system, which laid a foundation for the standardized, scientific and efficient operation of the Board of Directors of the Company.

The Company has conscientiously fulfilled its information disclosure obligations and improved the quality of information disclosure work continuously. In 2022, the Company attached great importance to information disclosure work and set up information disclosure specialists in each department and division of the Company to facilitate the communication channels for material information within the Company, and strengthened the professional knowledge training for relevant personnel to improve the awareness of compliance in information disclosure and to enhance the level of information disclosure. During the year, the Company organized the preparation of extraordinary announcements of board resolutions, periodic reports and other announcement documents, and issued a total of 68 announcements, including 35 extraordinary announcements, 29 online announcement documents and 4 periodic reports, so as to deliver timely, accurate and complete information on the Company’s operation, finance and significant events to investors.

The Company has continued to improve the level of investor relations management and enhance the positive interaction with the capital market. In 2022, the Company formulated the “Investor Relations Management Measures” and the “Annual Investor Relations Management Plan” to standardize the information communication between the Company and investors and improve the level of investor relations management. The Company communicated with the capital market through multiple channels, at multiple levels and from multiple perspectives. The Company held annual and first quarter results presentation, half-year results presentation and third quarter results presentation in the form of online interaction, and the chairman and president of the Company attended and responded to investors’ concerns to deepen their understanding and recognition of the Company and increase the attention to the Company from capital market. The Company maintained continuous communication with investors through investor research, investor hotline, “SSE E-Interactive” and other means to actively convey the Company’s value to investors and strengthen investors’ confidence in long-term investment in the Company.

Indicate whether there was any material incompliance with the applicable laws and administrative regulations, as well as the CSRC’s requirements on corporate governance. If yes, please explain.

Applicable Not applicable

II. Specific measures taken by the controlling shareholder and actual controller to guarantee the asset, personnel, financial, organizational and business independence of the Company, as well as solutions, progress and subsequent plans when the Company’s independence is intervened

Applicable Not applicable

Indicate whether the controlling shareholder, the actual controller, or any entity under their control is engaged in the same or similar business with the Company. Please explain the impact of horizontal competition or any significant change to horizontal competition on the Company, solutions taken, progress and subsequent plans.

Applicable Not applicable

III. Brief introduction to the general meeting of shareholders

Session of meeting	Convening date	Query index of the website specified for publishing resolutions	Date of disclosure for publishing resolutions	Resolutions
2021 General Meeting of Shareholders	June 27, 2022	www.sse.com.cn; enter the stock code to search	June 28, 2022	Reviewed and approved the "Proposal on Reviewing the Working Report of Board of Directors in 2021", the "Proposal on Reviewing the Working Report of the Board of Supervisors in 2021" and other proposals (See Extraordinary Announcement No. 2022-017 for details)
2022 first extraordinary general meeting of shareholders	September 15, 2022	www.sse.com.cn; enter the stock code to search	September 16, 2022	Reviewed and approved the "Proposal on Reviewing the Election of Mr. Ou Huisheng as A Director of the Company" (See Extraordinary Announcement No. 2022-026 for details)
2022 second extraordinary general meeting of shareholders	December 28, 2022	www.sse.com.cn; enter the stock code to search	December 29, 2022	Reviewed and approved the "Proposal on Reviewing the Election of Mr. Zhang Jianxing as A Director of the Company" (See Extraordinary Announcement No. 2022-034 for details)

Extraordinary general meetings of shareholders convened at the request of preference shareholders with resumed voting rights

Applicable Not applicable

Particulars about the general meeting of shareholders

Applicable Not applicable

In 2022, the Company convened 3 general meetings of shareholders, which were convened and held in accordance with the laws and rules including "Company Law of the People's Republic of China", the "Rules for the General Assemblies of Shareholders of Listed Companies" and "Articles of Association"; the qualifications of the attendees and the convener were lawful and effective; the voting procedures and results of the meetings were lawful and effective; and the resolutions of the general meetings of shareholders were lawful and effective.

IV. Directors, Supervisors and Senior Executives

1 Changes in shares held by current and resigned directors, supervisors and senior executives during the reporting period and their remunerations

Applicable Not applicable

Unit: Share

Name	Post (Note)	Sex	Age	Starting date of tenure	Expiry date of tenure	Number of shares held at the beginning of the year	Number of shares held at the end of the year	Change in shares in the year	Reason of change	Total remuneration before tax from the Company during the reporting period (RMB'0,000)	Remuneration received from any of the Company's related parties or not
Liu Chengyun	Director, chairman of the board	Male	54	June 28, 2021	June 27, 2024	0	0	0		126.53	No
	General manager (president) (resigned)			July 12, 2021	August 29, 2022						
Ou Huisheng	Director	Male	53	September 15, 2022	June 27, 2024	0	0	0		27.79	No
	General manager (president)			August 30, 2022	June 27, 2024						
Zhu Xiaohuai	Director	Male	54	June 28, 2021	June 27, 2024	0	0	0		127.42	No
	Executive General Manager			December 12, 2022	June 27, 2024						
	CFO			July 12, 2021	June 27, 2024						



Name	Post (Note)	Sex	Age	Starting date of tenure	Expiry date of tenure	Number of shares held at the beginning of the year	Number of shares held at the end of the year	Change in shares in the year	Reason of change	Total remuneration before tax from the Company during the reporting period (RMB'0,000)	Remuneration received from any of the Company's related parties or not
Wang Cheng	Director	Male	50	August 25, 2021	June 27, 2024	0	0	0		127.22	No
Zhang Jianxing	Director	Male	61	December 28, 2022	June 27, 2024					0.75	Yes
Sheng Leiming	Independent director	Male	53	June 28, 2021	June 27, 2024	0	0	0		12	No
Zhang Hua	Independent director	Male	50	June 28, 2021	June 27, 2024	0	0	0		12	No
Zhao Zhanbo	Independent director	Male	47	June 28, 2021	June 27, 2024	0	0	0		12	No
Bai Yunxia	Independent director	Female	50	June 28, 2021	June 27, 2024	0	0	0		12	No
Zhang Lijie	Supervisor	Male	53	August 25, 2021	June 27, 2024	0	0	0		96.99	No
	Chief supervisor			August 30, 2021	June 27, 2024						
Wei Wei	Employee supervisor	Male	51	June 28, 2021	June 27, 2024	0	0	0		69.08	No
You Hua	Supervisor	Male	60	June 28, 2021	June 27, 2024	0	0	0		0	Yes
Liu Feng	Vice president	Male	52	October 29, 2021	June 27, 2024	0	0	0		63.02	No
Zhang Jian	Vice president	Male	54	July 12, 2021	June 27, 2024	0	0	0		127.22	No
Shan Jianguo	Vice president	Male	59	July 12, 2021	June 27, 2024	0	0	0		127.22	No
	Chief engineer			February 20, 2023	June 27, 2024						
Li Ruixiang	Vice president	Male	48	February 20, 2023	June 27, 2024	0	0	0		127.22	No
	Chief economist			July 12, 2021	June 27, 2024						
Sun Li	Chief legal counsel, secretary of the board, chief compliance officer	Male	51	July 12, 2021	June 27, 2024	0	0	0		127.22	No
Lu Hanzhong	Vice president	Male	48	February 20, 2023	June 27, 2024	0	0	0		0	No
Shen Qiuyuan	Vice president	Female	46	February 20, 2023	June 27, 2024	0	0	0		0	No
Liu Qizhong	Director (resigned)	Male	59	June 28, 2021	December 28, 2022	0	0	0		127.22	No
	Vice president (resigned)			July 12, 2021	February 20, 2023						
Yu Jingjing	Director (resigned)	Male	48	December 22, 2021	December 12, 2022	0	0	0		0	Yes
Fei Guo	Chief engineer (resigned)	Male	61	July 12, 2021	February 20, 2023	0	0	0		127.22	No
Wang Baihuan	Vice president (resigned)	Male	59	July 12, 2021	July 29, 2022	0	0	0		54.17	No
Zhou Qi	Vice president (resigned)	Male	51	July 12, 2021	March 14, 2022	0	0	0		30.46	No
Total	/	/	/	/	/				/	1,534.75	/

Name	Main working experiences
Liu Chengyun	Born in 1969, male, master, senior economist, senior engineer. He began his career in August 1989 and has successively served as deputy director of CCCC Fourth Harbor Engineering Co., Ltd., vice general manager of CCCC Investment Co., Ltd., secretary of the Party committee, chairman and general manager of CCCC Nansha Investment Development Co., Ltd. and CCCC Urban Investment Holding Co., Ltd., general manager and secretary of CPC Working Committee of CCCC South China regional headquarters, general manager of the Strategic Development Department of China Communications Construction Company Ltd. (CCCC), general manager of the Investment Division of CCCC, director of the board office and general manager of the Strategic Development Department of China Communications Construction Group Co., Ltd. (CCCCG) and CCCC. He resigned as the General Manager (President) of the Company on August 29, 2022 due to job adjustment. Currently, he is the assistant to the general manager of CCGG, and chairman of the Company.
Ou Huisheng	Born in 1970, male, PhD, senior economist, accountant, CPA. He began his career in 1992 and successively served as the president of Zhuhai Fuhua Group Co., Ltd. (renamed as Zhuhai Port Co., Ltd. in September 2010), director of Zhuhai Fuhua Group Co., Ltd. (Zhuhai Port Co., Ltd.), director and deputy secretary of the Party Committee of Zhuhai Port Holdings Group Co., Ltd., general manager of Zhuhai Port Holdings Group Co., Ltd., chairman, party secretary, and legal representative of Zhuhai Port Holdings Group Co., Ltd., legal representative of Zhuhai Port Co., Ltd., chairman of the board of directors of Zhuhai Port Co., Ltd., chairman of Tongyu Heavy Industry Co., Ltd., and chairman of Qingdao Tianneng Heavy Industry Co., Ltd. He has been the general manager (president) of the Company since August 30, 2022 and a director of the Company since September 15, 2022. Currently, he is a director and general manager (president) of the Company.
Zhu Xiaohuai	Born in 1969, male, master of MBA, senior accountant. He began his career in July 1991 and successively served as the section member and vice section manager of Financial Division of CCCC Shanghai Dredging Co., Ltd., vice director of Budget and Finance Department, vice manager (in charge of the work) or manager of Finance Department, and member of commission for disciplinary inspection of CCCC Shanghai Dredging Co., Ltd., and the director, chief accountant and Party committee standing member of CCCC Shanghai Dredging Co. Ltd. He has been the executive general manager of the Company since December 12, 2022 and is currently a director, the executive general manager and CFO of the Company.
Wang Cheng	Born in 1973, male, master of engineering, senior political worker. He started working in August 1994 and successively served as the vice secretary or secretary of league committee, and vice secretary or secretary of Party Branch of No. 2 Engineering Co., Ltd. of CCCC Third Harbor Engineering Co., Ltd.; vice director and director of Organization Department of CCCC Third Harbor Engineering Co., Ltd.; secretary of the Party Committee and vice general manager of No. 2 Engineering Co., Ltd. of CCCC Third Harbor Engineering Co., Ltd.; chairman of board of supervisors, vice secretary of the Party Committee, secretary of Committee for Discipline Inspection and chairman of labor union of CCCC Third Harbor Engineering Co., Ltd.; secretary of Commission for Disciplinary Inspection, supervisor and chairman of board of supervisors of the Company. Currently, he is a director and the chairman of labor union of the Company.
Zhang Jianxing	Born in 1962, male, bachelor, professor-level senior accountant. He began his career in August 1985 and has successively served as a cadre in the Finance Department of CCCC Shanghai Dredging Co. Ltd., deputy chief of the Finance Section of Jiuzhou Dredging Engineering Company under CCCC Shanghai Dredging Co. Ltd., deputy director and director of the Planning and Finance Department of CCCC Shanghai Dredging Co. Ltd., member of the Party Committee, deputy general manager and chief financial officer of CHEC Dredging Co., Ltd., secretary of the Party Committee, deputy general manager and chief financial officer of CHEC Dredging Co., Ltd., member of the Party Committee, director and chief accountant of CCCC Shanghai Dredging Co. Ltd., director and general manager of CCCC Financial Leasing Co., Ltd., and secretary of the Party Committee and chairman of the board of directors of CCCC Financial Leasing Co., Ltd. He has been a director of the Company since December 28, 2022. Currently, he is a director of the Company.
Sheng Leiming	Born in 1970, male, doctor of laws, first grade lawyer. He successively served as a lawyer assistant and lawyer in Shanghai Foreign Trade Law Firm, a teacher of civil and commercial law in East China University of Political Science and Law, partner and chief lawyer of Shanghai Zhongmao Law Firm, and a lawyer of Guantao Law Firm. Currently, he is an independent director of the Company.
Zhang Hua	Born in 1973, male, PhD in Economics, associate professor of finance. He successively served as a researcher, lecturer, assistant professor and associate professor at China Europe International Business School. Currently, he is an independent director of the Company.
Zhao Zhanbo	Born in 1976, male, PhD. He had served as a teacher in School of Software & Microelectronics, Peking University since 2005 and now he is a professor. He is mainly engaged in the research in Internet business model innovation and corporate development strategy. Currently, he is an independent director of the Company.
Bai Yunxia	Born in October 1973, female, PhD in accounting from Xiamen University, post-doctor in accounting of Guanghua School of Management, Peking University, professor of accounting, doctoral tutor, engaged in work in 1995. She successively served as the assistant engineer of Kaiyuan Group under Xi'an Jiaotong University, lecturer of School of Economics and Management of Tongji University, research scholar of CKGSB. Currently, she is the director of Department of Accounting, School of Economics and Management, Tongji University and the research scholar of Investment Center of CKGSB, and an independent director of the Company.
Zhang Lijie	Born in April 1970, male, master, senior engineer and senior political engineer. He started working in August 1991 and successively served as deputy manager, manager, section chief of Construction Section and manager of Engineering Department of No.6 Engineering Co., Ltd. of CCCC Third Harbor Engineering Co., Ltd. Jiaying Branch; deputy secretary of the Party committee and secretary of the Discipline Inspection Commission, and deputy general manager of CCCC Third Harbor Engineering Co., Ltd. Xiamen Branch; director of the Party Committee Work Department and general manager of the Corporate Culture Department of CCCC Third Harbor Engineering Co., Ltd.; secretary of the Party committee and deputy general manager of CCCC Third Harbor Engineering Co., Ltd. Xiamen Branch; member of the Party committee of CCCC Third Harbor Engineering Co., Ltd., secretary of the Party committee, general manager and executive director (legal representative) of Xiamen Branch. Currently, he is the chief supervisor of the Company.
Wei Wei	Born in February 1972, male, bachelor, senior political engineer. He started working in August 1990, and successively served as secretary of the General Youth League branch of the Technical School of Shanghai Port Machinery Manufacturing Plant, secretary of the Youth League Committee, chairman of the labor union of the metal processing workshop, and secretary of the Party branch of the gearbox workshop of Shanghai Port Machinery Manufacturing Plant; manager of the Human Resources Department, chairman of the Labor Union and Deputy Secretary of the Party branch of ZPMC Nanhui Base, deputy secretary of the temporary general Party branch, chairman of the Labor Union and general office manager of Shanghai Port Machinery Heavy Industry Co., Ltd.; head of the first discipline inspection team assigned by the Discipline Inspection Committee of ZPMC, director of the Trade Union Office and deputy general manager (in charge of the work) of the Administrative Affairs Department. Since May 2021, he has been the vice chairman of the Labor Union, director of the Labor Union Office and deputy general manager (in charge of the work) of the Administrative Affairs Department of ZPMC. Currently, he is the employee supervisor and vice chairman of the labor union of the Company.



Name	Main working experiences
You Hua	Born in 1963, male, bachelor, senior accountant. He successively served as the assistant director and deputy director of Finance Department of China Harbour Engineering Company Limited, and finance manager of CHUWA Bussan Company Limited (Japan); general manager of the Finance Department and director of Capital Settlement Center, deputy chief accountant and general manager of Finance Department of China Harbour Engineering Company (Group); general manager of Capital Department and director of Capital Settlement Center of CCCC; director and chief accountant of China Harbour Engineering Company Limited; director, vice general manager and chief accountant of CCCC Investment Co., Ltd.; director, general manager and deputy Secretary of Party Committee of CCCC Finance Co., Ltd. Since December 2019, he has been a full-time outside director of CCCC. He is now a supervisor of the Company.
Liu Feng	Born in 1971, male, master, senior economist. He started working in July 1995, and successively served as the deputy director (in charge of the work) and director of the Second Division of the Department of Industry and Trade of CCCC; director and general manager assistant of the Equipment Manufacturing Marine Heavy Industry Department of CCCC; deputy general manager of the Equipment Manufacturing Marine Heavy Industry Department, deputy general manager of Science and Technology Equipment Department, deputy director of Chief Engineer Office of CCCC; deputy general manager (deputy director) of the Department of Science, Technology and Digitalization (Chief Engineer Office) of CCCC and CCCC. Currently, he is the vice president of the Company.
Zhang Jian	Born in 1969, male, MBA, senior engineer. He successively served as the technician, production planner and assistant director of No. 2 Panel beater of Shanghai Port Machinery Manufacturing Plant, director of gearbox branch of Shanghai Port Machinery Manufacturing Plant, vice director and member of the Party committee of Shanghai Port Machinery Manufacturing Plant, vice general manager of Shanghai Port Machinery Heavy Industry Co., Ltd., general manager and president assistant of ZPMC Operation Office. Currently, he is the vice president of the Company.
Shan Jianguo	Born in 1964, male, bachelor, senior engineer. He started working in July 1988, and successively served as the technician in Shanghai Port Machinery Manufacturing Plant, the engineer and chief engineer of ZPMC Machinery Office, general manager and vice chief engineer of No.4 design office of design company, vice director and director of ZPMC Machinery Office, manager of budget assessment department and the dean of ZPMC Land-based Heavy Industry Research & Design Institute, and the president assistant of the Company. He has been the vice general manager (vice president) of the Company since February 2015 and the chief engineer of the Company since February 20, 2023. Currently, he is the vice president and chief engineer of the Company.
Li Ruixiang	Born in 1975, male, bachelor, senior economist. He successively served as the director of Technical Process Department, trainee manager of Manufacturing Department and manager of Quality Assurance Department of Zhangjiagang Base of Shanghai Port Machinery Plant; project leader, office manager, vice director of Quality Safety Office of ZPMC Quality Inspection Company, vice general manager and general manager of mechanical supporting base, secretary of Party Branch, vice chief economist, general manager of budget assessment department, general manager of Material and Equipment Procurement Department and president assistant of the Company. He has been the vice president of the Company since February 20, 2023. Currently, he is the vice president and chief economist of the Company.
Sun Li	Born in 1972, male, EMBA, senior engineer. He successively served as the project leader and vice manager of Operation Department, vice director of Operation Office and director of Off-Shore Office, general manager assistant, vice president and director of the Company. Currently, he is the chief legal counsel, secretary of the board and chief compliance officer of the Company.
Lu Hanzhong	Born in 1975, male, bachelor, Bachelor of Engineering, senior engineer. He started working in July 1997 and successively served as the supervisor of Process Department and deputy manager of Process Department of the Company, deputy general manager of Changxing Base, general manager of Changxing Base, deputy chief craftsman and manager of Process Department of the Company, and general manager of Steel Structure Division. He has been the vice president of the Company since February 20, 2023. Currently, he is the vice president and chief craftsman of the Company.
Shen Qiuyuan	Born in 1977, female, bachelor of economics, senior economist. She started working in August 1999 and has successively served as the project supervisor of Business Department of the Company, general manager of Project Management Department of the Business Office, general manager of the Port Machinery Business Department, deputy chief economist of the Company, general manager of the investment group and general manager of the Strategic Development Department. She has been the vice president of the Company since February 20, 2023. Currently, she is the vice president of the Company and the general manager (General Manager) of the Marketing Headquarters (Integrated Development Management Department).
Liu Qizhong	Born in 1964, male, bachelor, senior economist. He started working in August 1983 and successively served as the manager of Operating Department and the vice president of the Company, and serves as the director of the Company since March 2004. He resigned as a director of the Company on December 28, 2022 for personal reasons, and resigned as the vice president of the Company on February 20, 2023 for personal reasons. Currently, he is a consultant of the Company.
Yu Jingjing (resigned)	Born in 1975, male, bachelor degree, senior economist. He started working in July 1998 and successively served as the director of the planning department of China Harbour Engineering Company (Group), the business director of the enterprise development department of CCCC, the deputy director (in charge of the work) and director of the investor relations division of the office of the board of directors of CCCC, the assistant director and deputy director of the office of the board of directors of CCCC, and a director of China Communications Information Technology Group Co., Ltd. Currently, he is the deputy director (deputy general manager, deputy director and deputy director) of the office of the board of directors (Strategic Development Department, Reform Office and Dispatched Director Office) of CCCC and CCCC. He resigned as a director of the Company on December 12, 2022 due to work-related reasons.
Fei Guo (resigned)	Born in 1962, male, EMBA, professor-level senior engineer. He successively served as the engineer of Shanghai Port Machinery Plant, electrical engineer of the Technology Department, director of No. 5 Electrical Office, vice chief engineer, chief engineer, director of Development Office and vice president of ZPMC. He resigned as the chief engineer of the Company on February 20, 2023 due to personal reasons.
Wang Baihuan (resigned)	Born in 1964, male, EMBA master, senior economist and senior engineer. He started working in August 1984, and successively served as the manager and deputy secretary of the Party committee of No. 2 Engineering Company of CCCC Shanghai Dredging Co. Ltd.; executive director, general manager and deputy secretary of the Party committee of the Waterway Construction Company of CCCC Shanghai Dredging Co. Ltd.; secretary of the Party Committee and deputy general manager of the Waterway Construction Company of CCCC Shanghai Dredging Co. Ltd.; director, general manager and deputy secretary of the Party committee of CCCC Shanghai Dredging Co. Ltd.; chairman (legal representative) and secretary of the Party committee of CCCC Guangzhou Dredging Co., Ltd. He resigned as the vice president of the Company on July 29, 2022 due to work-related reasons.
Zhou Qi (resigned)	Born in 1972, male, EMBA, professor-level senior engineer. He successively served as the technician, manager, deputy chief engineer, general manager of the Electric Appliance Office and chief engineer of the Company. He resigned as the vice president of the Company for personal reasons on March 14, 2022.

Notes to other circumstances

□Applicable √Not applicable

2 Incumbency of current and resigned directors, supervisors and senior executives during the reporting period**1. Position at the shareholder entity**

√Applicable □Not applicable

Name of in-service staff	Name of shareholding entity	Position	Starting date of tenure	Expiration date of tenure
Liu Chengyun	China Communications Construction Group Co., Ltd.	General manager assistant	March 5, 2021	
Yu Jingjing	China Communications Construction Group Co., Ltd.	Deputy director (deputy general manager, deputy director and deputy director) of the office of the board of directors (strategic development department, reform office and dispatched director office)	December 2020	

Statement of the position held in shareholding entity

2. Statement of the position held in other entities

√Applicable □Not applicable

Name of in-service staff	Name of other entities	Position held in other entities	Starting date of tenure	Expiration date of tenure
Zhu Xiaohuai	CCCC Financial Leasing Co., Ltd.	Director	June 2018	
Zhang Jian	CCCC Shanghai Equipment Engineering Co., Ltd.	Chairman of the board	March 2017	
Shan Jianguo	CCCC Highway Bridges National Engineering Research Centre Co., Ltd.	Vice general manager	December 2019	
	Shanghai Ocean Engineering Equipment Manufacturing Innovation Center Co., Ltd.	Director	November 2020	
	CCCC National Engineering Research Center of Dredging Technology and Equipment Co., Ltd.	Director	November 2020	
	Sinoocean Offshore Assets Management Limited	Director	September 2021	
Lu Hanzhong	Nantong Zhenhua Heavy Equipment Manufacturing Co., Ltd.	Executive director	December 2022	
Shen Qiuyuan	Zhenhua Marine Energy (HK) Co., Ltd.	Chairman of the board	August 2021	
	Shanghai Zhenhua Port Machinery (Hong Kong) Co., Ltd.	Director	August 2021	
Zhang Jianxing	CCCC Industrial Investment Holding Company Ltd.	Director	December 2022	
You Hua	First Highway Engineering Group Co., Ltd.	Director	March 2020	
	CCCC Asset Management Co., Ltd.	Director	March 2020	
	CCCC Dredging (Group) Co., Ltd.	Director	October 2020	
Zhao Zhanbo	School of Software & Microelectronics, Peking University	Professor	2015	
	Yingda Taihe Life Insurance Co., Ltd.	Independent director	January 2022	
Bai Yunxia	School of Economics and Management of Tongji University, Investment Centre of Cheung Kong Graduate School of Business	Director of Accounting Department, research scholar	January 2010	
	Shanghai General Healthy Information and Technology Co., Ltd.	Independent director	February 2019	
	Shanghai Fubei Pet Products Co., Ltd.	Independent director	December 2019	
	Zhejiang Yonghe Refrigerant Co., Ltd.	Independent director	2020	
	Zhejiang Aishida Electric Co., Ltd.	Independent director	2020	
Zhang Hua	China Europe International Business School	Associate professor	July 2016	
	Jiangsu Liyan Technology Co., Ltd.	Independent director	April 2017	
	Zhejiang Hengwei Battery Co., Ltd.	Independent director	May 2017	
	Nanjing Sunlord Electronics Corporation Ltd.	Independent director	November 2017	
	Chengdu Qushui Science and Technology Co., Ltd.	Independent director	December 2019	



Name of in-service staff	Name of other entities	Position held in other entities	Starting date of tenure	Expiration date of tenure
Sheng Leiming	All China Lawyers Association	Vice president	December 2011	
	Guantao Law Firm	Lawyer	2016	
	Tsingtao Brewery Co., Ltd.	Independent director	May 2020	
	Shanghai United Imaging Healthcare Co., Ltd.	Independent director	October 2020	
	Shanghai Foreign Service Holding Group Co., Ltd.	Independent director	September 2021	
	Kweichow Moutai Co., Ltd.	Independent director	May 2022	
Statement of the position held in other entities				

3 Remuneration of directors, supervisors and senior executives

Applicable Not applicable

Decision-making process for the remuneration of directors, supervisors and senior executives	In accordance with the regulations of "Articles of Association", the remuneration of directors and supervisors is subject to the general meeting of shareholders and the remuneration of the senior executives is approved by the board of directors.
Basis for deciding the remuneration of directors, supervisors and senior executives	The basic salary plus performance bonus is assessed in combination with the quantitative index of production and operation, etc.
Actual payout of remuneration for directors, supervisors and senior executives	For details, please refer to the section "Changes in shares held by current and resigned directors, supervisors and senior executives during the reporting period and their remunerations"
Total remuneration actually obtained by all directors, supervisors and senior executives at the end of reporting period	RMB 15,347,500

4 Change in directors, supervisors and senior executives

Applicable Not applicable

Name	Post	Change	Reason of change
Liu Chengyun	General manager (president)	Resigned	Job adjustment
Ou Huisheng	Director	Elected	Job adjustment
	General manager (president)	Engaged	Job adjustment
Zhu Xiaohuai	Executive general manager	Engaged	Job adjustment
Zhang Jianxing	Director	Elected	Job adjustment
Shan Jianguo	Chief engineer	Engaged	Job adjustment
Li Ruixiang	Vice president	Engaged	Job adjustment
Lu Hanzhong	Vice president	Engaged	Job adjustment
Shen Qiuyuan	Vice president	Engaged	Job adjustment
Liu Qizhong	Director, vice president	Resigned	Personal reasons
Yu Jingjing	Director	Resigned	Job adjustment
Fei Guo	Chief engineer	Resigned	Personal reasons
Wang Baihuan	Vice president	Resigned	Job adjustment
Zhou Qi	Vice president	Resigned	Personal reasons

5 Punishments by securities regulatory authority in recent three years

Applicable Not applicable

6 Others

Applicable Not applicable

V. Related information about the board meetings convened during the reporting period

Session of meeting	Convening date	Resolutions
The 8 th board meeting of the 8 th board of directors	March 7, 2022	Reviewed and approved the "Proposal on Formulating the Measures for Investor Relations Management of ZPMC" and other proposals (see Extraordinary Announcement No. 2022-001 for details)
The 9 th board meeting of the 8 th board of directors	April 13, 2022	Reviewed and approved the "Proposal on Reviewing the Working Report of Board of Directors in 2021" and other proposals (see Extraordinary Announcement No. 2022-004 for details)
The 10 th board meeting of the 8 th board of directors	April 29, 2022	Reviewed and approved the "Proposal on Reviewing the 2022 First Quarterly Report of the Company" and other proposals (see Extraordinary Announcement No. 2022-010 for details)
The 11 th board meeting of the 8 th board of directors	June 6, 2022	Reviewed and approved the "Proposal on Convening the 2021 Annual General Meeting of Shareholders of the Company" and other proposals (see Extraordinary Announcement No. 2022-012 for details)
The 12 th board meeting of the 8 th board of directors	June 29, 2022	Reviewed and approved the "Proposal on Reviewing the Tenure System and Contractual Management Measures and Work Plan for the Members of the Company's Management Team" and other proposals (see Extraordinary Announcement No. 2022-018 for details)
The 13 th board meeting of the 8 th board of directors	August 30, 2022	Reviewed and approved the "Proposal on Reviewing the Full Text and Summary of 2022 Semi-Annual Report of the Company" and other proposals (see Extraordinary Announcement No. 2022-022 for details)
The 14 th board meeting of the 8 th board of directors	October 28, 2022	Reviewed and approved the "Proposal on Reviewing the 2022 Third Quarterly Report of the Company"
The 15 th board meeting of the 8 th board of directors	December 12, 2022	Reviewed and approved the "Proposal on Reviewing the Revision of the List of Proceedings of President's Office Meeting" and other proposals (see Extraordinary Announcement No. 2022-030 for details)
The 16 th board meeting of the 8 th board of directors	December 28, 2022	Reviewed and approved the "Proposal on Reviewing and Formulating the Regulations on Board Meeting Proposals" and other proposals (see Extraordinary Announcement No. 2022-035 for details)

VI. Duty performance of directors

1 Attendance of the directors at the board meetings and the general meeting of shareholders

Director name	Independent director or not	Attendance at Board Meetings						Attendance at the general meeting of shareholders
		Times of meetings should be attended in this year	Times of personal attendance	Times of attendance by telecommunication	Times of attendance through a proxy	Times of absence	Personal absence for two consecutive times	Times of attendance at the general meeting of shareholders
Liu Chengyun	No	9	9	7	0	0	No	1
Ou Huisheng	No	3	3	1	0	0	No	1
Liu Qizhong (resigned)	No	8	8	7	0	0	No	1
Zhu Xiaohuai	No	9	9	8	0	0	No	3
Wang Cheng	No	9	9	8	0	0	No	3
Zhang Jianxing	No	1	1	1	0	0	No	0
Yu Jingjing (resigned)	No	7	7	7	0	0	No	2
Sheng Leiming	Yes	9	9	7	0	0	No	2
Zhang Hua	Yes	9	8	7	1	0	No	1
Zhao Zhanbo	Yes	9	9	9	0	0	No	2
Bai Yunxia	Yes	9	9	9	0	0	No	3

Explanations for personal absence from the meeting for two consecutive times

Applicable Not applicable

Times of the board meetings convened in current year	9
Including: times of on-site meetings	0
Times of meetings convened through telecommunication	7
Times of meetings convened on-site and through telecommunication	2



2 Objections raised by directors on matters of the Company

Applicable Not applicable

3 Others

Applicable Not applicable

VII. Specialized committees under the Board of Directors

Applicable Not applicable

1 Members of specialized committees under the board of directors

Category of specialized committee	Members
Audit committee	Bai Yunxia, Zhao Zhanbo, Sheng Leiming, Zhang Hua
Nominating committee	Liu Chengyun, Wang Cheng, Zhao Zhanbo, Sheng Leiming, Zhang Hua
Remuneration and appraisal committee	Zhao Zhanbo, Zhang Jianxing, Bai Yunxia, Zhang Hua
Strategy committee	Liu Chengyun, Ou Huisheng, Zhang Jianxing, Bai Yunxia, Zhao Zhanbo

2 4 meetings convened by the audit committee during the reporting period

Convening date	Contents	Important comments and suggestions	Other performance of duties
April 11, 2022	Reviewed the "Proposal on Reviewing 2022 Audit Work Plan of the Company", "Proposal on Reviewing 2021 Internal Control Evaluation Report of the Company", "Proposal on Reviewing Audit Committee's Performance Report for 2021", and other proposals	All proposals at this meeting were unanimously reviewed and approved.	
April 29, 2022	Reviewed the "Proposal on Reviewing the 2022 First Quarterly Report of the Company"	All proposals at this meeting were unanimously reviewed and approved.	
August 30, 2022	Reviewed the "Proposal on Reviewing the Full Text and Summary of 2022 Semi-Annual Report of the Company"	All proposals at this meeting were unanimously reviewed and approved.	
October 25, 2022	Reviewed the "Proposal on Reviewing the 2022 Third Quarterly Report of the Company"	All proposals at this meeting were unanimously reviewed and approved.	

3 2 meetings convened by the nominating committee during the reporting period

Convening date	Contents	Important comments and suggestions	Other performance of duties
August 30, 2022	Reviewed the "Proposal on Reviewing the Appointment of Mr. Ou Huisheng as the General Manager (President) of the Company", and the "Proposal on Reviewing the Election of Mr. Ou Huisheng as a Director of the Company"	All proposals at this meeting were unanimously reviewed and approved.	
December 12, 2022	Reviewed the "Proposal on Reviewing the Election of Mr. Zhang Jianxing as a Director of the Company", and the "Proposal on Reviewing the Appointment of Mr. Zhu Xiaohuai as the Executive General Manager of the Company"	All proposals at this meeting were unanimously reviewed and approved.	

4 2 meetings convened by the remuneration and appraisal committee during the reporting period

Convening date	Contents	Important comments and suggestions	Other performance of duties
April 11, 2022	Reviewed the "Proposal on Reviewing the Remuneration of Directors and Senior Executives of the Company for the Year 2021"	All proposals at this meeting were unanimously reviewed and approved.	
December 12, 2022	"Proposal on Reviewing Mr. Zhang Jianxing's Director Subsidy"	All proposals at this meeting were unanimously reviewed and approved.	

5 1 meeting convened by the strategy committee during the reporting period

Convening date	Contents	Important comments and suggestions	Other performance of duties
April 11, 2022	Reviewed the "Proposal on Reviewing the '14 th FiveYear' Overall Development Plan of the Company"	All proposals at this meeting were unanimously reviewed and approved.	

6 Particulars about objections

Applicable Not applicable

VIII. Description of the risks found by the board of supervisors

Applicable Not applicable

The board of supervisors has no objection to the supervision matters during the reporting period.

IX. Particulars about the employees in the parent company and the main subsidiaries at the end of the reporting period**1 Particulars about employees**

Number of in-service employees of the parent company	2,838
Number of in-service employees of the main subsidiaries	5,272
Total of in-service employees	8,110
Number of retired employees required to be paid by the parent company and its major subsidiaries	
Functions	
Category	Number of staff
Production staff	3,093
Sales staff	292
Technical staff	3,514
Financial staff	152
Administrative staff	1,059
Total	8,110
Education background	
Education level	Number (person)
Master and above	691
Undergraduate	4,079
Junior College	1,817
Below Junior College	1,523
Total	8,110

2 Remuneration policies

Applicable Not applicable

In line with the Company's development strategy, the Company improved the remuneration distribution incentive system and performance assessment system and established and improved the performance assessment system based on the different properties and characteristics of each entity and division; promoted the salary incentive system closely linking the performance distribution with the unit or division performance, value contribution, industrial characteristics, growth phase and similar factors, and comprehensively linking the staff performance with position duty and value contribution, and thus initially established the distribution mode integrating with the market.



3 Training plan

Applicable Not applicable

In line with the Company's development strategy, the Company improved the staff training system. According to the training plan, the Company implemented the training in a planned way to improve the business skill level and professional quality of staff at various levels.

4 Labor outsourcing

Applicable Not applicable

Total of labor outsourcing hours	6,793,308 hours
Total of labor outsourcing remuneration	RMB 467,920,100

X.Proposal for profit distribution or convention of capital reserves into bonus shares

1 Formulation, implementation or adjustment of cash dividend distribution policies

Applicable Not applicable

According to the requirements of the Circular on Further Implementation of Relevant Matters Concerning Cash Dividend Distribution of Listed Companies (ZJF [2012] No. 37) issued by the CSRC, as proposed by the 10th meeting of the Company's 5th Board of Directors held on August 21, 2012, amendments were made to the Articles of Association of the Company concerning profit distribution and cash dividends policy, and as a result, the dividend distribution standard and proportion became clearer, related decision making process and mechanism were complete, and the minority shareholders' legal rights and interests were fully protected, giving them the opportunity to fully express their views and demands. No adjustments were made to the cash dividend policy during the reporting period.

On June 27, 2022, the 2021 Annual General Meeting of Shareholders of the Company considered and approved the profit distribution plan for 2021. The profit distribution plan of the Company for 2021 is to distribute cash of RMB 0.05 (tax-included) per share on the basis of the total share capital registered on the registration date of the implementation of equity distribution. Details of the above profit distribution matters are set out in the "Announcement of the Annual Profit Distribution Plan for 2021" published by the Company on the Shanghai Securities News and the website of the Shanghai Stock Exchange (www.sse.com.cn). During the reporting period, the Company's profit distribution plan for 2021 has been implemented.

As audited by Ernst & Young Hua Ming LLP, the Company achieved a net profit attributable to the owners of the parent company of approximately RMB 372 million in 2022. As at December 31, 2022, the undistributed profit of the parent company was approximately RMB 2.746 billion. The Board of Directors of the Company, taking into account the Company's business plan and capital demand in 2023, has prepared a profit distribution proposal for 2022: neither profit distribution nor transfer of the capital public reserves into paid-in capital. The profit distribution proposal has yet to be submitted to the 2022 Annual General Meeting of Shareholders for consideration.

2 Special statement on the cash dividend policy

Applicable Not applicable

In compliance with the Company's Articles of Association or the relevant resolutions of general meeting of shareholders	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Specific and clear dividend standards and ratios	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Complete decision-making procedure and mechanism	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Independent directors have faithfully performed their duties and played their due role	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Non-controlling shareholders are able to fully express their opinion and demand and their legal rights and interests are fully protected	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

3 If the profit is positive in the reporting period and the profit of the parent company available for distribution to the shareholders is positive but the Company does not represent the plan or proposal for profit distribution in cash, the Company shall disclose in detail the reasons and the purpose and use plan of the undistributed profit

Applicable Not applicable

The reason for not representing the plan or proposal for profit distribution in cash though the profit is positive and the profit of the parent company available for distribution to the shareholders is positive in the reporting period	Purpose and use plan of the undistributed profit
<p>The national policy sets a tone to expand domestic demand, proposing to increase investment in the optimization and upgrading of traditional manufacturing industries, expand investment in advanced manufacturing, and improve the quality and efficiency of the manufacturing supply system. A new round of technological revolution represented by digital technology is flourishing worldwide, the industrial digitalization in equipment manufacturing, port industry, marine engineering and other fields has become the trend of the times, and the transformation and upgrading of digital and intelligent manufacturing of companies have become more urgent.</p> <p>Taking into account the current state of the industry, the Company's development strategy, operation and business planning for the next phase, based on the Company's capital needs for 2023, asset-liability structure and the need to promote the sustainable development of various businesses, and according to the "Regulatory Guidelines for Listed Companies No. 3 - Cash Dividends of Listed Companies" issued by the CSRC and the relevant provisions of the "Articles of Association" on profit distribution policy, in order to ensure the long-term healthy and sustainable development of the Company, steadily promote the subsequent development and better safeguard the shareholders' long-term interests, the Company will not distribute profits or transfer capital reserve to share capital for the year 2022.</p>	<p>The Company's undistributed profits for 2022 are rolled over to the next year to meet the Company's needs for general working capital, optimization of asset-liability structure and future profit distribution. In the future, the Company will, as always, attach importance to rewarding shareholders by cash dividends, strictly comply with relevant laws and regulations as well as the provisions of the "Articles of Association", comprehensively consider various factors related to profit distribution, actively fulfill the Company's profit distribution policy from the perspective of facilitating the Company's development and shareholders' return, and share the results of company development with investors.</p>

4 Profit distribution and transfer of capital reserve to share capital for the reporting period

Applicable Not applicable

XI.The Company's equity incentive plan, employee stock ownership plan or other incentives to the employees and their impacts

1 Related incentives disclosed in provisional announcement, without progress or change in follow-up implementation

Applicable Not applicable

2 Incentives not disclosed in provisional announcement or with follow-up progress

Equity incentives

Other description

Applicable Not applicable

Information about employee stock ownership plan

Applicable Not applicable

Other incentives

Applicable Not applicable

3 Equity incentives awarded to the directors and senior executives during the reporting period

Applicable Not applicable

4 Establishment and implementation of the assessment mechanism and incentive mechanism for senior executives during the reporting period

Applicable Not applicable

The Company appoints the directors, supervisors and senior executives in accordance with the provisions of Company Law and the Articles of Association, has built up a preliminary cultivation, selection, supervision, assessment, reward and punishment, constraint system for the Company's senior executives suitable for the actual situation. The Company formulated corresponding administrative methods for senior executives. According to the production and development need of the Company, the senior executives are appointed, resigned and assessed following the principles of "being from top to bottom integrating the virtue and talent", and are subject to annual appraisal by the Company according to the due diligence and job performance. The Company will gradually improve the existing performance evaluation system and salary system, and promote medium and long-term incentive system for all senior executives and the core technical personnel of the Company, to continue to stimulate the enthusiasm of the senior executives, to create new achievements, and to ensure the benefit maximization and standard operation of the Company.



XII. Development and implementation of internal control systems during the reporting period

Applicable Not applicable

The Company actively promoted the continuous improvement of internal control management system in five aspects including internal environment, risk management, major control activities, information and communication, and internal supervision and evaluation. In the meanwhile, through internal self-inspection, daily and special supervision, and internal control evaluation, the Company ensured the effective implementation of relevant management requirements, smooth communication of feedback information, and timely rectification of defects.

According to the control requirements, the internal control system of the Company integrated the business systems and the management flow, established the internal control, risk and compliance management systems such as "Implementation Rules for Internal Control Management Audit", "Regulations on Comprehensive Risk Management" and "Regulations on Compliance Management", and formulated a power and responsibility manual to make clear the control nodes and approval flow of various operation and management matters, and improved the beforehand, intermediate and afterwards risk control mechanisms and established a strict internal control system.

The Company continuously carried out annual internal control evaluation and internal control audit, and the annual report on internal control evaluation was submitted to the Board of Directors for discussion. In accordance with the Basic Standard for Enterprise Internal Control and its supporting guidelines, the Company, in combination with its own structure and characteristics, comprehensively evaluated the reasonableness and operational effectiveness of the internal control design over the internal environment, risk assessment, control activities, information and communication, internal supervision and other elements of the Company, found out the potential deficiencies or defects at all levels, further strengthened and standardized the construction of the Company's internal control and improved the management quality and the risk prevention capability. Meanwhile, the Company entrusted an external professional audit firm to conduct the internal control audit every year. Through the external audit, according to the requirements on internal control, the risks were effectively identified, evaluated, controlled, monitored and improved to organically integrate risk management, internal control and daily operation activities, and effectively control and prevent various risks to ensure the sustainable and stable development of the Company.

Description of the important deficiencies in internal control during the reporting period

Applicable Not applicable

XIII. Management and control over the subsidiaries during the reporting period

Applicable Not applicable

In accordance with the provisions of the Company Law, the Articles of Association and other relevant laws, regulations and rules, the Company continued to strengthen the management and supervision of its subsidiaries on standardized operation, information disclosure, financial capital and operation, and timely track the financial status of subsidiaries and other significant matters to ensure legal compliance of operation and management, assets safety, truthful and complete financial reports and related information, and to further enhance the operation management and risk management capability of the subsidiaries.

XIV. Particulars about the audit report on internal control

Applicable Not applicable

Ernst & Young Hua Ming LLP, engaged by the Company, had audited the effectiveness of the internal control of the financial statement as of December 31, 2022 and issued a standard internal control audit report with clean opinion (see the announcement published on the website of Shanghai Stock Exchange on the same day as this report for details).

Audit report on internal control disclosed or not: Yes

Opinion type of internal control audit report: standard with clean opinion

XV. Remediation of problems identified by self-inspection in the special action on the governance of listed companies

None

XVI. Others

Applicable Not applicable

Section V | Environmental and Social Responsibility

I. Environmental Information

Establishment of environmental protection-related mechanisms	Yes
Funds invested in environmental protection during the reporting period (Unit: RMB'0,000)	17,390.77

1 Information about environmental protection of the Company and its subsidiaries as the key pollutant discharge units published by environmental protection department

√Applicable □Not applicable

1. Emission information

√Applicable □Not applicable

During the reporting period, the total permitted amount of main pollutants in waste gas of the Company and the major subsidiaries: 0.0331 tons of sulfur dioxide, 0.1903 tons of nitrogen oxide, 40.4618 tons of particulate matter, 219.0549 tons of VOCs, 363.5386 tons of COD, 41.1959 tons of ammonia nitrogen, 0.2376 tons of total phosphorus, and 54.8459 tons of total nitrogen. All indicators were in line with the total emission control indicators of the emission permit.

According to the supervision monitoring by environmental protection department and the self-monitoring of the enterprise, all kinds of pollutants discharged by the Company meet the corresponding emission limits specified in the national "Integrated Emission Standard of Air Pollutants" (GB 16297-1996), "Emission Standards for Odor Pollutants" (GB14554-1993), "Standard for Fugitive Emission of Volatile Organic Compounds" (GB37822-2019), "Emission Standard of Cooking Fume" (GB18483-2001), "Integrated Wastewater Discharge Standard" (GB8978-1996), Wastewater Quality Standards for Discharge to Municipal Sewers (GB/T31962-2015), "Emission Standard for Industrial Enterprises Noise at Boundary" (GB12348-2008), "Emission Standards of Pollutants for Shipbuilding Industry" (DB31/934-2015) of Shanghai City, "Integrated Emission Standard of Air Pollutants" (DB31/933-2015) of Shanghai City, "Emission Standards for Odor Pollutants" (DB31/1025-2016) of Shanghai City, "Emission Standard of Air Pollutants for Boiler" (DB31/387-2018) of Shanghai City, "Emission Standard of Air Pollutants for Industrial Kiln and Furnace" (DB31/860-2014) of Shanghai City, "Integrated Wastewater Discharge Standard" (DB31/199-2018) of Shanghai City, "Integrated Emission Standard of Air Pollutants" (DB32 4041-2021) of Jiangsu Province, "Emission Standard of Air Pollutants for Surface Coating of Engineering Machinery and Steel Structure Manufacturing Industry" (DB32/4147-2021) of Jiangsu Province, and "Emission Standard of Air Pollutants for Industrial Furnace and Kiln" (DB32/3728-2020) of Jiangsu Province.

For details of the pollutant emissions of the Company and major subsidiaries, see the table below.

Name of the company or subsidiary	Name of main pollutant and characteristic pollutant	Emission mode	Number of outlets	Distribution of outlets	Emission concentration	Applicable pollutant emission standards	Total emissions in 2022 (ton)	Permitted emissions in 2022 (ton)	Over-standard emissions in 2022
Shanghai Zhenhua Heavy Industries Co., Ltd. Changxing Branch	SO ₂	Organized emission	57 (3 out of service)	Pretreatment, sand washing, coating and canteen	Meeting relevant standards	Integrated Emission Standard of Air Pollutants (DB31/933-2015) of Shanghai City, Emission Standards of Pollutants for Shipbuilding Industry (DB31/934-2015), Emission Standards for Odor Pollutants (DB31/1025-2016), Emission Standard of Cooking Fume (DB31-844-2014), and Standard for Fugitive Emission of Volatile Organic Compounds (GB37822-2019)	0	0.066	None
	NO _x					0	1.046	None	
	Particulate matter					13.491	16.306	None	
	VOCs		149.129	174.047		None			
	COD		276.818	338.590		None			
	Ammonia nitrogen		2	Wastewater outlet		Integrated Wastewater Discharge Standard (DB31/199-2018) of Shanghai City	31.413	37.160	None
	Total nitrogen		50.445	121.790		None			
Shanghai Zhenhua Port Machinery Heavy Industries Co., Ltd.	Particulate matter	Organized emission	13	Sand washing, coating and canteen	Meeting relevant standards	Integrated Emission Standard of Air Pollutants (DB31/933-2015), Emission Standards for Odor Pollutants (DB31/1025-2016) and Emission Standard of Air Pollutants for Boiler (DB31/387-2018) of Shanghai City, and Standard for Fugitive Emission of Volatile Organic Compounds (GB37822-2019)	3.4811	21.941	None
	VOCs					46.86	53.100	None	
Shanghai Zhenhua Heavy Industries Port Machinery General Equipment Co., Ltd.	Particulate matter	Organized emission	7 (2 out of service)	Pretreatment, sand washing and coating	Meeting relevant standards	Integrated Emission Standard of Air Pollutants (DB31/933-2015) and Emission Standards for Odor Pollutants (DB31/1025-2016) of Shanghai City, and Standard for Fugitive Emission of Volatile Organic Compounds (GB37822-2019)	11.555	30.140	None
	VOCs					5.510	45.560	None	



Name of the company or subsidiary	Name of main pollutant and characteristic pollutant	Emission mode	Number of outlets	Distribution of outlets	Emission concentration	Applicable pollutant emission standards	Total emissions in 2022 (ton)	Permitted emissions in 2022 (ton)	Over-standard emissions in 2022
Shanghai Zhenhua Heavy Industries Co., Ltd. Nantong Branch	Particulate matter	Organized emission	13	Sand washing and coating	Meeting relevant standards	Integrated Emission Standard of Air Pollutants (GB 16297-1996), Integrated Emission Standard of Air Pollutants (DB324041-2021) and Emission Standard of Air Pollutants for Surface Coating of Engineering Machinery and Steel Structure Manufacturing Industry (DB32/4147-2021) of Jiangsu Province	9.07	-	None
	VOCs						10.4558	-	None
	COD		2	Wastewater outlet			39.6447	139.364	None
	Ammonia nitrogen						0.062	11.230	None
Nantong Zhenhua Heavy Equipment Manufacturing Co., Ltd.	SO2	Organized emission	19	Pretreatment, sand washing, coating, hazardous waste warehouse and canteen	Meeting relevant standards	Integrated Emission Standard of Air Pollutants (GB 16297-1996), Integrated Emission Standard of Air Pollutants (DB324041-2021), Emission Standard of Air Pollutants for Surface Coating of Engineering Machinery and Steel Structure Manufacturing Industry (DB32/4147-2021) and Emission Standard of Air Pollutants for Industrial Furnace and Kiln (DB32/3728-2020) of Jiangsu Province, and Emission Standards for Odor Pollutants (GB14554-1993)	0	0.010	None
	NOx						0	0.044	None
	Particulate matter						0.82167	3.225	None
	VOCs						1.027717	16.125	None
	COD		1	Wastewater outlet			8.05285	131.530	None
	Ammonia nitrogen						2.82289	8.850	
	Total phosphorus						0.237605	1.468	
	Total nitrogen						4.400905	13.767	None
ZPMC Transmission Machinery (Nantong) Co., Ltd.	SO2	Organized emission	11	Heat treatment, sand washing and coating	Meeting relevant standards	Integrated Emission Standard of Air Pollutants (GB 16297-1996), Emission Standard of Air Pollutants for Boiler (GB13271-2014), Integrated Emission Standard of Air Pollutants (DB324041-2021) of Jiangsu Province, and Emission Standards for Odor Pollutants (GB14554-1993)	0.032	0.427	None
	NOx						0.15	0.167	None
	Particulate matter						0.63	5.561	None
	VOCs						0.61	7.400	None
	COD		1	Wastewater outlet			14.363	-	None
	Ammonia nitrogen						2.388	-	None
ZPMC Qidong Marine Engineering Co., Ltd.	SO2	Organized emission	10	Pretreatment, sand washing and coating	Meeting relevant standards	Integrated Emission Standard of Air Pollutants (GB 16297-1996), Emission Standards for Odor Pollutants (GB14554-1993), Integrated Emission Standard of Air Pollutants (DB324041-2021) of Jiangsu Province, and Emission Standard of Air Pollutants for Boiler (GB13271-2014)	0	0.00018	None
	NOx						0	0.002	None
	Particulate matter						0.94	1.090	None
	VOCs						1.32	6.600	None
	COD		1	Domestic wastewater outlet			5.5	24.350	None
	Ammonia nitrogen						0.56	1.390	None
Shanghai Port Machinery Heavy Industry Co., Ltd.	SO2	Organized emission	10	Sand washing and coating	Meeting relevant standards	Integrated Emission Standard of Air Pollutants (DB31/933-2015), Emission Standards for Odor Pollutants (DB31/1025-2016), and Emission Standard of Air Pollutants for Boiler (DB31/387-2018) of Shanghai City	0.0011	0.00357	None
	NOx						0.0403	0.0858	None
	Particulate matter						0.473	0.50475	None
	VOCs						4.1424	-	None
	COD		1	Wastewater outlet			19.16	-	None
	Ammonia nitrogen						3.95	-	None

Remark: - in the table indicates that the enterprise does not implement total amount control.

2. Construction and operation of pollution control facilities

√Applicable □Not applicable

The Company and the subsidiaries, guided by the national laws and regulations on environmental protection and the requirements on the industrial policy, continued to carry out environmental protection compliance improvement activities, improved the environmental protection system including “Environmental Protection Responsibility System”, guided the employees to give full play to their subjective initiative and strengthened supervision to ensure the control objectives were compliant and under control. During the reporting period, the Company and the subsidiaries strengthened the comprehensive management of waste gas, waste water, noise and hazardous waste, and various pollution prevention and control facilities functioned normally.

In 2022, Shanghai Zhenhua Heavy Industries Co., Ltd. Changxing Branch, a subsidiary of the Company, promoted the hot-dip galvanizing workshop underground pipe network renovation project; Shanghai Zhenhua Port Machinery Heavy Industries Co., Ltd. promoted the technical improvement project of painting automatic production line; Shanghai Zhenhua Heavy Industries Port Machinery General Equipment Co., Ltd. promoted the rainwater and sewage pipe network restoration and treatment projects; Shanghai Zhenhua Heavy Industries Co., Ltd. Nantong Branch completed the upgrade and reconstruction of existing painting workshop end treatment equipment, new hazardous waste warehouse and other projects; ZPMC Qidong Marine Engineering Co., Ltd. completed the end treatment equipment upgrading and renovation project of the pre-treatment workshop, and the end treatment upgrading and renovation project of the painting workshop has been installed and tested for acceptance; Shanghai Port Machinery Heavy Industry Co., Ltd. installed 12 sets of welding fume control facilities in the steel structure workshop; ZPMC Transmission Machinery (Nantong) Co., Ltd. completed the replacement process of water-based paint on the surface of typical parts such as the inner surface of the box, the spokes of the gears and the inner surface of the planetary frame, completed the installation and networking of environmental protection video monitoring, completed the transformation of boilers with low nitrogen and the elimination of some forklifts of Model I; Nantong Zhenhua Heavy Equipment Manufacturing Co., Ltd. completed steel plate and plate pre-treatment dust technical improvement project of the pre-treatment workshop.

3.Environmental impact assessment (EIA) of construction project and other administrative licenses for environmental protection

√Applicable □Not applicable

During the reporting period, all the new, reconstruction and expansion projects of the Company and the subsidiaries strictly implemented the relevant management regulations of “Three Simultaneities” for environmental protection of national and local construction projects, and the projects had gone through the procedures of environmental impact assessment and completion acceptance. Among them, Shanghai Zhenhua Heavy Industries Port Machinery General Equipment Co., Ltd., ZPMC Transmission Machinery (Nantong) Co., Ltd. and Shanghai Port Machinery Heavy Industry Co., Ltd. had no new, reconstruction or expansion project during the reporting period.

See the table below for details:

Name of the company or subsidiary	Key projects in 2022	EIA approval / acceptance
Shanghai Zhenhua Heavy Industries Co., Ltd.	ZPMC Changxing intelligent port equipment industry project	EIA approval has been obtained
Shanghai Zhenhua Heavy Industries Co., Ltd. Changxing Branch	Intelligent manufacturing workshop for crane box of automated terminal of Shanghai Zhenhua Heavy Industries Co., Ltd.	Independent acceptance completed
Shanghai Zhenhua Port Machinery Heavy Industries Co., Ltd.	Technical improvement project of painting automatic production line	Acceptance public announcement has been made
Shanghai Zhenhua Heavy Industries Co., Ltd. Nantong Branch	Supporting project of new A-class warehouse and self-use diesel supply point of Nantong Zhenhua Heavy Equipment Manufacturing Co., Ltd.	Construction in batches; partial acceptance has been completed
	Sand washing and painting workshop reconstruction and waste gas treatment upgrading project	Completed and accepted
Nantong Zhenhua Heavy Equipment Manufacturing Co., Ltd.	Expansion of 100,000t/a sand washing paint steel components to 200,000t/a and 2,980t stainless steel and nonferrous metal pipe fittings project of Nantong Zhenhua Heavy Equipment Manufacturing Co., Ltd.	Independent acceptance completed
	Pre-treatment workshop exhaust gas and painting workshop waste gas upgrading project	Independent acceptance completed
	Painting workshop (13-1/13-2) waste gas treatment facilities upgrading project	EIA registration form filing completed
ZPMC Qidong Marine Engineering Co., Ltd.	Pre-treatment exhaust gas treatment project (regenerative combustion RTO) of ZPMC Qidong Marine Engineering Co., Ltd.	EIA registration form filing completed
	Painting workshop exhaust gas treatment project (zeolite roller + regenerative combustion RTO) of ZPMC Qidong Marine Engineering Co., Ltd.	EIA registration form filing completed

According to the requirements of the “Interim Provisions on the Administration of Pollutant Emission Permit” and the “Technical Specification for Application and Issuance of Pollutant Emission Permit” of the state, the Company and the subsidiaries have successively applied for pollutant emission permits and applied for the change of pollutant emission permits according to the actual discharge changes, and have obtained the “Pollutant Emission Permit” issued by local ecological and environmental protection department. In strict accordance with the requirements of emission permit, the Company continued to discharge pollutant as permitted, carried out self-monitoring, established accounts, reported regularly and made information public.



4. Emergency proposal for environmental incidents

Applicable Not applicable

In order to prevent the occurrence of sudden environmental pollution incidents and to control and deal with them quickly and effectively after the occurrence, in accordance with the “Environmental Protection Law of the People’s Republic of China”, “Law of the People’s Republic of China on the Prevention and Control of Water Pollution”, “Law of the People’s Republic of China on the Prevention and Control of Atmospheric Pollution”, “Law of the People’s Republic of China on the Prevention and Control of Solid Waste Pollution”, “Measures for the Administration of Recording the Emergency Plan for Emergent Environmental Events of Enterprises and Institutions (Trial)”, “Guidelines for the Compilation of Risk Assessment Report on Environmental Emergencies in Enterprises (Trial)”, the branches and subsidiaries of the Company assessed the existing environmental risks, prepared the emergency plans, and filed them with the local ecological and environmental protection department. During the reporting period, all subordinate units revised, reviewed and filed the emergency plan as required, and also actively carried out emergency drills to further prevent and effectively respond to unexpected environmental pollution incidents.

5. Environmental self-monitoring plan

Applicable Not applicable

In accordance with the requirements of the emission permits and technical guidelines for self-monitoring of pollutant discharge units, all branches and subsidiaries have developed their own monitoring programs and carried out regular self-monitoring of environmental protection, and released self-monitoring information on information disclosure platforms such as National Pollution Source Monitoring Information Management and Sharing Platform, Shanghai Integrated Pollution Source Management Information System, Shanghai Environmental Information Disclosure Platform for Enterprises and Institutions and Jiangsu Pollutant Discharge Unit Self-monitoring Information Release Platform.

The branches and subsidiaries of the Company carefully carried out self-monitoring in accordance with national and local requirements, and timely, complete and truthfully released self-monitoring data and related information.

6. Administrative penalties imposed for environmental issues during the reporting period

Applicable Not applicable

During the reporting period, the key emission units under the Company did not receive any administrative penalties for environmental protection.

7. Other environmental information to be disclosed

Applicable Not applicable

Shanghai Zhenhua Heavy Industries Co., Ltd. Changxing Branch, subordinate to the Company, has been included in the list of mandatory cleaner production audits by Shanghai Municipal Bureau of Ecology and Environment and Shanghai Municipal Commission of Economy and Information as a key enterprise. Shanghai Zhenhua Heavy Industries Co., Ltd. Changxing Branch has signed the second round of cleaner production audit commissioned service agreement with a third-party professional auditing agency, has completed the site survey, related data collection on raw and auxiliary material consumption, energy and resource consumption, pollution sources outlets and pollutants discharge, and has preliminarily determined the non/low cost option and medium/high cost option. clean production audit report is being prepared. The cleaner production audit report is under preparation. The cleaner production audit and acceptance is expected to be completed by the end of September 2023.

Shanghai Zhenhua Port Machinery Heavy Industries Co., Ltd., subordinate to the Company, has been included in the list of mandatory cleaner production audit enterprises in 2022. In the future, Shanghai Zhenhua Port Machinery Heavy Industries Co., Ltd. will strengthen the implementation of corporate entity responsibilities, organize and implement cleaner production technology transformation and improve the level of cleaner production in accordance with relevant requirements.

2 Environmental protection of companies other than key emission units

Applicable Not applicable

1. Administrative penalties imposed for environmental issues

Applicable Not applicable

ZPMC Zhangjiagang Port Machinery Co., Ltd., subordinate to the Company, received environmental protection penalties of RMB 456,303 for mobile paint shed built before approval and put into operation before acceptance, outdoor paint operations, and storing some industrial solid waste such as scrap iron in the open air. ZPMC Zhangjiagang Port Machinery Co., Ltd. immediately rectified the illegal and non-compliant issues involved, and stored industrial solid waste in compliance; for the mobile paint shed, the company has obtained environmental impact assessment approval and completed independent acceptance; all closed-loop rectification has been completed.

2. Other environmental information disclosed with reference to key emission units

Applicable Not applicable

ZPMC Zhangjiagang Port Machinery Co., Ltd., subordinate to the Company, had 3 waste gas outlets and 1 waste water outlet, and the main pollutants were wastewater (COD, ammonia nitrogen), waste gas (particles, VOCs), solid waste, noise, etc. Discharge mode: the wastewater was discharged to the sewage treatment plant through pipes; the atmospheric pollutants such as the particulate matter and VOCs in waste gas were discharged in the manner of organized discharge after treatment; the exhaust gas treatment facilities in the mobile paint room have been upgraded and accepted; the solid wastes and the hazardous wastes were handed over to the qualified entities for treatment; plant boundary noise was discharged up to the standard. The change of exhaust gas outlet in the emission permit was completed.

3. Reasons for not disclosing other environmental information

Applicable Not applicable

3 Information that is conducive to ecological protection, pollution prevention and environmental responsibility performance

Applicable Not applicable

4 Measures taken to reduce carbon emissions during the reporting period and their effects

Carbon reduction measures taken or not	Yes
Carbon dioxide equivalent emissions reduced (in tons)	20,303
Types of carbon reduction measures (e.g., using clean energy for power generation, using carbon reduction technologies in the production process, developing and producing new products that contribute to carbon reduction, etc.)	Distributed photovoltaic power generation, green lighting transformation, high-temperature carburizing transformation of heat treatment furnaces, adoption of energy-saving and efficient equipment, and air compressor station control system transformation, etc.

Specific description

Applicable Not applicable

The Company has installed and constructed rooftop distributed photovoltaic power generation systems in many subsidiaries including Shanghai Zhenhua Port Machinery Heavy Industries Co., Ltd., Shanghai Zhenhua Heavy Industries Co., Ltd. Changxing Branch, and Nantong Zhenhua Heavy Equipment Manufacturing Co., Ltd., adopting the mode of Max. Self Use and surplus power fed to the grid. In 2022, all units of the Company self-consumed a total of 28.69 million kwh of PV power, reducing carbon dioxide emissions by approximately 15,623 tons (electricity emission factor of 5.81).

Through green lighting transformation, production and manufacturing process technology improvement, the use of energy-saving and efficient equipment, and the completion of other energy-saving renovation projects and measures, an annual savings of approximately 1,800 tons of standard coal and a reduction of approximately 4,680 tons of carbon dioxide emissions have been achieved.

II. Fulfillment of social responsibility**1 Separate disclosure of social responsibility report, sustainability report or ESS report**

Applicable Not applicable

For detailed report, please refer to the "2022 Environmental, Social, and Corporate Governance (ESG) Report of Shanghai Zhenhua Heavy Industries Co., Ltd." disclosed on the same day as this report.

2 Particulars about social responsibility work

Applicable Not applicable

Specific description

Applicable Not applicable

ZPMC attached great importance to the construction of social responsibility, incorporated the concept of "making beauty for the world" into the company's corporate culture concept system, and continued to promote high-quality development of the company through the release of social responsibility-related content, communication with interested parties and other channels.

Continuously improving the level of social responsibility management and standardizing the system. In 2022, the Company continued to improve its social responsibility and ESG management effectiveness, revised the "ZPMC Social Responsibility Management Measures" and other institutional documents, participated in drafting the "Enterprise ESG Evaluation System" association standard and "Guidance for Enterprise ESG Disclosure" association standard led by the China Enterprise Reform and Development Society, and completed the standard release in 2022, laying the foundation for standardized report writing and other work.



Actively promoting social welfare undertakings and creating a caring and responsible state-owned enterprise brand image. The Company, together with the Youth League Committee of Lanping County, Nujiang Prefecture, Yunnan Province, held the “Small Wish” public welfare activity, presenting gifts to 200 Yunnan students. “Free Donation of Platelets Explains Strong Love of ZPMC”, the case of aiding leukemia employee, was nominated for the 2021 Shanghai Socialist Spiritual Civilization Good Deeds.

Caring and concerning for the assistance areas by improving education, creating job opportunities, and promoting consumer spending on products from poor areas. In 2022, the Company invested a total of RMB 1,136,400 and introduced external funds of RMB 50,000 for material donation, talent training, local agricultural products procurement and workwear customization in the assistance areas; held 2 job fairs in the assistance areas and recruited 111 laborers; took advantage of the party building work of state-owned enterprise and carried out joint party building activities with the general Party branch of Yongan Community in Lamping County, presented gifts to local veteran party members and confirmed the twinning support relationship with 10 outstanding students.

III. Specific work on consolidating and expanding the progress in poverty alleviation and rural revitalization

Applicable Not applicable

Item of poverty alleviation and rural revitalization	Amount/content	Description
Total investment ('0,000 Yuan)	113.64	
Including: fund ('0,000 Yuan)	30	The fund was used to support the construction of CCCC Lushui New Era Hope School
Amount equivalent to goods and materials ('0,000 Yuan)	83.64	They were donated to Zhenhua Kindergarten in Tu'e Town, the Yongan Community Kindergarten, and CCCC Lanping New Era Hope School
Number of people benefited (person)	1,147	This data represented the direct beneficiaries of various donations, including education donations and creating job opportunities, while the number of people benefited from the consumption of products from poor areas and “the action of aiding Xinjiang with work clothes” and other projects cannot be directly counted.
Forms of assistance (such as development of local industry, creating job opportunities, improving education)	Improving education, creating job opportunities, and boosting the consumption of products from poor areas	

Specific description

Applicable Not applicable

1 Investigation

In 2022, the research team visited Yongan Community Kindergarten and CCCC Lanping New Era Hope School to gain a deeper understanding of the assistance effect and concern about the follow-up assistance needs.

2 Capital investment

The Company invested RMB 300,000 to help build CCCC Lushui New Era Hope School, and donated teachers' uniforms, teaching aids, books and other items totaling more than RMB 33,000 to Zhenhua Kindergarten in Tu'e Town according to the 2022 targeted assistance work plan. The Company provided ground paint worth RMB 12,000 to the basketball court renovation project of Yongan Community, and actively introduced RMB 50,000 of private construction funds to donate camera kits and early childhood teaching aids and appliances to Yongan Community Kindergarten. The Youth League Committee of ZPMC, together with Lanping County Committee of Communist Youth League, carried out the “Making a Small Dream True” for the poor students in CCCC Lanping New Era Hope School and financed and invested RMB 25,100 to make wishes of 200 in-campus students true.

3 Talents and employment support

According to the actual needs of Lanping County, the Company trained 10 grassroots cadres and 1 rural revitalization leader for the paired assistance areas. Changxing Branch, of the Company sent representatives to Lanping County to carry out recruitment work during the year, including 2 job fairs in Lanping County and 2 job fairs in Tu'e Town, Lanping County. The company actively mobilized intended personnel to work outside, and recruited a total of 111 persons from Lanping County throughout the year.

4 Consumption assistance

The Company organized the purchase and initiated employees to buy the characteristic agricultural products from the assistance areas, including red soft rice, walnut oil, dendranthema morifolium and black Chinese wolfberry; actively contacted the external units and sold the agricultural products such as rose and dendranthema morifolium for consumption assistance; actively implemented the action of “aiding Xinjiang with work clothes”, and 5 units under the Company ordered 2,971 sets of work clothes and 252 pairs of work shoes from Yengisar County.

5 Pairing of Party building

In 2022, the Third Party Branch of the Party Committee of the Company Headquarters and the General Party Branch of Yongan Community in Lanping County jointly carried out the Party day activity on the theme of “Zongzi connects the two places”. The Third Party Branch of the Party Committee of the Company Headquarters presented Dragon Boat Festival gifts to 39 veteran Party members of Yongan Community Party Branch; 10 party members of the Third Party Branch confirmed the assistance relationship with 10 junior students of the Yongan Community and donated learning materials to them. The Shanghai-Yunnan Cooperation Inspection Team from Lanping County visited the Company for inspection and exchange, and the two sides carried out in-depth communication on further improving the transfer of surplus labor and comprehensively promoting the rural revitalization work.

6 Strengthening propaganda

The Company actively propagandized the results of assistance work through the Wechat official accounts of the headquarters and the units under it, and released 8 promotional articles on assistance themes throughout the year, which received wide attention.



Section VI | Important Events

I. Fulfillment of commitments

1 Commitments of the Company's actual controller, shareholders, related parties and acquirer, as well as the Company during the reporting period or ongoing at the period-end

Applicable Not applicable

2 If there is earnings forecast for the assets or projects of the Company and the reporting period is still in the earnings forecast period, the Company shall explain whether the asset or project reaches the original earnings forecast and give the reasons

Reached Failing to reach Not applicable

3 Fulfillment of commitments on the performance and its impacts on goodwill impairment test

Applicable Not applicable

II. Non-operating funds occupied by the holding shareholder and other related parties during the reporting period

Applicable Not applicable

III. Irregularities in the provision of guarantees

Applicable Not applicable

IV. Explanation of the board of directors for Accounting Firm's "auditors' report with nonstandard opinions"

Applicable Not applicable

V. Analysis and explanation of the Company of the causes and the impacts of the major changes in accounting policies and accounting estimates or correction of significant accounting errors

1 Analysis and explanation of the Company on the causes and the impacts of the changes in accounting policies and accounting estimates

Applicable Not applicable

2 Analysis and explanation of the cause of correction of significant accounting errors and their impacts by the Company

Applicable Not applicable

3 Communication with former CPA firm

Applicable Not applicable

4 Other description

Applicable Not applicable

VI. Engagement and dismissal of the public accounting firm

Unit: Yuan Currency: CNY

	Now engaging
Name of the domestic accounting firm	Ernst & Young Hua Ming LLP
Remuneration of the domestic accounting firm	4,800,000
Audit term of the domestic accounting firm	7
Name of Certified Public Accountant of the domestic accounting firm	Gao Chong, Gu Chengli
Consecutive years of audit services provided by CPAs of the domestic accounting firm	1, 4

	Name	Remuneration
Accounting firm performing internal control audit	Ernst & Young Hua Ming LLP	450,000

Particulars about the engagement and dismissal of the accounting firm

Applicable Not applicable

At the 9th meeting of the 8th Board of Directors held on April 13, 2022 and the 2021 Annual General Meeting of Shareholders of the Company held on June 27, 2022, the Company reviewed and approved the "Proposal on the Engagement of Domestic Audit Accounting Firm for the Year 2022" and agreed to renew the engagement of Ernst & Young Hua Ming LLP as the domestic auditing firm of the Company for the year 2022.

Particulars about reappointment of the accounting firm in the auditing period

Applicable Not applicable

VII. Delisting risk

1 Reasons for the delisting risk warning

Applicable Not applicable

2 Countermeasures to be taken by the Company

Applicable Not applicable

3 Termination of the listing and its reasons

Applicable Not applicable

VIII. Events related to bankruptcy and reorganization

Applicable Not applicable

IX. Major lawsuit and arbitration issues

Existence of major lawsuit and arbitration in the year No major lawsuit or arbitration in the year

1 Lawsuit and arbitration already disclosed in provisional announcement, without follow-up progress

Applicable Not applicable

2 Lawsuit and arbitration not disclosed in provisional announcement, or with follow-up progress

Applicable Not applicable

Unit: '0,000 Yuan Currency: CNY

In the reporting period:									
Plaintiff (applicant)	Defendant (respondent)	Party bearing joint liabilities	Type of lawsuit and arbitration	Background of the lawsuit (arbitration)	Amount involved in lawsuit (arbitration)	Estimated liabilities and amount caused by lawsuit (arbitration) or not	Progress in lawsuit (arbitration)	Results of the lawsuit (arbitration) and impacts	Execution of adjudication of lawsuit (arbitration)
Shanghai Zhenhua Heavy Industries Co., Ltd, and ZPMC Qidong Marine Engineering Co., Ltd.	Nantong Huafu Port Co., Ltd, Li Aidong, and Zhao Xiaohua	None	Lawsuit	At the end of February 2014, the Company completed the acquisition of the former Jiangsu Daoda Ocean Engineering Co., Ltd through capital increase and held 67% of the shares. At the same time, it was agreed that the losses of the company, was borne by the former shareholders including Nantong Huafu Port Co., Ltd, Li Aidong and Zhao Xiaohua before February 28, 2014. During the subsequent business process, it was found that the former Daoda Company untruthfully disclosed some matters of lawsuit or debts, resulting in a series of losses of the Company. Through the related audit and readjustment etc., it was deemed that the loss of RMB 368.7221 million Yuan should be in borne in the former shareholders and the lawsuit was prosecuted again after an inconclusive press for payment.	36,872.21	0	On March 29, 2022, the Supreme People's Court issued a final judgment on the case.	The first item of the first judgment of the Shanghai High People's Court was affirmed; the second to fifth items of the first judgment were reversed; the three defendants were ordered to pay the total costs and damages of RMB 27,433,970 and the corresponding overdue interest to ZPMC Qidong Marine Engineering Co., Ltd.; the first trial verdict that the respondents should compensate Shanghai Zhenhua Heavy Industries Co., Ltd of RMB 1 million for the breach of contract were affirmed.	An enforcement strategy study has been conducted and an application for enforcement will be filed with the court.



3 Other description

Applicable Not applicable

X.Punishments on the Company as well as its directors, supervisors, senior executives, controlling shareholder and actual controller for violation of laws or regulations, as well as the relevant rectifications

Applicable Not applicable

XI.Particulars about the credit standings of the Company and its controlling shareholder and the actual controller during the reporting period

Applicable Not applicable

XII.Material related transactions

1 Related transactions relevant to routine business

1.Events disclosed in provisional announcement, without progress or changes in follow-up implementation

Applicable Not applicable

2.Events disclosed in the provisional announcement, with progress or changes in follow-up implementation

Applicable Not applicable

The 9th meeting of the 8th Board of Directors on April 13, 2022 and the 2021 Annual General Meeting of Shareholders of the Company on June 27, 2022 reviewed and approved the "Proposal on Reviewing the Signing of Framework Agreement on Routine Related Transactions for 2022-2024", which has been announced and is detailed in Announcement No. 2022-004, 2022-008 and 2022-017.

Unit: Yuan Currency: CNY

Related party	Relationship	Type of related transaction	Content of related transaction	Pricing principle of related transaction	Price of related transaction	Amount of related transaction	Proportion in the amount of similar transactions (%)	Settlement mode of associated transaction	Market price	Reason for great differences between the bargain price and market price
Jiangsu Longyuan Zhenhua Marine Engineering Co., Ltd	Joint venture	Sales of goods	Project income/ lease of assets	Pricing based on market price	1,288,582,356	1,288,582,356	4.27	Monetary funds	1,288,582,356	/
China Road & Bridge Corporation	Subsidiary of the holding parent company	Sales of goods	Project income/ lease of assets	Pricing based on market price	446,539,717	446,539,717	1.48	Monetary funds	446,539,717	/
China Harbor Engineering Co., Ltd.	Subsidiary of the holding parent company	Sales of goods	Project income/ lease of assets	Pricing based on market price	441,437,766	441,437,766	1.46	Monetary funds	441,437,766	/
CCCC Haifeng Wind Power Development Co., Ltd.	Subsidiary of the holding parent company	Sales of goods	Project income/ lease of assets	Pricing based on market price	374,901,683	374,901,683	1.24	Monetary funds	374,901,683	/
No.1 Engineering Co., Ltd. of CCCC First Harbor Engineering Co., Ltd.	Subsidiary of the holding parent company	Sales of goods	Project income/ lease of assets	Pricing based on market price	213,716,814	213,716,814	0.71	Monetary funds	213,716,814	/
No.2 Engineering Co., Ltd. of CCCC Third Harbor Engineering Co., Ltd.	Subsidiary of the holding parent company	Sales of goods	Project income/ lease of assets	Pricing based on market price	208,387,950	208,387,950	0.69	Monetary funds	208,387,950	/
CCCC First Harbor Engineering Co., Ltd.	Subsidiary of the holding parent company	Sales of goods	Project income/ lease of assets	Pricing based on market price	167,241,398	167,241,398	0.55	Monetary funds	167,241,398	/
CCCC Third Harbor Engineering Co., Ltd.	Subsidiary of the holding parent company	Sales of goods	Project income/ lease of assets	Pricing based on market price	124,835,563	124,835,563	0.41	Monetary funds	124,835,563	/
CCCC Third Highway Engineering Co. Ltd.	Subsidiary of the holding parent company	Sales of goods	Project income/ lease of assets	Pricing based on market price	57,013,916	57,013,916	0.19	Monetary funds	57,013,916	/
CCCC Fourth Harbor Engineering Co., Ltd	Subsidiary of the holding parent company	Sales of goods	Project income/ lease of assets	Pricing based on market price	45,044,248	45,044,248	0.15	Monetary funds	45,044,248	/
CCCC Second Highway Engineering Co., Ltd.	Subsidiary of the holding parent company	Sales of goods	Project income/ lease of assets	Pricing based on market price	36,106,344	36,106,344	0.12	Monetary funds	36,106,344	/
CCCC Tianhe Mechanical Equipment Manufacturing Co., Ltd	Subsidiary of the holding parent company	Sales of goods	Project income/ lease of assets	Pricing based on market price	32,668,690	32,668,690	0.11	Monetary funds	32,668,690	/
China Communications Construction Company Ltd.	Subsidiary of the holding parent company	Sales of goods	Project income/ lease of assets	Pricing based on market price	28,946,178	28,946,178	0.10	Monetary funds	28,946,178	/
Road & Bridge International Co., Ltd.	Subsidiary of the holding parent company	Sales of goods	Project income/ lease of assets	Pricing based on market price	10,764,510	10,764,510	0.04	Monetary funds	10,764,510	/
CCCC - SHEC Second Highway Engineering Co., Ltd.	Subsidiary of the holding parent company	Sales of goods	Project income/ lease of assets	Pricing based on market price	8,060,013	8,060,013	0.03	Monetary funds	8,060,013	/
CCCC Tianjin Industry and Trade Co., Ltd.	Subsidiary of the holding parent company	Sales of goods	Project income/ lease of assets	Pricing based on market price	6,767,181	6,767,181	0.02	Monetary funds	6,767,181	/
CCCC Second Harbor Engineering Co., Ltd.	Subsidiary of the holding parent company	Sales of goods	Project income/ lease of assets	Pricing based on market price	3,102,305	3,102,305	0.01	Monetary funds	3,102,305	/

Related party	Relationship	Type of related transaction	Content of related transaction	Pricing principle of related transaction	Price of related transaction	Amount of related transaction	Proportion in the amount of similar transactions (%)	Settlement mode of associated transaction	Market price	Reason for great differences between the bargain price and market price
ZPMC Southeast Asia Pte. Ltd	Associated company	Sales of goods	Project income/ lease of assets	Pricing based on market price	2,611,725	2,611,725	0.01	Monetary funds	2,611,725	/
Road and Bridge Construction Chongqing Fengshi Expressway Development Co., Ltd	Subsidiary of the holding parent company	Sales of goods	Project income/ lease of assets	Pricing based on market price	1,202,880	1,202,880	0.00	Monetary funds	1,202,880	/
CCCC Tianjin Dredging Co., Ltd.	Subsidiary of the holding parent company	Sales of goods	Project income/ lease of assets	Pricing based on market price	1,198,938	1,198,938	0.00	Monetary funds	1,198,938	/
CCCC Shanghai Equipment Engineering Co., Ltd.	Subsidiary of the holding parent company	Sales of goods	Project income/ lease of assets	Pricing based on market price	838,967	838,967	0.00	Monetary funds	838,967	/
CCCC Construction Group Co., Ltd. (former: CCCC Fourth Highway Engineering Co., Ltd.)	Subsidiary of the holding parent company	Sales of goods	Project income/ lease of assets	Pricing based on market price	270,456	270,456	0.00	Monetary funds	270,456	/
CCCC (Xiamen) Information Co., Ltd	Subsidiary of the holding parent company	Sales of goods	Project income/ lease of assets	Pricing based on market price	166,240	166,240	0.00	Monetary funds	166,240	/
ZPMC Changzhou Coatings Co., Ltd.	Associated company	Sales of goods	Project income/ lease of assets	Pricing based on market price	160,463	160,463	0.00	Monetary funds	160,463	/
CCCC Third Harbor Engineering Co., Ltd.	Subsidiary of the holding parent company	Rendering of service	Project income/ lease of assets	Pricing based on market price	283,109,058	283,109,058	0.94	Monetary funds	283,109,058	/
CCCC Third Highway Engineering Co., Ltd.	Subsidiary of the holding parent company	Rendering of service	Project income/ lease of assets	Pricing based on market price	36,092,540	36,092,540	0.12	Monetary funds	36,092,540	/
Road and Bridge Construction Chongqing Fengfu Expressway Development Co., Ltd	Subsidiary of the holding parent company	Rendering of service	Project income/ lease of assets	Pricing based on market price	2,335,010	2,335,010	0.01	Monetary funds	2,335,010	/
Jiangsu Longyuan Zhenhua Marine Engineering Co., Ltd	Joint venture	Rendering of service	Project income/ lease of assets	Pricing based on market price	1,826,083	1,826,083	0.01	Monetary funds	1,826,083	/
Shanghai Jiangtian Industrial Co., Ltd.	Subsidiary of the holding parent company	Rendering of service	Project income/ lease of assets	Pricing based on market price	1,504,488	1,504,488	0.00	Monetary funds	1,504,488	/
CCCC Shanghai Dredging Co., Ltd.	Subsidiary of the holding parent company	Rendering of service	Project income/ lease of assets	Pricing based on market price	1,458,199	1,458,199	0.00	Monetary funds	1,458,199	/
China Road & Bridge Corporation	Subsidiary of the holding parent company	Rendering of service	Project income/ lease of assets	Pricing based on market price	1,201,790	1,201,790	0.00	Monetary funds	1,201,790	/
Road and Bridge Construction Chongqing Fengshi Expressway Development Co., Ltd	Subsidiary of the holding parent company	Rendering of service	Project income/ lease of assets	Pricing based on market price	756,398	756,398	0.00	Monetary funds	756,398	/
CCCC Second Harbor Engineering Co., Ltd.	Subsidiary of the holding parent company	Rendering of service	Project income/ lease of assets	Pricing based on market price	567,172	567,172	0.00	Monetary funds	567,172	/
CCCC Tianjin Dredging Co., Ltd.	Subsidiary of the holding parent company	Rendering of service	Project income/ lease of assets	Pricing based on market price	471,698	471,698	0.00	Monetary funds	471,698	/
CCCC First Harbor Engineering Co., Ltd.	Subsidiary of the holding parent company	Rendering of service	Project income/ lease of assets	Pricing based on market price	452,830	452,830	0.00	Monetary funds	452,830	/
No.2 Engineering Co., Ltd. of CCCC First Harbor Engineering Co., Ltd.	Subsidiary of the holding parent company	Rendering of service	Project income/ lease of assets	Pricing based on market price	188,679	188,679	0.00	Monetary funds	188,679	/
Chongqing Yongjiang Expressway Investment and Construction Co., Ltd of FHEC of CCCC	Subsidiary of the holding parent company	Rendering of service	Project income/ lease of assets	Pricing based on market price	172,087	172,087	0.00	Monetary funds	172,087	/
China Communications Information Technology Group Co., Ltd.	Subsidiary of the holding parent company	Rendering of service	Project income/ lease of assets	Pricing based on market price	47,830	47,830	0.00	Monetary funds	47,830	/
Road & Bridge International Co., Ltd.	Subsidiary of the holding parent company	Rendering of service	Project income/ lease of assets	Pricing based on market price	41,038	41,038	0.00	Monetary funds	41,038	/
ZPMC Changzhou Coatings Co., Ltd.	Associated company	Rendering of service	Project income/ lease of assets	Pricing based on market price	40,201	40,201	0.00	Monetary funds	40,201	/
Jiujiang Education Consulting Co., Ltd of CCCC Second Harbor Engineering Co., Ltd.	Subsidiary of the holding parent company	Rendering of service	Project income/ lease of assets	Pricing based on market price	1,698	1,698	0.00	Monetary funds	1,698	/
No.2 Engineering Co., Ltd. of CCCC Third Harbor Engineering Co., Ltd.	Subsidiary of the holding parent company	Receipt of services	Consigned processing for the Company	Pricing based on market price	452,903,273	452,903,273	1.73	Monetary funds	452,903,273	/
CCCC Shanghai Equipment Engineering Co., Ltd.	Subsidiary of the holding parent company	Receipt of services	Consigned processing for the Company	Pricing based on market price	368,095,891	368,095,891	1.41	Monetary funds	368,095,891	/
CCCC First Highway Engineering Co., Ltd.	Subsidiary of the holding parent company	Receipt of services	Consigned processing for the Company	Pricing based on market price	293,136,519	293,136,519	1.12	Monetary funds	293,136,519	/
CCCC Second Harbor Engineering Co., Ltd.	Subsidiary of the holding parent company	Receipt of services	Consigned processing for the Company	Pricing based on market price	227,255,981	227,255,981	0.87	Monetary funds	227,255,981	/



Related party	Relationship	Type of related transaction	Content of related transaction	Pricing principle of related transaction	Price of related transaction	Amount of related transaction	Proportion in the amount of similar transactions (%)	Settlement mode of associated transaction	Market price	Reason for great differences between the bargain price and market price
CCCC Third Highway Engineering Co. Ltd.	Subsidiary of the holding parent company	Receipt of services	Consigned processing for the Company	Pricing based on market price	220,317,269	220,317,269	0.84	Monetary funds	220,317,269	/
CCCC Tianjin Dredging Co., Ltd.	Subsidiary of the holding parent company	Receipt of services	Consigned processing for the Company	Pricing based on market price	152,397,803	152,397,803	0.58	Monetary funds	152,397,803	/
CCCC Third Harbor Engineering Co., Ltd.	Subsidiary of the holding parent company	Receipt of services	Consigned processing for the Company	Pricing based on market price	134,197,024	134,197,024	0.51	Monetary funds	134,197,024	/
Road & Bridge East China Engineering Co., Ltd.	Subsidiary of the holding parent company	Receipt of services	Consigned processing for the Company	Pricing based on market price	50,674,337	50,674,337	0.19	Monetary funds	50,674,337	/
ZPMC Southeast Asia Pte. Ltd	Associated company	Receipt of services	Consigned processing for the Company	Pricing based on market price	40,615,972	40,615,972	0.16	Monetary funds	40,615,972	/
CCCC Construction Group Co., Ltd. (former: CCCC Fourth Highway Engineering Co., Ltd.)	Subsidiary of the holding parent company	Receipt of services	Consigned processing for the Company	Pricing based on market price	28,301,887	28,301,887	0.11	Monetary funds	28,301,887	/
China Communications Information Technology Group Co., Ltd.	Subsidiary of the holding parent company	Receipt of services	Consigned processing for the Company	Pricing based on market price	18,659,881	18,659,881	0.07	Monetary funds	18,659,881	/
Jiangsu Longyuan Zhenhua Marine Engineering Co., Ltd	Joint venture	Receipt of services	Consigned processing for the Company	Pricing based on market price	14,150,943	14,150,943	0.05	Monetary funds	14,150,943	/
CCCC Shanghai Dredging Co., Ltd.	Subsidiary of the holding parent company	Receipt of services	Consigned processing for the Company	Pricing based on market price	9,147,073	9,147,073	0.03	Monetary funds	9,147,073	/
Shanghai Communications Construction Contracting Co., Ltd.	Subsidiary of the holding parent company	Receipt of services	Consigned processing for the Company	Pricing based on market price	7,018,983	7,018,983	0.03	Monetary funds	7,018,983	/
China Road & Bridge Corporation	Subsidiary of the holding parent company	Receipt of services	Consigned processing for the Company	Pricing based on market price	4,281,621	4,281,621	0.02	Monetary funds	4,281,621	/
Shanghai China Communications Water Transportation Design & Research Co., Ltd.	Subsidiary of the holding parent company	Receipt of services	Consigned processing for the Company	Pricing based on market price	4,139,151	4,139,151	0.02	Monetary funds	4,139,151	/
CCCC Second Highway Consultants Co., Ltd.	Subsidiary of the holding parent company	Receipt of services	Consigned processing for the Company	Pricing based on market price	3,475,462	3,475,462	0.01	Monetary funds	3,475,462	/
CCCC First Harbor Engineering Co., Ltd.	Subsidiary of the holding parent company	Receipt of services	Consigned processing for the Company	Pricing based on market price	2,321,373	2,321,373	0.01	Monetary funds	2,321,373	/
Shanghai Waterway Logistics Co., Ltd	Subsidiary of the holding parent company	Receipt of services	Consigned processing for the Company	Pricing based on market price	1,492,658	1,492,658	0.01	Monetary funds	1,492,658	/
Installation Engineering Co., Ltd. of CCCC First Harbor Engineering Co. Ltd.	Subsidiary of the holding parent company	Receipt of services	Consigned processing for the Company	Pricing based on market price	1,344,340	1,344,340	0.01	Monetary funds	1,344,340	/
Shanghai Interlink Road & Bridge Engineering Co., Ltd.	Subsidiary of the holding parent company	Receipt of services	Consigned processing for the Company	Pricing based on market price	1,159,917	1,159,917	0.00	Monetary funds	1,159,917	/
CNPC & CCCC Petroleum Sales Co., Ltd.	Subsidiary of the holding parent company	Receipt of services	Consigned processing for the Company	Pricing based on market price	965,323	965,323	0.00	Monetary funds	965,323	/
CCCC Third Harbor Consultants Co., Ltd.	Subsidiary of the holding parent company	Receipt of services	Consigned processing for the Company	Pricing based on market price	939,041	939,041	0.00	Monetary funds	939,041	/
ZPMC Mediterranean Liman Makinalari Ticaret Anonim Sirketi	Joint venture	Receipt of services	Consigned processing for the Company	Pricing based on market price	885,446	885,446	0.00	Monetary funds	885,446	/
CCCC Xingyu Technology Co., Ltd	Subsidiary of the holding parent company	Receipt of services	Consigned processing for the Company	Pricing based on market price	861,426	861,426	0.00	Monetary funds	861,426	/
Beijing BLDJ Landscape Architecture Institute Co., LTD.	Subsidiary of the holding parent company	Receipt of services	Consigned processing for the Company	Pricing based on market price	366,037	366,037	0.00	Monetary funds	366,037	/
CCCC Second Harbor Consultants Co., Ltd.	Subsidiary of the holding parent company	Receipt of services	Consigned processing for the Company	Pricing based on market price	230,063	230,063	0.00	Monetary funds	230,063	/
CCCC (Xiamen) Information Co., Ltd	Subsidiary of the holding parent company	Receipt of services	Consigned processing for the Company	Pricing based on market price	45,217	45,217	0.00	Monetary funds	45,217	/

Related party	Relationship	Type of related transaction	Content of related transaction	Pricing principle of related transaction	Price of related transaction	Amount of related transaction	Proportion in the amount of similar transactions (%)	Settlement mode of associated transaction	Market price	Reason for great differences between the bargain price and market price
CCCC Shanghai Equipment Engineering Co., Ltd.	Subsidiary of the holding parent company	Purchase of goods	Providing materials for the Company	Pricing based on market price	370,483,873	370,483,873	1.42	Monetary funds	370,483,873	/
ZPMC Changzhou Coatings Co., Ltd.	Associated company	Purchase of goods	Providing materials for the Company	Pricing based on market price	131,829,860	131,829,860	0.50	Monetary funds	131,829,860	/
CNPC & CCCC Petroleum Sales Co., Ltd.	Subsidiary of the holding parent company	Purchase of goods	Providing materials for the Company	Pricing based on market price	53,399,047	53,399,047	0.20	Monetary funds	53,399,047	/
CCCC Third Harbor Engineering Co., Ltd.	Subsidiary of the holding parent company	Purchase of goods	Providing materials for the Company	Pricing based on market price	37,699,113	37,699,113	0.14	Monetary funds	37,699,113	/
CCCC Third Harbor Consultants Co., Ltd.	Subsidiary of the holding parent company	Purchase of goods	Providing materials for the Company	Pricing based on market price	31,363,816	31,363,816	0.12	Monetary funds	31,363,816	/
ZPMC Southeast Asia Pte. Ltd.	Associated company	Purchase of goods	Providing materials for the Company	Pricing based on market price	28,685,372	28,685,372	0.11	Monetary funds	28,685,372	/
Shanghai Jiangnan Industrial Co., Ltd.	Subsidiary of the holding parent company	Purchase of goods	Providing materials for the Company	Pricing based on market price	13,419,612	13,419,612	0.05	Monetary funds	13,419,612	/
CCCC Water Transportation Planning and Design Institute Co., Ltd.	Subsidiary of the holding parent company	Purchase of goods	Providing materials for the Company	Pricing based on market price	8,336,283	8,336,283	0.03	Monetary funds	8,336,283	/
Chuwa Risheng (Beijing) International Trade Co., Ltd.	Subsidiary of the holding parent company	Purchase of goods	Providing materials for the Company	Pricing based on market price	7,280,458	7,280,458	0.03	Monetary funds	7,280,458	/
Jiangmen Hangtong Shipbuilding Co., Ltd. of CCCC Fourth Harbor Engineering Co. Ltd.	Subsidiary of the holding parent company	Purchase of goods	Providing materials for the Company	Pricing based on market price	6,318,584	6,318,584	0.02	Monetary funds	6,318,584	/
Shanghai Zhensha Longfu Machinery Co., Ltd.	Subsidiary of the holding parent company	Purchase of goods	Providing materials for the Company	Pricing based on market price	5,974,560	5,974,560	0.02	Monetary funds	5,974,560	/
Installation Engineering Co., Ltd. of CCCC First Harbor Engineering Co. Ltd.	Subsidiary of the holding parent company	Purchase of goods	Providing materials for the Company	Pricing based on market price	4,867,257	4,867,257	0.02	Monetary funds	4,867,257	/
China Communications Information Technology Group Co., Ltd.	Subsidiary of the holding parent company	Purchase of goods	Providing materials for the Company	Pricing based on market price	4,001,152	4,001,152	0.02	Monetary funds	4,001,152	/
CCCC Tianjin Industry and Trade Co., Ltd.	Subsidiary of the holding parent company	Purchase of goods	Providing materials for the Company	Pricing based on market price	3,899,530	3,899,530	0.01	Monetary funds	3,899,530	/
CCCC Fourth Harbor Consultants Co., Ltd.	Subsidiary of the holding parent company	Purchase of goods	Providing materials for the Company	Pricing based on market price	3,623,894	3,623,894	0.01	Monetary funds	3,623,894	/
ZPMC Mediterranean Liman Makinalari Ticaret Anonim Sirketi	Joint venture	Purchase of goods	Providing materials for the Company	Pricing based on market price	2,347,434	2,347,434	0.01	Monetary funds	2,347,434	/
CCCC Highway Bridges National Engineering Research Centre Co., Ltd.	Subsidiary of the holding parent company	Purchase of goods	Providing materials for the Company	Pricing based on market price	1,189,381	1,189,381	0.00	Monetary funds	1,189,381	/
CCCC (Xiamen) Information Co., Ltd.	Subsidiary of the holding parent company	Purchase of goods	Providing materials for the Company	Pricing based on market price	1,022,057	1,022,057	0.00	Monetary funds	1,022,057	/
Xing An Ji Engineering Co., Ltd. of CCCC Third Harbor Engineering Co., Ltd.	Subsidiary of the holding parent company	Purchase of goods	Providing materials for the Company	Pricing based on market price	775,633	775,633	0.00	Monetary funds	775,633	/
CCCC Xingyu Technology Co., Ltd.	Subsidiary of the holding parent company	Purchase of goods	Providing materials for the Company	Pricing based on market price	266,896	266,896	0.00	Monetary funds	266,896	/
Shanghai Waterway Logistics Co., Ltd.	Subsidiary of the holding parent company	Purchase of goods	Providing materials for the Company	Pricing based on market price	33,033	33,033	0.00	Monetary funds	33,033	/
Total					/	6,587,029,856		/	/	/
Details of large amount of sales returns					None					
Explanation for related transactions					The 2021 Annual General Meeting of Shareholders of the Company reviewed and approved the "Proposal on Reviewing the Signing of Framework Agreement on Routine Related Transactions for 2022-2024". In 2022, the amount of the annual related transactions in the normal business between the Company and the subsidiaries and China Communications Construction Co., Ltd. and the subsidiaries was about RMB 6.587 billion, which did not exceed the upper limit of the routine related transactions approved by the 2021 Annual General Meeting of Shareholders.					

3.Events not disclosed in provisional announcements

2 Related transactions arising from acquisition or offering of assets or stock equity

1.Events disclosed in provisional announcement, without progress or changes in follow-up implementation

Applicable Not applicable



2.Events disclosed in the provisional announcement, with progress or changes in follow-up implementation

Applicable Not applicable

3.Events not disclosed in provisional announcements

Applicable Not applicable

4.Where agreed performance is involved, the performance achievement during the reporting period should be disclosed

Applicable Not applicable

3 Material related transactions with joint external investments

1.Events disclosed in provisional announcement, without progress or changes in follow-up implementation

Applicable Not applicable

Summary of events	Query index
Related transactions concerning the establishment of a construction photovoltaic company in a joint venture with CCCC Industrial Investment Holding Co., Ltd.	See Extraordinary Announcement No. 2022-014 for details

2.Events disclosed in the provisional announcement, with progress or changes in follow-up implementation

Applicable Not applicable

3.Events not disclosed in provisional announcements

Applicable Not applicable

4 Current associated rights of credit and liabilities

1.Events disclosed in provisional announcement, without progress or changes in follow-up implementation

Applicable Not applicable

2.Events disclosed in the provisional announcement, with progress or changes in follow-up implementation

Applicable Not applicable

3.Events not disclosed in provisional announcements

Applicable Not applicable

5 Financial business between the Company and related finance companies, or between finance companies under the Company's control and related parties

Applicable Not applicable

1. Deposit business

Applicable Not applicable

Unit: Yuan Currency: CNY

Related party	Relationship	Maximum daily deposit limit	Deposit interest rate range	December 31, 2021	Amount incurred in the current period		December 31, 2022
					Total deposit amount in the current period	Total withdrawal amount in the current period	
CCCC Finance Company Ltd.	Subsidiary of the holding parent company	1,600,000,000	0.46%-1.76%	1,600,000,000	7,205,270,129	8,804,834,561	435,568
Total	/	/	/	1,600,000,000	7,205,270,129	8,804,834,561	435,568

2. Loan business√Applicable Not applicable

Unit: Yuan Currency: CNY

Related party	Relationship	Loan limit	Loan interest rate range	December 31, 2021	Amount incurred in the current period		December 31, 2022
					Total loan amount in the current period	Total repayment amount in the current period	
CCCC Finance Company Ltd.	Subsidiary of the holding parent company	2,000,000,000	2%	100,000,000	544,000,000	-	644,000,000
Total	/	/	/	100,000,000	544,000,000	-	644,000,000

3. Credit business or other financial business√Applicable Not applicable

Unit: Yuan Currency: CNY

Related party	Relationship	Business type	Total amount	Actual amount incurred
CCCC Finance Company Ltd.	Subsidiary of the holding parent company	Credit	2,000,000,000	427,450,000
CCCC Xiongan Financial Leasing Co., Ltd.	Subsidiary of the holding parent company	Factoring	300,000,000	120,000,000

4. Other descriptionApplicable Not applicable**6 Others**Applicable Not applicable**XIII. Material contracts and their performance****1 Trusteeship, contracting and leasing matters****1. Trusteeship**Applicable Not applicable**2. Contracting**Applicable Not applicable**3. Leasing**√Applicable Not applicable

Unit: '0,000 Yuan Currency: CNY

Name of lessor	Name of lessee	Leased assets	Amount involved in leased assets	Starting date of leasing	Termination date of leasing	Income from leasing	Basis for determining income from leasing	Impacts of income from leasing on the Company	Related transaction or not	Relationship
Shanghai Zhenhua Heavy Industries Co., Ltd.	Shanghai Zhenlong Asset Management Co., Ltd. and other companies	Lease of houses	22,965.71	August 10, 2012	July 9, 2025	3,215.09	Agreed	3,215.09	No	
Shanghai Zhenhua Heavy Industries Co., Ltd.	Shanghai Changyin Real Estate Development Co., Ltd.	Lease of houses	22,965.71	March 1, 2021	February 29, 2024	1,474.48	Agreed	1,474.48	No	
Shanghai Zhenhua Heavy Industries Co., Ltd.	Shanghai Changyi Industrial Co., Ltd.	Lease of houses	1,405.40	August 15, 2021	August 14, 2031	859.13	Agreed	859.13	No	

Leasing explanation
None



2 Guarantee

Applicable Not applicable

Unit: Yuan Currency: CNY

External guarantee of the Company (excluding guarantee to the subsidiaries)														
Guarantor	Relation between the guarantor and the listed company	Guaranteed party	Guaranteed amount	Date of guarantee (signing date of agreement)	Starting date of guarantee	Due date of guarantee	Type of guarantee	Collateral (if any)	Fulfillment of the guarantee or not	Overdue or not	Amount of overdue guarantee	Counter guarantee or not	Guarantee by the related party or not	Relationship
Total amount of guarantee incurred during the reporting period (excluding guarantee to the subsidiaries)														
Total balance of guarantee at the end of the reporting period (A) (excluding guarantee to the subsidiaries)														0
Guarantee of the Company and its subsidiaries to the subsidiaries														
Total amount of guarantee to the subsidiaries incurred during the reporting period														-774,009,980
Total balance of guarantee to the subsidiaries at the end of the reporting period (B)														0
Total amount of guarantee of the Company (including guarantee to the subsidiaries)														
Total amount of guarantee (A+B)														0
Proportion of total amount of guarantee in the net assets of the Company (%)														0
Including:														
Amount of guarantee to the shareholders, the actual controller and related parties (C)														
Amount of debt guarantee directly or indirectly provided to the guaranteed party with the asset-liability ratio over 70% (D)														
Amount of guarantee exceeding 50% of net assets (E)														
Total guarantee amount of the above three items (C+D+E)														
Explanation for the joint and several repayment liabilities for the undue guarantee														
Description of guarantee						The "Proposal for Providing Financing Guarantee to the Subsidiary Shanghai Zhenhua Port Machinery (Hong Kong) Co., Ltd." was approved upon deliberation by the Company at the 1 st provisional general meeting for 2008, which agreed to provide the financial support to the subsidiary in Hong Kong and provided the guarantee with the upper limit of USD 500 million for the loan it applied for through the bank. As of June 30, 2022, the loan guaranteed by the Company for its subsidiary in Hong Kong was fully repaid.								

3 Consigned cash assets management

1. Consigned financing

(1) General information of consigned financing

Applicable Not applicable

Other information

Applicable Not applicable

(2) Information on individual consigned financing

Applicable Not applicable

Other information

Applicable Not applicable

(3) Provision for impairment of consigned financing

Applicable Not applicable

2. Consigned loans

(1) General information of consigned loans

Applicable Not applicable

Other information

Applicable Not applicable

(2) Individual consigned loans

Applicable Not applicable

Other information

Applicable Not applicable

(3) Provision for impairment of consigned loans

Applicable Not applicable

3. Other information

Applicable Not applicable

4 Other material contracts

Applicable Not applicable

The Company and Yantian East International Container Terminals Co., Ltd. reached a consensus on the procurement of double-trolley quayside container cranes and related matters for Phase I project of the Container Terminal Project in East Operation Section of Yantian Port Area, Shenzhen Port, and signed a contract agreement for a total project amount of RMB1,293 million. See Extraordinary Announcement No. 2022-032 for details.

XIV. Other significant events for investors' judgment of value and investment decision-making

Applicable Not applicable



Section VII | Changes in Shares and Shareholders' Situation

I. Changes in share capital

1 Table of changes in shares

1. Table of changes in shares

The total number of shares of the Company and the structure of its share capital remained unchanged during the reporting period.

2. Notes to changes in shares

Applicable Not applicable

3. Effect of changes in shares on financial indicators such as earnings per share and net asset per share for the latest year and period (if any)

Applicable Not applicable

4. Other contents that the Company deems necessary to be disclosed or required to be disclosed by the securities regulatory authority

Applicable Not applicable

2 Changes in shares with restrictive conditions for sales

Applicable Not applicable

II. Issuance and listing of securities

1 Securities issuance by the reporting period

Applicable Not applicable

Particulars about the issuance of securities during the reporting period (for bonds of different interest rates within the duration, please state them respectively)

Applicable Not applicable

2 Changes in total shares and the shareholder structure of the Company, as well as in asset and liability structures

Applicable Not applicable

3 Existing internal employee ownership

Applicable Not applicable

III. Shareholders and actual controller

1 Total number of shareholders

Total of ordinary shareholders by the end of the reporting period	205,532
Total of ordinary shareholders by the end of the month previous to the disclosure date of annual report	221,862

2 Table of the shares held by top 10 shareholders, top 10 holders of marketable shares (or shareholders without trading limited conditions) by the end of reporting period

Unit: share

Shares held by top 10 shareholders							
Name of shareholder(in full)	Changes in the reporting period	Number of shares held at the end of the period	Ratio (%)	Number of shares with trading limited conditions held	Shares in pledge, marked or frozen		Nature of shareholder
					Share status	Number of shares	
CCCG (HK) Holding Limited	0	916,755,840	17.401	0	NA	0	Overseas legal person
China Communications Construction Company Ltd.	0	855,542,044	16.239	0	NA	0	State-owned legal person
China Communications Construction Group Co., Ltd.	0	663,223,375	12.589	0	NA	0	State-owned legal person
CITIC Bank Co., Ltd. - BOCOM Schroder New Life Flexible Allocation Hybrid Securities Investment Fund	34,542,585	34,542,585	0.66		Unknown		Unknown
Dacheng Fund- Agricultural Bank of China - Dacheng China Securities Financial Asset Management Plan	0	19,855,920	0.38		Unknown		Unknown
GF Fund- Agricultural Bank of China - GF China Securities Financial Assets Management Plan	0	19,855,920	0.38		Unknown		Unknown
China Southern Asset Management- Agricultural Bank of China - China Southern Asset Management China Securities Financial Asset Management Plan	0	19,855,920	0.38		Unknown		Unknown
E FUND Management- Agricultural Bank of China - E FUND Management China Securities Financial Assets Management Plan	-28,100	19,827,820	0.38		Unknown		Unknown
Lombarda China Fund- Agricultural Bank of China - Lombarda China Fund China Securities Financial Assets Management Plan	-29,000	19,826,920	0.38		Unknown		Unknown
Yinhua Fund- Agricultural Bank of China - Yinhua China Securities Financial Asset Management Plan	-221,188	19,634,732	0.37		Unknown		Unknown

Shareholdings of top 10 shareholders without trading limited conditions

Name of shareholder	Number of non-restrictive circulation shares held	Type and number of shares	
		Type	Quantity
CCCG (HK) Holding Limited	916,755,840	Foreign shares listed domestically	
China Communications Construction Company Ltd.	855,542,044	RMB ordinary shares	
China Communications Construction Group Co., Ltd.	663,223,375	RMB ordinary shares	
CITIC Bank Co., Ltd. - BOCOM Schroder New Life Flexible Allocation Hybrid Securities Investment Fund	34,542,585	RMB ordinary shares	
Dacheng Fund- Agricultural Bank of China - Dacheng China Securities Financial Asset Management Plan	19,855,920	RMB ordinary shares	
GF Fund- Agricultural Bank of China - GF China Securities Financial Assets Management Plan	19,855,920	RMB ordinary shares	
China Southern Asset Management- Agricultural Bank of China - China Southern Asset Management China Securities Financial Asset Management Plan	19,855,920	RMB ordinary shares	



Shareholdings of top 10 shareholders without trading limited conditions

Name of shareholder	Number of non-restrictive circulation shares held	Type and number of shares	
		Type	Quantity
E FUND Management- Agricultural Bank of China - E FUND Management China Securities Financial Assets Management Plan	19,827,820	RMB ordinary shares	
Lombarda China Fund- Agricultural Bank of China - Lombarda China Fund China Securities Financial Assets Management Plan	19,826,920	RMB ordinary shares	
Yinhua Fund- Agricultural Bank of China - Yinhua China Securities Financial Asset Management Plan	19,634,732	RMB ordinary shares	
Notes to the related relation or consistent actions of the above-mentioned shareholders	Among the above top 10 shareholders, CCCG (HK) Holding Limited, China Communications Construction Group Co., Ltd. and China Communications Construction Company Ltd. are related companies. It was unknown to the Company whether there was related relation between other shareholders and whether they belonged to the concerted actor specified in the "Management Method on Information Disclosure for Shareholding Change of the Shareholders of Listed Companies".		
Explanation on preferred stock holders with recovered voting rights and number of stocks held by them			

Shareholdings of the top ten restricted shareholders and the restrictions
Applicable Not applicable

3 Indicate whether any strategic investor or general corporate has become a top-10 shareholder due to placement of new shares

Applicable Not applicable

IV. Controlling shareholder and actual controller

1 Controlling shareholder

1. Legal person

Applicable Not applicable

Name	China Communications Construction Group Co., Ltd.
Company principal or legal representative	Wang Tongzhou
Date of Establishment	December 8, 2005
Main business	Construction of overseas projects and international bidding projects at home; general contracting for construction of various special ships, leasing and maintenance of special ship and construction machines; offshore towage and professional services related to the ocean engineering; technical consultant services regarding the ship and the supporting port equipment; engaging in the general contracting of construction projects for ports, channels, highways and bridges both home and abroad (including technical and economic consultation of engineering, feasibility study, survey, design, construction, supervision, procurement and supply for related complete set of equipment or materials, and equipment installation); undertaking the general contracting of the construction of industrial and civil works, railway, metallurgy, petrochemical, tunnel, power, mine, water conservancy, and municipal works; import and export business; real estate development and property management; investment and management of transportation, hotel and tourism industries.
Interests held in other domestically and overseas listed companies in the reporting period	CCCG holds 59.63% of the stock equity of CCCC (601800.SH) and it is the controlling shareholder. CCCG holds 100% of the stock equity of CCCG Real Estate Group Co., Ltd.; CCCG Real Estate Group Co., Ltd. holds 52.32% of the stock equity of CCCG Real Estate Co., Ltd. (000726.SZ) and it is the controlling shareholder. CCCG and its controlling subsidiaries totally hold 28.00% of the stock equity of Greentown Holding Co., Ltd. (03900.HK) and are the controlling shareholders. China Urban and Rural Holding Group Co., Ltd., a wholly-owned subsidiary of CCCG, and its concerted actor CCCC Fund jointly hold 33.40% of the stock equity of Beijing Originwater Technology Co., Ltd. (300070.SZ), and they are the controlling shareholders.
Notes to other circumstances	

2. Natural person

Applicable Not applicable

3. Particulars about no controlling shareholder in the Company

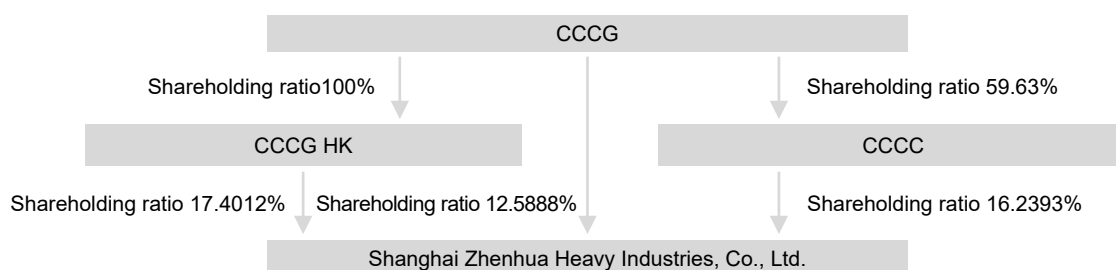
Applicable Not applicable

4. Change of the controlling shareholder in the reporting period

Applicable Not applicable

5. Block diagram of the ownership and control relationship between the Company and the controlling shareholder

Applicable Not applicable

**2 Actual controller****1. Legal person**

Applicable Not applicable

2. Natural person

Applicable Not applicable

3. Particulars about no actual controller in the Company

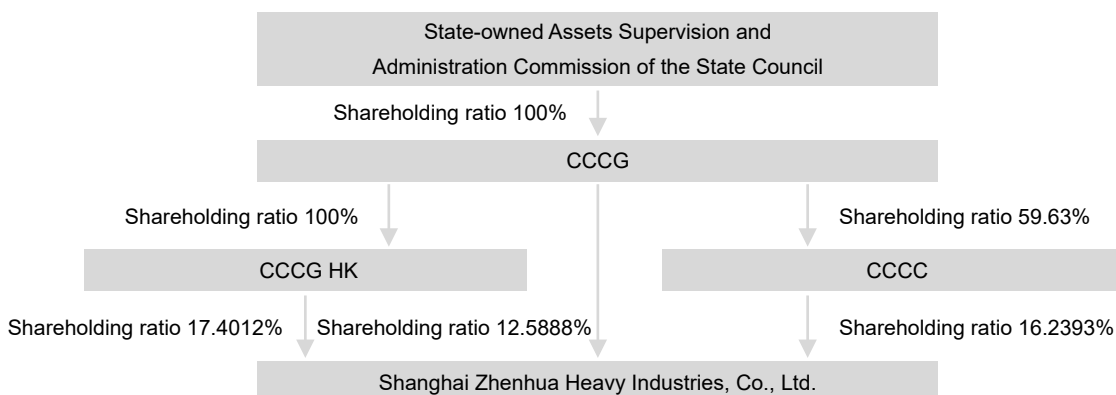
Applicable Not applicable

4. Description of the changes in control of the Company during the reporting period

Applicable Not applicable

5. Block diagram of ownership and control relationship between the Company and the actual controller

Applicable Not applicable

**6. Indicate whether the actual controller controls the Company via trust or other ways of assets management**

Applicable Not applicable



3 Other information about the controlling shareholder and the actual controller

Applicable Not applicable

V.Indicate whether the cumulative number of shares put in pledge by the Company’s controlling shareholder or the largest shareholder and its acting-in-concert parties accounts for over 80% of their shareholdings in the Company

Applicable Not applicable

VI.Other corporate shareholders holding more than 10%

Applicable Not applicable

Unit:’0,000 Yuan Currency: CNY

Name of corporate shareholder	Company principal or legal representative	Date of establishment	Organization code	Registered capital	Main business or management activities
China Communications Construction Company Ltd.	Wang Tongzhou	Oct. 8, 2006	91110000710934369E	1,616,571.1425	General contracting of construction projects for ports, waterways, highways, bridges, etc.
CCCG (HK) Holding Limited	Peng Guangsheng	Sept. 5, 2017	/	HKD 1,000	Investment management, project investment, project financing
Description	CCCG (HK) Holding Limited and China Communications Construction Company Ltd. are subsidiaries of China Communications Construction Group Co., Ltd.				

VII. Particulars about restrictions on shareholding reduction

Applicable Not applicable

VIII. Specific implementation of share repurchases during the reporting period

Applicable Not applicable

Section VIII | Preference Shares

Applicable Not applicable

Section IX | Bonds

I. Enterprise bonds, corporate bonds and debt financing instruments of non-financial enterprises

Applicable Not applicable

1 Enterprise bonds

Applicable Not applicable

2 Corporate bonds

Applicable Not applicable

1. Basic information of corporate bonds

Unit: Yuan Currency: CNY

Name of bond	Abbreviation	Code	Issue date	Value date	Maturity date	Outstanding balance	Interest rate (%)	Payment method	Trading venue	Investor eligibility arrangements (if any)	Trading mechanism	Risk of termination of listing and trading
Shanghai Zhenhua Heavy Industries Co., Ltd. 2022 private placement of corporate bonds (Blue Bond) (series 1)	G Zhenhua D1	182728.SH	Sept. 16, 2022	Sept. 20, 2022	Dec. 19, 2022	0.00	1.95	Principal and interest repayment on maturity	Shanghai Stock Exchange		Private placement	N/A

Company's response to the risk of termination of listing of bonds

Applicable Not applicable

Overdue bonds

Applicable Not applicable

Interest payment and payment of bonds during the reporting period

Applicable Not applicable

Name of bond	Statement of interest payment status
Shanghai Zhenhua Heavy Industries Co., Ltd. 2022 private placement of corporate bonds (Blue Bond) (series 1)	Normal payment at maturity.

2. Triggering and execution of issuer or investor option clauses and investor protection clauses

Applicable Not applicable

3. Intermediary agencies providing services for bond issue and duration business

Agency name	Office address	Signed by the Accountants	Person to contact	Contact number
Huatai United Securities Co., Ltd.	20F, Tower E, Poly Plaza, 18 Dongfang Road, Pudong, Shanghai		Wang Zhe	18017726598
China Lianhe Credit Rating Co. Ltd.	17/F, PICC Building, No.2 Jianguomenwai Street, Chaoyang District, Beijing	-	Yang Heng, Wang Xinglong	010-85679696
Ernst & Young Hua Ming LLP	50/F, Shanghai World Financial Center, No. 100 Century Ave., Pudong New Area, Shanghai	-	Gao Chong	021-22288888
Shanghai Landing Law Offices	16/F, East Tower, Raffles City the Bund, No.1089 DongDaMing Road, Hongkou District, Shanghai	-	Liu Zhaofu, Kong Lingsen	021-66529952



Changes in the above intermediary agencies

Applicable Not applicable

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

Applicable Not applicable

Progress and operating benefits of the raised funds used for construction projects

Applicable Not applicable

Change in the use of above funds raised from bonds during the reporting period

Applicable Not applicable

Other description

Applicable Not applicable

5. Adjustment of credit rating results

Applicable Not applicable

Other description

Applicable Not applicable

6. Implementation and changes in guarantee, debt repayment plan and other debt repayment guarantee measures during the reporting period and their impacts

Applicable Not applicable

7. Other information on corporate bonds

Applicable Not applicable

3 Interbank bond market debt financing instrument of non-financial enterprises

Applicable Not applicable

1. Basic information of debt financing instruments of non-financial enterprises

Unit: Yuan Currency: CNY

Name of bond	Abbreviation	Code	Issue date	Value date	Maturity date	Outstanding balance	Interest rate (%)	Payment method	Trading venue	Investor eligibility arrangements (if any)	Trading mechanism	Risk of termination of listing and trading
Shanghai Zhenhua Heavy Industries Co., Ltd. 2022 medium-term notes series 1 (sci-tech innovation note)	22 ZPMC MTN001 (sci-tech innovation note)	102281893	Aug. 22, 2022	Aug. 24, 2022	Dec. 31, 2099	500,000,000	3.22	Aug.24 every year	Interbank market		Centralized book-entry and centralized placement	N/A
Shanghai Zhenhua Heavy Industries Co., Ltd. 2020 medium-term notes series 2	20 ZPMC MTN002	102002348	Dec. 24, 2020	Dec. 28, 2020	Dec. 28, 2022	0	5.1	Interest paid on December 28 every year	Interbank market		Centralized book-entry and centralized placement	N/A

Company's response to the risk of termination of listing of bonds

Applicable Not applicable

Overdue bonds

Applicable Not applicable

Interest payment and payment of bonds during the reporting period

Applicable Not applicable

Name of bond	Statement of interest payment status
Shanghai Zhenhua Heavy Industries Co., Ltd. 2020 medium-term notes series 2	Normal payment at maturity.

2.Triggering and execution of issuer or investor option clauses and investor protection clauses

Applicable Not applicable

3.Intermediary agencies providing services for bond issue and duration business

Agency name	Office address	Signed by the Accountants	Person to contact	Contact number
Bank of Communications Co., Ltd.	No.188 Yincheng Middle Road, Shanghai	-	Xiong Han	021-38579212
Industrial Bank Co., Ltd.	Industrial Bank Tower, 398 Middle Jiangbin Blvd., Taijiang District, Fuzhou, Fujian	-	Lin Chen, Cheng Qiuyun	010-89926551, 021-62677777
China Lianhe Credit Rating Co. Ltd.	17/F, PICC Building, No.2 Jianguomenwai Street, Chaoyang District, Beijing	-	Yang Heng, Wang Xinglong	010-85679696
Ernst & Young Hua Ming LLP	50/F, Shanghai World Financial Center, No. 100 Century Ave., Pudong New Area, Shanghai	-	Gao Chong	021-22288888
Shanghai Duan & Duan Law Firm	47/F, Maxdo Center, No. 8 Xingyi Road, Shanghai	-	Wang Xiaobo	021-32230722

Changes in the above intermediary agencies

Applicable Not applicable

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

Applicable Not applicable

Unit: Yuan Currency: CNY

Name of bond	Total amount of raised funds	Amount used	Unused amount	Operation of special account for fund raising (if any)	Rectification of non-compliant use of raised funds (if any)	Consistent with the purpose, use plan, and other agreements promised in the prospectus or not
Shanghai Zhenhua Heavy Industries Co., Ltd. 2022 medium-term notes series I (sci-tech innovation note)	500,000,000.00	500,000,000.00	0			Yes

Progress and operating benefits of the raised funds used for construction projects

Applicable Not applicable

Change in the use of above funds raised from bonds during the reporting period

Applicable Not applicable

Other description

Applicable Not applicable

5.Adjustment of credit rating results

Applicable Not applicable

Other description

Applicable Not applicable

6.Implementation and changes in guarantee, debt repayment plan and other debt repayment guarantee measures during the reporting period and their impacts

Applicable Not applicable



7. Other information on debt financing instruments of non-financial enterprises

Applicable Not applicable

4 The loss in the scope of consolidated financial statements during the reporting period exceeding 10% of the net assets as at the end of the prior year

Applicable Not applicable

5 Overdue interest-bearing debts other than bonds at the end of the reporting period

Applicable Not applicable

6 Violations of laws and regulations, the articles of association, the management system for information disclosure matters, as well as the impact of conditions agreed or promised in the bond prospectus on the rights and interests of bond investors during the reporting period

Applicable Not applicable

7 Main accounting data and financial indexes of the Company in recent 2 years as of the end of the reporting period

Applicable Not applicable

Unit: Yuan Currency: CNY

Main indexes	2022	2021	Year-on-year change (%)	Reason of change
Net profit attributable to shareholders of the listed company after deducting the non-recurring profits and losses	414,835,324	-440,186,675	N/A	
Current ratio	1.07	1.24	-13.71	
Quick ratio	0.33	0.45	-26.67	
Asset-liability ratio (%)	76.83	77.47	-0.64	
Interest-bearing debt ratio (%)	52	57	-5	
Interest coverage ratio	1.56	1.45	7.59	
Cash interest coverage ratio	2.92	1.81	61.33	
EBITDA interest coverage ratio	2.74	2.56	7.03	
Loan repayment ratio (%)	100	100	0	
Interest coverage ratio (%)	100	100	0	

II. Information about convertible corporate bonds

Applicable Not applicable

Section X | Financial Report

I. Auditors' Report

Applicable Not applicable

Ernst & Young (2023) SZ No.61249778_B01
Shanghai Zhenhua Heavy Industries Co., Ltd.

Auditors' Report

All shareholders of Shanghai Zhenhua Heavy Industries Co., Ltd.:

1 Opinion

We have audited the financial statements of Shanghai Zhenhua Heavy Industries Co., Ltd. (hereinafter referred to as the "Company"), which comprise the consolidated balance sheet and the Company's balance sheet as at December 31, 2022, the consolidated income statement and the Company's income statement, the consolidated statement of changes in shareholders' equity and the Company's statement of changes in owners' equity and the consolidated statement of cash flows and the Company's statement of cash flows for the year then ended as well as the notes to the financial statements.

In our opinion, the financial statements of the Company attached are prepared, in all material respects, in accordance with the Accounting Standards for Business Enterprises, and fairly present the consolidated financial position and the Company's financial position as at December 31, 2022 and the consolidated operating results and cash flows and the Company's operating results and cash flows for the year then ended.

2 Basis for Our Opinions

We conducted our audit in accordance with Chinese Certified Public Accountants Auditing Standards. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of this auditors' report. According to the Code of Ethics for Certified Public Accountants of China, we are independent of the Company, and we have fulfilled other responsibilities in the aspect of code of ethics. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

3 Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements for the current period. The response to these matters is based on the overall audit of the financial statements and the formation of audit opinions. We do not express our opinions on these matters separately. The following description of how our audit addressed the key audit matter is also against this background.

We have fulfilled the responsibilities stated in "Responsibilities of Certified Public Accountant for Auditing of Financial Statement" in this report, including the responsibilities related to these key auditing matters. Correspondingly, our auditing work includes the implementation of the auditing procedure designed for dealing with the great misstatement risks of the financial statement to be evaluated. The results from the implementation of the auditing procedure by us, including the procedure to be implemented for the following key auditing matters, offers a foundation for releasing the auditing opinions of the financial statements.

Key Audit Matters:	How our audit addressed the key audit matter:
1. Inventory depreciation reserves	
<p>Shanghai Zhenhua Heavy Industries Co., Ltd. is mainly engaged in manufacturing the port container crane; in addition, it is also engaged in the manufacture of bulk handling machine, offshore heavy-duty machine and large-sized steel structure. Its inventories mainly include engineering raw materials, outsourcing parts and components, products in the process and inventory goods. Since the production cycle of the products is relatively long, the net realizable value of the related inventory may fluctuate with the change in the market demand, resulting in the inventory depreciation risks. The management sets aside the inventory depreciation reserves according to the balance of the inventory cost and the net realizable value. The net realizable value is determined as per the estimated selling price of the inventory minus the cost, the estimated selling expenses and the related taxes that may occur in the completion on the assumption that the management layer adopts a certain estimate and hypothesis in determining the net realizable value. In case of difference between the actual figure and the originally estimated figure, the related balance will affect the book value of the inventory and the depreciation loss in the estimated fluctuation.</p> <p>As of December 31, 2022, in the consolidated financial statements, the balance of inventories was RMB 22.22 billion and the reserve for inventory depreciation was RMB 0.7 billion; in the financial statements of the Company, the balance of inventories was RMB 19.27 billion and the reserve for inventory depreciation was RMB 0.74 billion. The accounting policy and other disclosures regarding the inventory are stated in Note V (15), Note V (43) and Note VII (9) of the financial statement.</p>	<p>Our procedure mainly included knowing and testing the validity of the control related to the provision of inventory depreciation reserves and the method of calculating the net realizable value of the Group. We also implemented the related auditing procedures over the inventory such as supervision of inventory to verify whether the management had marked the inventory with slow turnover and defectives and taken into full account in provision of inventory depreciation reserves. In addition, we obtained the computation sheet of provision of inventory depreciation reserves from the management, rechecked the calculation method and result. As to the key elements taken into consideration by the management in calculating the net realizable value, including the estimated selling price and the cost that may occur till completion, we evaluated the hypothesis and the estimates through analyzing the related historical data and comparing the after-date data of Shanghai Zhenhua Heavy Industries Co., Ltd. We also rechecked the disclosure of inventory depreciation reserves in financial statements.</p>



Key Audit Matters:	How our audit addressed the key audit matter:
<p>2.Provision for bad debts of accounts receivable</p> <p>The accounts receivable of Shanghai Zhenhua Heavy Industries Co., Ltd. is mainly from the business contract on port machine and ocean engineering manufacturing. Since it involves large contracted value, long construction period, relatively complicated technical parameters, the implementation of the contract may be affected by the periodicity of the economic environment. The accounts receivable has certain risk in the recovery in case of any dispute in contract or the industry is in recession. The provisions for bad debts of accounts receivable are recognized on the basis of estimated credit losses, involving major judgment and estimates. The management of analyzed the financial position of counter parties, guarantee acquired for accounts receivable, historical repayment records of accounts receivable, as well as the credit rating and future economic situations of counter parties for evaluating the credit risk of accounts receivable.</p> <p>As of December 31, 2022, in the consolidated financial statements, the balance of accounts receivable was RMB 9.51 billion and the provision for bad debts of accounts receivable was RMB 2.32 billion; in the financial statements of the Company, the balance of accounts receivable was RMB 20.12 billion and the provision for bad debts of accounts receivable was RMB 2.11 billion.</p> <p>The accounting policy and other disclosures regarding the provision for bad debts of accounts receivable are stated in Note V (15), Note V (43), Note VII (5) and Note XVII (1) of the financial statements.</p>	<p>Our procedure mainly included the evaluation of the accounting estimate relating to the depreciation reserves, such as the financial status and credit rating of the counterpart; checked the account age of accounts receivable and historical repayment record and evaluated whether the financial problems of the counter party had effects on the recovery of the accounts receivable; for the accounts receivable evaluated based on the portfolio, we rechecked the management's setting of credit risk features portfolio, checked the key information such as account age and credit record of each portfolio by sampling, and rechecked the basis of management's evaluation of credit risk and expected credit loss amount based on the credit risk features portfolio, including testing historical default data and checking the actual credit loss in the current year; rechecked the disclosure of bad debt provision for accounts receivable in financial statements.</p>
<p>3. Revenue recognition</p> <p>Most of the revenue of Shanghai Zhenhua Heavy Industries Co., Ltd. comes from the one of the construction contracts on the large-sized port equipment, heavy equipment, steel structure and construction projects customized by the customer.</p> <p>Since January 1, 2020, the new revenue standard has been applied, and the management has read and analyzed the contracts of various revenue types according to the requirements of five step method. The performance obligations included in the manufacturing contract on most large-sized port equipment, heavy equipment and some steel structure products did not meet the conditions of performance obligations within a certain period of time, therefore, based on comprehensive consideration of various factors, the revenue was recognized at the time of control transfer of relevant products. In 2022, in the consolidated financial statements, the operating revenue was RMB 30.19 billion; in the financial statements of the Company, the operating revenue was RMB 26.17 billion.</p> <p>The accounting policy and other disclosures regarding the operating revenue are stated in Note V (24), Note V (33), Note VII (47) and Note XVII (4) of the financial statements.</p>	<p>Our procedure mainly included evaluating and testing the management's internal control related to revenue recognition. Selected the sales contract with significant amount, checked the important contract terms related to revenue recognition according to the five step requirements of the new revenue standard, and evaluated the management's accounting judgment and estimate on performance obligations, revenue recognition amount (including variable consideration) and the recognition at a certain time point or within a period of time. Through selecting the samples, we verified whether the contract revenue recognized in the year conformed to the revenue recognition conditions; implemented the cutoff check procedure to validate the revenue was confirmed in the proper accounting period. For the revenue recognized in a certain period of time, we evaluated the judgment and estimate of the total contract cost and total processing amount made by the management, and made sampling to calculate and check the income determined by the occurred contract cost and the expected total contract cost again; implemented the analysis procedure against the changes in revenue and gross profit of various businesses; rechecked the disclosure of revenue recognition in financial statements.</p>

4 Other Information

The management of Shanghai Zhenhua Heavy Industries Co., Ltd. shall be responsible for other information. The other information comprises information of the annual report, but excludes the financial statements and our auditors' report.

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

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

If, based on the work we have performed on the other information that we obtained prior to the date of this auditors' report, we conclude that there is a material misstatement of this other information, we are required to report that fact. In this regard, we have nothing to report.

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

The Management is responsible for preparing the financial statements in accordance with the requirements of Accounting Standards for Business Enterprises to achieve a fair presentation, and for designing, implementing and maintaining internal control that is necessary to ensure that the financial statements are free from material misstatements, whether due to frauds or errors.

In preparing the financial statements, the Management is responsible for assessing the Company's going-concern ability, disclosing the matters related to going concern (if applicable) and using the going-concern assumption, unless the Management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

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

6 Auditors' Responsibilities for the Audit of the Financial Statements

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

During the process of an audit conducted in accordance with audit standards, we exercise professional judgment and maintain professional scepticism throughout the audit. Meanwhile, we also implement the following work:

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

(2) Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances.

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

(4) Conclude on the appropriateness of the Management's use of the going concern basis of accounting. Based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the ability of Shanghai Zhenhua Heavy Industries Co., Ltd. to continue as a going concern. If we conclude that a material uncertainty exists, we are required to, in our auditors' report, draw attention of the users of statements to the related disclosures in the financial statements; if such disclosures are inadequate, we should modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause Shanghai Zhenhua Heavy Industries Co., Ltd. to cease to continue as a going concern.

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

(6) Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Company to express an opinion on the financial statements. We are responsible for the direction, supervision and performance of the group audit, and bear full responsibility for our audit opinion.

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

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

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

Ernst & Young Hua Ming LLP

Certified Public Accountant of China:
(Engagement Partner)

Certified Public Accountant of China:

Beijing, China

March 30, 2023



II. Financial Statements

Consolidated Balance Sheet

As at December 31, 2022

Prepared by: Shanghai Zhenhua Heavy Industries Co., Ltd.

Unity: Yuan Currency: CNY

Item	Note	As at December 31, 2022	As at December 31, 2021
Current assets:			
Monetary funds	VII (1)	2,397,047,713	4,571,837,584
Settlement provisions			
Lending funds			
Held-for-trading financial assets	VII (2)	877,483,342	1,153,533,922
Derivative financial assets			
Notes receivable	VII (4)	56,114,657	3,979,800
Accounts receivable	VII (5)	7,193,649,855	6,448,850,756
Receivables financing	VII (6)	439,912,428	245,408,260
Advances to suppliers	VII (7)	951,212,422	1,159,427,850
Premiums receivable			
Reinsurance accounts receivable			
Reserves for reinsurance contract receivable			
Other receivables	VII (8)	995,545,297	940,522,896
Including: Interest receivable			
Dividend receivable		8,000,000	
Financial assets purchased under agreements to resell			
Inventories	VII (9)	21,513,379,348	22,073,774,730
Contract assets	VII (10)	3,243,073,136	1,971,455,850
Assets held for sale	VII (11)		15,167,288
Non-current assets due within one year	VII (12)	900,213,411	1,437,034,591
Other current assets	VII (13)	279,067,341	359,805,348
Total current assets		38,846,698,950	40,380,798,875
Non-current assets:			
Disbursement of loans and advances			
Debt investment			
Other debt investments			
Long-term receivables	VII (16)	2,402,265,565	2,674,407,383
Long-term equity investments	VII (17)	2,002,879,925	1,841,721,259
Other equity instrument investment	VII (18)	73,475,619	66,280,045
Other non-current financial assets			
Investment properties	VII (20)	437,494,135	461,077,417
Fixed assets	VII (21)	20,663,113,030	20,018,544,737
Construction in progress	VII (22)	4,838,814,052	4,691,782,000
Productive biological assets			
Oil and gas assets			
Right-of-use assets	VII (25)	11,931,451	7,652,250
Intangible assets	VII (26)	3,553,837,771	3,400,427,256
Development expenditures			
Goodwill	VII (28)	268,245,693	258,638,429
Long-term deferred expenses	VII (29)	409,870	103,664

Consolidated Balance Sheet(Continued)

As at December 31, 2022

Prepared by: Shanghai Zhenhua Heavy Industries Co., Ltd.

Unity: Yuan Currency: CNY

Item	Note	As at December 31, 2022	As at December 31, 2021
Deferred income tax assets	VII (30)	867,941,451	773,705,674
Other non-current assets	VII (31)	4,246,061,211	3,756,942,210
Total non-current assets		39,366,469,773	37,951,282,324
Total assets		78,213,168,723	78,332,081,199
Current liabilities:			
Short-term borrowings	VII (32)	1,793,682,952	5,977,692,367
Borrowings from the Central Bank Borrowing funds			
Held-for-trading financial liabilities			
Derivative financial liabilities			
Notes payable	VII (35)	5,401,258,897	4,160,666,800
Accounts payable	VII (36)	7,255,123,334	6,966,472,639
Advances from customers			
Contract liabilities	VII (38)	13,348,150,197	12,386,142,828
Financial assets sold for repurchase			
Deposits from customers and interbank Acting trading securities			
Acting underwriting securities			
Payroll payable	VII (39)	38,074,154	35,641,840
Tax payable	VII (40)	238,103,875	167,827,388
Other payables	VII (41)	1,314,688,315	409,527,645
Including: Interest payable Dividends payable		6,593	6,593
Fees and commissions payable Dividend payable for reinsurance			
Liabilities held for sale			
Non-current liabilities due within a year	VII (43)	6,961,445,218	2,523,964,018
Other current liabilities	VII (44)		
Total current liabilities		36,350,526,942	32,627,935,525
Non-current liabilities:			
Reserve fund for insurance contracts			
Long-term borrowings	VII (45)	21,019,572,646	24,943,760,955
Bonds payable			
Including: preferred stock Perpetual bond			
Lease liabilities	VII (47)	7,676,707	736,624
Long-term payables	VII (48)	1,931,340,734	2,163,591,149
Long-term payroll payable			
Estimated liabilities	VII (50)	168,241,316	188,005,742
Deferred income	VII (51)	332,419,380	388,823,964
Deferred income tax liabilities	VII (30)	99,240,972	76,876,339



Consolidated Balance Sheet(Continued)

As at December 31, 2022

Prepared by: Shanghai Zhenhua Heavy Industries Co., Ltd.

Unity: Yuan Currency: CNY

Item	Note	As at December 31, 2022	As at December 31, 2021
Other non-current liabilities	VII (52)	181,805,207	292,297,881
Total non-current liabilities		23,740,296,962	28,054,092,654
Total liabilities		60,090,823,904	60,682,028,179
Owners' equity (or shareholders' equity):			
Paid-in capital (or share capital)	VII (53)	5,268,353,501	5,268,353,501
Other equity instruments	VII (54)	500,000,000	500,000,000
Including: preferred stock			
Perpetual bond		500,000,000	500,000,000
Capital reserves	VII (55)	4,842,515,715	4,842,515,715
Less: treasury stock			
Other comprehensive income	VII (57)	24,865,987	-69,355,058
Special reserves	VII (58)	2,945,560	1,934,676
Surplus reserves	VII (59)	1,703,918,676	1,679,258,496
General risk preparation			
Undistributed profits	VII (60)	2,825,870,678	2,767,511,301
Total owners' equities attributable to the owners of parent company		15,168,470,117	14,990,218,631
Minority equity		2,953,874,702	2,659,834,389
Total owners' equity (or shareholders' equity)		18,122,344,819	17,650,053,020
Total liabilities and owners' equity (or shareholders' equity)		78,213,168,723	78,332,081,199

Chairman of
the Company:

Person in charge of
accounting work:

Person in charge of
accounting agency:

Balance Sheet of the Parent Company

As at December 31, 2022

Prepared by: Shanghai Zhenhua Heavy Industries Co., Ltd.

Unity: Yuan Currency: CNY

Item	Note	As at December 31, 2022	As at December 31, 2021
Current assets:			
Monetary funds		722,079,840	3,701,103,539
Held-for-trading financial assets		239,784,587	493,120,301
Derivative financial assets			
Notes receivable		56,114,657	3,979,800
Accounts receivable	XVII (1)	18,014,241,050	15,045,002,044
Receivables financing		297,356,630	237,823,940
Advances to suppliers		6,860,717,286	4,674,664,134
Other receivables	XVII (2)	1,680,563,614	3,836,840,864
Including: Interest receivable			
Dividend receivable		315,789,096	
Inventories		18,530,057,990	18,771,744,852
Contract assets		1,867,489,992	1,458,474,386
Assets held for sale			
Non-current assets due within one year			
Other current assets		175,036,344	127,397,199
Total current assets		48,443,441,990	48,350,151,059
Non-current assets:			
Debt investment			
Other debt investments			
Long-term receivables			
Long-term equity investments	XVII (3)	9,389,579,244	9,046,140,403
Other equity instrument investment		73,475,619	66,280,045
Other non-current financial assets			
Investment properties		437,494,135	461,077,417
Fixed assets		3,865,130,627	4,009,766,651
Construction in progress		647,322,776	640,751,191
Productive biological assets			
Oil and gas assets			
Right-of-use assets		44,765	104,453
Intangible assets		1,432,796,201	1,464,690,392
Development expenditures			
Goodwill			
Long-term deferred expenses			
Deferred income tax assets		833,341,377	740,925,972
Other non-current assets		530,196,047	818,529,549
Total non-current assets		17,209,380,791	17,248,266,073
Total assets		65,652,822,781	65,598,417,132
Current liabilities:			
Short-term borrowings		1,269,182,952	4,075,446,557
Held-for-trading financial liabilities			
Derivative financial liabilities			
Notes payable		5,252,294,408	4,260,082,858



Balance Sheet of the Parent Company(Continued)

As at December 31, 2022

Prepared by: Shanghai Zhenhua Heavy Industries Co., Ltd.

Unity: Yuan Currency: CNY

Item	Note	As at December 31, 2022	As at December 31, 2021
Accounts payable		3,610,603,937	4,948,441,932
Advances from customers			
Contract liabilities		12,525,059,840	10,907,361,553
Payroll payable		29,189,818	29,427,722
Tax payable		82,609,138	29,637,921
Other payables		2,716,399,244	1,305,581,786
Including: Interest payable			
Dividends payable		6,593	6,593
Liabilities held for sale			
Non-current liabilities due within one year		6,152,492,930	1,844,958,736
Other current liabilities			
Total current liabilities		31,637,832,267	27,400,939,065
Non-current liabilities:			
Long-term borrowings		18,447,465,656	22,550,175,571
Bonds payable			
Including: preferred stock			
Perpetual bond			
Lease liabilities			6,220
Long-term payables			
Long-term payroll payable			
Estimated liabilities		154,863,743	176,577,960
Deferred income		257,656,046	305,215,630
Deferred income tax liabilities			
Other non-current liabilities		2,321,173	
Total non-current liabilities		18,862,306,618	23,031,975,381
Total liabilities		50,500,138,885	50,432,914,446
Owners' equity (or shareholders' equity):			
Paid-in capital (or share capital)		5,268,353,501	5,268,353,501
Other equity instruments		500,000,000	500,000,000
Including: preferred stock			
Perpetual bond		500,000,000	500,000,000
Capital reserves		4,914,468,683	4,914,468,683
Less: treasury stock			
Other comprehensive income		20,882,527	-8,614,560
Special reserves			
Surplus reserves		1,703,410,403	1,678,750,223
Undistributed profits		2,745,568,782	2,812,544,839
Total owners' equity (or shareholders' equity)		15,152,683,896	15,165,502,686
Total liabilities and owners' equity (or shareholders' equity)		65,652,822,781	65,598,417,132

Chairman of
the Company:

Person in charge of
accounting work:

Person in charge of
accounting agency:

Consolidated Income Statement

January to December in 2022

Prepared by: Shanghai Zhenhua Heavy Industries Co., Ltd.

Unity: Yuan Currency: CNY

Item	Note	2022	2021
I. Total operating revenue		30,191,792,987	25,977,976,968
Including: Operating revenue	VII (61)	30,191,792,987	25,977,976,968
Interest income			
Premiums earned			
Fee and commission income			
II. Total operating cost		29,226,104,243	26,137,975,161
Including: operating costs	VII (61)	26,145,431,986	23,498,271,033
Interest expenses			
Fee and commission expense			
Surrender value			
Net amount of compensation payout			
Net reserves for insurance liabilities			
Policy holder dividend expense			
Reinsurance expenses			
Taxes and surcharges	VII (62)	174,759,457	108,179,417
Selling and distribution expenses	VII (63)	176,805,664	115,347,438
General and administrative expenses	VII (64)	835,690,168	869,195,529
Research and development expenditures	VII (65)	1,118,337,091	883,154,222
Financial expenses	VII (66)	775,079,877	663,827,522
Including: interest expenses		1,038,321,065	1,094,451,482
Interest income		413,595,714	356,324,952
Plus: other incomes	VII (67)	104,014,204	75,986,080
Income from investment (loss expressed with "-")	VII (68)	204,359,358	1,286,473,690
Including: Income from investment of joint venture and cooperative enterprise		170,402,945	237,773,613
Income from derecognition of financial assets measured at amortized cost		-20,135,378	
Exchange gain (loss expressed with "-")			
Net exposure hedging gain (loss expressed with "-")			
Income from fair value changes (loss expressed with "-")	VII (70)	-276,050,580	-235,912,837
Credit impairment losses (loss expressed with "-")	VII (71)	-346,156,434	-155,561,886
Assets impairment losses (loss expressed with "-")	VII (72)	-92,510,638	-294,180,123
Income from disposal of assets (loss expressed with "-")	VII (73)	66,186,622	71,278,254
III. Operating profits (loss expressed with "-")		625,531,276	588,084,985
Plus: non-operating income	VII (74)	32,139,607	26,667,187
Less: non-operating expenditure	VII (75)	2,436,095	9,411,053
IV. Total profits (total loss expressed with "-")		655,234,788	605,341,119
Less: income tax expenses	VII (76)	57,672,440	76,995,542
V. Net profits (net loss expressed with "-")		597,562,348	528,345,577
(I) Classified by business continuity			
1. Net profits from ongoing operation (net loss expressed with "-")		597,562,348	528,345,577
2. Net profits from discontinuing operation (net loss expressed with "-")			
(II) Classified by ownership			
1. Net profit attributable to the shareholders of parent company (net loss expressed with "-")		371,937,232	439,839,245
2. Minority interests (net loss expressed with "-")		225,625,116	88,506,332



Consolidated Income Statement(Continued)

January to December in 2022

Prepared by: Shanghai Zhenhua Heavy Industries Co., Ltd.

Unity: Yuan Currency: CNY

Item	Note	2022	2021
VI. Net of tax of other comprehensive income		122,166,570	-10,934,767
(I) Net amount of after-tax other comprehensive income attributable to the owners of the parent company		94,221,045	-6,427,660
1. Other comprehensive income that can't be reclassified into profit and loss		6,116,237	4,058,150
(1) Remeasure the variation of net indebtedness or net asset of defined benefit plan			
(2) Other comprehensive income that can't be reclassified into profit and loss in the invested enterprise under equity method			
(3) Fair value change of other equity instrument investments		6,116,237	4,058,150
(4) Fair value change of enterprise credit risks			
2. Other comprehensive income that will be reclassified into profit and loss		88,104,808	-10,485,810
(1) Other comprehensive income that will be reclassified into profit and loss in the invested enterprise under equity method		20,743,893	10,458,625
(2) Fair value change of other debt investments			
(3) Amount of financial assets reclassified into other comprehensive income			
(4) Provision for credit impairment of other debt investments			
(5) Cash flow hedging reserve			
(6) Translation reserve		67,360,915	-20,944,435
(7) Others			
(II) Net of tax of other comprehensive income attributable to the minority shareholders		27,945,525	-4,507,107
VII. Total comprehensive income		719,728,918	517,410,810
(I) Total comprehensive income belonging to parent company		466,158,277	433,411,585
(II) Total comprehensive income belonging to minority shareholders		253,570,641	83,999,225
VIII. Earnings per share:			
(I) Basic earnings per share (Yuan/share)		0.07	0.08
(II) Diluted earnings per share (Yuan/share)		0.07	0.08

In case of business combination under common control in current period, the net profit realized by the combined party before combination was RMB 0, and the net profit realized by the combined party in the previous period was RMB 15,709,642.

Chairman of
the Company:

Person in charge of
accounting work:

Person in charge of
accounting agency:

Income Statement of Parent Company

January to December in 2022

Prepared by: Shanghai Zhenhua Heavy Industries Co., Ltd.

Unity: Yuan Currency: CNY

Item	Note	2022	2021
I. Operating revenue	XVII (4)	26,167,200,140	22,989,491,248
Less: operating costs	XVII (4)	23,715,294,401	21,313,600,636
Taxes and surcharges		99,236,620	46,991,429
Selling and distribution expenses		155,895,902	98,488,160
General and administrative expenses		440,171,981	468,393,559
Research and development expenditures		813,395,559	734,454,314
Financial expenses		884,406,720	854,806,739
Including: interest expenses		799,727,505	874,447,716
Interest income		41,733,102	19,153,277
Plus: other incomes		75,037,357	41,374,241
Income from investment (loss expressed with "-")	XVII (5)	604,019,489	1,286,146,576
Including: Income from investment of joint venture and cooperative enterprise		170,768,840	232,454,488
Income from derecognition of financial assets measured at amortized cost		-20,135,378	
Net exposure hedging gain (loss expressed with "-")			
Income from fair value changes (loss expressed with "-")		-253,335,714	-201,856,923
Credit impairment losses (loss expressed with "-")		-274,770,970	-85,087,358
Assets impairment losses (loss expressed with "-")		-71,850,880	-298,095,570
Income from disposal of assets (loss expressed with "-")		4,769,913	40,410,977
II. Operating profits (loss expressed with "-")		142,668,152	255,648,354
Plus: non-operating income		12,598,476	8,526,790
Less: non-operating expenditure		1,097,149	5,856,604
III. Total profits (total loss expressed with "-")		154,169,479	258,318,540
Less: income tax expenses		-92,432,319	-20,080,948
IV. Net profits (loss expressed with "-")		246,601,798	278,399,488
(I) Net profits from ongoing operation (net loss expressed with "-")		246,601,798	278,399,488
(II) Net profits from discontinuing operation (net loss expressed with "-")			
V. Net of tax of other comprehensive income		29,497,087	13,884,144
(I) Other comprehensive income that can't be reclassified into profit and loss		6,116,237	4,058,150
1. Remeasure the variation of net indebtedness or net asset of defined benefit plan			
2. Other comprehensive income that can't be reclassified into profit and loss in the invested enterprise under equity method			
3. Fair value change of other equity instrument investments		6,116,237	4,058,150
4. Fair value change of enterprise credit risks			
(II) Other comprehensive income that will be reclassified into profit and loss		23,380,850	9,825,994
1. Other comprehensive income that will be reclassified into profit and loss in the invested enterprise under equity method		20,743,893	10,458,625
2. Fair value change of other debt investments			
3. Amount of financial assets reclassified into other comprehensive income			
4. Provision for credit impairment of other debt investments			
5. Cash flow hedging reserve			
6. Translation reserve		2,636,957	-632,631
7. Others			
VI. Total comprehensive income		276,098,885	292,283,632
VII. Earnings per share:			
(I) Basic earnings per share (Yuan/share)			
(II) Diluted earnings per share (Yuan/share)			

Chairman of
the Company:

Person in charge of
accounting work:

Person in charge of
accounting agency:



Consolidated Statement of Cash Flows

January to December in 2022

Prepared by: Shanghai Zhenhua Heavy Industries Co., Ltd.

Unity: Yuan Currency: CNY

Item	Note	2022	2021
I. Cash flow from operating activities:			
Cash from selling commodities or offering labor		25,267,511,264	28,080,136,462
Net increase of customer deposit and deposit from other banks			
Net increase of borrowings from central bank			
Net increase of borrowing funds from other financial institutions			
Cash from obtaining original insurance contract premium			
Net cash received from reinsurance business			
Net increase in the deposits and investment of insured			
Cash from interest, handling charges and commissions			
Net increase of borrowing funds			
Net increase of repurchase of business funds			
Net cash from acting trading securities			
Refund of tax and levies		855,636,866	727,776,774
Other cash received related to operating activities		244,003,096	308,351,304
Subtotal cash inflows from operating activities		26,367,151,226	29,116,264,540
Cash paid for goods purchased and services received		19,831,977,453	23,592,910,907
Net increase of customer loans and advances			
Net increase of amount due from central bank and interbank			
Cash paid for original insurance contract claims payment			
Net increase of lending funds			
Cash paid for interest, handling charges and commissions			
Cash paid for policy dividend			
Cash paid to and for employees		2,574,314,378	2,353,107,660
Taxes and fees paid		594,993,030	489,545,705
Other cash paid related to operating activities		797,302,342	561,060,750
Subtotal cash outflows from operating activities		23,798,587,203	26,996,625,022
Net cash flows from operating activities		2,568,564,023	2,119,639,518
II. Cash flows from investment activities:			
Cash from investment withdrawal		17,165,758	2,162,928,251
Cash from investment income		159,044,219	1,012,740,327
Net cash received from disposal of fixed assets, intangible assets and other long-term assets		19,391,609	161,312,919
Net cash from disposal of subsidiaries and other business units			
Other cash received related to investment activities		209,457,444	425,449,726
Subtotal cash inflows from investment activities		405,059,030	3,762,431,223
Cash paid for purchase of fixed assets, intangible assets and other long-term assets		488,778,059	1,265,404,618
Cash paid for investments			6,000,000
Net increase in hypothecated loan			
Net cash paid for obtaining subsidiaries and other business units			
Other cash paid related to investment activities			
Subtotal cash outflows from investment activities		488,778,059	1,271,404,618
Net cash flow from investment activities		-83,719,029	2,491,026,605
III. Cash flows from financing activities:			
Cash from absorption of investments		98,327,900	144,759,800

Consolidated Statement of Cash Flows(Continued)

January to December in 2022

Prepared by: Shanghai Zhenhua Heavy Industries Co., Ltd.

Unity: Yuan Currency: CNY

Item	Note	2022	2021
Including: cash received from subsidiaries' absorption of minority shareholders' investment		98,327,900	144,759,800
Cash received from borrowings		38,626,275,738	35,211,869,191
Other cash received related to financing activities		618,107,748	1,309,979,506
Cash received from issuance of other equity instruments		500,000,000	
Cash received from issuance of bonds		500,000,000	
Subtotal cash inflows from financing activities		40,342,711,386	36,666,608,497
Cash repayments of amounts borrowed		42,832,240,800	37,441,150,454
Cash paid for distribution of dividends, profits or interest expenses		1,395,285,252	1,185,819,717
Including: dividends and profits paid by subsidiaries to minority shareholders		58,000,000	62,338,380
Other cash paid related to financing activities		838,344,871	1,018,806,687
Subtotal cash outflows from financing activities		45,065,870,923	39,645,776,858
Net cash flows from financing activities		-4,723,159,537	-2,979,168,361
IV. Impact of exchange rate movements on cash and cash equivalents		163,578,103	-79,402,225
V. Net increase of cash and cash equivalents		-2,074,736,440	1,552,095,537
Plus: beginning balance of cash and cash equivalents		4,449,837,877	2,897,742,340
VI. Ending balance of cash and cash equivalents		2,375,101,437	4,449,837,877

Chairman of
the Company:Person in charge of
accounting work:Person in charge of
accounting agency:



Statement of Cash Flows of the Parent Company

January to December in 2022

Prepared by: Shanghai Zhenhua Heavy Industries Co., Ltd.

Unity: Yuan Currency: CNY

Item	Note	2022	2021
I. Cash flow from operating activities:			
Cash from selling commodities or offering labor		22,387,866,565	20,415,901,796
Refund of tax and levies		635,424,765	717,350,885
Other cash received related to operating activities		225,294,772	254,588,745
Subtotal cash inflows from operating activities		23,248,586,102	21,387,841,426
Cash paid for goods purchased and services received		21,040,995,998	16,874,301,352
Cash paid to and for employees		1,321,000,912	1,260,190,498
Taxes and fees paid		123,242,978	90,995,366
Other cash paid related to operating activities		381,273,867	525,166,211
Subtotal cash outflows from operating activities		22,866,513,755	18,750,653,427
Net cash flows from operating activities		382,072,347	2,637,187,999
II. Cash flows from investment activities:			
Cash from investment withdrawal		17,165,758	2,162,928,251
Cash from investment income		236,682,551	1,017,732,338
Net cash received from disposal of fixed assets, intangible assets and other long-term assets		18,283,472	40,410,977
Net cash from disposal of subsidiaries and other business units			
Other cash received related to investment activities			
Subtotal cash inflows from investment activities		272,131,781	3,221,071,566
Cash paid for purchase of fixed assets, intangible assets and other long-term assets		286,375,311	311,389,255
Cash paid for investments		208,679,973	1,532,363,100
Net cash paid for obtaining subsidiaries and other business units			
Other cash paid related to investment activities			
Subtotal cash outflows from investment activities		495,055,284	1,843,752,355
Net cash flow from investment activities		-222,923,503	1,377,319,211
III. Cash flows from financing activities:			
Cash from absorption of investments			
Cash received from borrowings		36,266,553,328	32,323,238,811
Cash received from issuance of other equity instruments		500,000,000	
Cash received from issuance of bonds		500,000,000	
Other cash received related to financing activities		611,100,376	
Subtotal cash inflows from financing activities		37,877,653,704	32,323,238,811
Cash repayments of amounts borrowed		39,402,630,672	33,578,947,138
Cash paid for distribution of dividends, profits or interest expenses		1,096,677,413	976,207,930
Other cash paid related to financing activities		500,006,220	55,135
Subtotal cash outflows from financing activities		40,999,314,305	34,555,210,203
Net cash flows from financing activities		-3,121,660,601	-2,231,971,392
IV. Impact of exchange rate movements on cash and cash equivalents		75,244,800	-42,758,085
V. Net increase of cash and cash equivalents		-2,887,266,957	1,739,777,733
Plus: beginning balance of cash and cash equivalents		3,594,644,403	1,854,866,670
VI. Ending balance of cash and cash equivalents		707,377,446	3,594,644,403

Chairman of
the Company:

Person in charge of
accounting work:

Person in charge of
accounting agency:

Consolidated Statement of Changes in Owners' Equity

January to December in 2022

Prepared by: Shanghai Zhenhua Heavy Industries Co., Ltd.

Unity: Yuan Currency: CNY

Item	2022											Total owners' equity		
	Equity attributable to the owners of the parent company													
	Paid-in capital (or share capital)	Preferred stock	Other equity instruments	Capital reserves	Less: treasury stock	Other comprehensive income	Special reserves	Surplus reserves	General risk preparation	Undistributed profits	Others		Sub-total	Minority equity
I. Balance at the end of the last year	5,268,353,501		500,000,000	4,842,515,715		-69,355,058	1,934,676	1,679,258,496		2,767,511,301		14,990,218,631	2,659,834,389	17,650,053,020
Plus: changes in accounting policies														
Prior period error correction														
Business combination under common control														
Others														
II. Beginning balance in current year	5,268,353,501		500,000,000	4,842,515,715		-69,355,058	1,934,676	1,679,258,496		2,767,511,301		14,990,218,631	2,659,834,389	17,650,053,020
III. Increase/decrease in the current year ("-" for decrease)						94,221,045	1,010,884	24,660,180		58,359,377		178,251,486	294,040,313	472,291,799
(I) Total comprehensive income						94,221,045				371,937,232		466,158,277	253,570,641	719,728,918
(II) Owner's invested and decreased capital													98,327,900	98,327,900
1. Common stock invested by the owners													98,327,900	98,327,900
2. Capital invested by other equity instrument holders			500,000,000									500,000,000		500,000,000
3. Amount of share-based payment included in the owner's equity														
4. Others														
5. Capital reduced by other equity instrument holders														
(III) Profit distribution								24,660,180		-313,577,855		-500,000,000	-58,000,000	-500,000,000
1. Withdrawal of surplus reserves								24,660,180		-24,660,180		-288,917,675	-58,000,000	-346,917,675
2. Withdrawal of general risk preparation														
3. Distribution of owners (or shareholders)														
4. Others														
(IV) Internal transfer of owner's equity														
1. Capital surplus transfer to paid-in capital (or capital stock)														
2. Eamed surplus transfer to paid-in capital (or capital stock)														
3. Eamed surplus covering the deficit														
4. Carryforward retained earnings in variation of defined benefit plan														
5. Carryforward retained earnings of other comprehensive income														
6. Others														
(V) Special reserves							1,010,884					1,010,884		1,152,656
1. Amount withdrawn in the current year							50,813,289					50,813,289		53,495,695
2. Amount used in the current year							49,802,405					49,802,405		52,343,039
(VI) Others														
IV. Balance at the end of the current year	5,268,353,501	0	500,000,000	4,842,515,715	0	24,865,987	2,945,560	1,703,918,676	0	2,825,870,678	0	15,168,470,117	2,953,874,702	18,122,344,819



Consolidated Statement of Changes in Owners' Equity(Continued)

January to December in 2022

Prepared by: Shanghai Zhenhua Heavy Industries Co., Ltd.

Unity: Yuan Currency: CNY

Item	Equity attributable to the owners of the parent company											Minority equity	Total owners' equity	
	Paid-in capital (or share capital)	Other equity instruments		Capital reserves	Less: treasury stock	Other comprehensive income	Special reserves	Surplus reserves	General risk preparation	Undistributed profits	Others			Sub-total
		Preferred stock	Perpetual bond											
I. Balance at the end of the last year	5,268,353,501		500,000,000	4,834,854,332		-62,927,398	1,936,153	1,651,418,547		2,377,187,005		14,570,822,140	2,504,416,071	17,075,238,211
Plus: changes in accounting policies														
Prior period error correction														
Business combination under common control														
Others														
II. Beginning balance in current year	5,268,353,501		500,000,000	4,834,854,332		-62,927,398	1,936,153	1,651,418,547		2,377,187,005		14,570,822,140	2,504,416,071	17,075,238,211
III. Increase/decrease in the current year ("-" for decrease)				7,661,383		-6,427,660	-1,477	27,839,949		390,324,296		419,396,491	155,418,318	574,814,809
(I) Total comprehensive income						-6,427,660				439,839,245		433,411,585	83,999,225	517,410,810
(II) Owner's invested and decreased capital														
1. Common stock invested by the owners														
2. Capital invested by other equity instrument holders														
3. Amount of share-based payment included in the owner's equity														
4. Others														
5. Disinvestment by minority shareholders of subsidiaries														
6. Investments received by subsidiaries from minority shareholders														
(III) Profit distribution														
1. Withdrawal of surplus reserves														
2. Withdrawal of general risk preparation														
3. Distribution of owners (or shareholders)														
4. Others														
(IV) Internal transfer of owner's equity														
1. Capital surplus transfer to paid-in capital (or capital stock)														
2. Earned surplus transfer to paid-in capital (or capital stock)														
3. Earned surplus covering the deficit														
4. Carryforward retained earnings in variation of defined benefit plan														
5. Carryforward retained earnings of other comprehensive income														
6. Others														
(V) Special reserves														
1. Amount withdrawn in the current year														
2. Amount used in the current year														
(VI) Others														
IV. Balance at the end of the current year	5,268,353,501		500,000,000	4,842,515,715		-69,355,058	1,934,676	1,679,258,496		2,767,511,301		14,990,218,631	2,659,834,389	17,650,053,020

Chairman of
the Company:

Person in charge of
accounting work:

Person in charge of
accounting agency:

Statement of Changes in Owners' Equity of the Parent Company

January to December in 2022

Prepared by: Shanghai Zhenhua Heavy Industries Co., Ltd.

Unity: Yuan Currency: CNY

Item	2022							Total owners' equity			
	Paid-in capital (or share capital)	Preferred stock	Other equity instruments		Capital reserves	Less: treasury stock	Other comprehensive income		Special reserves	Surplus reserves	Undistributed profits
			Perpetual bond	Others							
I. Balance at the end of the last year	5,268,353,501		500,000,000		4,914,468,683		-8,614,560		1,678,750,223	2,812,544,839	15,165,502,686
Plus: changes in accounting policies											
Prior period error correction											
Others											
II. Beginning balance in current year	5,268,353,501		500,000,000		4,914,468,683		-8,614,560		1,678,750,223	2,812,544,839	15,165,502,686
III. Increase/decrease in the current year ("-" for decrease)							29,497,087		24,660,180	-66,976,057	-12,818,790
(I) Total comprehensive income							29,497,087			246,601,798	276,098,885
(II) Owner's invested and decreased capital											
1. Common stock invested by the owner											
2. Capital invested by other equity instrument holders			500,000,000								500,000,000
3. Amount of share-based payment included in the owner's equity											
4. Others											
5. Capital reduced by other equity instrument holders											
(III) Profit distribution											
1. Withdrawal of surplus reserves									24,660,180	-313,577,855	-500,000,000
2. Distribution of owners' (or shareholders)									24,660,180	-24,660,180	-288,917,675
3. Others											
(IV) Internal transfer of owner's equity											
1. Capital surplus transfer to paid-in capital (or capital stock)											
2. Earned surplus transfer to paid-in capital (or capital stock)											
3. Earned surplus covering the deficit											
4. Carryforward retained earnings in variation of defined benefit plan											
5. Carryforward retained earnings of other comprehensive income											
6. Others											
(V) Special reserves											
1. Amount withdrawn in the current year								29,362,559			29,362,559
2. Amount used in the current year								-29,362,559			-29,362,559
(VI) Others											
IV. Balance at the end of the current year	5,268,353,501		500,000,000		4,914,468,683		20,882,927		1,703,410,403	2,745,568,782	15,152,683,896



Statement of Changes in Owners' Equity of the Parent Company(Continued)

January to December in 2022

Prepared by: Shanghai Zhenhua Heavy Industries Co., Ltd.

Unity: Yuan Currency: CNY

Item	2021							Total owners' equity			
	Paid-in capital (or share capital)	Other equity instruments			Capital reserves	Less: treasury stock	Other comprehensive income		Special reserves	Surplus reserves	Undistributed profits
		Preferred stock	Perpetual bond	Others							
I. Balance at the end of the last year	5,268,353,501		500,000,000		4,914,468,683		-22,498,704		1,650,910,274	2,563,660,300	14,894,894,054
Plus: changes in accounting policies											
Prior period error correction											
Others											
II. Beginning balance in current year	5,268,353,501		500,000,000		4,914,468,683		-22,498,704		1,650,910,274	2,563,660,300	14,894,894,054
III. Increase/decrease in the current year ("-" for decrease)							13,884,144		27,839,949	228,884,539	270,608,632
(I) Total comprehensive income							13,884,144			278,399,488	292,283,632
(II) Owner's invested and decreased capital											
1. Common stock invested by the owner											
2. Capital invested by other equity instrument holders											
3. Amount of share-based payment included in the owner's equity											
4. Others											
(III) Profit distribution											
1. Withdrawal of surplus reserves									27,839,949	-49,514,949	-21,675,000
2. Distribution of owners (or shareholders)									27,839,949	-27,839,949	
3. Others											
(IV) Internal transfer of owner's equity											
1. Capital surplus transfer to paid-in capital (or capital stock)											
2. Earned surplus transfer to paid-in capital (or capital stock)											
3. Earned surplus covering the deficit											
4. Carryforward retained earnings in variation of defined benefit plan											
5. Carryforward retained earnings of other comprehensive income											
6. Others											
(V) Special reserves								42,890,523			42,890,523
1. Amount withdrawn in the current year								42,890,523			
2. Amount used in the current year											
(VI) Others											
IV. Balance at the end of the current year	5,268,353,501		500,000,000		4,914,468,683		-8,614,560		1,678,750,223	2,812,544,839	15,165,502,686

Chairman of
the Company:

Person in charge of
accounting work:

Person in charge of
accounting agency:

III. Company profile

1 Company profile

Applicable Not applicable

Shanghai Zhenhua Heavy Industries Co., Ltd. (hereinafter referred to as “the Company”) is a joint-stock company limited established on September 8, 1997 through restructuring Shanghai Zhenhua Port Machinery Company Limited (hereinafter referred to as “Zhenhua Company”). Both the registration place and the address of the headquarters are in Shanghai City, P. R. China.

As approved by ZWFZ (1997) No.42 Document issued by the Securities Commission under the State Council, the Company issued 100 million domestically-listed shares held by the foreign investors (B-share) from July 15, 1997 till July 17, 1997. The B-shares were listed for trading at Shanghai Stock Exchange on Aug. 5, 1997.

As approved by ZJFXZ (2000) No. 200 Document of China Securities Regulatory Commission, the Company additionally issued of 88 million common shares (RMB denominated) (A-share) held by the domestic investors in December 2000. The A-shares were listed for trading at Shanghai Stock Exchange on Dec. 21, 2000.

As approved by ZJFXZ (2004) No.165 Document of China Securities Regulatory Commission, the Company additionally issued 114,280,000 A-shares held by the domestic investors on December 23, 2004. The additionally issued A-shares were listed at Shanghai Stock Exchange respectively for trading on December 31, 2004 and January 31, 2005.

As approved by ZJFXZ (2007) No. 346 Document of China Securities Regulatory Commission, the Company additionally issued 125,515,000 A-shares held by the domestic investors on October 15, 2007. The additionally issued A-shares were listed at Shanghai Stock Exchange for trading on October 23, 2007 and January 23, 2008 respectively.

As approved by ZJXKZ (2009) No.71 Document of China Securities Regulatory Commission, the Company privately placed 169,794,680 A-shares on Sept. 22, 2008 to its controller China Communications Construction Co., Ltd. (hereinafter referred to as “China Communications Corporation”). A-shares privately placed were the tradable shares with limited trading conditions. From Mar. 20, 2012 on, the term of trading limitation expired for above-mentioned A-shares which were listed at Shanghai Stock Exchange for trading.

By December 31, 2022, after all issuances of the shares and bonus shares distributed in the past year, the total shares of the Company amounted to 5,268,353,501 shares, par value per share was RMB 1. The share capital totaled up to RMB 5,268,353,501.

On December 18, 2005, China Road and Bridge Construction Group General Company and the Company’s former controlling shareholder China Harbor Construction (Group) General Company were merged into China Communications Construction (Group) Co. Ltd after restructuring (hereafter referred to as “CCCCG”). In accordance with the Official Reply to Overall Reorganization and Overseas-listed and Domestically-listed Share of China Communications Construction Co., Ltd. (GZGG [2006] No.1063 Document) by State-owned Assets Supervision and Administration Commission of the State Council on Aug. 16, 2006, the reorganization proposal of China Communications Construction (Group) Co., Ltd approved in the Official Reply to the Issues Concerning Management of State-owned Stock Equity of China Communications Construction Co., Ltd. (GZCQ [2006] No.1072 Document) on Sept. 30, 2006 and the Official Reply to Approval of China Communications Construction Co., Ltd.’s Announcement of Purchase Report of Road and Bridge Construction Co., Ltd. and Shanghai Zhenhua Port Machinery (Group) Co., Ltd. and Exemption of Their Obligations for Purchase by Offer (ZJGSZ [2006] No. 227 Document), CCCC solely initiated the incorporation of China Communications Construction Co., Ltd. on Oct. 8, 2006 and invested the stock equity of the Company held into the newly incorporated China Communications Co., Ltd. With the completion of reorganization, China Communications Co., Ltd thus became the controlling shareholder of the Company.

In 2016, the Company was granted the Uniform Social Credit Code of 91310000607206953D.

On July 18, 2017, the board of directors of China Communications Construction Co., Ltd. discussed and approved the Proposal for Transfer of Some Shares of Shanghai Zhenhua Heavy Industries (Group) Co., Ltd by Agreement and Associated Transaction and agreed to transfer totally 1,316,649,346 shares of this Company held by it to CCCC and CCCC (Hong Kong) Holdings Co., Ltd. (hereinafter referred to as “CCCCG Hong Kong”), accounting for 29.990% of the total shares of this Company, after that, China Communications Construction Co., Ltd. held 16.239% of the stock equity of this Company. The transfer and registration of shares was accomplished on December 27, 2017. On the date of the transfer of shares, CCCC directly held 552,686,146 A-shares of this Company (accounting for 12.589% of the total shares of this Company), indirectly held 763,963,200 B-shares of this Company through CCCC (Hong Kong) (accounting for 17.401% of the total shares of the Company) and held 712,951,703 A-shares of this Company through China Communications Construction Co., Ltd. (accounting for 16.239% of the total shares of this Company), as a result, it became the controlling shareholder of the Company.

The Company and its subsidiaries (hereinafter collectively referred to as “the Group”) was mainly engaged in design, construction, installation and contracting of large-sized port handling system and equipment, offshore heavy-duty equipment, engineering machinery, engineering vessel and large-sized metal structural members and their parts and components; repair of vessel; leasing of self-produced crane, sales of the self-produced products; international shipment by available special transportation vessel and specialized contracting for steel structure engineering.

The financial statements have been approved by the resolution of the Board of Directors of the Company on March 30, 2023.



2 Scope of consolidated financial statements

Applicable Not applicable

The consolidation scope of the consolidated financial statements is determined based on control. For the changes in the current period and the main subsidiaries included in the scope of consolidation, please see Note IX (1).

IV. Basis of preparation for financial statements

1 Basis of preparation

The financial statements are prepared on the basis of the Accounting Standards for Business Enterprise– Basic Standards issued by the Ministry of Finance and the subsequently issued and revised specific accounting principles, guidelines, explanations and other related regulations (hereinafter collectively referred to as “Accounting Standards for Business Enterprise”).

2 Going concern

Applicable Not applicable

The financial statements of the Company have been presented on a going concern basis.

While preparing the financial statements, except for some financial instruments, the valuation principle of historical cost shall be adopted. The assets held for sale shall be presented at the lower of the book value and the net amount of the fair value minus the selling expenses. If the assets are impaired, the provision for impairment is made in accordance with relevant provisions.

V. Principal accounting policies and accounting estimates

Specific accounting policies and accounting estimates tips

Applicable Not applicable

The Group determines the specific accounting policies and accounting estimates based on actual production and operation characteristics, which are mainly reflected in the inventory valuation methods, income recognition and measurement and so on.

1 Statement on compliance with the Accounting Standards for Business Enterprises

The financial statements prepared by the Company meet the requirements of the Accounting Standards for Business Enterprises, and truly and completely reflect the financial position, operating results, changes in shareholders' equity and cash flows of the Company.

2 Accounting period

The Company adopts calendar year as the accounting year, which commences on January from the 1, and ends on December 31 of each year.

3 Operating cycle

Applicable Not applicable

4 Functional currency

RMB is the recording currency of the Group and also the currency used in the financial statements. Unless otherwise specified, the financial statements are presented in RMB.

The subsidiaries, joint ventures and associates under the Group shall, on the basis of the main economic environment in which they operate, decide their own recording currency, and convert them into RMB when preparing financial statements.

5 Accounting treatment of business combination under common control and not under common control

Applicable Not applicable

Business combination under common control

The business combination under common control is a business combination in which all of the combining enterprises are ultimately controlled by the same party or the same parties both before and after the business combination and on which the control is not temporary.

The assets and liabilities that the combining party obtains in a business combination under common control(including the goodwill formed by the acquisition of the combined party by the ultimate controlling party), are subject to the corresponding accounting treatment in accordance with the carrying amount in the financial statements of the ultimate controlling party on the combination date. The difference between the carrying amount of the net assets obtained from the combination and the carrying amount of the consideration paid (or total par value of the shares issued) for the combination is treated as an

adjustment to capital premium in the capital reserves and the capital reserves carried out under the former system. If the capital premium is not sufficient to absorb the difference, the remaining balance is adjusted against retained earnings.

Business combination not under common control

The business combination not under common control is a business combination in which all of the combining enterprises are not controlled by the same party or the same parties before and after the combination.

The identifiable assets, liabilities and contingent liabilities obtained of the acquiree in the business combination not under common control shall be measured at fair value on the acquisition date.

The positive balance between the sum of the fair value of the combined consideration paid (or fair value of the issued equity securities) and the fair value of the held stock equity of the acquiree before the acquisition date and the fair value of the identifiable net assets obtained in the combination from the acquiree is confirmed as goodwill, and shall be accounted for subsequent measurement after subtracting the accumulated impairment losses from the cost. If the sum of the fair value of the combined consideration paid (or fair value of the issued equity securities) and the fair value of the held stock equity of the acquiree before the acquisition date is smaller than the fair value of the identifiable net assets of the acquiree obtained in the combination, firstly recheck the measurement of the fair value of the identifiable assets, liabilities and contingent liabilities obtained from the acquiree, and the fair value of the combined consideration paid (or fair value of the issued equity securities), and the fair value of the held stock equity of the acquiree before the acquisition date, after that, if the sum the fair value of the combined consideration paid (or fair value of the issued equity securities) and the fair value of the held stock equity of the acquiree before the acquisition date is still smaller than the fair value of the identifiable net assets obtained in combination from the acquiree, the balance shall be included in the current profit or loss.

6 Preparation of consolidated financial statements

Applicable Not applicable

The consolidation scope of consolidated financial statements is determined on the basis of control, covering the financial statements of the Company and all the subsidiaries. A subsidiary is a subject which is controlled by the Company (including the enterprise, the separable part of the invested entity, and the structural entity controlled by the Company).

When preparing the consolidated financial statements, the subsidiary adopts the accounting period and the accounting policies consistent with the Company. Assets, liabilities, equity, income, expenses and cash flows arising from all transactions between the Group's internal companies are fully offset at the time of combination.

If the current losses borne by the minority shareholders of the subsidiary exceed the shares held by the minority shareholders in the initial shareholders' equity of the subsidiary, the balance still offsets the minority's equity.

For the subsidiaries acquired in business combination not under common control, the operating results and the cash flows of the acquiree shall be included in the consolidated financial statements on the date of acquisition of control till the termination of control. When preparing the consolidated financial statements, the financial statements of subsidiaries shall be adjusted based on the fair value of various identifiable assets, liabilities and contingent liability confirmed on the acquisition date.

For the subsidiaries acquired in business combination under common control, the operating results and the cash flows of the combined party shall be included in the consolidated financial statements at the beginning of the combination period. When preparing the consolidated financial statements, relevant items of the previous financial statements shall be adjusted and the reporting entity formed after the consolidation is regarded as existed since the ultimate controlling party begins to implement control.

If changes in the relevant facts and circumstances lead to changes in one or more control elements, the Group will re-evaluate whether or not the investee is controlled.

The Group disposes of the equity investment in the subsidiaries step by step through multiple transactions until the loss of control. If the above-mentioned transactions are part of a package transaction, the transactions are treated as a transaction dealing with the equity investment of the subsidiary and losing control. However, before the loss of control, the difference between the disposal price and the book value of the long-term equity investment corresponding to the disposed equity is recognized as other comprehensive income in individual financial statements and transferred to the current profit or loss when the control is lost. If the above-mentioned transactions are not part of a package transaction, accounting treatment shall be carried out for each transaction separately according to whether the control is lost or not. If the control is lost, the remaining equity is re-measured at fair value at the date when control is lost. The difference between the sum of the consideration received on disposal and the fair value of remaining equity and the share of the former subsidiary's net assets cumulatively calculated from the acquisition date according to the original proportion of shareholders' equity, is included in the profit or loss in the period in which control is lost. If goodwill is involved, the amount of the goodwill shall be deducted when calculating and determining the profit or loss on the disposal of the subsidiary. Other comprehensive income related to the equity investment of the original subsidiary shall be accounted on the same basis as the subsidiary's direct disposal of relevant assets or liabilities when the control is lost. The shareholders' equity recognized due to changes in shareholders' equity other than net profit or loss, other comprehensive income and profit distribution related to the original subsidiary shall be transferred to current profit or loss when the control is lost.



7 Classification of joint venture arrangement and methods of joint operation accounting treatment

Applicable Not applicable

8 Recognition criteria of cash and cash equivalents

Cash is the Group's cash on hand and the deposits that can be readily drawn on demand. Cash equivalents are short-term, highly liquid investments held by the Group that are readily convertible to known amount of cash and which are subject to an insignificant risk of changes in value.

9 Foreign currency transactions and transaction of financial statements denominated in foreign currency

Applicable Not applicable

In the case of a foreign currency transaction, the Group translates the amount of foreign currency into the amount of the recording currency.

At the time of initial confirmation, the amount of foreign currency transaction shall be translated into the amount of the recording currency at the spot rate of the transaction date. On the date of balance sheet, the currency exchange rate of the currency denominated items shall be translated at the spot rate on the date of balance sheet. The transaction difference of settlement and monetary items arising therefrom, in addition to the difference arising from foreign currency special borrowing relating to the assets of which the purchase and construction conform to the capitalized conditions, which shall be handled in accordance with the principle of capitalization of borrowing costs, shall be included in the current profit or loss. The foreign currency non-currency items calculated on historical cost basis are still translated at spot rate on the date of transaction, not changing the amount of its recording currency. The foreign currency non-monetary items measured at fair value shall be translated at the spot rate on fair value determination date, and the difference arising therefrom shall be included in the current profit or loss or other comprehensive income according to the nature of the non-monetary items.

In the case of overseas business, the Group translates its recording currency into RMB in preparing the financial statements: for assets/liabilities in the balance sheet, spot exchange rate on the date of balance sheet is used for translation. As for the items under the shareholders' equity, except for those under "undistributed profits", other items are translated using the spot exchange rate at the time of occurrence; the income and expense items in the income statement shall be translated at the spot exchange rate of the transaction. The conversion difference of foreign currency statements arising from above translation shall be recognized as other comprehensive income. When disposing overseas operations, other comprehensive income related to the overseas operation shall be transferred into the current profits and losses, partial disposal shall be calculated according to the proportion of disposal.

Foreign currency cash flows shall be translated at the spot exchange rate on the day of occurrence of the cash flow. Cash flows from foreign subsidiaries are translated at the average exchange rate for the period in which the cash flows occur (unless exchange rate fluctuations make translation at that rate inappropriate, in which case the exchange rate is the spot rate on the day of occurrence of the cash flow). Effect of changes in exchange rate on cash amount is shown separately in the cash flow statements as an adjustment item.

10 Financial instruments

Applicable Not applicable

Financial instrument is the contract that forms the financial assets of an enterprise and the financial liabilities or equity instruments of the other entities.

Recognition and de-recognition of financial instruments

The Group recognizes a financial asset or financial liability when becoming a party to a financial instrument contract.

Once the following conditions are satisfied, the Group will de-recognize financial assets (or part of financial assets or of a portfolio of similar financial assets), i.e., writing off from its account and balance sheet:

(1) The right to receive cash flows from financial assets expires;

(2) The right to receive the cash flow from financial asset has been transferred, or have assumed the obligation in the "pass-through agreement" to pay the collected cash flow timely to the third party in full; and (a) has transferred substantially almost all the risks and rewards of ownership of the financial asset, or (b) although does not transfer or retain substantially nearly all of the risks and rewards of ownership of the financial asset, but has given up the control over the financial asset.

In the event that the liability of a financial liability has been fulfilled, cancelled or expired, the financial liabilities shall be de-recognized. If the existing financial liability is replaced by the same creditor with another financial liabilities of virtually entirely different terms, or the terms of the existing liabilities are almost entirely modified substantially, such substitutions or modifications will be handled as the derecognition of the original liability and the recognition of new liabilities, and the difference will be included in current profit or loss.

In case of trading financial assets in the conventional way, such financial assets will be recognized and de-recognized on the trading day. Trading financial assets in the conventional way refers to collecting or delivering financial assets within the time limit prescribed in the law or the prevailing practice in accordance with the terms and conditions of the contract. Trading day is the date on which the Group commits to buy or sell financial assets.

Classification and measurement of financial assets

At the initial recognition, the Group's financial assets, based on the Group's management model of financial assets and the contract cash flow characteristics of financial assets, are classified as financial assets measured at amortized cost, financial assets measured at fair value through the other comprehensive income and financial assets measured at fair value through the current profit or loss.

Financial assets are measured at fair value at initial recognition, while the accounts receivable or notes receivable arising from sales of goods or rendering of services, excluding the significant financing composition or the financial composition for over one year, are initially measured at the transaction price.

For financial assets measured at fair value through the current profit or loss, relevant transaction costs are directly included in the current profit or loss, while the transaction costs relevant to other financial assets are included in the initial recognition amount.

The subsequent measurement of financial assets depends on the classification thereof:

Investment in debt instruments measured at amortized cost

Financial assets simultaneously meet the following conditions are classified as the financial assets measured at amortized cost: the management model of such financial assets aims at the collection of contract cash flows; according to the terms in the contract for such financial assets, the cash flows generating on the special date are paid at the interest for the principal and the unpaid principal. Such financial assets are recognized as interest income by the effective rate method, and the gains or losses from the derecognition, modification or impairment thereof are included in the current profit or loss.

Investment in debt instruments measured at fair value through other comprehensive income

If financial assets meet the following conditions at the same time, the Group classifies them as financial assets at fair value through other comprehensive income: the Group's business model for the management of the financial assets is aimed at both the collection of contract cash flow and the sale of the financial assets; the contractual terms of the financial asset stipulate that the cash flow generated at a particular date is only the payment of the principal and interest based on the outstanding principal amount. The interest income of such financial assets is recognized by the effective interest method. At derecognition of financial assets, the accumulated gains or losses previously included in other comprehensive income are transferred from the other comprehensive income to the current profit or loss.

Investment in equity instruments measured at fair value through the other comprehensive income

The Group irrevocably chooses to designate some non-trading equity instruments as the financial assets measured at fair value through the other comprehensive income, and only include the relevant dividends revenue (except for that partially recovered as the investment cost) in the current profit or loss, and the subsequent changes in fair values in the other comprehensive income, without the provision for impairment. At derecognition of financial assets, the accumulated gains or losses previously included in other comprehensive income are transferred from the other comprehensive income to the retained earnings.

Financial assets measured at fair value through the current profit or loss

The financial assets other than the financial assets measured at amortized cost and the financial assets measured at fair value through the other comprehensive income are classified as the financial assets measured at fair value through the other comprehensive income. For such financial assets, the subsequent measurement is made at fair value, and changes in fair value are included in the current profit or loss.

Classification and measurement of financial liabilities

At the initial recognition, the Group's financial liabilities are classified as: financial liabilities measured at fair value through the current profit or loss and financial liabilities measured at amortized cost. For financial liabilities measured at fair value through the current profit or loss, relevant transaction costs are directly included in the current profit or loss, while the transaction costs relevant to financial liabilities measured at amortized cost are included in the initial recognition amount.

The subsequent measurement of financial liabilities depends on the classification thereof:

Financial liabilities measured at fair value through the current profit or loss

Financial liabilities measured at fair value through the current profit or loss include the trading financial liabilities (including the derivative instruments belonging to financial liabilities), and the financial liabilities measured at fair value through the current profit or loss. The subsequent measurement of the trading financial liabilities (including the derivative instruments belonging to financial liabilities) is made at fair value, and changes in fair value are included in the current profit or loss. For the financial liabilities measured at fair value through the current profit or loss, the subsequent measurement is made at fair value, and the changes in fair value are included in the current profit or loss except that the changes in fair value caused by the changes in the Group's credit risks are included in the other comprehensive income; if including the changes in fair value caused by the changes in the Group's credit risks in the other comprehensive income may cause or exacerbate the accounting mismatch in profit or loss, the Group will include all changes in fair value (including the amounts affected by the changes in the Group's credit risks) in the current profit or loss.

Financial liabilities measured at amortized cost

The subsequent measurement of such financial liabilities is made at amortized cost by the effective rate method.

Impairment of financial instruments

Based on the expected credit losses, the Group makes the provision for impairment and recognizes the loss provisions for the financial assets measured amortized cost and the investment in debt instruments measured at fair value through the other comprehensive income.



For the receivables excluding significant financing component, the Group measures the loss provision based on the amount equivalent to the expected credit loss over the whole duration by the simplified measurement method.

Except for the above financial assets subject to the simplified measurement method, on each balance sheet date, the Group makes assessment on whether the credit risk in financial assets has had significant increase after the initial recognition. If the credit risk does not significantly increase after the initial recognition, standing at the first level, the Group will measure the loss provision based on the amount of expected credit loss over the next 12 months, and calculate the interest income based on the book balance at the effective interest rate; if the credit risk has significantly increased after the initial recognition without any credit impairment, standing at the second level, the Group will measure the loss provision based on the amount equivalent to the expected credit loss over the whole duration; in case of any credit impairment after the initial recognition, standing at the third level, the Group will measure the loss provision based on the amount of expected credit loss over the whole duration, and calculate the interest income based on the amortized cost at the effective interest rate. For financial instruments only with relatively low credit risk on the balance sheet date, the Group assumes that such credit risk does not significantly increase after the initial recognition.

The Group evaluates the expected credit loss of financial instruments individually and by portfolio. After taking the credit risk characteristics of different customers into account, the Group evaluated the expected credit loss on accounts receivable by the aging portfolio.

For the Group's disclosure of the judgment standards for significant increase of credit risk and definition of assets with credit impairment, see Note V for details.

The factors reflected in the Group's approach to measuring expected credit losses on financial instruments include the unbiased probability weighted average amount determined by evaluating a range of possible outcomes, the time value of money, and reasonable and substantiated information about past events, current conditions and projections of future economic conditions that is available at the balance sheet date without undue additional cost or effort.

When the Group ceases to expect reasonably the contract cash flows of financial assets which can be recovered in whole or in part, the Group will directly write off the book balance of such financial assets.

Financial instrument offset

Financial assets and financial liabilities are presented in the balance sheet at the net amount after mutual offset when the following conditions are met simultaneously: possess the legal right to offset the recognized amount and such right is currently executable; intend to settle at net amount, or cash such financial assets or liquidate such financial liabilities.

Derivative financial instruments

The Group carries out the exchange rate risk hedging by using derivative financial instruments, such as the forward exchange contract and the foreign exchange option contract. Derivative financial instruments are initially measured at their fair values on date of signing relevant derivative transaction contracts and subsequently measured at their fair values. Derivative financial instrument with positive fair value is recognized as an asset, and that with negative fair value is recognized as a liability.

Gains or losses from changes in fair values of derivative instruments are directly included in the current profit or loss, unless they are related to the hedging accounting.

If the Group has transferred nearly all the risks and rewards associated with the ownership of financial assets to the transferee, such financial assets will be de-recognized; if the Group retains nearly all the risks and rewards associated with the ownership of financial assets, such financial assets will be continuously recognized.

If the Group neither transfers nor retains nearly all the risks and rewards associated with the ownership of the financial assets, the following treatments will be adopted based on different circumstances: if the Group has given up its control over the financial assets, the financial assets will be derecognized, and the assets and liabilities arising therefrom will be recognized; if the Group does not give up its control over the financial assets, the financial assets will be recognized to the extent of its continuing involvement in the transferred financial assets, while relevant liabilities are recognized accordingly.

11 Notes receivable

Determination and accounting treatment of the expected credit loss of notes receivable

Applicable Not applicable

12 Accounts receivable

Determination and accounting treatment of the expected credit loss of accounts receivable

Applicable Not applicable

13 Receivables financing

Applicable Not applicable

14 Other receivables

Determination and accounting treatment of the expected credit loss of other receivables

Applicable Not applicable

15 Inventories

Applicable Not applicable

Inventories include the raw materials, outsourcing components and parts, goods in process and stock commodities.

Inventories are initially measured at the cost. The inventory cost includes the procurement cost, processing cost and other cost. The actual cost of raw materials in transit is determined by the weighted average method. The actual cost of finished products in transit is determined by the weighted average method and individual valuation method.

Perpetual inventory system is adopted for inventories.

On the balance sheet date, the inventory is measured at its cost or its net realizable value, whichever is lower; if the cost is higher than the net realizable value, the provision for inventory depreciation will be made and included in the current profit or loss. The net realizable value, in the routine activities, refers to amount of the estimated selling price of inventory minus the estimated cost to completion, estimated selling expense and relevant taxes and surcharges. At the time of making the provision for inventory depreciation, the provision for depreciation of raw materials is made by category, and that of goods in process and stock commodities is made by each single inventory item.

Contract performance cost classified as current assets is detailed in inventories.

16 Contract assets

(1) Recognition method and criteria of contract assets

Applicable Not applicable

The Group presents contract assets or liabilities in the balance sheet according to the relationship between the fulfillment of performance obligations and customer payments. After offsetting the contract assets and contract liabilities under the same contract, the Group presents them in net amount.

Contract assets

Contract assets refer to the right to receive consideration for goods or services transferred to customers, and the right depends on factors other than the passage of time.

For details of the Group's determination and accounting treatment method of expected credit loss of contract assets, please refer to Note V (10).

(2) Determination and accounting treatment of the expected credit loss of contract assets

Applicable Not applicable

17 Assets held for sale

Applicable Not applicable

A non-current asset or disposal group whose book value is recovered principally through sale rather than continuous use is classified as held for sale. When all of the following conditions are met, it is classified as held for sale: the asset or disposal group must be available for immediate sale in its present condition subject to terms that are usual and customary for sales of such assets or disposal groups; its sales must be highly probable, i.e., the Company has made a decision on the sale plan and has obtained a confirmed offer, and the sale is expected to be completed within one year (for the sales subject to approval by relevant authority or regulatory department as required in relevant regulations, it has been approved). If the control over a subsidiary is lost due to the sale of the investment in the subsidiary, regardless of whether part of the equity investment is retained after the sale, as long as the conditions for classification as held for sale are met, the investment in the subsidiary as a whole is classified as held for sale in the individual financial statements, and all the assets and liabilities of the subsidiary are classified as held for sale in the consolidated financial statements.

If the book value of a non-current asset or disposal group (other than financial assets and deferred income tax assets) held for sale is higher than the net amount of the fair value minus the selling expenses, the book value shall be written down to the net amount of the fair value minus the selling expenses, the amount written down shall be recognized as assets impairment losses and included in the current profit or loss, and the provision for impairment of assets held for sale is made at the same time. No depreciation or amortization is made for the non-current assets held for sale or non-current assets in disposal groups.

18 Debt investment

(1) Determination and accounting treatment of the expected credit loss of Debt investment

Applicable Not applicable

19 Other debt investment

(1) Determination and accounting treatment of the expected credit loss of other debt investment

Applicable Not applicable

20 Long-term receivables

(1) Determination and accounting treatment of the expected credit loss of long-term receivables

Applicable Not applicable



21 Long-term equity investments

√Applicable □Not applicable

Long-term equity investments include the equity investments in subsidiaries, joint ventures and associates.

Long-term equity investments are initially measured at the initial investment cost. The initial investment cost of a long-term equity investment acquired through the business combination under common control is recognized at book value of owners' equity acquired from the combinee on the combination date in the consolidated financial statements of the ultimate controller; the difference between the initial investment cost and the book value of the combination consideration is used to adjust the capital reserves (if the capital reserves are insufficient to offset, the retained earnings will be offset); for the other comprehensive income before the combination date, at the disposal of such investment, the accounting treatment identical to that for the direct treatment of relevant assets or liabilities by the investee is adopted; the shareholders' equity recognized on account of the change in other shareholders' equity of the investee other than net profit or loss, other comprehensive income and profit distribution is transferred in the current profit or loss at the disposal of such investment; in which, after such disposal, if such investment is still the long-term equity investment, it will be carried forward in proportion; if it is converted into the financial instrument, it will be carried forward in full.

The initial investment cost of a long-term equity investment acquired through business combination not under common control is recognized at the combination cost (if the business combination not under common control is realized through several transactions by step, the sum of the book value of the equity investment of the acquiree held before the acquisition date and the cost of investment newly added on the acquisition date is recognized as the initial investment cost), and the combination cost includes the asset paid by the acquiree, liability incurred or borne by the acquiree, and the fair values of issued equity securities; for the other comprehensive income held before the acquisition date and recognized due to the accounting under equity method, at the disposal of such investment, the accounting treatment identical to that for the direct treatment of relevant assets or liabilities by the investee is adopted; the shareholders' equity recognized on account of the change in other shareholders' equity of the investee other than net profit or loss, other comprehensive income and profit distribution is transferred in the current profit or loss at the disposal of such investment; in which, after such disposal, if such investment is still the long-term equity investment, it will be carried forward in proportion; if it is converted into the financial instrument, it will be carried forward in full. The accumulated changes in fair values of the equity investments held before the acquisition date, which was included in the other comprehensive income as the financial instruments, are fully transferred in the retained earnings, on the accounting at cost. For long-term equity investments acquired not through business combination, their initial investment costs are determined by the following ways: if the long-term equity investment is acquired through cash payment, the initial investment cost will be the sum of the acquisition price actually paid and the costs, taxes and other necessary costs, which are directly relevant to the long-term equity investment; if the long-term equity investment is acquired by issuing equity securities, the initial investment cost will be the fair value of the equity securities issued.

The long-term equity investments where the Company could control the investee shall be accounted in individual financial statements of the Company under the cost method. Control means the power owned over the investee and enjoys the variable return through participating in activities related to the investee, and has the ability to affect its return by using the power over the investee.

Under the cost method, long-term equity investments are valued at initial investment cost. The Company shall increase or recover the investment to adjust the cost of long-term equity investments. Cash dividends or profits declared and distributed by the investee should be recognized as investment income in the current period.

If the Group has joint control over or significant influence on the investees, long-term equity investments are accounted for with the equity method. Joint control refers to the control shared over an arrangement in accordance with the relevant stipulations, and the decision-making of related activities of the arrangement should not be made before the party sharing the control right agrees the same. Significant influence refers to the power to participate in making decisions on the financial and operating policies of the investee, but not the power to control, or jointly control, the formulation of such policies with other parties.

For long-term equity investments measured under the equity method, if the initial investment costs are higher than the investor's attributable share of the fair value of the investee's identifiable net assets, the initial costs of the long-term equity investments shall be recognized; if the initial investment costs are lower than the investor's attributable share of the fair value of the investee's identifiable net assets, the difference shall be recognized in current profit and loss and at the same time the adjustment will be made to the initial costs of the long-term equity investments.

Where the equity method is adopted, after the long-term equity investments are acquired, the Company shall, according to the shares of net profit and loss and other comprehensive income realized by the investee which the Company shall enjoy or bear, recognize the profit and loss on the investments and other comprehensive income and adjust the book value of the long-term equity investments. When recognizing the share of net profit or loss of the investee that the Group shall enjoy, based on fair value of various identifiable assets and others of the investee on acquisition and according to accounting policies and accounting periods of the Group, the Group shall write off the part of incomes from internal transactions with associates and joint ventures which are attributable to the investor according to the shareholding ratio (but the loss from internal transactions is the asset impairment loss, its total amount shall be recognized) and then recognize the profit and loss on investments on such basis, except those assets investments or sale constitute business. The Group shall, in the

light of the profits or cash dividends that the investee declares to distribute, calculate the part it should share and reduce the book value of the long-term equity investment correspondingly. Recognition of the net loss in the investee shall be within the limit that the book value of long-term equity investments and other long-term interests which substantially form the net investment in the investee are reduced to zero, unless the Group is obliged to bear extraneous losses; For other changes in shareholder's equity of the investee excluding net losses or profits, other comprehensive income or profit distribution, the book value of long-term equity investments will be adjusted and included in shareholder's equity.

For disposal of long-term equity investments, the difference between the book value and the actual price shall be included in the current investment income. For long-term equity investments recognized under equity method, when the equity method is no longer adopted due to the disposal, accounting treatment should be made for other comprehensive income previously recognized under the equity method by using the same basis for the investee to directly dispose the relevant assets or liabilities. Shareholder's equity recognized from the investee's changes in other shareholder's equity other than net profit or loss, other comprehensive income and profit distribution should all transferred to the current profits or losses. If the equity method is still adopted, the relevant other comprehensive income accounted by the original equity method shall be accounted on the same basis as the invested entity's direct disposal of relevant assets or liabilities, and shall be transferred to the current profit or loss in proportion. The shareholders' equity recognized due to changes in shareholders' equity of the investee other than net profit or loss, other comprehensive income and profit distribution shall be transferred to the current profit or loss according to corresponding proportion.

The Group disposes of the equity investment in the subsidiaries step by step through multiple transactions until the loss of control. If the above-mentioned transactions are part of a package transaction, the transactions are treated as a transaction dealing with the equity investment of the subsidiary and losing control. However, before the loss of control, the difference between the disposal price and the book value of the long-term equity investment corresponding to the disposed equity is recognized as other comprehensive income in individual financial statements and transferred to the current profit or loss when the control is lost. If the above-mentioned transactions are not part of a package transaction, accounting treatment shall be carried out for each transaction separately. If the control is lost, in the individual financial statements, for the remaining equity, if the remaining equity after disposal can jointly control or has a significant impact on the original subsidiary, it shall be recognized as long-term equity investment, and the accounting treatment shall be carried out according to relevant provisions on the conversion of cost method into equity method; otherwise, it shall be recognized as a financial instrument, and the difference between the fair value and the book value on the date of loss of control is included in the current profit or loss.

22 Investment properties

Investment properties refer to properties that are held for the purposes of earning rental income, capital appreciation, or some combination thereof, including land use rights and buildings that have been leased out.

The investment property shall be initially measured at cost. Subsequent expenses related to investment properties, if the economic benefits associated are likely to flow in and its cost can be measured reliably, should be recorded in the cost of investment property. Otherwise, such subsequent expenses should be included in current profits or losses upon occurrence.

The subsequent measurement of an investment property shall be conducted by the Group under the cost method, and the land use right and buildings shall be amortized and depreciated according to the expected useful life and net residual rate of the investment property. The expected useful lives, net residual value rate and annual depreciation (amortization) rate of the investment properties are as follows:

	Estimated useful lives	Estimated net residual value rate	Annual depreciation (amortization) rate
Buildings	30 years	0%	3.3%
Land use right	Land useful lives	0%	Determined according to the estimated net residual value and useful life for the land useful lives

The Group shall review estimated useful lives, estimated net residual value and depreciation (amortization) methods of the investment properties at the end of each year and shall make adjustment when necessary.

When an investment property is changed for self-use, upon change, the investment property shall be converted into fixed assets or intangible assets. When the self-use property is changed to earn rentals or for capital appreciation, upon change, fixed assets or intangible assets shall be converted into investment properties. When there is a conversion, the book value before the conversion shall be regarded as the book value after the conversion.

23 Fixed assets

(1) Recognition criteria

Applicable Not applicable

Fixed assets will only be recognized when the economic benefits relating to the fixed assets may flow into the Group and the costs of the fixed assets can be measured reliably. If the subsequent disbursements relevant to a fixed asset meet



the recognition conditions, they shall be recorded in the cost of fixed asset, and the book value of the replaced part shall be derecognized; otherwise, they shall be recorded in the current profits and losses.

Fixed assets are initially measured at cost. The costs of externally acquired fixed assets comprise their purchase prices, related taxes and surcharges and any attributable expenditure incurred to prepare the asset for its intended use.

(2) Depreciation method

Applicable Not applicable

Category	Depreciation method	Useful lives (year)	Residual value rate	Annual depreciation rate
Buildings and constructions	Straight-line method	20-40 years	0%	2.5%-5%
Mechanical equipment	Straight-line method	3-20 years	0%	5%-33.3%
Office and electronic equipment	Straight-line method	3-5 years	0%	20%-33.3%
Transportation facilities (excluding ship)	Straight-line method	5 years	0%	20%
Ship	Straight-line method	10-30 years	5%/10%	3%-9.5%

The Group shall review useful lives, estimated net residual value and depreciation methods of the fixed assets at the end of each year and shall make adjustment when necessary.

(3) Identification basis, valuation and depreciation method of fixed assets under financing lease

Applicable Not applicable

24 Construction in progress

Applicable Not applicable

The Group recognizes the cost of the construction in progress at the actually incurred expenditures, including all types of necessary expenditures incurred during the construction period, the capitalized borrowing costs incurred prior to the time when the construction is brought to the expected conditions for use and other relevant costs.

The construction in progress is converted into fixed assets after it reaches the expected conditions for use.

25 Borrowing costs

Applicable Not applicable

The Group capitalizes the borrowing costs of acquisition or construction or production which may directly belong to assets that are eligible for capitalization; and other borrowing costs are included in the current profit or loss. Assets eligible for capitalization refer to fixed assets, investment property, inventories and other assets which may reach their intended use or sale status only after long-time acquisition and construction or production activities.

The borrowing costs shall not be capitalized unless they simultaneously meet the following requirements:

(1) The asset disbursements have already incurred;

(2) The borrowing costs have already incurred; and

(3) Purchase, construction or manufacturing activities that are necessary to prepare the asset for its intended use or sale have already started;

Capitalization of borrowing costs should cease when the acquired and constructed or produced assets eligible for capitalization have reached the working condition for their intended use or sale. The borrowing costs incurred thereafter shall be included in the current profit or loss.

During the period of capitalization, the capitalized amount on interest of each accounting period shall be determined in accordance with the following provisions:

(1) The interest of special borrowings to be capitalized should be determined according to the actually incurred interest expenses in the current period less the interest income on deposits or the investment income;

(2) The interest of general borrowings to be capitalized should be calculated by multiplying the weighted average of asset disbursements of the part of accumulated asset disbursements exceeding special borrowings by the weighted average rate of used general borrowings.

If the acquisition and construction or production activities of assets eligible for capitalization are abnormally interrupted due to the matters other than necessary procedures for such assets to reach the working conditions for its intended use or sale and such circumstance lasts for more than three months, the capitalization of borrowing costs should be suspended. Borrowing costs incurred during the interruption are recognized as the current profit or loss and continue to be capitalized until the acquisition, construction or production of the asset restarts.

26 Biological assets

Applicable Not applicable

27 Oil and gas assets

Applicable Not applicable

28 Right-of-use assets

Applicable Not applicable

At the commencement date of the lease term, the Group recognizes its right to use the leased asset over the lease term as a right-of-use asset, which is initially measured at cost. The right-of-use assets include: the initial measurement amount of the lease liability, the lease payments made on or before the commencement date of the lease term, if there is a lease incentive, less the amount related to the lease incentive already taken; initial direct costs incurred by the lessee; the costs expected to be incurred by the lessee to disassemble and remove the leased asset, restore the site where the leased asset is located, or restore the leased asset to the condition agreed in the lease terms. If the Group remeasures the lease liability due to changes in lease payments, the book value of the right-of-use asset is adjusted accordingly. The Group subsequently depreciates right-of-use assets under straight-line method. If it can be reasonably certain that the ownership of the leased asset will be obtained at the expiration of the lease term, the leased asset will be depreciated over the remaining useful life. If it is impossible to reasonably certain that the ownership of the leased asset will be obtained at the expiration of the lease term, the leased asset will be depreciated over the shorter of the lease term and the remaining useful life.

29 Intangible assets

(1) Valuation method, service life and impairment test

Applicable Not applicable

Intangible assets will be recognized only when relevant economic benefits may well flow into the Group and the costs of intangible assets can be measured reliably, and initially measured at costs. However, if the fair value of the intangible assets acquired in the business combination not under common control can be reliably measured, it should be recognized as intangible assets and measured at fair value separately. When the Company reconstructs its corporate system, for the intangible assets invested by the shareholders of the state-owned shares, the evaluation value confirmed by the state-owned assets management department shall be served as the book value.

The useful life of an intangible asset is determined based on the period during which it can bring economic benefits to the Group. If the said period cannot be predicted, it will be recognized as an intangible asset with indefinite useful life.

The useful lives of all kinds of intangible assets are determined as follows:

	Useful life
Land use right	Land useful lives
Software use fees	5 years
Proprietary technology	10 years

The land use rights acquired by the Group are usually accounted as intangible assets. For the plants and other buildings developed and constructed by the Company, relevant land use rights and constructions shall be respectively accounted as intangible assets and fixed assets. For externally purchased land and buildings, the related payments are distributed in the land use right and buildings; those difficult to be distributed shall be all handled as fixed assets.

For the intangible assets with limited useful life, their amount shall be amortized at the straight-line method over its useful life. The Group will reexamine the useful lives and amortization method of intangible assets with limited useful lives, and make adjustments when necessary at the end of each year.

(2) Accounting policy of internal R & D expenditures

Applicable Not applicable

The Group's expenditures for its internal research and development projects are classified into research expenditures and development expenditures. The expenditures in research phase will be included in the current profit or loss on occurrence. The development expenditures will be capitalized only when all of the following conditions are satisfied simultaneously: It is feasible technically to finish intangible assets for use or sale; It is intended to finish and use or sell the intangible assets; The usefulness of methods for intangible assets to generate economic benefits shall be proved, including being able to prove that there is a potential market for the products manufactured by applying the intangible assets or there is a potential market for the intangible assets itself or the intangible assets will be used internally; It is able to finish the development of the intangible assets, and able to use or sell the intangible assets, with the support of sufficient technologies, financial resources and other resources; and the expenditures attributable to the intangible asset during its development phase can be measured reliably. Development expenditures that do not meet the above conditions are included in the current profit or loss on occurrence.



30 Long-term asset impairment

Applicable Not applicable

The Group recognizes the asset impairment under the following methods except for inventories, contract assets and assets related to contract cost, deferred income tax, financial assets and assets held for sale. The Group shall, on the balance sheet date, make a judgment on whether there is any indication that the assets may impair. If such indication does exist, the Group shall estimate the recoverable amount and carry out an impairment test. Impairment tests for goodwill caused by business combination, intangible assets with indefinite useful lives, and intangible assets not reaching usable condition shall be conducted at the end of every year whether they have signs of impairment or not.

The recoverable amounts of assets are the higher of their fair values less costs to sell and the present values of the future cash flows expected to be derived from the assets. The Group shall, on the basis of single item assets, estimate the recoverable amount. Where it is difficult to do so, it shall determine the recoverable amount of the group assets on the basis of the asset group to which the asset belongs. The recognition of an asset group shall base on whether the main cash inflow generated from the asset group is independent of those generated from other assets or other group assets.

Where the recoverable amount of an asset or an asset group is lower than its book value, the book value of the asset or asset group shall be written down to their recoverable amounts. The write-downs are recorded into the current profit or loss and the provision for asset impairment are made accordingly at the same time.

When the Company makes an impairment test of goodwill, it shall, as of the purchasing day, apportion the book value of the goodwill formed by business combination to the relevant asset groups by a reasonable method. Where it is difficult to do so, it shall be apportioned to the relevant portfolio of asset groups. The related asset group or combination of asset groups shall be the asset group or combination of asset groups that can benefit from the synergy effect of business combination, and shall be smaller than the reporting segments as determined by the Group.

When making an impairment test on the relevant asset groups or combination of asset groups containing goodwill, if any indication shows that the asset groups or combinations of asset groups related to the goodwill may be impaired, the Group shall first conduct an impairment test on the asset groups or combinations of asset groups not containing goodwill, calculate the recoverable amount and recognize the corresponding impairment loss. Then, the Group shall conduct an impairment test on the asset groups or asset groups portfolio containing goodwill, and compare it book value and recoverable amount: if the recoverable amount is lower than book value, the amount of impairment losses should be firstly used to deduct book value of goodwill allocated to the asset group or the asset group portfolio, and then deduct book value of other assets according to the proportion of the book value of other assets other than the goodwill in the asset group or the asset group portfolio.

Once the loss of assets impairment is recognized, it is not allowed to be reversed even if the value can be recovered in subsequent period.

31 Long-term deferred expenses

Applicable Not applicable

Long-term deferred expenses shall be amortized at the straight-line method, and the amortization period is set out as follows:

	Amortization period
Improvement of fixed assets acquired under the operating lease	Expected beneficial period

32 Contract liabilities

(1) Recognition method of contract liabilities

Applicable Not applicable

The Group presents contract assets or liabilities in the balance sheet according to the relationship between the performance of contract obligations and customer payments. After offsetting the contract assets and contract liabilities under the same contract, the Group presents them in net amount.

For details of the Group's determination and accounting treatment method of expected credit loss of contract assets, please refer to Note V.

Contract liabilities

Contract liability refers to the obligation to transfer goods or services to customers for the consideration received or receivable from customers, such as the money received by enterprises before transferring the promised goods or services.

33 Employee compensation

Employee compensations refer to multiform remuneration or compensation offered by the Group in order to get services provided by its employees or sever the labor relation. Employee compensation mainly includes short-term employee compensation, post-employment benefits, dismissal benefits and other long-term employee benefits. The welfare provided by the Company to employees' spouses, children, dependents, family dependants of the deceased employee and other beneficial owners also belong to employee compensation.

(1) Accounting treatment of short-term compensation

√Applicable Not applicable

During the accounting period of an employee' providing services, the short-term compensation actually incurred is recognized as liabilities and includes them in the current profit or loss or the related asset costs.

(2) Accounting treatment of post-employment benefits

√Applicable Not applicable

The employees of the Group participated in the endowment insurance and unemployment insurance managed by the local government, and also participated in the enterprise annuity, and the corresponding expenses were included in the relevant asset costs or the current profit or loss when incurred.

(3) Accounting treatment of termination benefits

Applicable √Not applicable

(4) Accounting treatment of other long-term employee benefits

Applicable √Not applicable**34 Lease liabilities**√Applicable Not applicable

At the commencement date of the lease term, the Group recognizes the present value of the outstanding lease payments as a lease liability, except for short-term leases and low-value asset lease. Lease payments include fixed payments and substantially fixed payments net of lease incentives, variable lease payments that depend on an index or rate, amounts expected to be payable based on the residual value of guarantee, and also include the exercise price of the purchase option or amounts to be paid upon exercise of a lease termination option if the Group is reasonably certain that the option will be exercised or the lease term reflects that the Group will exercise the lease termination option.

When calculating the present value of the lease payments, the Group uses the interest rate embedded in the lease as the discount rate; if the interest rate embedded in the lease cannot be determined, the incremental borrowing rate of the lessee is used as the discount rate. The Group calculates the interest expenses on lease liabilities at a fixed periodic rate for each period of the lease term and recognizes it in current profit or loss, unless otherwise provided for in the cost of the relevant assets.

After the commencement date of the lease term, the Group increases the carrying amount of the lease liability when interest is recognized and decreases the carrying amount of the lease liability when lease payments are made. When there is a change in the substantial fixed payment, a change in the estimated payable amount of the guaranteed residual value, a change in the index or ratio used to determine the lease payment, or a change in the evaluation result or actual exercise of the purchase option, renewal option or termination option, the Group remeasures the lease liability at the present value of the changed lease payment.

35 Estimated liabilities√Applicable Not applicable

Except for contingent consideration and contingent liabilities assumed in business combination not under the same control, when the obligations related to contingencies meet the following conditions, the Group recognizes them as estimated liabilities:

(1) This obligation is a present obligation of the Group;

(2) The performance of such obligation is likely to result in outflow of economic benefits from the Group;

(3) The amount of the obligation can be measured reliably.

The estimated liabilities are initially measured as the best estimate of expenses required for the performance of relevant present obligations by considering comprehensively the risks with respect to contingencies, uncertainties and the time value of money. On each balance sheet date, the Group shall review the book value of estimated liabilities. The Company shall make corresponding adjustments to reflect the current best estimate if there is any conclusive evidence indicating that such book value cannot reflect the current best estimate.

36 Share-based paymentApplicable √Not applicable**37 Preferred shares, perpetual bonds and other financial instruments**√Applicable Not applicable

After the maturity of the perpetual bonds issued by the Group, the Group has the right to extend them for an unlimited number of times. For the coupon interest of the perpetual bonds, the Group has the right to postpone the payment, and the group has no contractual obligation to pay cash or other financial assets. They are classified as equity instrument.



38 Revenue

(1) Accounting policies for revenue recognition and measurement

√Applicable □Not applicable

The Group recognizes revenue when it fulfills the performance obligation in the contract, that is, when the customer obtains control over the relevant goods or services. The acquisition of control of relevant goods or services means to be able to dominate the use of the goods or the rendering of the services and obtain almost all the economic benefits from them.

Manufacturing contracts on large-sized port equipment, heavy equipment and steel structure products

The manufacturing contracts on large-sized port equipment, heavy equipment and steel structure products between the Group and customers usually only include the performance obligations of transferring large-sized port machinery and equipment, heavy equipment and steel structure products customized for customers.

The large-sized port equipment, heavy equipment and steel structure products provided by the Group during the performance of the contract are irreplaceable, however, most of the large-sized port equipment, heavy equipment sales contracts and the manufacturing contracts of some steel structure products do not stipulate that the Group has the right to collect money for the performance part that has been completed so far in the whole contract period. This part of the contract does not meet the performance obligation conditions within a certain period of time, and the Group takes it as the performance obligation at a certain point of time. The Group generally recognizes the revenue at the time point of control transfer of relevant port machinery and equipment, heavy equipment and steel structure products on the basis of comprehensive consideration of the following factors: the current right to receive payment of goods, the transfer of main risks and rewards in the ownership of goods, the transfer of legal ownership of goods, the transfer of physical assets of goods, and the acceptance of the goods by customers.

In addition, based on the terms of sales contracts on individual large-sized port equipment and heavy equipment and the manufacturing contracts on some steel structure products, the Group has the right to collect money for the performance part that has been completed so far during the whole contract period. The Group takes it as the performance obligation to perform in a certain period of time, and recognizes the revenue according to the performance progress. Based on input method, the Group determines the corresponding performance progress of large-sized port equipment and heavy equipment contracts according to the proportion of the cost incurred in the total estimated cost. By output method, the Group determines the performance progress of the steel structure manufacturing contract according to the proportion of the accumulated processing tons to the estimated total processing tons.

Contracts on rendering of shipping and lifting services

The service contracts between the Group and its customers mainly involve special shipping services and hoisting services. The revenue of special shipping services rendered by the Group is recognized by time period method, and the progress of performance obligations is determined according to the proportion of the number of days transported in the total estimated days of transportation. The revenue of shipping service shall be recognized when the service is completed.

Material sales contract

The material sales contract between the Group and customers usually only includes the performance obligation of transferring spare parts and other materials. The Group generally recognizes the revenue at the time of control transfer of relevant spare parts and other materials on the basis of comprehensive consideration of the following factors: the current right to receive payment of goods, the transfer of main risks and rewards in the ownership of goods, the transfer of legal ownership of goods, the transfer of physical assets of goods, and the acceptance of the goods by customers.

Rendering of building services

The building service contract between the Group and customers usually includes the performance obligation of infrastructure construction. As the customer can control the assets under construction during the performance by the Group, the Group takes them as the performance obligations within a certain period of time, and recognizes the revenue according to the performance progress, except that the performance progress cannot be reasonably determined. By input method, the Group determines the performance progress of the services based on the cost incurred. If the performance progress cannot be reasonably determined and the cost incurred by the Group is expected to be compensated, the revenue shall be recognized according to the cost amount incurred until the performance progress can be reasonably determined.

Build and transfer contract (BT contract)

Activities under the BT contracts usually include build and transfer. With respect to the building services provided by the Group, during the building period, the revenue of construction service contracts is recognized in accordance with the above accounting policies. The construction contract revenue is measured at the fair value of the consideration receivable, and the "long-term receivables" are recognized and measured at the same time by effective interest rate method and the amortized cost, and offset upon receipt of payment of the project owner.

PPP project contract

PPP project contract refers to the contract concluded between the Group and the government party on PPP project cooperation in accordance with laws and regulations, which also meets the following characteristics (hereinafter referred to as "dual characteristics"):

(1) The Group uses PPP project assets to provide public goods and services on behalf of the government party during the contracted operation period;

(2) The Group is compensated for the public goods and services it provides within the contracted period.

Activities under the PPP contracts usually include construction, operation and transfer. During the building period, the Group determines whether the Group is the principal responsible person or the agent in accordance with the accounting policy of the principal responsible person/agent below. If the Group is the principal responsible person, contract revenue from construction services and contract assets are recognized accordingly, and the revenue of construction contract is measured at the fair value of the consideration received or receivable. During the operating phase, the Group carries out accounting treatment as follows accordingly:

(1) Pursuant to the contractual provisions of the PPP project, during the project operation, if the conditions for collection of the cash (or other financial assets) of a definite amount can be met, the amount of consideration of relevant PPP project assets or the recognized amount of construction revenue is recognized as contract assets until the Group has the right to receive the consideration (which depends only on the passage of time). When the Company has the right to collect such consideration (which depends only on the passage of time), the amount of consideration of relevant PPP project assets or the recognized amount of construction revenue is recognized as accounts receivable, and subject to the accounting treatment specified in the accounting policy for financial instruments. When the PPP project assets reach their expected usable conditions, the difference of the amount of consideration of relevant PPP project assets or the recognized amount of construction revenue in excess of the cash (or other financial assets) of a definite amount is recognized as intangible assets.

(2) Pursuant to the contractual provisions of the PPP project, the Group has the right to collect payments from the recipient of public goods and services, but such right shall not be an unconditional collection right if the payment amount is uncertain. When the PPP project assets reach their expected usable conditions, the amount of consideration of relevant PPP project assets or recognized amount of construction revenue is recognized as an intangible asset and subject to the accounting treatment specified in the accounting policy for intangible assets above.

In the operation stage, when services are provided, recognize the corresponding revenue; Daily maintenance or repair expenses incurred shall be recognized as current expenses. Daily maintenance or repair expenses incurred shall be recognized as current expenses.

The Group presents the construction expenditures incurred during the construction period of PPP projects accounted as intangible assets as cash flows from investing activities. The Group presents the construction expenditures incurred during the construction period of PPP projects other than those mentioned above as cash flows from operating activities.

Variable consideration

If there is variable consideration in the contract, the Group shall determine the best estimate of variable consideration according to the expected value or the most likely amount, but the transaction price including variable consideration shall not exceed the amount that the accumulated recognized revenue is highly unlikely to have a significant reversal when the relevant uncertainty is eliminated. On each balance sheet date, the Group re-estimates the amount of variable consideration to be included in the transaction price.

Warranty obligations

According to the contract and legal provisions, the Group provides quality assurance for the goods sold or the assets built. For the guarantee type quality assurance that the goods sold to customers meet the established standards, the Group shall perform accounting treatment in accordance with Note V. For the service quality assurance for a separate service provided in addition to guaranteeing that the goods sold meet the established standards, the Group shall take it as a single performance obligation, allocate part of the transaction price to the service quality assurance according to relative proportion of the single selling price of the goods and service quality assurance, and recognize the revenue when the customer acquires service control right. In assessing whether quality assurance provides a separate service in addition to ensuring that the goods sold meet established standards, the Group shall consider whether the quality assurance is legal requirement, quality assurance period and the nature of the Group's commitment to perform the tasks.

Principal responsible person/agent

The Group determines whether it is the principal responsible person or the agent in the transaction according to whether it has the right to control the goods or services before transferring them to customers. In case the Group can control the goods and other products before transferring them to customers, the Group shall be the principal responsible person and recognize the revenue according to the total consideration received or receivable. Otherwise, the Group shall be the agent and recognize the revenue according to the amount of commission fees or handling charges that it is expected to be entitled to receive, and the amount shall be recognized according to the net amount of the total consideration received or receivable after deducting the price payable to other relevant parties, or according to the fixed commission amount or proportion.

(2) Differences in revenue recognition accounting policies caused by different business models of similar businesses

Applicable Not applicable

39 Contract cost

Applicable Not applicable

The Group's assets related to contract cost include contract performance cost and contract acquisition cost. According to the liquidity, they are presented in inventories, other current assets and other non-current assets respectively.

If the incremental cost incurred by the Group to get the contract is expected to be recovered, it shall be recognized as an asset as the contract acquisition cost, unless the amortization period of the asset does not exceed one year.



The cost incurred by the Group in performing the contract, which is not applicable to the specification scope of inventories, fixed assets or intangible assets and meets the following conditions simultaneously, shall be recognized as an asset as the contract performance cost:

(1) The cost is directly related to a current or expected contract, including direct labor, direct materials, manufacturing expenses (or similar expenses), costs clearly borne by the customer and other costs incurred solely as a result of the contract;

(2) The cost increases the enterprise's resources for fulfilling its performance obligations in the future;

(3) The cost is expected to be recovered.

The Group's assets related to contract cost are amortized on the same basis as the recognition of income related to the assets, and are included in the current profit or loss.

If the book value of the assets related to contract cost is higher than the difference between the following two items, the Group will make provision for impairment of the excess part and recognize it as the loss of asset impairment:

(1) The remaining consideration expected to be obtained by the enterprise due to the transfer of goods or services related to the assets;

(2) The cost expected to be incurred for the transfer of relevant goods or services.

40 Government subsidies

Applicable Not applicable

Government subsidies shall be recognized only if the Company is able to comply with the conditions for the government subsidies, and is likely to receive the government subsidies. If a government subsidy is a monetary asset, it shall be measured at the amount received or receivable. If a government subsidy is a non-monetary asset, it shall be measured at its fair value; and if its fair value cannot be obtained in a reliable way, it shall be measured at a nominal amount.

If the government subsidies shall be used for the construction or the generation in otherwise of the long-term assets as required by the government documents, they are the assets-related government subsidies; if government documents have no relevant provisions, and such government subsidies are based on the condition of the construction or the generation in otherwise of the long-term assets judged on the basis of basic conditions required for obtaining such government subsidies, they shall be deemed as the assets-related government subsidies, other government subsidies in addition to the said ones shall be deemed as the income-related government subsidies.

Income-related government subsidies which are used to compensate for relevant costs or losses in subsequent periods will be recognized as deferred income, and will be included in the current profit or loss or be used to write off relevant costs in the period when relevant costs or losses are recognized.

If assets-related government subsidies are recognized as deferred income, they shall be included in profit or loss by stages by a reasonable and systematic method within the useful lives of relevant assets. (However, the government subsidies measured at nominal amounts are directly included in the current profit or loss); if the relevant assets are sold, transferred, scrapped or damaged before the end of their useful lives, the undistributed balance of relevant deferred income is transferred to the profit or loss from the current period of asset disposal.

41 Deferred income tax assets/deferred income tax liabilities

Applicable Not applicable

Deferred income tax is accrued under the balance sheet liability method by the Group based on the temporary difference between book value of assets and liabilities on the balance sheet date and tax base, as well as the balance between the book value of items which have not been recognized as assets or liabilities but the tax base can be determined according to the tax law and the tax base.

Taxable temporary differences are recognized as deferred income tax liabilities, except that

(1) Taxable temporary differences are generated in the following transactions: the initial recognition of goodwill, or the initial recognition of assets or liabilities arising from transactions with the following characteristics: the transaction is not a business combination and will not affect accounting profits, nor affect the taxable income or deductible losses when the transaction occurs.

(2) For taxable temporary differences related to the investments in subsidiaries, joint ventures and associates, the time for the reversal of the taxable temporary differences can be controlled and the taxable temporary differences are likely not to be reversed in the foreseeable future.

For deductible temporary differences, deductible losses and tax credits that can be carried forward to subsequent periods, deferred tax assets arising therefrom are recognized to the extent that future taxable income will be probable to be available against the deductible temporary differences, deductible losses and tax credits, unless the deductible temporary differences arise from the following transactions:

(1) The deductible temporary difference is generated in the following transaction: the transaction is not a business combination and it will affect neither accounting profits nor the taxable income (or deductible losses) when occurred.

(2) For the deductible temporary differences arising from investments in subsidiaries, associates and joint ventures, the deferred income tax assets will be accordingly recognized when meeting the following conditions at the same time: the temporary differences may be reversed in the foreseeable future and they can be used to offset the taxable income of deductible temporary differences in the future.

On the balance sheet date, the Company shall measure deferred income tax assets and deferred income tax liabilities at the applicable tax rate during the period for expected recovery of assets or settlement of liabilities and reflect the impacts of the income tax by means of expected recovery of assets or settlement of liabilities on the balance sheet date.

On the balance sheet date, the Group reviews the book value of deferred income-tax assets. If it is unlikely to obtain sufficient taxable income to offset the benefit of the deferred income-tax assets, the book value of the deferred income-tax assets will be written down. On the balance sheet date, the Group re-evaluates unrecognized deferred income tax assets, and deferred income tax assets are recognized to the extent that it is likely to obtain sufficient taxable income for all or part of the deferred income tax assets to be reversed.

Deferred income tax assets and deferred income tax liabilities meeting the following conditions simultaneously will be presented by net amount after offset: when the Company has the statutory right to balance current income tax assets and current income tax liabilities with net amounts, and deferred income tax assets and deferred income tax liabilities are related to the income tax which are imposed on the same taxpayer by the same tax collection authority or on different taxpayers, but, in each important future period in connection with the reversal of deferred income tax assets and liabilities, the involved taxpayer intends to settle the current income tax assets and liabilities on a net amount basis, or obtain assets at the time of discharging liabilities.

42 Lease

(1) Accounting treatment methods of operating lease

Applicable Not applicable

(2) Accounting treatment methods of finance lease

Applicable Not applicable

(3) Determination and accounting treatment methods of lease under the new lease standard

Applicable Not applicable

On the beginning date of the contract, the Group assesses whether the contract is a lease or contains a lease, if one party transfers the right to control the use of one or more identified assets for a certain period of time in exchange for consideration, such contract is, or contains, a lease.

As the lessee

Except for Short-term lease and low-value asset lease, the Group recognizes right of use assets and lease liabilities for leases, and the accounting treatment is detailed in Note V.

Short-term lease and low-value asset lease

The Group recognizes the lease with a lease term of no more than 12 months from the commencement date and excluding the purchase option as a short-term lease; a lease with the value of no more than RMB 50,000 when a single leased asset is a new asset is recognized as a low-value asset lease. Where the Group subleases or expects to sublease a leased asset, the original lease is not recognized as a low-value asset lease. The Group chooses not to recognize right-of-use assets and lease liabilities for short-term leases and low-value asset leases. During the lease term, the relevant asset costs or current profits or losses are recognized on a straight-line basis for each period.

As a lessor

A lease is classified as a finance lease whenever the terms of the lease transfer substantially all the risks and rewards of asset ownership to the lessee on the commencement date. All leases other than financial leases are classified as operating leases.

As a lessor of operating lease

Rental income from the operating lease in each stage during the lease term should be recognized as the current profit or loss by the straight-line method, and the variable lease payments not included in the lease receipts are recognized in profit or loss when they are actually incurred. Initial direct costs are capitalized and amortized over the lease term on the same basis as the recognition of rental income, and are included in current profit or loss.

Leaseback

The Group assesses whether the transfer of assets in leaseback transactions is a sale in accordance with Note V.

As the lessee

Where asset transfer under the leaseback transactions is a sale, as the lessee, the Group shall measure the right-of-use assets created by the leaseback based on the portion of book value of the original assets related to right of use obtained upon leaseback, and only recognize relevant profit or loss for the right transferred to the lessor. Where asset transfer under leaseback transactions is not a sale, as the lessee, the Group shall continue to recognize the transferred assets while recognizing a financial liability equal to the transfer income, and shall carry out accounting treatment for such financial liability according to Note V.

43 Other accounting policies and accounting estimates

Applicable Not applicable

Profit distribution

The Company's cash dividends are recognized as liabilities after approval at the general meeting.



Work safety expenses

The Company withdraws the work safety expenses according to provisions, includes them in the cost of related products or the current profit or loss, and includes them in special reserves at the same time. The costs are handled separately depending on whether they form fixed assets: when withdrawn work safety expenses are used within the prescribed range and belong to expenses, such costs shall be directly deducted from special reserves; where a fixed asset is formed, the expenses incurred through collection are recognized as the fixed asset when it is ready for its intended use, and the equivalent special reserve is written off and the equivalent accumulated depreciation is confirmed.

Fair value measurement

The Group measures the derivative financial instruments and equity instrument investment at fair value on each balance sheet date. Fair value is the price received from sales of an asset or paid for transfer of a liability by a market participant in an orderly transaction on the measurement date.

For assets and liabilities measured at or disclosed by their fair value in the financial statements, the level of the measurement result of fair value shall subject to the lowest level which the input having great significance to the entire measurement of fair value belongs to: Level 1 inputs refer to quoted prices (unadjusted) in active markets for identical assets or liabilities available on the measurement date; Level 2 inputs refer to inputs that are directly or indirectly observable for the assets or liabilities other than Level 1 inputs; Level 3 inputs refer to unobservable inputs of the relevant assets or liabilities.

On each balance sheet date, the Group reevaluates the assets and liabilities continuously measured at fair value and recognized in the financial statements in order to determine whether there is a conversion among the levels of fair value measurement.

Significant accounting judgment and estimate

The preparation of financial statements requires the management to make judgments, estimates and assumptions. These judgments, estimates and assumptions will affect the reported amounts and disclosures of income, expenses, assets and liabilities, and the disclosure of contingent liabilities on the balance sheet date. The results from the uncertainties of these assumptions and estimates may lead to significant adjustments to the book amount of assets or liabilities that are affected in the future.

Judgment

Determination of the performance progress of construction contracts (only applicable to transfer of control over a period of time)

The Group determines the performance progress of the construction contracts by input method. To be more specific, the Group determines the performance progress according to the proportion of the cumulative actual construction cost to the estimated total cost, while the cumulative actual cost includes the direct cost and indirect cost in the process of transferring goods to customers. The Group believes that the construction contract price with customers is determined on the basis of construction cost, and the proportion of the actual construction cost to the estimated total cost can truly reflect the performance progress of construction services. In view of the long duration of construction contracts, which may span several accounting periods, the Group will recheck and revise the budget with the progress of the construction contracts, and adjust the amount of revenue recognized accordingly.

Uncertainty of estimation

The following are other key sources of the uncertainty of the key assumptions and estimates in the future on the balance sheet date, which may lead to major adjustments in the book value of the assets and liabilities of next fiscal year.

Impairment of financial instruments and contract assets

The Group adopts the expected credit loss model to assess the impairment of financial instruments and contract assets. The application of the expected credit loss model requires significant judgments and estimates. It must consider all reasonable and evidence-based information, including forward-looking information. In making such judgments and estimates, the Group infers expected changes in debtors' credit risk based on historical repayment data combined with economic policies, macroeconomic indicators, industry risks and other factors. Different estimates may affect the provision for impairment, and the amount of impairment that has been provided may be not equal to the actual amount of future impairment losses.

Inventory depreciation reserves

The management shall estimate the net realizable value of inventories in time so as to estimate the provision for depreciation of inventories. If any event or circumstance changes, it is necessary to use the estimate to make the provision for depreciation of inventories if the inventory is not likely to realize the relevant value. If the expected amount is different from the original estimate, the relevant difference will affect the book value of the inventories and the impairment loss during the estimated change.

Impairment of non-current assets other than financial assets (other than goodwill)

On the balance sheet date, the Group judges whether there are any signs of possible impairment of non-current assets other than financial assets. Non-current assets other than financial assets are tested for impairment when there is an indication showing that their book amounts are irrecoverable. When the book value of an asset or asset group is higher than the recoverable amount, that is, the higher of the net amount from fair value less the disposal expense and the present value of the estimated future cash flow, it indicates that the impairment occurred. The net amount after the fair value minus the disposal expenses is determined by reference to the sales agreement price of similar assets in the fair trade or the observable market price, minus the incremental cost directly attributable to the disposal of the asset. When estimating the

present value of future cash flows, management must estimate the expected future cash flows of the asset or asset group and select an appropriate discount rate to determine the present value of future cash flows.

Impairment of goodwill

The Group tests whether the goodwill is impaired at least annually. This requires an estimate of the present value of the future cash flows of the asset group or combination of asset groups to which goodwill is allocated. When estimating the present value of future cash flows, the Group needs to estimate the cash flow generated by future asset groups or combination of asset groups, and select the appropriate discount rate to determine the present value of future cash flows. See Note VII for details.

Fair value of unlisted equity investments

The Group uses the market approach to determine the fair value of unlisted equity investments. This requires the Group to identify comparable listed companies, select market multipliers, estimate liquidity discounts, etc. and is therefore subject to uncertainty. The fair value of unlisted equity investments is determined based on the estimated future cash flows discounted at the current discount rate for other financial instruments with similar contract terms and risk characteristics. This requires the Group to estimate the expected future cash flow, credit risk, fluctuation and discount rate; therefore, there is some uncertainty.

44 Changes in significant accounting policies and accounting estimates

(1) Changes in significant accounting policies

Applicable Not applicable

(2) Changes in accounting estimates

Applicable Not applicable

(3) First-time implementation of new accounting standards or interpretations of standards from 2022 onwards involves adjustments to the financial statements at the beginning of the year of first-time implementation

Applicable Not applicable

45 Others

Applicable Not applicable

VI. Taxes

1 Main tax categories and tax rates

Main tax categories and tax rates

Applicable Not applicable

Category of tax	Basis of tax computation	Tax rate
VAT	VAT is applicable to the sales of the Group's products	The taxable income from the sales of the products in domestic market is subject to the output tax as per 13%; the products for export adopt the method of "tax exemption, tax deduction and tax reimbursement" and the applicable tax rate is 13%. The Group's income from the marine transport is applicable to VAT, and the output tax is calculated as per 9%; the income from leasing of the equipment is applicable to VAT and the output tax is calculated as per 13% of the taxable income; the income from the sales of the equipment is applicable to the simple collection measures of VAT and the tax rate is subject to the reduced tax rate of 2%; the Group's income from the leasing of the housing is applicable to the simple collection measures of VAT and the tax rate is 5%; the item "B-T" is applicable to VAT and the output tax on the taxable income is collected at 9%. The above output tax shall calculate and pay VAT after deducting the amount of input tax deductible, except for the applicable VAT's simple collection method.
Consumption tax	/	/
Sales tax	/	/
Urban maintenance and construction tax	VAT paid	Calculated and paid according to 7% and 3% of the actual turnover tax paid respectively.
Enterprise income tax	The enterprise income tax is calculated and paid in accordance with the Enterprise Income Tax Law of People's Republic of China (hereinafter referred to as the "Income Tax Law").	The group was awarded a new High-tech Enterprise Certificate (Certificate Number: GR202031006909) in December 2020 after reexamination, with the valid term of 3 years. The Company actually applied the enterprise income tax rate of 15% this year (2021: 15%).



Where there are taxpayers with different enterprise income tax rates, the disclosure shall be stated

√Applicable □Not applicable

Name of taxpayer	Income tax rate (%)
The Company	15%
Shanghai Zhenhua Port Machinery Heavy Industries Co., Ltd.	15%
Shanghai Zhenhua Port Machinery (Hong Kong) Co., Ltd.	16.50%
Shanghai Zhenhua Shipping Co., Ltd	25%
Nantong Zhenhua Heavy Equipment Manufacturing Co., Ltd.	25%
Shanghai Zhenhua Heavy Industries Group (Nantong) Transmitter Co., Ltd.	15%
ZPMC Electric Co., Ltd.	15%
Shanghai Zhenhua Ocean Engineering Service Co., Ltd	25%
ZPMC Machinery Equipment Services Co., Ltd.	25%
Shanghai Zhenhua Heavy Industries Port Machinery General Equipment Co., Ltd.	25%
Shanghai Port Machinery Heavy Industry Co., Ltd	25%
ZPMC Zhangjiagang Port Machinery Co., Ltd.	25%
ZPMC Qidong Marine Engineering Co., Ltd.	25%
Jiahua Shipping Co., Ltd.	16.50%
Zhenhua Pufeng Wind Energy (HongKong) Co., Ltd.	16.50%
Nanjing Ninggao New Channel Construction Co., Ltd	25%
CCCC Investment & Development Qidong Co., Ltd.	25%
CCCC Liyang Urban Investment and Construction Co., Ltd.	25%
CCCC (Huaian) Construction Development Co., Ltd.	25%
CCCC Zhenjiang Investment Construction Management Development Co., Ltd.	25%
CCCC Rudong Construction Development Co., Ltd.	25%
ZPMC Netherlands Coöperatie U.A.	25.80%
ZPMC Netherlands B.V.	25.80%
Verspannen B.V.	25.80%
ZPMC Espana S.L.	25%
ZPMC Italia S.r.l.	24%
ZPMC GmbH Hamburg	32.25%
ZPMC Lanka Company (Private) Limited	24%/30%
ZPMC North America Inc.	31%
ZPMC Korea Co., Ltd.	20%
ZPMC Engineering Africa (Pty) Ltd.	28%
ZPMC Engineering (India) Private Limited	25.17%
ZPMC Southeast Asia Holding Pte. Ltd.	17%
ZPMC Engineering (Malaysia) Sdn. Bhd.	24%
ZPMC Australia Company (Pty) Ltd.	30%
ZPMC Brazil Serviço Portuários LTDA	25%
ZPMC Limited Liability Company	20%
ZPMC NA East Coast Inc.	28%
ZPMC Middle East FZE	0%
ZPMC UK LD	19%
Greenland Heavylift (Hong Kong) Limited	16.50%
GPO Grace Limited	0%
GPO Amethyst Limited	0%
GPO Sapphire Limited	0%
GPO Emerald Limited	0%
GPO Heavylift Limited	0%

Name of taxpayer	Income tax rate (%)
GPO Heavylift AS	0%
GPO Heavylift Pte Ltd	17%
ZPMC Latin America Holding Corporation	5%
Terminexus Co., Ltd.	16.50%
CCCC Yongjia Construction Development Co., Ltd.	25%
CCCC Zhenhua Lvjian Technology (Ningbo) Co., Ltd.	25%
ZPMC Hotel Co., Ltd.	25%
Xiong'an Zhenhua Co., Ltd.	25%
ZPMC Fuzhou Offshore Construction Co., Ltd.	25%
CCCC (Dongming) Investment and Construction Co., Ltd.	25%
CCCC Zhenhua Intelligent Parking (Hengyang) Co., Ltd.	25%

Remark 1: Shanghai Zhenhua Heavy Industries Group (Nantong) Heavy Gear Reducer Co., Ltd won the “Hi-tech Enterprise Certificate” (No. GR202232002981) after reexamination in October 2022, with the valid term of 3 years. Shanghai Zhenhua Port Machinery Heavy Industries Co., Ltd. won the “Hi-tech Enterprise Certificate” (No. GR202231000204) after reexamination in December 2022, with the valid term of 3 years. Shanghai Zhenhua Heavy Industries Electric Co., Ltd won the “Hi-tech Enterprise Certificate” (No.: GR202031001911) after reexamination in November 2020, with the valid term of 3 years. In accordance with relevant provisions in Article 28 of the Income Tax Law, the actually applicable enterprise income tax rate for these companies in this year was 15% (2021: 15%).

2 Tax preferences

Applicable Not applicable

3 Others

Applicable Not applicable

VII. Notes to the main items of the consolidated financial statements

1 Monetary funds

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2022	December 31, 2021
Cash on hand	1,027,476	851,261
Bank deposits	2,374,073,961	4,448,986,616
Other monetary funds	21,946,276	121,999,707
Total	2,397,047,713	4,571,837,584
Including: total amount of overseas deposits	1,253,939,219	677,986,642
Deposits with finance companies		

Other description

As at December 31, 2022, the other monetary funds, including the restricted deposit of RMB 21,946,276 (as at December 31, 2021: RMB 121,999,707), were the money appropriated that was collected from the overseas projects and deposited in the overseas regulatory accounts and the cash deposit deposited for application to the bank for the letter of credit and letter of guarantee.

As at December 31, 2022, the overseas monetary fund deposited by the Group was RMB 1,253,939,219 (as at Dec. 31, 2021: RMB 677,986,642).

As at December 31, 2022, the bank deposits were current deposits. The interest income from current deposits is calculated as per the interest rate of the current deposits.



2 Held-for-trading financial assets

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2022	December 31, 2021
Financial assets measured at fair value through the current profit or loss	877,483,342	1,153,533,922
Including:		
Derivative financial assets – equity options (i)	8,438,278	8,438,278
Investments in shares of listed companies (ii)	869,045,064	1,145,095,644
Financial assets designated to be measured at fair value through the current profit or loss		
Including:		
Total	877,483,342	1,153,533,922

Other description:

Applicable Not applicable

(i) As at December 31, 2022, the held-for-trading financial assets- derivative financial assets – equity options held by the Group refers to the fair value of the right obtained at the time of acquiring Greenland Heavylift (Hong Kong) Limited to purchase 1% of its equity of at the price of USD 1.

(ii) As at December 31, 2022, the listed company share investments held by the Group include 5.30% equity of Jiangxi Huawu Brake Co., Ltd., 1.59% equity of Qingdao Port International Co., Ltd., 1.16% equity of CRSC, 0.02% equity of COSCO Shipping Holdings Co., Ltd. and 0.001% equity of Shenwan Hongyuan Group Co., Ltd.

3 Derivative financial assets

Applicable Not applicable

4 Notes receivable

(1) Presentation of notes receivable by category

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2022	December 31, 2021
Bank acceptance bill		
Commercial acceptance bill	56,114,657	3,979,800
Total	56,114,657	3,979,800

(2) Notes receivable pledged by the Company at the end of the period

Applicable Not applicable

(3) Notes receivable endorsed or discounted by the Company at the end of the period and not yet due on the balance sheet date

Applicable Not applicable

(4) Notes transferred to accounts receivable by the Company at the end of the period due to drawer's failure in performance

Applicable Not applicable

(5) Disclosure by bad debt calculation method

Applicable Not applicable

Individual provision for bad debts:

Applicable Not applicable

Provision for bad debts by portfolio:

Applicable Not applicable

If the provision for bad debts is calculated based on the general model of expected credit loss, please refer to other receivables for disclosure:

Applicable Not applicable

(6) Provision for bad debts

Applicable Not applicable

(7) Notes receivable actually written off in the current period

Applicable Not applicable

Other description

Applicable Not applicable**5 Accounts receivable**

(1) Disclosure by aging

Applicable Not applicable

Unit: Yuan Currency: CNY

Aging	December 31, 2022
Within 1 year	
Including: subitem within 1 year	
Sub-total of items within 1 year	4,719,933,460
1- 2 years	856,147,852
2- 3 years	1,917,825,421
Over 3 years	
3- 4 years	673,336,029
4- 5 years	176,228,829
Over 5 years	1,167,076,085
Total	9,510,547,676

(2) Disclosure by bad debt calculation method

Applicable Not applicable

Unit: Yuan Currency: CNY

Category	December 31, 2022				
	Book balance		Provision for bad debts		Book value
	Amount	Proportion (%)	Amount	Proportion of provision (%)	
Provision for bad debts accrued on an individual basis	896,540,136	9	825,285,390	92	71,254,746
Including:					
Provision for bad debts by portfolio	8,614,007,540	91	1,491,612,431	17	7,122,395,109
Including					
Total	9,510,547,676	/	2,316,897,821	/	7,193,649,855

Category	December 31, 2021				
	Book balance		Provision for bad debts		Book value
	Amount	Proportion (%)	Amount	Proportion of provision (%)	
Provision for bad debts accrued on an individual basis	898,273,314	11	655,457,495	73	242,815,819
Including:					
Provision for bad debts by portfolio	7,579,394,793	89	1,373,359,856	18	6,206,034,937
Including					
Total	8,477,668,107	/	2,028,817,351	/	6,448,850,756



Individual provision for bad debts:
Applicable Not applicable

Unit: Yuan Currency: CNY

Name	December 31, 2022			
	Book balance	Provision for bad debts	Proportion of provision (%)	Reason for provision
Accounts receivable 1	475,031,639	403,776,893	85	Counterparty financial shortage
Accounts receivable 2	173,768,233	173,768,233	100	Contract dispute
Accounts receivable 3	93,954,000	93,954,000	100	Counterparty financial shortage
Accounts receivable 4	51,028,800	51,028,800	100	Contract dispute
Accounts receivable 5	43,053,946	43,053,946	100	Contract dispute
Accounts receivable 6	27,858,470	27,858,470	100	Contract dispute
Accounts receivable 7	10,208,916	10,208,916	100	Contract dispute
Accounts receivable 8	7,450,764	7,450,764	100	Contract dispute
Accounts receivable 9	7,495,088	7,495,088	100	Contract dispute
Accounts receivable 10	2,220,314	2,220,314	100	Contract dispute
Accounts receivable 11	3,576,178	3,576,178	100	Contract dispute
Accounts receivable 12	893,788	893,788	100	Contract dispute
Total	896,540,136	825,285,390	92	/

Description of individual provision for bad debts:

Applicable Not applicable

As at December 31, 2021, the accounts receivables with individual provision for bad debts are as follows:

	Book balance	Provision for bad debts	Estimated credit loss ratio %	Reason for provision
Accounts receivable 1	485,631,638	242,815,819	50	Counterparty financial shortage
Accounts receivable 2	169,011,372	169,011,372	100	Contract dispute
Accounts receivable 3	93,954,000	93,954,000	100	Counterparty financial shortage
Accounts receivable 4	51,028,800	51,028,800	100	Contract dispute
Accounts receivable 5	42,979,947	42,979,947	100	Contract dispute
Accounts receivable 6	25,502,864	25,502,864	100	Contract dispute
Accounts receivable 7	9,929,450	9,929,450	100	Contract dispute
Accounts receivable 8	7,289,912	7,289,912	100	Contract dispute
Accounts receivable 9	6,820,756	6,820,756	100	Contract dispute
Accounts receivable 10	3,273,790	3,273,790	100	Contract dispute
Accounts receivable 11	2,032,572	2,032,572	100	Contract dispute
Accounts receivable 12	818,213	818,213	100	Contract dispute
	898,273,314	655,457,495		

Provision for bad debts by portfolio:

Applicable Not applicable

If the provision for bad debts is calculated based on the general model of expected credit loss, please refer to other receivables for disclosure:

Applicable Not applicable

(3) Provision for bad debts

Applicable Not applicable

The recovered or reversed provision for bad debts with significant amount:

Applicable Not applicable

(4) Accounts receivable actually written off in the current period

Applicable Not applicable

(5) Top 5 accounts receivable in terms of ending balance presented by debtor

Applicable Not applicable

(6) Accounts receivable derecognized due to the transfer of financial assets

Applicable Not applicable

(7) Amount of assets and liabilities formed by transferring accounts receivable and continuing involvement

Applicable Not applicable

Other description:

Applicable Not applicable

In 2022, the Group entered into an asset securitization transaction “Huatai-ZPMC Asset-Backed Securities Special Plan Series I”, including some accounts receivable and contract assets measured at amortized cost as the underlying assets. It applied for the establishment of a special plan through the plan administrator, and applied for the registration of a shelf scale of RMB 2 billion, with an initial issue size of RMB 1 billion. In 2022, the book balance of the derecognized accounts receivable was RMB 837,502,837 and the book balance of contract assets was RMB 182,227,057 (2021: nil), and a loss of RMB 20,135,378 (2021: nil) upon derecognition was included in investment income.

As at December 31, 2022, the long-term accounts receivable were RMB 191,217,707 (as at December 31, 2021: RMB 107,145,406), which had been pledged to the bank as the guarantee for the long-term borrowings of RMB 2,469,639,584 (as at December 31, 2021: Long-term borrowings of RMB 2,397,403,882).

Changes in the provision for bad debts of accounts receivable are as follows:

	January 1, 2022	Provision in 2022	Recovery or reversal in 2022	Write-off in 2022	December 31, 2022
Year 2022	2,028,817,351	665,296,983	(343,137,208)	(34,079,305)	2,316,897,821
Year 2021	1,874,771,667	497,724,257	(343,678,573)	-	2,028,817,351

Remark: Accounts receivable and contract assets are derecognized due to asset-backed security business, and accordingly, the accrued bad debt losses of RMB 34,079,305 and provision for impairment of contract assets of RMB19,597,098 (2021: Nil) were written off.

Accounts receivable with provision for bad debts accrued by credit risk features portfolio are as follows:

	2022			2021		
	Book balance of estimated default	Estimated credit loss ratio (%)	Expected credit loss for the entire duration	Book balance of estimated default	Estimated credit loss ratio (%)	Expected credit loss for the entire duration
Within 1 year	4,717,806,043	4	183,619,656	3,681,892,745	4	134,291,477
1-2 years	856,147,852	13	111,990,696	2,449,354,394	15	366,679,751
2-3 years	1,808,064,282	26	470,904,017	297,376,432	25	74,906,578
3-4 years	230,551,083	38	87,894,312	164,454,110	45	74,134,811
4-5 years	161,998,029	59	94,864,959	160,142,006	66	104,945,230
Over 5 years	839,440,251	65	542,338,791	826,175,106	75	618,402,009
Total	8,614,007,540		1,491,612,431	7,579,394,793		1,373,359,856

As at December 31, 2022, top 5 accounts receivable in terms of ending balance presented by debtor summarized and analyzed as follows:

	Balance	Provision for bad debts	Proportion in total balance of accounts receivable %
Total accounts receivable of top 5 balances	1,676,814,282	569,678,207	18



As at December 31, 2021, top 5 accounts receivable in terms of ending balance presented by debtor summarized and analyzed as follows:

	Balance	Provision for bad debts	Proportion in total balance of accounts receivable %
Total accounts receivable of top 5 balances	1,521,031,649	490,608,435	18

6 Receivables financing

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2022	December 31, 2021
Bank acceptance bill	145,939,266	116,644,174
Digital debt voucher of accounts receivable	293,973,162	128,764,086
Total	439,912,428	245,408,260

Increase or decrease and changes in fair value of receivables financing in the current period:

Applicable Not applicable

If the provision for bad debts is calculated based on the general model of expected credit loss, please refer to other receivables for disclosure:

Applicable Not applicable

Other description:

Applicable Not applicable

Notes receivable that had been endorsed or discounted and not matured on the balance sheet date are as follows:

	2022		2021	
	Amount derecognized	Amount not derecognized	Amount derecognized	Amount not derecognized
Bank acceptance bill	574,174,330	-	1,075,578,905	-
Digital debt voucher of accounts receivable	39,493,607	-	37,987,378	-
Total	613,667,937	-	1,113,566,283	-

7 Advances to suppliers

(1) Presentation of advances to suppliers by account age

Applicable Not applicable

Unit: Yuan Currency: CNY

Aging	December 31, 2022		December 31, 2021	
	Amount	Proportion (%)	Amount	Proportion (%)
Within 1 year	821,657,082	86	961,833,606	83
1-2 years	26,224,985	3	72,585,749	6
2-3 years	18,112,942	2	39,177,439	4
Over 3 years	85,217,413	9	85,831,056	7
Total	951,212,422	100	1,159,427,850	100

Explanation of the reasons why the advances to suppliers with the aging over one year and a significant amount is not settled in time:

As at December 31, 2022, the advances to suppliers of the Company with the aging over one year was RMB 129,555,340 (as at December 31, 2021: RMB 197,594,244), mainly the advances to suppliers for the procurement of imported parts, which has not been yet settled because the purchased imported parts have not yet received.

(2) Top 5 advances to suppliers in terms of ending balance presented by prepaid object

Applicable Not applicable

As at December 31, 2022, top 5 advances to suppliers in terms of ending balance presented by debtor summarized and analyzed as follows:

	Amount	Proportion in total advances to suppliers %
Total advances to suppliers of top 5 balances	231,947,919	24

As at December 31, 2021, top 5 advances to suppliers in terms of ending balance presented by debtor summarized and analyzed as follows:

	Amount	Proportion in total advances to suppliers %
Total advances to suppliers of top 5 balances	605,483,612	52

Other description

None

Other description

Applicable Not applicable

8 Other receivables

Item presentation

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2022	December 31, 2021
Interest receivable		
Dividends receivable	8,000,000	
Other receivables	987,545,297	940,522,896
Total	995,545,297	940,522,896

Other description:

Applicable Not applicable

Interest receivable

(1) Classification of interest receivable

Applicable Not applicable

(2) Significant overdue interest

Applicable Not applicable

(3) Provision for bad debts

Applicable Not applicable

Other description:

Applicable Not applicable

Dividends receivable

(4) Dividends receivable

Applicable Not applicable

Item (or the invested entity)	December 31, 2022	December 31, 2021
Suzhou Chuanglian Electric Drive Co., Ltd.	8,000,000	
Total	8,000,000	

(5) Significant dividends receivable aging over 1 year

Applicable Not applicable

(6) Provision for bad debts

Applicable Not applicable

Other description:

Applicable Not applicable



Other receivables
(7) Disclosure by aging
Applicable Not applicable

Unit: Yuan Currency: CNY

Aging	December 31, 2022
Within 1 year	
Including: subitem within 1 year	
Sub-total of items within 1 year	889,793,874
1-2 years	107,718,693
2-3 years	14,649,282
Over 3 years	
3-4 years	8,519,028
4-5 years	43,062,407
Over 5 years	188,072,813
Total	1,251,816,097

(8) Classification by nature of funds
Applicable Not applicable

Unit: Yuan Currency: CNY

Nature of funds	December 31, 2022	December 31, 2021
Unpaid taxes receivable	385,097,393	504,714,202
Customs-related security deposit	267,023,626	61,537,519
Secured repayment	164,124,678	164,124,678
Advance payment receivable on behalf of the third party	89,988,184	107,259,811
Bid and performance bond	80,063,435	70,980,397
Receivables from third parties	65,401,708	51,255,044
Lease payment receivable	41,353,253	33,434,667
Money on call for product field service	23,907,573	23,460,236
Staff borrowings receivable	13,446,973	15,006,084
Export rebates	7,654,374	2,332,792
Equity disposal receivables		62,210,484
Others	113,754,900	84,481,123
Total	1,251,816,097	1,180,797,037

(9) Provision for bad debts
Applicable Not applicable

Unit: Yuan Currency: CNY

Provision for bad debts	Stage I	Stage II	Stage III	Total
	Expected credit losses over the next 12 months	Expected credit loss for the entire duration (no credit impairment)	Expected credit loss for the entire duration (credit impairment has occurred)	
Balance as at January 1, 2022		9,509,850	230,764,291	240,274,141
Balance as at January 1, 2022 in current period				
--Transferred to Stage II				
--Transferred to Stage III				
--Reversal to Stage II				
--Reversal to Stage I				

Provision for bad debts	Stage I	Stage II	Stage III	Total
	Expected credit losses over the next 12 months	Expected credit loss for the entire duration (no credit impairment)	Expected credit loss for the entire duration (credit impairment has occurred)	
Provision in the current period		23,996,659		23,996,659
Reversal in the current period				
Write-off in the current period				
Charge-off in the current period				
Other changes				
Balance as at December 31, 2022		33,506,509	230,764,291	264,270,800

Description of significant changes in book balance of other receivables with changes in loss provision in the current period

Applicable Not applicable

The amount of provision for bad debts in the current period and the basis for assessing whether the credit risk of financial instruments has increased significantly:

Applicable Not applicable

(10) Provision for bad debts

Applicable Not applicable

(11) Other receivables actually written off in the current period

Applicable Not applicable

(12) Top 5 other receivables in terms of ending balance presented by debtor

Applicable Not applicable

Unit: Yuan Currency: CNY

Name	Nature	December 31, 2022	Aging	Proportion in the total balance of other receivables (%)	Balance of provision for bad debts at the end of the year
Other receivables 1	Customs-related security deposit	267,023,626	Within 1 year	21	
Other receivables 2	Secured repayment	164,124,678	5-6 years	13	164,124,678
Other receivables 3	Taxes on outstanding payment receivable	65,462,896	3-4 years	5	23,571,255
Other receivables 4	Advance payment	54,433,215	2-6 years	4	54,433,215
Other receivables 5	Receivables from related parties	29,228,919	Within 1 year	2	
Total	/	580,273,334	/		242,129,148

(13) Receivables involving government subsidies

Applicable Not applicable

(14) Other receivables derecognized due to transfer of financial assets

Applicable Not applicable

(15) Amount of assets and liabilities formed by transferring other receivables and continuing involvement

Applicable Not applicable

Other description:

Applicable Not applicable



9 Inventories

(1) Classification

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2022			December 31, 2021		
	Book balance	Provision for inventory depreciation/ provision for impairment of contract performance cost	Book value	Book balance	Provision for inventory depreciation/ provision for impairment of contract performance cost	Book value
Raw materials	3,563,755,666	51,313,490	3,512,442,176	2,904,965,379	54,380,282	2,850,585,097
Goods in process	18,402,900,715	651,631,433	17,751,269,282	20,163,020,910	1,119,442,227	19,043,578,683
Stock commodities	20,380,324		20,380,324	29,428,589		29,428,589
Revolving materials						
Consumptive biological assets						
Contract performance cost	229,287,566		229,287,566	150,182,361		150,182,361
Total	22,216,324,271	702,944,923	21,513,379,348	23,247,597,239	1,173,822,509	22,073,774,730

(2) Provision for inventory depreciation and provision for impairment of contract performance cost

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2021	Increase in the current period		Decrease in the current period		December 31, 2022
		Provision	Other	Reversal or write-off	Other	
Raw materials	54,380,282	9,950,010		13,016,802		51,313,490
Goods in process	1,119,442,227	219,787,553		687,598,347		651,631,433
Stock commodities						
Revolving materials						
Consumptive biological assets						
Contract performance cost						
Total	1,173,822,509	229,737,563		700,615,149		702,944,923

(3) Description of the amount of capitalized borrowing costs included in ending balance of inventories

Applicable Not applicable

(4) Description of the current amortization amount of contract performance cost

Applicable Not applicable

Other description

Applicable Not applicable

Provision for inventory depreciation is as follows:

	Specific basis for determination of net realizable values	Reasons for provision for depreciation of inventories reversed or written-off in the current year
Raw materials and outsourced parts and components	Difference between the net realizable value of raw materials and outsourced parts and components and their book value resulting from product price fall	Value recovery, consuming or external sales
Goods in process	Difference between the net realizable value and the book value of goods in process	Value recovery, transferred for self-use or external sales

Total amount of possible penalties for failure to fulfill the obligations as contracted:

	2022	2021
Valid letter of guarantee signed by the bank	14,198,954,467	12,355,828,402
Letter of guarantee not signed by the bank	8,124,948,765	7,408,487,578
Total	22,323,903,232	19,764,315,980

10 Contract assets

(1) Particulars about contract assets

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2022			December 31, 2021		
	Book balance	Provision for impairment	Book value	Book balance	Provision for impairment	Book value
Warranty balance recognized at the time of control transfer (Remark 1)	649,826,261	49,774,565	600,051,696	452,889,676	54,001,996	398,887,680
Outstanding payments for construction completed (Remark 2)	2,704,018,170	60,996,730	2,643,021,440	1,626,265,619	53,697,449	1,572,568,170
Total	3,353,844,431	110,771,295	3,243,073,136	2,079,155,295	107,699,445	1,971,455,850

Remark 1: When the Group sells equipment to customers and provides relevant installation services, it constitutes a single performance obligation. When the Group recognizes revenue at the time of fulfilling its performance obligations, the Company's unconditional (i.e., only depending on the passage of time) right to collect consideration from customers shall be presented as receivables. The non-invoiced contract warranty balance is the right to conditionally collect the consideration from the customer. Therefore, the Company recognizes the non-invoiced contract receivables as contract assets, and the contract assets will form unconditional collection right after the expiration of the warranty and will be transferred to the receivables.

Remark 2: The Group provides customers with infrastructure construction services and steel structure product manufacturing, and recognizes revenue within a period of time to form contract assets. The contract assets will form unconditional collection right at the time of project settlement and are transferred in receivables. The customers shall settle accounts with the Group on the performance progress of engineering construction services and the delivery of steel structure products under contract provisions, and pay the contract price according to the credit period specified in the contract after settlement. The part of the income amount recognized by the Group according to the performance progress exceeding the settled price is recognized as contract assets, and the part of the settled price exceeding the income amount recognized by the Group according to the performance progress is recognized as contract liabilities.

As at December 31, 2022, the contract assets were RMB 133,406,311 (as at December 31, 2021: RMB 38,384,855), which had been pledged to the bank as the guarantee for the long-term borrowings of RMB 2,469,639,584 (as at December 31, 2021: Long-term borrowings of RMB 2,397,403,882). See 45(ii) in Note VII for details.

(2) Amount of and reason for significant changes in book value during the reporting period

Applicable Not applicable

(3) Provision for impairment of contract assets in current period

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	Provision in the current period	Reversal in the current period	Write-off/charge-off in the current period	Reason
Warranty balance recognized at the time of control transfer	32,416,999	17,047,332	19,597,098	
Outstanding payments for construction completed	7,299,281			
Total	39,716,280	17,047,332	19,597,098	/

If the provision for bad debts is calculated based on the general model of expected credit loss, please refer to other receivables for disclosure:

Applicable Not applicable



Other description:

Applicable Not applicable

The contract assets with provision for impairment loss by credit risk features portfolio are as follows:

	2022			2021		
	Book balance of estimated default	Estimated credit loss rate (%)	Expected credit loss in the entire duration	Book balance of estimated default	Estimated credit loss rate (%)	Expected credit loss in the entire duration
Within 1 year	3,096,872,055	2	68,072,038	1,742,068,619	3	56,239,177
1-2 years	234,347,021	16	36,474,555	335,379,230	15	50,918,891
2-3 years	22,625,355	28	6,224,702	1,282,051	27	348,205
Over 3 years	-	-	-	425,395	45	193,172
Total	3,353,844,431		110,771,295	2,079,155,295		107,699,445

11 Assets held for sale

Applicable Not applicable

Other description:

On December 25, 2021, Shanghai Zhenhua Shipping Co., Ltd ("Shipping Company"), a subsidiary of the Group, entered into a ship sales contract with a third party for the sale of a ship, under which the ownership of the ship was transferred to the buyer upon delivery of the ship to and acceptance by the buyer in accordance with the requirements of the contract. On December 31, 2021, the Group classified the ship with a net value of RMB15,167,288 as assets held for sale. The said ship was duly delivered to and accepted by the buyer in 2022.

12 Non-current assets due within one year

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2022	December 31, 2021
Debt investment due within one year		
Other debt investments due within one year		
Long-term receivables due within one year	900,213,411	1,437,034,591
Total	900,213,411	1,437,034,591

Important debt investment and other debt investments due at the end of the period:

Applicable Not applicable

Other description

None

13 Other current assets

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2022	December 31, 2021
Contract acquisition cost		
Return cost receivable		
Input tax to be deducted	261,819,250	346,871,563
Prepaid income tax	17,248,091	12,933,785
Total	279,067,341	359,805,348

Other description

None

14 Debt investment

(1) Particulars about debt investment

Applicable Not applicable

(2) Important debt investment at the end of the period

Applicable Not applicable

(3) Provision for impairment

Applicable Not applicable

The amount of provision for impairment in the current period and the basis for assessing whether the credit risk of financial instruments has increased significantly

Applicable Not applicable

Other description

Applicable Not applicable**15 Other debt investments**

(1) Particulars about other debt investments

Applicable Not applicable

(2) Important other debt investments at the end of the period

Applicable Not applicable

(3) Provision for impairment

Applicable Not applicable

The amount of provision for impairment in the current period and the basis for assessing whether the credit risk of financial instruments has increased significantly

Applicable Not applicable

Other description:

Applicable Not applicable**16 Long-term receivables**

(1) Long-term receivables

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2022			December 31, 2021			Discount rate range
	Book balance	Provision for bad debt	Book value	Book balance	Provision for bad debt	Book value	
Financing lease							
Including: Unrealized financing income							
Goods sold on installment							
Services provided on installment							
Receivables from "Building – Transfer" project							
- Principal	3,057,984,503		3,057,984,503	3,954,505,577		3,954,505,577	
- Interest receivable	244,494,473		244,494,473	156,936,397		156,936,397	
Less: Long-term receivables due within one year	900,213,411		900,213,411	1,437,034,591		1,437,034,591	
Total	2,402,265,565		2,402,265,565	2,674,407,383		2,674,407,383	/

(2) Provision for bad debts

Applicable Not applicable

The amount of provision for bad debts in the current period and the basis for assessing whether the credit risk of financial instruments has increased significantly

Applicable Not applicable

(3) Long-term receivables derecognized due to transfer of financial assets

Applicable Not applicable



(4) Amount of assets and liabilities formed by transferring long-term receivables and continuing involvement

Applicable Not applicable

Other description

Applicable Not applicable

As at December 31, 2022 and December 31, 2021, the account receivable from “Building – Transfer” project was the principal invested in above “Building – Transfer” project by the Group, and the amount of interest receivable was the financing return recognized based on the contract.

As at December 31, 2022, the long-term accounts receivable was RMB 2,212,190,758 (as at December 31, 2021: RMB 2,177,499,634), which had been pledged to the bank as the guarantee for the long-term borrowings of RMB 2,469,639,584 (as at December 31, 2021: Long-term borrowings of RMB 2,397,403,882).

Aging analysis of long-term receivable is as follows:

Item	2022	2021
Within 1 year	524,957,024	872,444,810
1-2 years	489,642,736	290,550,519
2-3 years	198,310,855	606,243,813
Over 3 years	2,089,568,361	2,342,202,832
Sub-total	3,302,478,976	4,111,441,974
Less: Long-term receivables due within one year	900,213,411	1,437,034,591
Total	2,402,265,565	2,674,407,383

17 Long-term equity investments

Applicable Not applicable

Unit: Yuan Currency: CNY

Invested entity	December 31, 2021	Increase/decrease in the current period								December 31, 2022	Provision for impairment at the end of the year
		Further investment	Reduced investment	Profit or loss on investments under the equity method	Adjustment of other comprehensive income	Changes in other equity	Dividends or profit declared to be distributed	Provision for impairment	Other		
I. Joint ventures											
Jiangsu Longyuan Zhenhua Marine Engineering Co., Ltd	323,033,681			76,902,400			-35,000,000			364,936,081	
ZPMC Mediterranean Liman Makinalari Ticaret Anonim Sirketi	396,692									396,692	
ZPMC-OTL MARINE CONTRACTOR LIMITED											
Zhenhua Marine Energy (HK) Co., Ltd. (i)											
Cranetech Global Sdn. Bhd.	632,180									632,180	
Sub-total	324,062,553			76,902,400			-35,000,000			365,964,953	
II. Associates											
CCCC Financial Leasing Co., Ltd (i)	608,658,400			65,045,550	625,583					674,329,533	
CCCC Yancheng Construction Development Co., Ltd.	418,516,242			-						418,516,242	
CCCC Estate Yixing Co., Ltd.	192,917,083			13,878,398						206,795,481	
CCCC South American Regional Company SARL	167,286,613			11,622,933	15,481,457					194,391,003	
China communications Construction USA Inc.	55,146,147			197,865	4,636,853					59,980,865	
CCCC Photovoltaic Technology Co., Ltd (iii)		34,765,693		54,070						34,819,763	
ZPMC Changzhou Coatings Co., Ltd.	19,048,580			3,299,000			-4,588,107			17,759,473	
Suzhou Chuanglian Electric Drive Co., Ltd.	21,483,398			-851,032			-8,000,000			12,632,366	
CCCC Xiongan Urban Construction Development Co., Ltd. (ii)	7,512,971			27,362						7,540,333	
Shanghai Ocean Engineering Equipment Manufacturing Innovation Center Co., Ltd.	5,820,675			-312,664						5,508,011	

Invested entity	December 31, 2021	Increase/decrease in the current period								December 31, 2022	Provision for impairment at the end of the year
		Further investment	Reduced investment	Profit or loss on investments under the equity method	Adjustment of other comprehensive income	Changes in other equity	Dividends or profit declared to be distributed	Provision for impairment	Other		
ZPMC Southeast Asia Pte. Ltd	2,678,397			1,392,438						4,070,835	
Shanghai Xingyi Construction Technology Co., Ltd.	1,478,368			-907,301						571,067	
CCCC Marine Engineering & Technology Research Center Co., Ltd.	17,111,832		-17,165,758	53,926							
Sub-total	1,517,658,706	34,765,693	-17,165,758	93,500,545	20,743,893			-12,588,107		1,636,914,972	
Total	1,841,721,259	34,765,693	-17,165,758	170,402,945	20,743,893			-47,588,107		2,002,879,925	

Other description

Joint ventures:

(i) On May 5, 2014, the subsidiary of the Company and the partner invested to establish Zhenhua Marine Energy (Hong Kong) Co., Ltd (Zhenhua Marine Energy). The registered capital is USD 5,969,998. The subsidiary of the Company contributed USD 3,044,699 with the shareholding ratio of 51%. Zhenhua Marine Energy focused on the vessel transportation business. Based on the regulations of the shareholder agreement, the important events of such company shall be agreed by at least 75% shareholders via voting. Hence, the Group has no control right but jointly controls Zhenhua Marine Energy together with the partner.

Associates:

(i) On December 31, 2021, the Company transferred its 21% equity in CCCC Financial Leasing Co., Ltd to CCCC Capital Holdings Co., Ltd. by way of non-disclosure agreement. Both parties have agreed that the transition period of the aforesaid equity transfer is from July 1, 2021 to December 31, 2021, the profit or loss of the aforesaid equity during the transition period was determined based on the audited financial statements on June 30, 2021 and the audited financial statements of 2021 of CCCC Financial Leasing Co., Ltd., and the profit or loss of the target equity during the transition period shall be enjoyed or borne by the Company. According to relevant provisions of the Articles of Association, after the equity sale, the Company has the right to appoint one director to it, and can exert significant influence on the company.

(ii) On June 23, 2020, the Company invested to establish CCCC Xiongan Urban Construction Development Co., Ltd. The registered capital was RMB 100,000,000. The Company contributed RMB 15,000,000 with the shareholding ratio of 15%. The company was mainly engaged in the engineering construction. According to relevant provisions of the Articles of Association, the Company has the right to appoint one director to CCCC Xiongan Urban Construction Development Co., Ltd, and can exert significant influence on the company.

(iii) On November 28, 2022, the Company invested to establish CCCC Photovoltaic Technology Co., Ltd. The registered capital was RMB 200,000,000. The Company contributed RMB 60,000,000 with the shareholding ratio of 30%. The company was mainly engaged in photovoltaic power generation business. According to relevant provisions of the Articles of Association, the Company has the right to appoint one director to CCCC Photovoltaic Technology Co., Ltd, and can exert significant influence on the company.

18 Other equity instrument investment

(1) Particulars about other equity instrument investment

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2022	December 31, 2021
Hunan Fengri Power & Electric Co., Ltd.	30,657,862	27,201,190
CCCC Highway Bridges National Engineering Research Centre Co., Ltd.	22,151,670	20,644,018
CCCC National Engineering Research Center of Dredging Technology and Equipment Co., Ltd.	8,938,170	8,673,049
Ningbo Weilong Port Machinery Co., Ltd.	5,825,195	2,809,856
Shenyang Weichen Crane Equipment Co., Ltd.	5,205,300	6,003,344
ZPMC Longchang Lifting Equipment Co., Ltd.	697,422	948,588
21st Century Science and Technology Investment Co., Ltd.		
Total	73,475,619	66,280,045



(2) Equity instrument investment not held for trading
√Applicable □Not applicable

Unit: Yuan Currency: CNY

Item	Dividend income recognized in the current period	Accumulated gains	Accumulated losses	Amount of other comprehensive income transferred to retained earnings	Reasons for financial assets designated to be measured at fair value through other comprehensive income	Reasons for transferring other comprehensive income into retained earnings
Hunan Fengri Power & Electric Co., Ltd.	335,790	10,659,702			Strategic investment, long-term holding	
CCCC Highway Bridges National Engineering Research Centre Co., Ltd.		9,151,670			Strategic investment, long-term holding	
CCCC National Engineering Research Center of Dredging Technology and Equipment Co., Ltd.		2,538,170			Strategic investment, long-term holding	
Ningbo Weilong Port Machinery Co., Ltd.		4,529,195			Strategic investment, long-term holding	
Shenyang Weichen Crane Equipment Co., Ltd.		3,705,300			Strategic investment, long-term holding	
ZPMC Longchang Lifting Equipment Co., Ltd.			102,578		Strategic investment, long-term holding	
21st Century Science and Technology Investment Co., Ltd.			30,000,000		Strategic investment, long-term holding	

Other description:
□Applicable √Not applicable

19 Other non-current financial assets

□Applicable √Not applicable
Other description:
□Applicable √Not applicable

20 Investment properties

Measurement model of investment properties
(1) Investment properties with cost measurement mode

Unit: Yuan Currency: CNY

Item	Buildings and constructions	Land use right	Construction in progress	Total
I. Original book value				
1. Balance as at December 31, 2021	555,622,992	209,845,794		765,468,786
2. Increase in current period				
(1) Outsourcing				
(2) Transfer-in of inventories, fixed assets and construction in progress				
(3) Increase in business combination				
3. Decrease in current period				
(1) Disposal				
(2) Other transfer-out				
4. Balance as at December 31, 2022	555,622,992	209,845,794		765,468,786

Item	Buildings and constructions	Land use right	Construction in progress	Total
II. Accumulative depreciation and amortization				
1. Balance as at December 31, 2021	227,466,743	76,924,626		304,391,369
2. Increase in current period	18,229,925	5,353,357		23,583,282
(1) Provision or amortization	18,229,925	5,353,357		23,583,282
3. Decrease in current period				
(1) Disposal				
(2) Other transfer-out				
4. Balance as at December 31, 2022	245,696,668	82,277,983		327,974,651
III. Provision for impairment				
1. Balance as at December 31, 2021				
2. Increase in current period				
(1) Provision				
3. Decrease in current period				
(1) Disposal				
(2) Other transfer-out				
4. Balance as at December 31, 2022				
IV. Book value				
1. Book value at the end of the period	309,926,324	127,567,811		437,494,135
2. Book value at the beginning of the period	328,156,249	132,921,168		461,077,417

(2) Investment property without certificate of title

Applicable Not applicable

Other description

Applicable Not applicable

21 Fixed assets

Item presentation

Applicable Not applicable

Other description:

Applicable Not applicable

Fixed assets

(1) Particulars about fixed assets

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	Buildings and constructions	Machinery equipment	Office and electronic equipment	Transportation facilities (Excluding ship)	Ship	Total
I. Original book value						
1. Balance as at December 31, 2021	11,154,426,579	6,995,874,311	290,629,437	240,705,608	15,660,479,411	34,342,115,346
2. Increase in current period	202,463,593	234,327,846	70,057,008	15,199,897	1,361,394,420	1,883,442,764
(1) Purchase	7,973,196	80,275,913	69,606,412	14,640,093	2,413,394	174,909,008
(2) Transfer-in of construction in progress	194,490,397	150,311,959	-	559,804	1,079,194,000	1,424,556,160
(3) Increase in business combination						
(4) Exchange rate changes		3,739,974	450,596		279,787,026	283,977,596
3. Decrease in current period	5,556,181	60,422,491	5,976,418	13,598,481		85,553,571
(1) Disposal or scrap	5,556,181	60,422,491	5,976,418	13,598,481		85,553,571
4. Balance as at December 31, 2022	11,351,333,991	7,169,779,666	354,710,027	242,307,024	17,021,873,831	36,140,004,539



Item	Buildings and constructions	Machinery equipment	Office and electronic equipment	Transportation facilities (Excluding ship)	Ship	Total
II. Accumulated depreciation						
1. Balance as at December 31, 2021	4,605,387,463	5,446,925,688	229,204,742	169,891,723	3,872,160,993	14,323,570,609
2. Increase in current period	368,392,707	218,410,627	21,029,659	9,832,936	587,786,352	1,205,452,281
(1) Provision	368,392,707	215,739,141	20,853,261	9,832,936	534,614,357	1,149,432,402
(2) Exchange rate changes		2,671,486	176,398		53,171,995	56,019,879
3. Decrease in current period	2,700,016	31,823,741	4,009,145	13,598,479		52,131,381
(1) Disposal or scrap	2,700,016	31,823,741	4,009,145	13,598,479		52,131,381
4. Balance as at December 31, 2022	4,971,080,154	5,633,512,574	246,225,256	166,126,180	4,459,947,345	15,476,891,509
III. Provision for impairment						
1. Balance as at December 31, 2021						
2. Increase in current period						
(1) Provision						
3. Decrease in current period						
(1) Disposal or scrap						
4. Balance as at December 31, 2022						
IV. Book value						
1. Book value at the end of the period	6,380,253,837	1,536,267,092	108,484,771	76,180,844	12,561,926,486	20,663,113,030
2. Book value at the beginning of the period	6,549,039,116	1,548,948,623	61,424,695	70,813,885	11,788,318,418	20,018,544,737

(2) Temporary idle fixed assets

Applicable Not applicable

(3) Fixed assets acquired under finance leases

Applicable Not applicable

(4) Fixed assets leased out through operating lease

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	Book value at the end of the period
Vessel	3,191,261,227

(5) Fixed assets without certificate of title

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	Book value	Reasons for pending certificate of title
Buildings and constructions	581,845,146	Related procedures are still in process

Other description:

Applicable Not applicable

As at December 31, 2022, the following fixed assets were taken as loan mortgage:

	Original price	Book value	Borrowings	
			Nature	Amount
Vessel	2,784,670,690	2,463,807,041	Long-term payables	1,658,661,470

As at December 31, 2021, the following fixed assets were taken as loan mortgage:

	Original price	Book value	Borrowings	
			Nature	Amount
Vessel	4,593,927,380	4,025,131,400	Long-term payables	1,778,490,134

As at December 31, 2022 and December 31, 2021, the book values of fixed assets for operating lease were as follows:

	2022	2021
Vessel	3,191,261,227	3,309,462,732

As at December 31, 2022, the fixed assets with pending certificate of title were as follows:

	Book value	Reasons for pending certificate of title
Buildings and constructions	581,845,146	Related procedures are still in process

Liquidation of fixed assets
Applicable Not applicable

22 Construction in progress

Item presentation
Applicable Not applicable
 Other description:
Applicable Not applicable

Construction in progress
 (1) Particulars about construction in progress
Applicable Not applicable

Unit: Yuan Currency: CNY

Project	December 31, 2022			December 31, 2021		
	Book balance	Provision for impairment	Book value	Book balance	Provision for impairment	Book value
Large machinery and engineering equipment of the base under construction	4,541,537,285		4,541,537,285	4,238,346,367		4,238,346,367
Infrastructure construction of Nantong Base	145,778,657		145,778,657	187,156,060		187,156,060
Infrastructure construction of Changxing Base	127,496,938		127,496,938	115,015,195		115,015,195
Large mechanical reconstruction and upgrading project	23,250,608		23,250,608	144,563,874		144,563,874
Infrastructure construction of Nanhui Base	750,564		750,564	6,700,504		6,700,504
Total	4,838,814,052		4,838,814,052	4,691,782,000		4,691,782,000

(2) Changes of major construction in progress
Applicable Not applicable

Unit: Yuan Currency: CNY

Project	Budget	December 31, 2021	Increase in the current period	Amount transferred into fixed assets in the current period	Other decreases in the current period	December 31, 2022	Proportion of cumulative project investment in budget (%)	Construction progress	Cumulative amount of interest capitalized	Including: capitalization of the interest in the current period	Capitalization rate for the interest in the current period (%)	Fund source
Infrastructure construction of Nantong Base	7,980,746,771	187,156,062	22,756,476	64,133,879		145,778,659	85	85				Self-owned funds
Infrastructure construction of Changxing Base	9,109,560,500	115,015,195	15,132,268	2,650,525		127,496,938	80	80	23,531,836			Self-owned funds and bank borrowings
Large machinery and engineering equipment of the base under construction	10,573,653,390	4,238,346,364	401,940,399	98,749,481		4,541,537,282	85	85	321,439,692	35,127,073	2.53	Self-owned funds and bank borrowings
Infrastructure construction of Nanhui Base	562,287,425	6,700,505	10,722,626	16,672,566		750,565	88	88				Self-owned funds
Large mechanical reconstruction and upgrading project	1,879,876,710	144,563,874	41,842,444	163,155,710		23,250,608	51	51				Self-owned funds
Total	30,106,124,796	4,691,782,000	492,394,213	345,362,161		4,838,814,052	/	/	344,971,528	35,127,073	/	/



(3) Provision for impairment of construction in progress in the current period

Applicable Not applicable

Other description

Applicable Not applicable

Engineering materials

(4) Particulars about engineering materials

Applicable Not applicable

23 Productive biological assets

(1) Productive biological assets with cost measurement model

Applicable Not applicable

(2) Productive biological assets measured by fair value

Applicable Not applicable

Other description

Applicable Not applicable

24 Oil and gas assets

Applicable Not applicable

25 Right-of-use assets

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	Buildings and constructions	Other equipment	Total
I. Original book value			
1. Balance as at December 31, 2021	15,473,366	3,619,846	19,093,212
2. Increase in current period	15,862,169		15,862,169
(1) Provision	15,862,169		15,862,169
3. Decrease in current period			
4. Balance as at December 31, 2022	31,335,535	3,619,846	34,955,381
II. Accumulated depreciation			
1. Balance as at December 31, 2021	9,893,798	1,547,164	11,440,962
2. Increase in current period	10,136,896	1,446,072	11,582,968
(1) Provision	10,136,896	1,446,072	11,582,968
3. Decrease in current period			
(1) Disposal			
4. Balance as at December 31, 2022	20,030,694	2,993,236	23,023,930
III. Provision for impairment			
1. Balance as at December 31, 2021			
2. Increase in current period			
(1) Provision			
3. Decrease in current period			
(1) Provision			
4. Balance as at December 31, 2022			
IV. Book value			
1. Book value at the end of the period	11,304,841	626,610	11,931,451
2. Book value at the beginning of the period	5,579,568	2,072,682	7,652,250

Other description:

None

26 Intangible assets

(1) Particulars about intangible assets

√Applicable □Not applicable

Unit: Yuan Currency: CNY

Item	Land use right	Software use fee	Nonproprietary technology	PPP project contract assets (Remark 1)	Total
I. Original book value					
1. Balance as at December 31, 2021	4,200,351,596	97,454,438	65,296,171	144,091,342	4,507,193,547
2. Increase in current period	8,286,900	7,325,058		231,051,461	246,663,419
(1) Purchase	8,286,900	7,325,058		231,051,461	246,663,419
(2) Internal R & D					
(3) Increase in business combination					
3. Decrease in current period					
(1) Disposal					
4. Balance as at December 31, 2022	4,208,638,496	104,779,496	65,296,171	375,142,803	4,753,856,966
II. Accumulated amortization					
1. Balance as at December 31, 2021	976,840,556	64,723,928	65,201,807		1,106,766,291
2. Increase in current period	86,065,428	7,187,476			93,252,904
(1) Provision	86,065,428	7,187,476			93,252,904
3. Decrease in current period					
(1) Disposal					
4. Balance as at December 31, 2022	1,062,905,984	71,911,404	65,201,807		1,200,019,195
III. Provision for impairment					
1. Balance as at December 31, 2021					
2. Increase in current period					
(1) Provision					
3. Decrease in current period					
(1) Disposal					
4. Balance as at December 31, 2022					
IV. Book value					
1. Book value at the end of the period	3,145,732,512	32,868,092	94,364	375,142,803	3,553,837,771
2. Book value at the beginning of the period	3,223,511,040	32,730,510	94,364	144,091,342	3,400,427,256

Remark 1: This item represents the portion that recognizes the consideration amount or the recognized construction revenue amount of relevant PPP project assets as intangible assets in accordance with the requirements of "Interpretation of Accounting Standards for Business Enterprises No. 14", and the contract assets recognized during the relevant construction period should be presented in the "Intangible assets" item in the balance sheet. As of December 31, 2022, the Group has two PPP projects under the intangible asset model, both of which are under construction. The total investment of the project is RMB 2.584 billion, and the accumulated investment is RMB 375 million.

In 2022, total technology research and development expenses of the Group amounted to RMB 1,118,337,091 (2021: RMB 883,154,222) (See Note VII (65)). These technology research and development expenses are not capitalized.

At the end of the period, the proportion of intangible assets formed through internal R&D in the balance of intangible assets is 0.

(2) Land use right without certificate of title

□Applicable √Not applicable

Other description:

□Applicable √Not applicable



27 Development expenditures

Applicable Not applicable

28 Goodwill

(1) Original book value of goodwill

Applicable Not applicable

Unit: Yuan Currency: CNY

Name of the invested entity or the matters forming goodwill	December 31, 2021	Increase in current period		Decrease in current period		December 31, 2022
		Formed by business combination	Other	Disposal	Other	
ZPMC Qidong Marine Engineering Co., Ltd.	149,212,956					149,212,956
Verspannen B.V.	5,412,807					5,412,807
Greenland Heavy lift (Hong Kong) Limited	104,012,666		9,607,264			113,619,930
Total	258,638,429		9,607,264			268,245,693

Remark 1: The decrease in the current year was caused by the translation differences of foreign currency statement.

(2) Provision for impairment of goodwill

Applicable Not applicable

(3) Information about the asset group or portfolio of the goodwill

Applicable Not applicable

(4) Explain the goodwill impairment test process, key parameters (such as the growth rate during forecast period when estimating the present value of future cash flow, growth rate during stable period, profit rate, discount rate, forecast period, if applicable) and the recognition method of goodwill impairment loss

Applicable Not applicable

(5) Impact of goodwill impairment test

Applicable Not applicable

Other description

Applicable Not applicable

As at December 31, 2022, the Group had no provision for the impairment of goodwill. When the impairment test is conducted, the book value of goodwill is amortized to the asset group portfolio expected to benefit from the synergistic effect of business combination.

The goodwill acquired through business combination has been distributed to the following asset groups for impairment test:

- Heavy equipment asset group
- Semi-submerged ship transport assets group of Greenland Heavylift (Hongkong) Limited (GHHL)

Heavy equipment asset group

The recoverable amount of heavy equipment asset group is measured based on the five-year budget approved by the management and shall be measured with cash flow forecast method. Cash flow over 5-year period shall be calculated based on the estimated growth rate.

The main assumptions of the future cash flow discount method:

Growth rate during forecast period	8.68%-17.08%
Perpetual growth rate	2.30%
Gross profit rate	14.53%-16.05%
Pre-tax discount rate	12.72%

GHHL semi-submerged ship transport assets group

The recoverable amount of GHHL semi-submerged ship transport assets group combination is determined based on the expected future cash flow of the asset group, and the expected future cash flow is determined according to the cash flow forecast based on the transport service contract revenue expected to be obtained within the service life of vessel.

The main assumptions of the future cash flow discount method:

Number of customized short-distance and long-distance transport service contracts expected to be obtained	5 /year/vessel
Vessel utilization rate of general charter party	65.00%
Charter rate of general charter party	USD 60,000/day
Pre-tax discount rate	11.00%

The distributions of the book value of goodwill to asset groups are as follows:

	Heavy equipment asset group		GHHL semi-submerged ship transport assets group		Total	
	2022	2021	2022	2021	2022	2021
Book amount of goodwill	154,625,763	154,625,763	113,619,930	104,012,666	268,245,693	258,638,429

The perpetual growth rate adopted by management does not exceed the industry's long-term average growth rate. Based on the historical experience and the forecasts of market development, the management determines the budget gross profit rate and adopts the pretax interest rate which can reflect the specific risk of relevant asset group portfolio as the discount rate. The above assumptions are used to analyze the recoverable amount of the asset group portfolio.

29 Long-term deferred expenses

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2021	Increase in the current period	Amortization in the current period	Other decreases	December 31, 2022
Improvement expenditure of fixed assets under operating lease	103,664	438,767	132,561		409,870
Total	103,664	438,767	132,561		409,870

Other description:
None

30 Deferred income tax assets/liabilities

(1) Deferred income tax assets before offsetting
Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2022		December 31, 2021	
	Deductible temporary differences	Deferred income tax assets	Deductible temporary differences	Deferred income tax assets
Provision for impairment of assets	3,091,053,227	457,057,874	3,204,942,163	482,413,791
Unrealized profits of internal transactions	184,945,333	27,741,800	196,019,600	29,402,940
Deductible loss	2,602,902,080	390,435,312	1,949,811,238	292,471,684
Estimated liabilities	146,025,378	21,903,807	176,577,960	26,486,694
Wages and salaries unpaid	29,183,742	4,377,561	29,422,842	4,413,426
Interest unpaid	27,094,840	4,064,225	27,586,758	4,138,014
Unrealized contract gross profit	81,347,551	12,202,133	93,383,115	14,007,469
Total	6,162,552,151	917,782,712	5,677,743,676	853,334,018



(2) Deferred income tax liabilities before offsetting
√Applicable □Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2022		December 31, 2021	
	Taxable temporary differences	Deferred income tax liabilities	Taxable temporary differences	Deferred income tax liabilities
Asset evaluation increment from business combination not under common control	89,156,113	13,373,417	98,184,464	14,727,670
Changes in fair value of other debt investments				
Changes in fair value of other equity investment	30,481,459	4,572,219	23,285,885	3,492,883
Changes in fair value of held-for-trading financial assets	217,813,738	32,716,168	471,149,451	70,716,525
Depreciation of fixed assets	598,916,493	98,420,429	411,509,499	67,567,605
Total	936,367,803	149,082,233	1,004,129,299	156,504,683

(3) Deferred income tax assets or liabilities presented by net amount after offset
√Applicable □Not applicable

Unit: Yuan Currency: CNY

Item	Offset amount of deferred income tax assets and liabilities at the end of the period	Balance of deferred income tax assets and liabilities after offset at the end of the period	Offset amount of deferred income tax assets and liabilities at the beginning of the period	Balance of deferred income tax assets and liabilities after offset at the beginning of the period
Deferred income tax assets	49,841,261	867,941,451	79,628,344	773,705,674
Deferred income tax liabilities	49,841,261	99,240,972	79,628,344	76,876,339

(4) Details of unrecognized deferred income tax assets
√Applicable □Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2022	December 31, 2021
Deductible temporary differences	737,902,172	626,136,242
Deductible losses	1,419,947,439	1,766,772,244
Total	2,157,849,611	2,392,908,486

(5) The deductible losses on the unrecognized deferred income tax assets will become due in the following years
√Applicable □Not applicable

Unit: Yuan Currency: CNY

Year	December 31, 2022	December 31, 2021	Remark
2022		242,730,754	
2023	373,743,427	484,638,866	
2024	244,363,628	362,754,468	
2025	304,004,857	405,492,688	
2026	271,098,107	271,155,468	
2027	226,737,420		
Total	1,419,947,439	1,766,772,244	/

Other description:
□Applicable √Not applicable

31 Other non-current assets

√Applicable □Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2022			December 31, 2021		
	Book balance	Provision for impairment	Book value	Book balance	Provision for impairment	Book value
Contract acquisition cost						
Contract performance cost						
Return cost receivable						
Contract assets						
Outstanding payments for construction completed	3,710,497,198		3,710,497,198	2,938,412,661		2,938,412,661
Contract warranty balance receivable	526,801,140	25,018,867	501,782,273	822,602,860	37,855,051	784,747,809
Advance payment for buildings	33,781,740		33,781,740	33,781,740		33,781,740
Total	4,271,080,078	25,018,867	4,246,061,211	3,794,797,261	37,855,051	3,756,942,210

Other description:

As at December 31, 2022, other non-current assets of RMB 3,572,872,352 (as at December 31, 2021: RMB 2,827,154,241) were pledged to the bank as security for long-term borrowings of RMB 2,469,639,584 (as at December 31, 2021: long-term borrowings of RMB 2,397,403,882). See 45(ii) in Note VII.

The changes in the provision for impairment of the contract warranty balance receivable are as follows:

	Balance at the beginning of the current year	Provision in the current year	Reversal in the current year	Balance at the end of the current year
2022	37,855,051	23,662,840	(36,499,024)	25,018,867
2021	18,260,301	21,985,570	(2,390,820)	37,855,051

32 Short-term borrowings

(1) Classification of short-term borrowings

√Applicable □Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2022	December 31, 2021
Pledged borrowings		
Mortgage borrowings		
Guaranteed borrowings		456,337,004
Fiduciary borrowings	1,793,682,952	5,521,355,363
Total	1,793,682,952	5,977,692,367

Description of the classification of short-term borrowings:

None

(2) Overdue outstanding short-term borrowings

□Applicable √Not applicable

The important overdue outstanding short-term borrowings are as follows:

□Applicable √Not applicable

Other description

√Applicable □Not applicable

As at December 31, 2022, the annual interest rate on the aforesaid borrowings ranges from 0.25% to 4.50% (as at December 31, 2021: 0.50% to 4.00%).

(i) As at December 31, 2022, no bank guarantee loan (as at December 31, 2021: USD 71,400,000, equivalent to RMB 456,337,004) was the bank loans borrowed by the subsidiaries of the Company, which was guaranteed by the letter of guarantee issued by the bank for the Company within the scope of credit.



33 Held-for-trading financial liabilities

Applicable Not applicable

34 Derivative financial liabilities

Applicable Not applicable

35 Notes payable

(1) Presentation of notes payable

Applicable Not applicable

Unit: Yuan Currency: CNY

Type	December 31, 2022	December 31, 2021
Commercial acceptance bill		
Bank acceptance bill	5,401,258,897	4,160,666,800
Total	5,401,258,897	4,160,666,800

The total amount of notes payable due and unpaid at the end of the period was RMB 0.

36 Accounts payable

(1) Presentation of accounts payable

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2022	December 31, 2021
Payables for material purchase and product manufacturing	6,615,263,016	6,512,175,879
Quality guarantee deposit payable	336,129,389	260,671,964
Infrastructure payables	168,623,915	65,699,129
Equipment and vessel purchase payables	130,110,242	123,908,832
Port charge payable	4,996,772	4,016,835
Total	7,255,123,334	6,966,472,639

(2) Important accounts payable aging over 1 year

Applicable Not applicable

Other description

Applicable Not applicable

	2022		2021	
	Amount	Proportion in total amount%	Amount	Proportion in total amount%
Within 1 year	5,406,703,068	75	5,529,688,500	79
Over 1 year	1,848,420,266	25	1,436,784,139	21
Total	7,255,123,334	100	6,966,472,639	100

As at December 31, 2022, the accounts payable with the aging over 1 year were mainly the payables for imported parts, which had not been taken for final settlement.

37 Advances from customers

(1) Presentation of advances from customers

Applicable Not applicable

(2) Important advances from customers with the aging over 1 year

Applicable Not applicable

Other description

Applicable Not applicable**38 Contract liabilities**

(1) Particulars about contract liabilities

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2022	December 31, 2021
Advances from customers for goods	12,890,180,046	12,009,937,041
Amount settled for uncompleted work	457,970,151	376,205,787
Total	13,348,150,197	12,386,142,828

(2) Amount of and reason for significant changes in book value during the reporting period

Applicable Not applicable

Other description:

Applicable Not applicable**39 Payroll payable**

(1) Presentation of payroll payable

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2021	Increase in current period	Decrease in current period	December 31, 2022
I. Short-term compensation	35,641,840	2,096,153,363	2,093,721,049	38,074,154
II. Post-employment benefits - defined contribution plans		329,794,546	329,794,546	
III. Dismissal benefits				
IV. Other benefits due within one year				
Total	35,641,840	2,425,947,909	2,423,515,595	38,074,154

(2) Presentation of short-term compensation

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2021	Increase in current period	Decrease in current period	December 31, 2022
I. Salaries, bonuses, allowances and subsidies		1,700,186,517	1,700,186,517	
II. Employee welfare		63,801,504	63,801,504	
III. Social insurance premium		144,238,151	144,238,151	
Including: medical insurance premium		124,918,159	124,918,159	
Work-related injury insurance premium		8,842,900	8,842,900	
Maternity insurance premium		10,477,092	10,477,092	



Item	December 31, 2021	Increase in current period	Decrease in current period	December 31, 2022
IV. Housing provident funds	4,880	147,061,035	147,059,839	6,076
V. Union expenditures and employee education expenses	35,636,960	22,789,722	20,358,604	38,068,078
VI. Short-term paid absence		18,076,434	18,076,434	
VII. Short-term profit sharing plan				
Total	35,641,840	2,096,153,363	2,093,721,049	38,074,154

(3) Presentation of defined contribution plans

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2021	Increase in current period	Decrease in current period	December 31, 2022
1. Basic endowment insurance premium		216,990,513	216,990,513	
2. Unemployment insurance premium		9,824,015	9,824,015	
3. Enterprise annuity payment				
4. Supplementary endowment insurance premium		102,980,018	102,980,018	
Total		329,794,546	329,794,546	

Other description:

Applicable Not applicable

40 Tax payable

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2022	December 31, 2021
VAT	68,911,314	48,774,672
Consumption tax		
Sales tax		
Enterprise income tax	64,624,716	73,524,769
Individual income tax	21,435,047	16,587,733
Urban maintenance and construction tax	33,026,021	2,122,019
Education surtax	24,265,964	1,811,882
Others	25,840,813	25,006,313
Total	238,103,875	167,827,388

Other description:

None

41 Other payables

Item presentation

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2022	December 31, 2021
Interest payable		
Dividends payable	6,593	6,593
Other payables	1,314,681,722	409,521,052
Total	1,314,688,315	409,527,645

Other description:

Applicable Not applicable

Interest payable

(1) Presentation by category

Applicable Not applicable

Dividends payable

(2) Presentation by category

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2022	December 31, 2021
Common stock dividends		
Preferred stock/perpetual debt dividends classified as equity instruments		
Preferred stock/perpetual debt dividends-XXX		
Preferred stock/perpetual debt dividends-XXX		
Dividends payable -XXX		
Dividends payable -XXX		
Dividends payable - Macau Zhenhua Harbour Construction Co., Ltd.	6,593	6,593
Total	6,593	6,593

Other explanations, including important dividends payable that have not been paid for more than one year, the reasons for non-payment shall be disclosed:

As at December 31, 2022, the reason for the dividend payable with the aging over 1 year amounting to RMB 6,593 (as at December 31, 2021: RMB 6,593) was that the shareholders of the Company had not requested for actual payment by the Group.

Other payables

(1) Other payables presented by nature

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2022	December 31, 2021
Customer collection under asset-backed special program	611,100,377	
Engineering deposit and quality guarantee deposit	355,583,851	216,019,465
Amounts due to related parties	14,907,689	49,460,264
Special payables	14,963,440	14,963,440
Others	318,126,365	129,077,883
Total	1,314,681,722	409,521,052

(2) Important other payables with the aging over 1 year

Applicable Not applicable

Other description:

Applicable Not applicable

Aging analysis of other payables is as follows:

	2022		2021	
	Amount	Proportion %	Amount	Proportion %
Within 1 year	1,202,456,256	91	291,728,351	71
Over 1 year	112,225,466	9	117,792,701	29
Total	1,314,681,722	100	409,521,052	100



As at December 31, 2022, the other payables with the aging over 1 year were mainly the payable deposit and quality guarantee deposit collected from outsourcing engineering team and payables to related party.

42 Liabilities held for sale

Applicable Not applicable

43 Non-current liabilities due within one year

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2022	December 31, 2021
Long-term borrowings due within one year	6,543,553,353	2,167,862,626
Bonds payable due within one year		
Long-term payables due within one year	413,188,297	349,112,204
Lease liabilities due within one year	4,703,568	6,989,188
Total	6,961,445,218	2,523,964,018

Other description:
None

44 Other current liabilities

Other current liabilities
Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2022	December 31, 2021
Short-term bonds payable		
Refund payable		
Non-public targeted debt financing instruments		
Total		

Increase or decrease of short-term bonds payable:
Applicable Not applicable

Unit: Yuan Currency: CNY

Name of bond	Par value	Issue date	Bond duration	Issue amount	December 31, 2021	Current issue	Interest accrued at par value	Amortization of premium and discount	Current repayment	December 31, 2022
ZPMC 2022 private placement of corporate bonds (series 1)	100	Sept. 20, 2022	3 months	500,000,000		500,000,000	2,405,000		502,405,000	
Total	/	/	/	500,000,000		500,000,000	2,405,000		502,405,000	

Other description:
Applicable Not applicable

45 Long-term borrowings

(1) Classification of long-term borrowings

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2022	December 31, 2021
Pledged borrowings	2,469,639,584	2,397,403,882
Mortgage borrowings		
Guaranteed borrowings		319,142,716
Fiduciary borrowings	25,093,486,415	24,395,076,983
Less: Long-term borrowings due within one year		
Fiduciary borrowings	-6,152,492,930	-1,844,901,411
Guaranteed borrowings		
Pledged borrowings	-391,060,423	-322,961,215
Total	21,019,572,646	24,943,760,955

Description of the classification of long-term borrowings:

None

Other description, including interest rate range:

Applicable Not applicable

As at December 31, 2022, the annual interest rate on the aforesaid borrowings ranges from 1.20% to 5.46% (as at December 31, 2021: 1.20% to 5.46%).

(i) As at December 31, 2022, the loan without bank guarantee (as at December 31, 2021: USD 50,000,000, equivalent to RMB 319,142,716) was the bank loan borrowed by the Company's subsidiary Shanghai Zhenhua Port Machinery (Hong Kong) Co., Ltd. and the guarantee was provided by the Company.

As of December 31, 2022 and December 31, 2021, there were no bank guarantee loans due within one year.

(ii) As at December 31, 2022, the total amount of multiple pledged loans amounting to RMB 2,469,639,584 (as at December 31, 2021: RMB 2,397,403,882) took the long-term accounts receivable, other non-current assets, contract assets and accounts receivable of the "building-transfer" project of the Group as pledge. See VII (16), VII (31), VII (10) and VII (5). The interest shall be paid quarterly, and the principal shall be repaid between June 15, 2023 and August 27, 2033 (as at December 31, 2021: the principal shall be repaid between June 15, 2022 and August 27, 2033).

46 Bonds payable

(1) Bonds payable

Applicable Not applicable

(2) Increase or decrease of bonds payable: (excluding preferred shares, perpetual bonds and other financial instruments classified as financial liabilities)

Applicable Not applicable

(3) Conditions and time for conversion of convertible bonds

Applicable Not applicable

(4) Description of other financial instruments classified as financial liabilities

Basic information of outstanding preferred shares, perpetual bonds and other financial instruments at the end of the period

Applicable Not applicable

Changes in outstanding preferred shares, perpetual bonds and other financial instruments at the end of the period

Applicable Not applicable

Description of the basis for classifying other financial instruments as financial liabilities:

Applicable Not applicable

Other description:

Applicable Not applicable



47 Lease liabilities

Applicable Not applicable

Item	December 31, 2022	December 31, 2021
Buildings and constructions	11,634,161	5,501,307
Other equipment	746,114	2,224,505
Less: Lease liabilities due within one year		
Buildings and constructions	-3,996,022	-5,451,439
Other equipment	-707,546	-1,537,749
Total	7,676,707	736,624

Other description:
None

48 Long-term payables

Item presentation
Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2022	December 31, 2021
Long-term payables	1,931,340,734	2,163,591,149
Special payables		
Total	1,931,340,734	2,163,591,149

Other description:
Applicable Not applicable

Item	2022	2021
Leaseback financing fund (i)	1,658,661,470	1,778,490,134
Ship purchase payable	208,938,000	369,790,600
“Building - transfer” and PPP project fund (ii)	243,811,149	219,719,005
Project quality guarantee deposit	233,118,412	144,703,614
Less: Leaseback financing fund due within one year	(413,188,297)	(349,112,204)
Total	1,931,340,734	2,163,591,149

(i) As at December 31, 2022, the long-term payables of RMB 1,658,661,470 (as at December 31, 2021: RMB 1,778,490,134) were obtained from the vessel (Note V (21)) with the book value of RMB 2,463,807,041 (as at December 31, 2021: RMB 4,025,131,400) in leaseback way from the financial leasing company, with the maturity date from January 24, 2023 to July 24, 2033 (as at December 31, 2021: from January 24, 2022 to July 24, 2033). The Group will pay the leaseback financing fund on schedule each year to the financial leasing company in accordance with the contract terms. The Group takes the above series of transactions as mortgage loans for accounting treatment.

(ii) The Group and the construction party of “building-transfer” and PPP project agreed that part of the project payments would be paid to the construction party after the final acceptance of the “building-transfer” project within a certain term.

Long-term payables

(1) Presentation of long-term payables by nature
Applicable Not applicable

Special payables

(2) Presentation of special payables by nature
Applicable Not applicable

49 Long-term payroll payable

Applicable Not applicable

50 Estimated liabilities

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2021	December 31, 2022	Causes
External guarantee			
Pending litigation			
Product quality guarantee deposit			
Restructuring obligations			
Loss contracts to be executed			
Refund payable			
Others			
Estimated after-sale service cost	188,005,742	168,241,316	
Total	188,005,742	168,241,316	/

Other description, including relevant important assumptions and estimates of important estimated liabilities:

None

51 Deferred income

Deferred income

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2021	Increase in current period	Decrease in current period	December 31, 2022	Causes
Government subsidies	353,906,763	50,567,056	105,971,640	298,502,179	
Land compensation	34,917,201		1,000,000	33,917,201	
Total	388,823,964	50,567,056	106,971,640	332,419,380	/

Items involved in government subsidies:

Applicable Not applicable

Unit: Yuan Currency: CNY

Liability item	December 31, 2021	New subsidy amount in current period	Amount included in non-operating income in current period	Amount included in other income in current period	Other changes	December 31, 2022	Assets related / income related
Hoisting and pipe laying ship R&D project	47,450,000					47,450,000	Income related
Automated dock R&D project	28,050,000					28,050,000	Income related
Offshore deep-water environmental protection intelligent fishing ground construction project in Fujian	20,000,000					20,000,000	Income related
Research on the technology and application of marine environmental protection coatings	15,030,000					15,030,000	Income related
Intelligent manufacturing workshop for crane box of automated terminal	14,171,796					14,171,796	Income related



Liability item	December 31, 2021	New subsidy amount in current period	Amount included in non-operating income in current period	Amount included in other income in current period	Other changes	December 31, 2022	Assets related / income related
Construction and demonstration application of green supply chain standard system for intelligent large port complete equipment	13,500,000					13,500,000	Income related
High skill training facilities and equipment funding project	10,964,700					10,964,700	Income related
10,000t semi-submerged ship R&D project	11,386,667			560,000		10,826,667	Income related
Transportation emplacement system R&D project	10,000,000					10,000,000	Income related
Comprehensive standardization of intelligent manufacturing of marine engineering equipment	11,700,000			4,700,000		7,000,000	Income related
Research and demonstration project of crane boom structure and its test with low cost and large bearing capacity at sea	15,200,000				13,516,000	1,684,000	Income related
Key technology research project of bottom-supported offshore wind power installation platform	12,400,000	4,000,000		15,500,000		900,000	Income related
Others	144,053,600	46,567,056		64,910,640	6,785,000	118,925,016	Income related

Other description:

Applicable Not applicable

Among the above government subsidies, some projects are government subsidies related to assets, and the rest are related to income.

Land compensation refers to the land compensation acquired by a subsidiary of the Company, which shall be amortized over the 50 years' land use term.

52 Other non-current liabilities

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2022	December 31, 2021
Contract liabilities		
Output tax to be carried forward	181,805,207	292,297,881
Total	181,805,207	292,297,881

Other description:

On balance sheet date, the revenue of some construction contracts and interest income of "building-transfer" projects of the Company had not reached the time point of the VAT liability.

53 Share capital

Applicable Not applicable

Unit: Yuan Currency: CNY

	December 31, 2021	Increase/decrease (+/-)					December 31, 2022
		New shares issued	Share donation	Conversion of reserves into share	Others	Sub-total	
Total shares	5,268,353,501						5,268,353,501

Other description:
2022

	Beginning balance	Increase/decrease in the current year					Ending balance
		New shares issued	Stock dividend	Common reserves capitalizing	Other	Sub-total	
Shares without trading limited conditions							
- RMB ordinary shares	3,321,997,661	-	-	-	-	-	3,321,997,661
- Foreign shares listed domestically	1,946,355,840	-	-	-	-	-	1,946,355,840
Total	5,268,353,501	-	-	-	-	-	5,268,353,501

2021

	Beginning balance	Increase/decrease in the current year					Ending balance
		New shares issued	Stock dividend	Common reserves capitalizing	Other	Sub-total	
Shares without trading limited conditions							
- RMB ordinary shares	3,321,997,661	-	-	-	-	-	3,321,997,661
- Foreign shares listed domestically	1,946,355,840	-	-	-	-	-	1,946,355,840
Total	5,268,353,501	-	-	-	-	-	5,268,353,501

54 Other equity instruments

(1) Basic information of outstanding preferred shares, perpetual bonds and other financial instruments at the end of the period

√Applicable □Not applicable

As of December 31, 2022, the details of the Group's outstanding perpetual bonds are as follows:

	Date of issue	Accounting classification	Interest rate	Issue price	Number	Amount	Maturity or renewal
Perpetual medium-term notes Shanghai Zhenhua Heavy Industries Co., Ltd. 2022 medium-term notes series I (22 ZPMC MTN001 (sci-tech innovation note))	Aug. 24, 2022	Equity instrument	3.22%	100	5,000,000	500,000,000	Undue

The Group issued the perpetual notes on August 24, 2022, with a term of 3+N (3) years, which will survive for a long time before the Group redeems in accordance with the terms of issue, and will mature when the issuer redeems in accordance with the terms of issue. The initial coupon of perpetual notes is 3.22%. In accordance with the terms of issue of medium-term notes, the Company has the right to distribute cash interest annually at annual interest rate and has no contractual obligation to repay the principal or pay any interest free of charge. Except for compulsory interest payment, on each interest payment date of medium-term notes, the Group may, at its own option, postpone the payment of current interest and all deferred interest and its fruits in accordance with this clause to the next interest payment date, and is not limited by the number of deferred interest payments. On the reset date of the coupon rate of medium-term notes, the Company has the right to redeem the medium-term notes at face value plus interest payable (including all deferred interest payments). The Group deems that the notes do not meet the definition of financial liabilities and therefore classifies it as other equity instruments.



(2) Changes in outstanding preferred shares, perpetual bonds and other financial instruments at the end of the period

Applicable Not applicable

Unit: Yuan Currency: CNY

Outstanding financial instruments	Beginning		Increase in current period		Decrease in current period		Ending	
	Amount	Book value	Amount	Book value	Amount	Book value	Amount	Book value
Shanghai Zhenhua Heavy Industries Co., Ltd. 2022 medium-term notes series 1			5,000,000	500,000,000			5,000,000	500,000,000
Shanghai Zhenhua Heavy Industries Co., Ltd. 2020 medium-term notes series 2	5,000,000	500,000,000			5,000,000	500,000,000		
Total	5,000,000	500,000,000	5,000,000	500,000,000	5,000,000	500,000,000	5,000,000	500,000,000

Description of the increase and decrease of other equity instruments in the current period, reasons for changes, and basis for relevant accounting treatment:

Applicable Not applicable

Other description:

Applicable Not applicable

55 Capital reserves

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2021	Increase in current period	Decrease in current period	December 31, 2022
Capital premium (Share capital premium)	4,537,774,553			4,537,774,553
Other capital reserves				
Business combination under common control	-16,203,111			-16,203,111
Purchase of minority interest	6,950,038			6,950,038
Absorption of minority shareholders' investments by subsidiaries	185,934,674			185,934,674
Transfer-in of capital reserves under the original system	128,059,561			128,059,561
Total	4,842,515,715			4,842,515,715

Other description, including the increase and decrease in the current period and the reasons for changes:
None

56 Treasury stock

Applicable Not applicable

57 Other comprehensive income

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2021	Amount incurred in the current period						December 31, 2022
		Pre-tax amount	Less: amount previously included in the other comprehensive income and currently transferred to the profit or loss	Less: amount previously included in the other comprehensive income and currently transferred to retained earnings	Less: income tax	Attributable to the parent company after tax	Attributable to the minority equity after tax	
I. Other comprehensive income that can't be reclassified into profit and loss	-10,206,996	7,195,574			1,079,337	6,116,237	-4,090,759	

Item	December 31, 2021	Amount incurred in the current period						December 31, 2022
		Pre-tax amount	Less: amount previously included in the other comprehensive income and currently transferred to the profit or loss	Less: amount previously included in the other comprehensive income and currently transferred to retained earnings	Less: income tax	Attributable to the parent company after tax	Attributable to the minority equity after tax	
Including: Remeasure the variation of net indebtedness or net asset of defined benefit plan								
Other comprehensive income that can't be reclassified into profit and loss in the invested enterprise under equity method								
Fair value change of other equity instrument investments	-10,206,996	7,195,574			1,079,337	6,116,237		-4,090,759
Fair value change of enterprise credit risks								
II. Other comprehensive income that will be reclassified into profit and loss	-59,148,062	116,050,333				88,104,808	27,945,525	28,956,746
Including: Other comprehensive income that will be reclassified into profit and loss under equity method	-27,256,957	20,743,893				20,743,893		-6,513,064
Fair value change of other debt investments								
Amount of financial assets reclassified into other comprehensive income								
Provision for credit impairment of other debt investments								
Cash flow hedging reserve								
Translation reserve	-31,891,105	95,306,440				67,360,915	27,945,525	35,469,810
Total other comprehensive income	-69,355,058	123,245,907			1,079,337	94,221,045	27,945,525	24,865,987

Other description, including the adjustment of the initial recognition amount of the effective part of profit or loss of cash flow hedging converted into the hedged item:

None

58 Special reserves

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2021	Increase in current period	Decrease in current period	December 31, 2022
Work safety expenses	1,934,676	50,813,289	49,802,405	2,945,560
Total	1,934,676	50,813,289	49,802,405	2,945,560

Other description, including the increase and decrease in current period and the reasons for changes:

According to the relevant requirements of the "Administrative Measures for the Withdrawal and Use of Work Safety Expenses", the enterprises engaged in large-scale machinery manufacture and engineering construction shall withdraw the work safety expenses according to the standards. The increase or decrease in current year was the work safety expenses withdrawn and used by the Group for the reporting year in accordance with relevant requirements.



59 Surplus reserves

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2021	Increase in current period	Decrease in current period	December 31, 2022
Statutory surplus reserves	1,386,879,828	24,660,180		1,411,540,008
Discretionary surplus reserves	292,378,668			292,378,668
Reserve fund				
Enterprise development fund				
Others				
Total	1,679,258,496	24,660,180		1,703,918,676

Description of surplus reserves, including the increase and decrease in current period and the reasons for changes:

In accordance with the Company Law of the People Republic of China, the Company's Articles of Association and the resolutions of the Board of Directors, the Company withdrew 10% of its net profit as statutory surplus reserves. When the accumulated amount of statutory surplus reserves reaches 50% or more of the share capital, the Company can stop the withdrawal.

The statutory surplus reserves can be used to compensate loss upon approval, or to increase share capital. The statutory surplus reserves withdrawn by the Company amounted to RMB 24,660,180 in 2022 (2021: RMB 27,839,949).

60 Undistributed profits

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	Current period	Previous period
Undistributed profits at the end of previous period before adjustment	2,767,511,301	2,377,187,005
Total undistributed profits at the beginning of the adjustment period (increase +, decrease -)		
Undistributed profits at the beginning of the period after adjustment	2,767,511,301	2,377,187,005
Plus: Net profit attributable to owners of the parent company	371,937,232	439,839,245
Less: withdrawal of statutory surplus reserves	24,660,180	27,839,949
Withdrawal of discretionary surplus reserve		
Withdrawal of general risk preparation		
Common stock dividends payable	263,417,675	
Common stock dividends converted to share capital		
Distribution of interest on the perpetual medium-term notes	25,500,000	21,675,000
Undistributed profits at the end of the period	2,825,870,678	2,767,511,301

Details of undistributed profit at the beginning of adjustment period:

1. Due to the retroactive adjustment of "Accounting Standards for Business Enterprises" and related new regulations, the impact on undistributed profits at the beginning of the period was RMB 0.

2. The impact of changes in accounting policies on undistributed profits at the beginning of the period was RMB 0.

3. The impact of correction of major accounting errors on undistributed profits at the beginning of the period was RMB 0.

4. The impact of change of consolidation scope caused by the common control on undistributed profits at the beginning of the period was RMB 0.

5. The total impacts of other adjustment on undistributed profits at the beginning of the period were RMB 0.

61 Operating revenue and operating costs

(1) Operating revenue and operating costs

√Applicable □Not applicable

Unit: Yuan Currency: CNY

Item	Amount incurred in the current period		Amount incurred in the previous period	
	Revenue	Cost	Revenue	Cost
Primary business	30,025,614,821	26,014,865,348	25,663,919,104	23,345,388,234
Other business	166,178,166	130,566,638	314,057,864	152,882,799
Total	30,191,792,987	26,145,431,986	25,977,976,968	23,498,271,033

(2) Income from contracts

√Applicable □Not applicable

Unit: Yuan Currency: CNY

Classification of Contract	XXX-Division	Total
Type of goods		
Port machinery		20,731,800,489
Heavy equipment		3,085,509,098
Steel structures and related revenue		2,731,132,322
Shipping and lifting services		1,719,708,160
Engineering construction projects		1,613,996,721
Sales of materials and others		83,685,678
By region of operation		
Chinese Mainland		15,932,043,007
Asia (excluding Chinese Mainland)		7,726,392,023
North America		2,181,504,594
Africa		1,368,578,664
Chinese Mainland (export sales)		968,104,389
Europe		877,042,956
South America		600,144,518
Oceania		312,022,317
Market or customer type		
Contract type		
Revenue recognized at a certain point of time		
Port machinery		19,833,964,539
Heavy equipment		1,342,286,476
Steel structure and related income		971,028,587
Lifting services		474,256,544
Sales of materials and others		83,685,678
Revenue recognized in a certain period of time		
Steel structure and related income		1,760,103,735
Heavy equipment		1,743,222,622
Engineering construction projects		1,613,996,721
Shipping		1,245,451,615
Port machinery		897,835,951
By time of goods transfer		
By contract term		
By sales channel		
Total		29,965,832,468

Description of income from contracts:

□Applicable √Not applicable



(3) Performance obligations

Applicable Not applicable

Sales of port machinery, heavy equipment and steel structure products

For the port machinery production contract that meets the performance obligations within a certain period of time, the Group performs its performance obligations within the time of manufacturing and transferring the port machinery; for the port machinery production contract that does not meet the performance obligations within a certain period of time, the Group performs its obligations when delivering port machinery to customers and obtaining pre-delivery certificate or other relevant delivery certificates. For the heavy equipment production contract that meets the performance obligations within a certain period of time, the Group performs its performance obligations within the time of manufacturing and transferring the heavy equipment; for the heavy equipment production contract that does not meet the performance obligations within a certain period of time, the Group performs its obligations when delivering heavy equipment to customers and obtaining the handover protocol or other relevant delivery certificate. For the steel structure product manufacturing contract that meets the performance obligations within a certain period of time, the Group performs its performance obligations within the time of manufacturing and transferring the steel structure product; for the steel structure product manufacturing contract that does not meet the performance obligation within a certain period of time, the Group performs its performance obligations when the steel structure product is delivered and signed by the owner. The contract price is usually paid according to the payment schedule agreed in the contract. After the delivery of the goods, the customer usually retains a certain proportion of the quality guarantee deposit, which is usually paid after the expiration of the quality guarantee period. The Group provides guaranteed warranty for the above products.

Building services

The Group performs its performance obligations within the time of providing services, and the contract price is usually paid within 30 days after the settlement of the project. The customer usually retains a certain proportion of the quality guarantee deposit, which is usually paid after the expiration of the quality guarantee period.

Shipping services

The Group performs its performance obligations within the time of providing transportation services. The contract price is usually paid within the period from 3 days before unloading to 30 days after unloading.

(4) Apportionment to remaining performance obligations

Applicable Not applicable

Other description:

None

62 Taxes and surcharges

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	Amount incurred in the current period	Amount incurred in the previous period
Consumption tax		
Sales tax		
Urban maintenance and construction tax	45,473,679	11,608,540
Educational surtax	34,681,141	9,664,810
Resource tax		
Housing property tax	46,741,623	46,626,294
Land use tax	18,768,826	17,544,472
Vehicle and vessel use tax		
Stamp duty	26,389,258	21,588,309
Others	2,704,930	1,146,992
Total	174,759,457	108,179,417

Other description:

None

63 Selling and distribution expenses√Applicable Not applicable

Unit: Yuan Currency: CNY

Item	Amount incurred in the current period	Amount incurred in the previous period
Employee compensation	145,325,870	84,827,601
Travel expenses	9,827,870	10,332,549
Office expenses	6,200,198	3,851,601
Advertising and publicity costs	3,795,628	3,234,400
Bidding and tendering expenses	2,796,037	2,515,560
Sales and service fees	1,811,427	2,604,221
Exhibition fees	60,839	1,824,011
Other	6,987,795	6,157,495
Total	176,805,664	115,347,438

Other description:

None

64 General and administrative expenses√Applicable Not applicable

Unit: Yuan Currency: CNY

Item	Amount incurred in the current period	Amount incurred in the previous period
Employee compensation	422,344,628	409,259,779
Amortization of intangible assets	90,354,954	94,839,145
Depreciation of fixed assets	62,513,546	71,705,340
Office expenses	58,616,600	57,743,890
Expenses from employment of intermediaries	42,781,830	40,622,616
Management and security fees	23,089,221	23,030,325
Travel expenses	20,418,253	39,385,590
Informatization expenses	16,683,023	15,149,594
Management and cleaning fees	15,760,356	17,126,611
Consulting fees	9,903,413	15,042,753
Insurance expenses	6,053,437	6,821,519
Entertainment expenses	5,927,002	8,646,106
Maintenance cost	3,518,407	10,539,953
Others	57,725,498	59,282,308
Total	835,690,168	869,195,529

Other description:

None



65 Research and development expenses

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	Amount incurred in the current period	Amount incurred in the previous period
Employee compensation	560,361,835	406,651,236
Materials expenses	300,416,273	209,143,216
Processing expenses	144,441,413	142,377,157
Depreciation expenses	85,911,765	78,571,508
Product design expenses	126,214	1,803,008
Others	27,079,591	44,608,097
Total	1,118,337,091	883,154,222

Other description:

None

66 Financial expenses

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	Amount incurred in the current period	Amount incurred in the previous period
Interest expenses	1,083,262,216	1,173,353,036
Less: Capitalized amount of interest	44,941,151	78,901,554
Less: interest income	413,595,714	356,324,952
Exchange losses/gains	98,700,929	-108,524,119
Others	51,653,597	34,225,111
Total	775,079,877	663,827,522

Other description:

The capitalized amounts of borrowing costs have been included in the construction in progress and intangible assets.

67 Other income

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	Amount incurred in the current period	Amount incurred in the previous period
Fiscal appropriation	75,734,113	54,401,334
Technological subsidy	23,979,691	17,284,346
Fiscal appropriation	3,300,400	3,300,400
Land compensation	1,000,000	1,000,000
Total	104,014,204	75,986,080

Other description:

None

68 Investment income

√Applicable □Not applicable

Unit: Yuan Currency: CNY

Item	Amount incurred in the current period	Amount incurred in the previous period
Income from long-term equity investment calculated under the equity method	170,402,945	237,773,613
Investment income from disposal of long-term equity investment	-95,166	167,833,181
Investment income from held-for-trading financial assets during the holding period	60,831,663	52,776,243
Dividend income from other equity instrument investment during holding	335,790	7,835,826
Interest income from debt investment during holding		
Interest income from other debt investment during holding		
Investment income from disposal of held-for-trading financial assets	5,843	819,204,693
Investment income from disposal of other equity instrument investment		
Investment income from disposal of debt investment		
Investment income from disposal of other debt investment		
Income from debt restructuring		
Investment income from disposal of other non-current financial assets investment		1,050,134
Losses on derecognition of financial assets measured at amortized cost	-20,135,378	
Others	-6,986,339	
Total	204,359,358	1,286,473,690

Other description:

None

69 Net exposure hedging gain

□Applicable √Not applicable

70 Income from fair value change

√Applicable □Not applicable

Unit: Yuan Currency: CNY

Sources of income from fair value change	Amount incurred in the current period	Amount incurred in the previous period
Held-for-trading financial assets		
Including: income from fair value change of derivative financial instruments		
Including: Stock investment of listed companies	-276,050,580	-249,220,046
Held-for-trading financial liabilities		
Investment property measured at fair value		
Other non-current financial assets		13,307,209
Total	-276,050,580	-235,912,837

Other description:

None



71 Credit impairment loss

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	Amount incurred in the current period	Amount incurred in the previous period
Loss on bad debts of notes receivable		
Loss on bad debts of accounts receivable	322,159,775	154,045,684
Loss on bad debts of other receivables	23,996,659	1,516,202
Loss on impairment of debt investment		
Loss on impairment of other debt investment		
Loss on bad debts of long-term receivables		
Loss on impairment of contract assets		
Total	346,156,434	155,561,886

Other description:

None

72 Assets impairment losses

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	Amount incurred in the current period	Amount incurred in the previous period
I. Bad debt loss		
II. Loss on price falling of inventory and impairment loss of contract performance costs	82,677,874	253,395,139
III. Impairment loss of long-term equity investment		
IV. Impairment loss of investment property		
V. Impairment loss of fixed assets		
VI. Impairment loss of engineering materials		
VII. Impairment loss of construction in progress		
VIII. Impairment loss of productive biological assets		
IX. Impairment loss of oil and gas assets		
X. Impairment loss of intangible assets		
XI. Goodwill impairment loss		
XII. Others		
XIII. Impairment loss of contract assets	9,832,764	40,784,984
Total	92,510,638	294,180,123

Other description:

None

73 Income from disposal of assets

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	Amount incurred in the current period	Amount incurred in the previous period
Income from disposal of fixed assets	66,186,622	71,278,254
Total	66,186,622	71,278,254

Other description:

None

74 Non-operating income

Non-operating income

√Applicable Not applicable

Unit: Yuan Currency: CNY

Item	Amount incurred in the current period	Amount incurred in the previous period	Amount included in non-recurring profit or loss in current period
Total gains from disposal of non-current assets			
Including: Gains from disposal of fixed assets			
Gains from disposal of intangible assets			
Gains from exchange of non-monetary assets			
Accepting donations			
Government subsidies	2,401,743	5,167,126	2,401,743
Revenue from insurance indemnity	6,501,309	787,337	6,501,309
Amercement gains	9,835,517	9,717,580	9,835,517
Others	13,401,038	10,995,144	13,401,038
Total	32,139,607	26,667,187	32,139,607

Government subsidies included in current profit or loss

Applicable Not applicable

Other description:

Applicable Not applicable**75 Non-operating expenditure**√Applicable Not applicable

Unit: Yuan Currency: CNY

Item	Amount incurred in the current period	Amount incurred in the previous period	Amount included in non-recurring profit or loss in current period
Total loss on disposal of non-current assets			
Including: Loss on disposal of fixed assets			
Loss on disposal of intangible assets			
Loss on exchange of non-monetary assets			
External donations	385,000	404,437	385,000
Overdue fine payment	1,551,733	638,624	1,551,733
Others	499,362	3,816,232	499,362
Loss on debt restructuring		4,551,760	
Total	2,436,095	9,411,053	2,436,095



Other description:

Supplementary information on the classification by nature of the operating costs, selling and distribution expenses, general and administrative expenses, and research and development expenses of the Group is as follows:

	2022	2021
Used raw materials and low-cost consumables	22,527,830,427	20,021,857,825
Employee compensation (Note VII (39))	2,425,947,909	2,205,176,153
Outsourcing expenses	1,379,194,069	1,476,300,853
Depreciation and amortization expenses (Note VII (20), (21), (25), (26), (29))	1,277,984,117	1,308,249,367
Changes in goods in process and inventories	-1,760,120,195	-1,704,323,646
Transportation expenses	776,733,902	596,391,014
Rental fees	296,164,078	274,193,298
On-site installation expenses	243,883,711	254,681,587
Energy cost	257,634,101	233,453,421
After-sale cost	251,168,929	179,801,690
Office expenses	64,816,798	61,595,491
Travel expenses	30,246,123	49,718,139
Expenses from employment of intermediaries	42,781,830	40,622,616
Informatization expenses	16,683,023	15,149,594
Entertainment expenses	5,927,002	8,646,106
Bidding and tendering expenses	2,796,037	2,515,560
Other expenses	436,593,048	341,939,154
Total	28,276,264,909	25,365,968,222

76 Income tax expenses

(1) Table of income tax expenses

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	Amount incurred in the current period	Amount incurred in the previous period
Current income tax expenses	130,622,921	124,422,021
Deferred income tax expenses	-72,950,481	-47,426,479
Total	57,672,440	76,995,542

(2) Accounting profit and income tax expenses adjustment process

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	Amount incurred in the current period
Total profits	655,234,788
The income tax expenses calculated based on statutory/applicable tax rates	98,285,218
Influences caused by different tax rates adopted by subsidiaries	44,206,773
Influences caused by adjustment on income tax of previous periods	
Influences on non-taxable income	
Influences caused by non-deductible cost, expenses and losses	2,798,845
Influences caused by non-confirmation of deductible losses of deferred income tax assets	-46,307,679

Item	Amount incurred in the current period
Influences caused by non-confirmation of deductible temporary differences or deductible losses in current period	40,642,251
Profit or loss attributable to joint ventures and associates	-25,560,442
Tax-free income	-9,175,994
Adjustment to final settlement in previous years	4,272,302
Additional deduction of technological development expenses	-51,488,834
Income tax expenses	57,672,440

Other description:

Applicable Not applicable

77 Other comprehensive income

Applicable Not applicable

See Note VII (57) for details.

78 Cash flow statement items

(1) Other cash received related to operating activities

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	Amount incurred in the current period	Amount incurred in the previous period
Customs deposit recovered	155,522,957	186,204,657
Cash received from government subsidies and rewards	70,312,363	86,931,169
Employee loan recovered	1,559,111	5,302,967
Cash received from the revenue from fines	9,835,517	9,717,580
Others	6,773,148	20,194,931
Total	244,003,096	308,351,304

Description of other cash received related to operating activities:

None

(2) Other cash paid related to operating activities

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	Amount incurred in the current period	Amount incurred in the previous period
Customs deposit paid	361,009,064	214,376,861
Expenditures on selling and distribution expenses, general and administrative expenses, and research and development expenses	294,392,928	284,557,883
Financial expenses and handling charges	51,626,667	34,225,153
Subsidy for research and development paid to cooperative units	20,301,000	5,710,000
Others	69,972,683	22,190,853
Total	797,302,342	561,060,750

Description of other cash paid related to operating activities:

None



(3) Other cash received related to investing activities

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	Amount incurred in the current period	Amount incurred in the previous period
Interest income	209,457,444	425,449,726
Total	209,457,444	425,449,726

Description of other cash received related to investing activities:

None

(4) Other cash paid related to investing activities

Applicable Not applicable

(5) Other cash received related to financing activities

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	Amount incurred in the current period	Amount incurred in the previous period
Customer collection received under the asset-backed special program		
Restricted bank deposits recovered	2,310,473	208,159,986
Leaseback payments received	4,696,898	901,819,520
Others	611,100,377	200,000,000
Total	618,107,748	1,309,979,506

Description of other cash received related to financing activities:

None

(6) Other cash paid related to financing activities

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	Amount incurred in the current period	Amount incurred in the previous period
Principal of perpetual bond repaid	500,000,000	
Related-party loan repaid	223,206,280	513,656,424
Third-party loan repaid	98,957,097	282,772,621
Deposited restricted monetary funds	4,973,788	207,726,213
Rental paid		
Disinvestment by minority shareholders		
Others	11,207,706	14,651,429
Total	838,344,871	1,018,806,687

Description of other cash paid related to financing activities:

None

79 Further information on cash flow statement

(1) Further information on cash flow statement

√Applicable □Not applicable

Unit: Yuan Currency: CNY

Further information	Current amount	Previous amount
1. Reconciliation from net profits to cash flows from operating activities:		
Net profit	597,562,348	528,345,577
Plus: provision for impairment of assets	92,510,638	294,180,123
Credit impairment loss	346,156,434	155,561,886
Depreciation of fixed assets, oil and gas assets and productive biological assets	1,173,015,684	1,201,761,933
Amortization of right-of-use assets	11,582,968	11,440,962
Amortization of intangible assets	93,385,465	95,046,472
Amortization of long-term deferred expenses		
Losses on disposal of fixed assets, intangible assets and other long-term assets (gains expressed with "-")	-66,186,622	-71,278,254
Loss on retirement of fixed assets (gains expressed with "-")		
Loss from fair value change (gains expressed with "-")	276,050,580	235,912,837
Financial expenses (gains expressed with "-")	488,026,167	706,501,743
Investment losses (gains expressed with "-")	-231,481,075	-1,286,473,690
Decrease in deferred income tax assets (increase expressed with "-")	-94,235,777	-16,920,002
Increase in deferred income tax liabilities (decrease expressed with "-")	21,285,296	-30,506,477
Decrease in inventories (increase expressed with "-")	-1,108,554,285	-502,309,148
Increase in construction contract payment	-1,678,870,361	-671,839,885
Decrease in operating receivables (increase expressed with "-")	61,780,602	452,311,814
Increase in operating payables (decrease expressed with "-")	2,585,383,305	1,017,905,104
Increase in special reserves (decrease expressed with "-")	1,152,656	-1,477
Others		
Net cash flow from operating activities	2,568,564,023	2,119,639,518
2. Significant investment and financing activities not involving cash deposit and withdrawal:		
Conversion of debt into capital		
Convertible bonds due within one year		
Fixed assets under financing lease		
3. Net changes in cash and cash equivalents:		
Ending balance of cash	2,375,101,437	4,449,837,877
Less: Beginning balance of cash	4,449,837,877	2,897,742,340
Plus: Ending balance of cash equivalents		
Less: Beginning balance of cash equivalents		
Net increase of cash and cash equivalents	-2,074,736,440	1,552,095,537
Endorsement transfer of notes:		
	2022	2021
Endorsement transfer of bank acceptance bill received from sales of goods and rendering of services	1,312,121,165	2,537,611,014



- (2) Net cash paid to acquire subsidiaries in current period
Applicable Not applicable
- (3) Net cash received from disposal of subsidiaries in current period
Applicable Not applicable
- (4) Composition of cash and cash equivalents
Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2022	December 31, 2021
I. Cash	2,375,101,437	4,449,837,877
Including: cash on hand	1,027,476	851,261
Bank deposit readily available for payment	2,374,073,961	4,448,986,616
Other monetary capital readily available for payment		
Deposits with central bank available for payment		
Deposits in other banks		
Borrowings from other banks		
II. Cash equivalents		
Including: bond investment due within three months		
III. Balance of cash and cash equivalents at the end of period	2,375,101,437	4,449,837,877
Including: restricted cash and cash equivalents of parent company or subsidiaries within the Group		

Other description:

- Applicable Not applicable

80 Notes to items in statement of owner's equity

State the name of "other" items and the amount of adjustment to the ending balance of previous year:

- Applicable Not applicable

81 Assets with ownership or use rights restricted

- Applicable Not applicable

Unit: Yuan Currency: CNY

Item	Book value at the end of the period	Reason of restriction
Monetary funds	21,946,276	Remark 1
Notes receivable		
Inventories		
Fixed assets	2,463,807,041	Remark 2
Intangible assets		
Long-term receivables	2,212,190,758	Remark 3
Other non-current assets	3,572,872,352	Remark 4
Contract assets	133,406,311	Remark 5
Accounts receivable	191,217,707	Remark 6
Total	8,595,440,445	/

Other description:

Remark 1: As at December 31, 2022, other monetary funds, including the restricted monetary fund of RMB 21,946,276 (as at December 31, 2021: RMB 121,999,707), were the special payment collected for overseas project and deposited in overseas supervision account and the margin deposit deposited by the Group for applying to the bank for letter of credit and bank guarantee.

Remark 2: As at December 31, 2022, the vessel with the book value of RMB 2,463,807,041 (as at December 31, 2021: RMB 4,025,131,400) had been used for leaseback with the financial leasing company, with the financing term of 3 - 12 years.

Remark 3: As at December 31, 2022, the long-term receivables of "building-transfer" project with the book value of RMB 2,212,190,758 (as at December 31, 2021: RMB 2,177,499,634) were used as the pledge for obtaining bank loans.

Remark 4: As at December 31, 2022, the other non-current assets with the book value of RMB 3,572,872,352 (as at December 31, 2021: RMB 2,827,154,241) were used as the pledge for obtaining bank loans

Remark 5: As at December 31, 2022, the contract assets with the book value of RMB 133,406,311 (as at December 31, 2021: RMB 38,384,855) were used as the pledge for obtaining bank loans.

Remark 6: As at December 31, 2022, the accounts receivable with the book value of RMB 191,217,707 (as at December 31, 2021: RMB 107,145,406) were used as the pledge for obtaining bank loans.

82 Foreign currency monetary items

(1) Foreign currency monetary items

√Applicable □Not applicable

Unit: Yuan

Item	Ending foreign currency balance	Conversion exchange rate	Ending balance, converted into RMB
Monetary fund	-	-	
Including: USD	240,301,765	6.9646	1,673,605,673
EUR	24,975,982	7.4229	185,394,217
HKD	56,759,334	0.8933	50,703,113
INR	312,984,561	0.0842	26,353,300
ZAR	62,608,186	0.4113	25,750,747
KRW	3,940,862,456	0.0055	21,674,744
AED	5,634,424	1.8966	10,686,249
RUB	104,296,511	0.0942	9,824,731
GBP	986,603	8.3941	8,281,644
AUD	1,741,486	4.7138	8,209,017
MYR	3,363,178	1.5772	5,304,404
LKR	144,220,666	0.0192	2,769,037
SGD	319,933	5.1831	1,658,245
BRL	635,196	1.3176	836,934
SAR	259,592	1.8528	480,972
GHS	117,103	0.7143	83,647
JPY	943,800	0.0524	49,455
CAD	269	5.1385	1,382
KES	23,557	0.0565	1,331
NZD	5	4.4162	22



Item	Ending foreign currency balance	Conversion exchange rate	Ending balance, converted into RMB
Accounts receivable	-	-	
Including: USD	378,737,037	6.9646	2,637,751,968
EUR	91,107,397	7.4229	676,281,097
RUB	1,348,514,346	0.0942	127,030,051
AED	44,973,436	1.8966	85,296,619
GBP	2,632,884	8.3941	22,100,692
QAR	11,518,555	1.9134	22,039,603
CAD	4,160,024	5.1385	21,376,283
MYR	9,051,664	1.5772	14,276,284
HKD	15,671,096	0.8933	13,998,990
SAR	6,088,598	1.8528	11,280,954
INR	132,339,231	0.0842	11,142,963
KRW	1,942,230,672	0.0055	10,682,269
ZAR	23,690,509	0.4113	9,743,906
SGD	1,288,756	5.1831	6,679,751
LKR	293,553,782	0.0192	5,636,233
BRL	3,740,152	1.3176	4,928,024
AUD	418,635	4.7138	1,973,362
Other receivables	-	-	
Including: USD	7,958,349	6.9646	55,426,717
RUB	72,691,584	0.0942	6,847,547
ZAR	14,204,895	0.4113	5,842,473
EUR	496,746	7.4229	3,687,296
KRW	526,411,482	0.0055	2,895,263
AUD	293,747	4.7138	1,384,665
LKR	52,184,502	0.0192	1,001,942
INR	9,196,362	0.0842	774,334
HKD	645,811	0.8933	576,903
OMR	4,648	18.0889	84,077
BRL	51,323	1.3176	67,623
Accounts payable	-	-	
Including: USD	137,860,276	6.9646	960,141,678
EUR	43,662,175	7.4229	324,099,959
GBP	1,903,783	8.3941	15,980,545
RUB	105,891,452	0.0942	9,974,975
SGD	1,762,124	5.1831	9,133,265
INR	103,176,134	0.0842	8,687,430
HKD	8,746,276	0.8933	7,813,048
ZAR	11,759,081	0.4113	4,836,510
KRW	644,181,785	0.0055	3,543,000
JPY	15,140,380	0.0524	793,356
BRL	495,255	1.3176	652,548
LKR	21,304,069	0.0192	409,038
CAD	22,295	5.1385	114,563
AUD	19,149	4.7138	90,265
Other payables	-	-	
Including: EUR	9,016,081	7.4229	66,925,468
USD	4,241,032	6.9646	29,537,091
KRW	589,480,417	0.0055	3,242,142
SGD	390,657	5.1831	2,024,814
LKR	96,170,803	0.0192	1,846,479
GBP	212,156	8.3941	1,780,859
ZAR	1,987,025	0.4113	817,263
INR	678,916	0.0842	57,165
HKD	15,261	0.8933	13,633

Item	Ending foreign currency balance	Conversion exchange rate	Ending balance, converted into RMB
Short-term borrowings			
Including: EUR	50,550,000	7.4229	375,227,595
Long-term payables due within one year	-	-	
Including: USD	52,531,835	6.9646	365,863,218
Long-term payables	-	-	
Including: USD	204,011,087	6.9646	1,420,855,617

Other description:

None

(2) Description of overseas business entities, including the disclosure of main overseas business locations, recording currency and selection basis for important overseas business entities, as well as the reasons for changes in recording currency

Applicable Not applicable

None

83 Hedging

Applicable Not applicable

84 Government subsidies

(1) Basic information of government subsidies

Applicable Not applicable

(2) Return of government subsidies

Applicable Not applicable

Other description:

None

85 Others

Applicable Not applicable

VIII. Changes in consolidation scope

1 Business combination not under common control

Applicable Not applicable

2 Business combination under common control

Applicable Not applicable

3 Counter purchase

Applicable Not applicable

4 Disposal of subsidiaries

Whether there is loss of control over subsidiaries on a single disposal

Applicable Not applicable

Other description:

Applicable Not applicable



5 Changes in consolidation scope due to other reasons

Description of the changes (such as new subsidiary, liquidation of subsidiary) in consolidation scope due to other reasons and relevant information:

Applicable Not applicable

6 Others

Applicable Not applicable

IX. Interests in other entities

1 Interests in subsidiaries

(1) Subsidiaries of the Group:

Applicable Not applicable

Name of subsidiary	Principal place of business	Registration place	Business nature	Shareholding ratio (%)		Way of acquisition
				Direct	Indirect	
Shanghai Zhenhua Port Machinery Heavy Industries Co., Ltd.	Chongming, Shanghai	Chongming, Shanghai	Machine manufacturing	94.76%	0.00%	Establishment by investing
Shanghai Zhenhua Port Machinery (Hong Kong) Co., Ltd.	Hong Kong	Hong Kong	Shipping	100%	0.00%	Establishment by investing
Shanghai Zhenhua Shipping Co., Ltd.	Pudong New Area, Shanghai	Pudong New Area, Shanghai	Shipping	55.00%	0.00%	Establishment by investing
Nantong Zhenhua Heavy Equipment Manufacturing Co., Ltd.	Nantong City, Jiangsu Province	Nantong City, Jiangsu Province	Machine manufacturing	100.00%	0.00%	Establishment by investing
ZPMC Transmission Machinery (Nantong) Co., Ltd.	Nantong City, Jiangsu Province	Nantong City, Jiangsu Province	Machine manufacturing	50.75%	0.00%	Establishment by investing
ZPMC Electric Co., Ltd.	Pudong New Area, Shanghai	Pudong New Area, Shanghai	Electric equipment research and development	100.00%	0.00%	Establishment by investing
Shanghai Zhenhua Ocean Engineering Service Co., Ltd	Yangshan Bonded Port Area, Shanghai	Yangshan Bonded Port Area, Shanghai	Shipping	100.00%	0.00%	Establishment by investing
ZPMC Machinery Equipment Services Co., Ltd.	Pudong New Area, Shanghai	Pudong New Area, Shanghai	Technical consultancy	100.00%	0.00%	Establishment by investing
ZPMC Netherlands Coöperatie U.A.	Rotterdam, Netherlands	Rotterdam, Netherlands	Trade sales	100.00%	0.00%	Establishment by investing
ZPMC Netherlands B.V.	Rotterdam, Netherlands	Rotterdam, Netherlands	Trade sales	100.00%	0.00%	Establishment by investing
Verspannen B.V.	Rotterdam, Netherlands	Rotterdam, Netherlands	Machine manufacturing	0.00%	100.00%	Business combination not under common control
ZPMC Espana S.L.	Los Barrios, Spain	Los Barrios, Spain	Trade sales	0.00%	100.00%	Establishment by investing
ZPMC Italia S.r.l.	Vado Ligure Port, Italy	Vado Ligure Port, Italy	Trade sales	0.00%	100.00%	Establishment by investing
ZPMC GmbH Hamburg	Hamburg, Germany	Hamburg, Germany	Trade sales	100.00%	0.00%	Establishment by investing
ZPMC Lanka Company (Private) Limited	Colombo, Sri Lanka	Colombo, Sri Lanka	Trade sales	70.00%	0.00%	Establishment by investing
ZPMC North America Inc.	Delaware, USA	Delaware, USA	Trade sales	100.00%	0.00%	Establishment by investing
ZPMC Korea Co., Ltd.	Pusan, Korea	Pusan, Korea	Trade sales	100.00%	0.00%	Establishment by investing
ZPMC Engineering Africa (Pty) Ltd.	Kwazulu-Natal Province, Republic of South Africa	Kwazulu-Natal Province, Republic of South Africa	Trade sales	100.00%	0.00%	Establishment by investing
ZPMC Engineering (India) Private Limited	Maharashtra State, India	Maharashtra State, India	Trade sales	100.00%	0.00%	Establishment by investing

Name of subsidiary	Principal place of business	Registration place	Business nature	Shareholding ratio (%)		Way of acquisition
				Direct	Indirect	
ZPMC Southeast Asia Holding Pte. Ltd.	Singapore	Singapore	Trade sales	100.00%	0.00%	Establishment by investing
ZPMC Engineering (Malaysia) Sdn. Bhd.	Malaysia	Malaysia	Trade sales	0.00%	70.00%	Establishment by investing
ZPMC Australia Company (Pty) Ltd.	New South Wales, Australia	New South Wales, Australia	Trade sales	100.00%	0.00%	Establishment by investing
Shanghai Zhenhua Heavy Industries Port Machinery General Equipment Co., Ltd.	Pudong New Area, Shanghai	Pudong New Area, Shanghai	Machine manufacturing	100.00%	0.00%	Business combination under common control
Shanghai Port Machinery Heavy Industry Co., Ltd	Pudong New Area, Shanghai	Pudong New Area, Shanghai	Machine manufacturing	0.00%	74.02%	Business combination under common control
ZPMC Zhangjiagang Port Machinery Co., Ltd.	Zhangjiagang City, Jiangsu Province	Zhangjiagang City, Jiangsu Province	Machine manufacturing	90.00%	0.00%	Business combination under common control
Nanjing Ninggao New Channel Construction Co., Ltd	Nanjing City, Jiangsu Province	Nanjing City, Jiangsu Province	Engineering construction	100.00%	0.00%	Establishment by investing
ZPMC Qidong Marine Engineering Co., Ltd.	Nantong City, Jiangsu Province	Nantong City, Jiangsu Province	Machine manufacturing	67.00%	0.00%	Business combination not under common control
Jiahua Shipping Co., Ltd.	Hong Kong	Hong Kong	Shipping	0.00%	70.00%	Establishment by investing
Zhenhua Pufeng Wind Energy (HongKong) Co., Ltd.	Hong Kong	Hong Kong	Shipping	0.00%	51.00%	Establishment by investing
ZPMC Brazil Serviço Portuários LTDA	Rio DE Janeiro, Brazil	Rio DE Janeiro, Brazil	Trade sales	80.00%	0.00%	Establishment by investing
ZPMC Limited Liability Company	Moscow, Russia	Moscow, Russia	Trade sales	85.00%	0.00%	Establishment by investing
ZPMC NA East Coast Inc.	Virginia	Delaware, USA	Trade sales	0.00%	100.00%	Establishment by investing
CCCC Investment & Development Qidong Co., Ltd. (Remark 1)	Nantong City, Jiangsu Province	Nantong City, Jiangsu Province	Engineering construction	49.83%	0.00%	Establishment by investing
CCCC Liyang Urban Investment and Construction Co., Ltd. (Remark 2)	Liyang City, Jiangsu Province	Liyang City, Jiangsu Province	Engineering construction	48.00%	0.00%	Establishment by investing
ZPMC UK LD	Cardiff, UK	Cardiff, UK	Trade sales	100.00%	0.00%	Establishment by investing
ZPMC Middle East Fze	Dubai, UAE	Dubai, UAE	Trade sales	100.00%	0.00%	Establishment by investing
CCCC (Huaian) Construction Development Co., Ltd.	Huaian City, Jiangsu Province	Huaian City, Jiangsu Province	Engineering construction	0.00%	65.00%	Establishment by investing
CCCC Zhenjiang Investment Construction Management Development Co., Ltd.	Zhenjiang City, Jiangsu Province	Zhenjiang City, Jiangsu Province	Engineering construction	70.00%	0.00%	Establishment by investing
CCCC Yongjia Construction Development Co., Ltd.	Wenzhou City, Zhejiang Province	Wenzhou City, Zhejiang Province	Engineering construction	80.00%	0.00%	Establishment by investing
CCCC Zhenhua Lvjian Technology (Ningbo) Co., Ltd. (Remark 3)	Ningbo City, Zhejiang Province	Ningbo City, Zhejiang Province	Engineering construction	40.00%	0.00%	Establishment by investing
ZPMC Hotel Co., Ltd.	Pudong New Area, Shanghai	Pudong New Area, Shanghai	Hotel and catering	0.00%	100.00%	Business combination not under common control
CCCC Rudong Construction Development Co., Ltd.	Rudong City, Jiangsu Province	Rudong City, Jiangsu Province	Engineering construction	8.04%	58.46%	Establishment by investing
ZPMC Latin America Holding Corporation	Panama	Panama	Trade sales	100.00%	0.00%	Establishment by investing
Terminexus Co., Ltd.	Hong Kong	Hong Kong	Technical consultancy	0.00%	100.00%	Establishment by investing



Name of subsidiary	Principal place of business	Registration place	Business nature	Shareholding ratio (%)		Way of acquisition
				Direct	Indirect	
Greenland Heavylift (Hong Kong) Limited (Remark 4)	Hong Kong	Hong Kong	Shipping	0.00%	50.00%	Business combination not under common control
GPO Grace Limited	Marshall Islands	Marshall Islands	Shipping	0.00%	100.00%	Business combination not under common control
GPO Amethyst Limited	Marshall Islands	Marshall Islands	Shipping	0.00%	100.00%	Business combination not under common control
GPO Sapphire Limited	Marshall Islands	Marshall Islands	Shipping	0.00%	100.00%	Business combination not under common control
GPO Emerald Limited	Marshall Islands	Marshall Islands	Shipping	0.00%	100.00%	Business combination not under common control
GPO Heavylift Limited	Cayman Islands	Cayman Islands	Shipping	0.00%	60.00%	Business combination not under common control
GPO Heavylift AS	Oslo, Norway	Oslo, Norway	Shipping	0.00%	100.00%	Business combination not under common control
GPO Heavylift Pte Ltd	Singapore	Singapore	Shipping	0.00%	100.00%	Business combination not under common control
ZPMC JSD 6000 (Hong Kong) Limited	Hong Kong	Hong Kong	Shipping	0.00%	100.00%	Establishment by investing
Xiong'an Zhenhua Co., Ltd.	Baoding City, Hebei Province	Baoding City, Hebei Province	Intelligent service	100.00%	0.00%	Establishment by investing
ZPMC Fuzhou Offshore Construction Co., Ltd.	Fuzhou City, Fujian Province	Fuzhou City, Fujian Province	Maritime engineering construction	100.00%	0.00%	Establishment by investing
CCCC (Dongming) Investment and Construction Co., Ltd.	Heze City, Shandong Province	Heze City, Shandong Province	Engineering construction	70.00%	0.00%	Establishment by investing
CCCC Zhenhua Intelligent Parking (Hengyang) Co., Ltd.	Hengyang City, Hunan Province	Hengyang City, Hunan Province	Engineering construction	55.00%	0.00%	Establishment by investing
Zhenhai No. 2 Drilling Limited	Hong Kong	Hong Kong	Drilling services	0.00%	100.00%	Establishment by investing
Zhenhai No.3 Drilling Limited	Hong Kong	Hong Kong	Drilling services	0.00%	100.00%	Establishment by investing
Zhenhai No. 5 Drilling Limited	Hong Kong	Hong Kong	Drilling services	0.00%	100.00%	Establishment by investing
Zhenhai No. 6 Drilling Limited	Hong Kong	Hong Kong	Drilling services	0.00%	100.00%	Establishment by investing

The shareholding ratio in subsidiaries is different from the proportion of voting rights:

None

The basis for holding half or less of the voting rights but still controlling the invested entity, and the basis for holding more than half of the voting rights but not controlling the invested entity:

None

The basis for control of the important structured entities included in the consolidation scope:

None

Basis for determining whether the Company is an agent or a principal:

None

Other description:

Remark 1: By signing the agreement for concerted action with CCCC Tianjin Dredging Co., Ltd., the Group had obtained 95% voting power in the board of shareholders and 100% voting power in the board of directors of this company. In accordance with the regulations of the articles of association of such company, the Group had obtained the control right thereof, thus, such company was included in the Group's consolidation scope.

Remark 2: By signing the agreement for concerted action with CCCC Shanghai Dredging Co., Ltd. and CCCC East China Investment Co., Ltd., the Group had obtained 76% voting power in the board of shareholder and 71% voting power in the board of directors of this company. In accordance with the regulations of the articles of association of such company, the Group had obtained the control rights thereof, thus, such company was included in the Groups' consolidation scope.

Remark 3: By signing the agreement for concerted action with CCCC Highway Consultants Co., Ltd. and CCCC Equipment Manufacturing Marine Heavy Industry Division, the Group had obtained 50% voting power in the board of shareholders and 60% voting power of the board of directors of this company. In accordance with the regulations of the articles of association of such company, the Group had obtained the control right thereof, thus, such company was included in the Group's consolidation scope.

Remark 4: In accordance with the acquisition agreement, the Group held two of the four seats in the board of directors of this company, including chairman of the board. As required in the articles of association of such company, the chairman of the board has super voting power when the voting of the board is deadlocked. In addition, Group also has the right to buy 1% equity of such company at USD 1 at any time in the future. Therefore, the Group has the substantial control over such company, and such company was included in the Group's consolidation scope for the financial statements.

(2) Major non-wholly-owned subsidiaries

Applicable Not applicable

Unit: Yuan Currency: CNY

Name of subsidiary	Shareholding ratio of minority shareholder	Profit or loss attributable to the minority shareholder in current period	Dividends declared to minority shareholders in current period	Balance of minority shareholders' equity at the end of the period
ZPMC Transmission Machinery (Nantong) Co., Ltd.	49.25%	59,433,790	58,000,000	829,239,431
CCCC Zhenjiang Investment Construction Management Development Co., Ltd.	30.00%	288,945		208,210,207
Greenland Heavylift (HongKong) Limited	50.00%	125,670,317		429,730,270

Description of the difference between the shareholding ratio of minority shareholders and the proportion of voting right ratio in subsidiaries:

Applicable Not applicable

Other description:

Applicable Not applicable



2022

	Shareholding ratio of minority shareholder	Capital contributed / (withdrawn) by minority shareholde	Profit or loss attributable to the minority shareholder	Dividends paid to minority shareholder	Special reserves withdrawn by minority shareholder	Accumulated minority equity at the end of the year
ZPMC Transmission Machinery (Nantong) Co., Ltd.	49.25%	-	59,433,790	(58,000,000)	-	829,239,431
CCCC Zhenjiang Investment Construction Management Development Co., Ltd.	30.00%	-	288,945	-	-	208,210,207
Greenland Heavylift (HongKong) Limited	50.00%	-	125,670,317	-	-	429,730,270

2021

	Shareholding ratio of minority shareholder	Capital contributed / (withdrawn) by minority shareholde	Profit or loss attributable to the minority shareholder	Dividends paid to minority shareholder	Special reserves withdrawn by minority shareholder	Accumulated minority equity at the end of the year
ZPMC Transmission Machinery (Nantong) Co., Ltd.	49.25%	-	56,584,861	(54,980,822)	-	827,805,641
CCCC Zhenjiang Investment Construction Management Development Co., Ltd.	30.00%	-	3,929,426	-	-	207,921,262
Greenland Heavylift (HongKong) Limited	50.00%	-	36,540,074	(7,357,558)	-	277,209,331

(3) Main financial information of major non-wholly-owned subsidiaries

√Applicable □Not applicable

Unit: Yuan Currency: CNY

Name of subsidiary	December 31, 2022					
	Current assets	Non-current assets	Total assets	Current liabilities	Non-current liabilities	Total liabilities
CCCC Zhenjiang Investment Construction Management Development Co., Ltd.	565,932,743	139,615,446	705,548,189	-11,514,162		-11,514,162
Greenland Heavylift (Hong Kong) Limited	252,929,816	2,463,909,721	2,716,839,537	-455,071,592	-1,420,855,618	-1,875,927,210
ZPMC Transmission Machinery (Nantong) Co., Ltd.	1,839,605,961	366,807,622	2,206,413,583	-522,208,391	-752,137	-522,960,528

Name of subsidiary	December 31, 2021					
	Current assets	Non-current assets	Total assets	Current liabilities	Non-current liabilities	Total liabilities
CCCC Zhenjiang Investment Construction Management Development Co., Ltd.	378,618,007	337,518,789	716,136,796	-23,065,919		-23,065,919
Greenland Heavylift (Hong Kong) Limited	239,297,217	2,452,507,301	2,691,804,518	-255,234,882	-1,890,456,264	-2,145,691,146
ZPMC Transmission Machinery (Nantong) Co., Ltd.	1,533,617,163	394,881,198	1,928,498,361	-246,864,532	-1,483,975	-248,348,507

Name of subsidiary	Amount incurred in the current period			
	Operating revenue	Net profit	Total comprehensive income	Cash flows from operating activities
CCCC Zhenjiang Investment Construction Management Development Co., Ltd.		963,151	963,151	-1,227,820
Greenland Heavylift (Hong Kong) Limited	734,051,637	230,854,796	257,705,416	526,244,021
ZPMC Transmission Machinery (Nantong) Co., Ltd.	1,284,808,112	120,684,118	120,684,118	138,491,055

Name of subsidiary	Amount incurred in the previous period			
	Operating revenue	Net profit	Total comprehensive income	Cash flows from operating activities
CCCC Zhenjiang Investment Construction Management Development Co., Ltd.		13,098,086	13,098,086	-994,679
Greenland Heavylift (Hong Kong) Limited	445,755,436	71,064,460	55,606,866	64,084,615
ZPMC Transmission Machinery (Nantong) Co., Ltd.	731,440,163	114,899,184	114,899,184	125,724,458

Other description:

None

(4) Major restrictions on the use of assets of enterprise group and the repayment of debts of enterprise group

Applicable Not applicable

(5) Financial support or other supports provided to structured entities included in the scope of consolidated financial statements

Applicable Not applicable

Other description:

Applicable Not applicable

2 Transactions in which the owner's equity share of a subsidiary changes and the subsidiary is still under control Applicable Not applicable



3 Equity in joint ventures and associates

√Applicable □Not applicable

(1) Major joint ventures or associates

√Applicable □Not applicable

Unit: Yuan Currency: CNY

Name of joint venture or associate	Principal place of business	Registration place	Business nature	Shareholding ratio (%)		Accounting treatment
				Direct	Indirect	
Joint ventures						
Jiangsu Longyuan Zhenhua Marine Engineering Co., Ltd	Jiangsu	Nantong, Jiangsu	Marine engineering construction	50.00%		Equity method
ZPMC Mediterranean Liman Makinalari Ticaret Anonim Sirketi	Istanbul, Turkey	Istanbul, Turkey	Technical service for port equipment	50.00%		Equity method
Zhenhua Marine Energy (HK) Co., Ltd.	Hong Kong	Hong Kong	Shipping		51.00%	Equity method
Cranetech Global Sdn.Bhd.	Malaysia	Malaysia	Technical service for port equipment		49.99%	Equity method
ZPMC-OTL MARINE CONTRACTOR LIMITED	Hong Kong	Hong Kong	Shipping		50.00%	Equity method
Associates						
CCCC Marine Engineering & Technology Research Center Co., Ltd.	Shanghai	Pudong New Area, Shanghai	Marine technology development and consulting	25.00%		Equity method
CCCC Estate Yixing Co., Ltd.	Jiangsu	Wuxi, Jiangsu	Real estate development	20.00%		Equity method
ZPMC Changzhou Coatings Co., Ltd.	Jiangsu	Changzhou, Jiangsu	Paint manufacture	20.00%		Equity method
CCCC Financial Leasing Co., Ltd	Shanghai	Pudong New Area, Shanghai	Finance lease	9.00%		Equity method
CCCC Yancheng Construction Development Co., Ltd.	Jiangsu	Yancheng, Jiangsu	Engineering project construction	25.00%		Equity method
Suzhou Chuanglian Electric Drive Co., Ltd.	Jiangsu	Suzhou, Jiangsu	Electric equipment manufacturing	20.00%		Equity method
China Communications Construction USA Inc.	USA	USA	Port, channel, highway and bridge construction	24.00%		Equity method
CCCC South American Regional Company SARL	USA	USA	Port, channel, highway and bridge construction	17.00%		Equity method
ZPMC Southeast Asia Pte. Ltd.	Singapore	Singapore	Trade sales		40.00%	Equity method
Shanghai Ocean Engineering Equipment Manufacturing Innovation Center Co., Ltd.	Shanghai	China	Development of ocean engineering technology	8.97%		Equity method
Shanghai Xingyi Construction Technology Co., Ltd.	Shanghai	Shanghai	Building engineering		30.00%	Equity method
CCCC Xiongan Urban Construction Development Co., Ltd.	Hebei	Xiongan, Hebei	Engineering project construction	15.00%		Equity method

Description of the difference between shareholding ratio and proportion of voting rights in joint venture or associates:

None

Basis for holding less than 20% of voting rights but having significant influence, or holding 20% or more of voting rights but not having significant influence:

None

(2) Main financial information of major joint ventures:

Applicable Not applicable

(3) Main financial information of major associates:

Applicable Not applicable

Unit: Yuan Currency: CNY

	December 31, 2022/Amount incurred in the current period		December 31, 2021/Amount incurred in the previous period	
	CCCC Financial Leasing Co., Ltd	CCCC Financial Leasing Co., Ltd	CCCC Financial Leasing Co., Ltd	CCCC Financial Leasing Co., Ltd
Current assets	24,850,249,868		22,914,185,259	
Non-current assets	29,221,247,214		28,677,031,798	
Total assets	54,071,497,082		51,591,217,057	
Current liabilities	-20,646,954,425		-19,964,704,415	
Non-current liabilities	-21,547,988,147		-20,832,581,252	
Total liabilities	-42,194,942,572		-40,797,285,667	
Minority equity	3,386,004,140		3,105,521,230	
Other equity instrument - Perpetual bond	998,000,000		998,000,000	
Shareholders' equity attributable the parent company	7,492,550,370		6,690,410,160	
Share of net assets held based on shareholding ratio	674,329,533		608,658,400	
Adjustments				
-- Goodwill				
-- Unrealized profits of internal transactions				
-- Others				
Book value of equity investment in associates				
Fair value of equity investment in associates with public offer	674,329,533		608,658,400	
Operating revenue		3,877,175,203		3,366,005,756
Financial expenses-interest income		14,910,307		18,371,285
Financial expenses - interest expenses		2,936,399		3,384,524
Income tax expenses		342,767,440		253,999,095
Net profit		1,057,340,236		748,652,808
Net profit from discontinuing operation				
Net of tax of other comprehensive income		6,950,951		-1,549,636
Other comprehensive income				
Total comprehensive income		1,064,291,187		747,103,172
Total comprehensive income attributable to the parent company		802,140,210		565,906,200
Dividends distributed				115,455,199
Including: dividends distributed to investors of other equity instruments				36,500,000
Dividends received from associates this year				
Other description				
None				



(4) Summary of financial information of insignificant joint ventures and associates

Applicable Not applicable

Unit: Yuan Currency: CNY

	December 31, 2022/Amount incurred in the current period	December 31, 2021/Amount incurred in the previous period
Joint ventures:		
Total book value of investment	365,964,953	324,062,553
Total number of following items by shareholding ratio		
-- Net profit	76,902,400	51,800,590
-- Other comprehensive income		
-- Total comprehensive income	76,902,400	51,800,590
Associates:		
Total book value of investment	962,585,436	909,000,306
Total number of following items by shareholding ratio		
-- Net profit	28,454,995	15,736,271
-- Other comprehensive income	20,118,310	10,843,872
-- Total comprehensive income	48,573,305	26,580,143

Other description

None

(5) Description of the significant restrictions on the ability of joint ventures or associates to transfer funds to the Company

Applicable Not applicable

(6) Excess loss of joint ventures or associates

Applicable Not applicable

(7) Unrecognized commitments related to joint venture investment

Applicable Not applicable

(8) Contingent liabilities related to investment in joint ventures or associates

Applicable Not applicable

4 Significant joint operation

Applicable Not applicable

5 Equity in structured entities not included in the scope of consolidated financial statements

Description of structured entities not included in the scope of consolidated financial statements:

Applicable Not applicable

6 Others

Applicable Not applicable

X. Risks related to financial instruments

Applicable Not applicable

1 Classification of financial instruments

The book values of various financial instruments on the balance sheet date:

2022
Financial assets

	Financial assets measured at fair value through the current profit or loss		Measured at amortized cost	Financial assets measured at fair value through the other comprehensive income		Total
	Standard	Designated		Standard	Designated	
Monetary funds	-	-	2,397,047,713	-	-	2,397,047,713
Held-for-trading financial assets	877,483,342	-	-	-	-	877,483,342
Notes receivable	-	-	56,114,657	-	-	56,114,657
Receivables financing	-	-	-	439,912,428	-	439,912,428
Accounts receivable	-	-	7,193,649,855	-	-	7,193,649,855
Other receivables	-	-	995,545,297	-	-	995,545,297
Non-current assets due within one year	-	-	900,213,411	-	-	900,213,411
Investment in other equity instruments	-	-	-	-	73,475,619	73,475,619
Long-term receivables	-	-	2,402,265,565	-	-	2,402,265,565
	877,483,342	-	13,944,836,498	439,912,428	73,475,619	15,335,707,887

Financial liabilities

	Financial liabilities measured at fair value through the current profit or loss		Financial liabilities measured at amortized cost	Total
	Standard	Designated		
Short-term borrowings	-	-	1,793,682,952	1,793,682,952
Notes payable	-	-	5,401,258,897	5,401,258,897
Accounts payable	-	-	7,255,123,334	7,255,123,334
Other payables	-	-	1,299,724,875	1,299,724,875
Non-current liabilities due within one year	-	-	6,956,741,650	6,956,741,650
Long-term borrowings	-	-	21,019,572,646	21,019,572,646
Long-term payables	-	-	1,931,340,734	1,931,340,734
	-	-	45,657,445,088	45,657,445,088

The book values of various financial instruments on the balance sheet date: (continued)

2021

Financial assets

	Financial assets measured at fair value through the current profit or loss		Measured at amortized cost	Financial assets measured at fair value through the other comprehensive income		Total
	Standard	Designated		Standard	Designated	
Monetary funds	-	-	4,571,837,584	-	-	4,571,837,584
Held-for-trading financial assets	1,153,533,922	-	-	-	-	1,153,533,922
Notes receivable	-	-	3,979,800	-	-	3,979,800
Receivables financing	-	-	-	245,408,260	-	245,408,260



	Financial assets measured at fair value through the current profit or loss		Measured at amortized cost	Financial assets measured at fair value through the other comprehensive income		Total
	Standard	Designated		Standard	Designated	
Accounts receivable	-	-	6,448,850,756	-	-	6,448,850,756
Other receivables	-	-	940,522,896	-	-	940,522,896
Non-current assets due within one year	-	-	1,437,034,591	-	-	1,437,034,591
Investment in other equity instruments	-	-	-	-	66,280,045	66,280,045
Long-term receivables	-	-	2,674,407,383	-	-	2,674,407,383
	1,153,533,922	-	16,076,633,010	245,408,260	66,280,045	17,541,855,237

Financial liabilities

	Financial liabilities measured at fair value through the current profit or loss		Financial liabilities measured at amortized cost	Total
	Standard	Designated		
Short-term borrowings	-	-	5,977,692,367	5,977,692,367
Notes payable	-	-	4,160,666,800	4,160,666,800
Accounts payable	-	-	6,966,472,639	6,966,472,639
Other payables	-	-	394,564,205	394,564,205
Non-current liabilities due within one year	-	-	2,516,974,830	2,516,974,830
Long-term borrowings	-	-	24,943,760,955	24,943,760,955
Long-term payables	-	-	2,163,591,149	2,163,591,149
	-	-	47,123,722,945	47,123,722,945

2 Transfer of financial assets

Transferred financial assets derecognized as a whole but involved continuously

As at December 31, 2022, the book value of the bank acceptance bill given by the Group upon endorsement to the supplier for accounts payable settlement amounted to RMB 574,174,330 (December 31, 2021: RMB 1,075,578,905). As at December 31, 2022, the maturity term of such bill was 1 - 12 months. In accordance with the relevant provisions of the Negotiable Instruments Law, if the acceptance bank refuses to pay, the bill holder shall be entitled to recourse to the Group ("continue to be involved"). The Group considered that it had transferred almost all risks and rewards of such bill, therefore, the aforesaid book value and the book value of relevant settled accounts payable should be derecognized as a whole. The maximum losses and undiscounted cash flows that continue to be involved were equal to the book value. The Group considered that the fair value with continuous involvement was insignificant.

In 2022, the Group recognized the loss of RMB 759,178 on the date of transfer of the above financial assets (2021: loss of RMB 3,407,760). The Group had no income or expense which had been recognized for the current year or accumulatively as it had been derecognized as a whole but continued to be involved in the financial assets. The endorsement of bank acceptance bill receivable happened in this year evenly.

3 Financial instrument risks

Various financial instrument risks the Group faces during the routine activities mainly include the credit risk, liquidity risk and market risk (including the exchange rate risk and interest rate risk). Main financial instruments of the Group include the monetary funds, equity investment, borrowings, notes receivable, accounts receivable, accounts receivable financing, contract assets, long-term receivables, notes payable and accounts payable.

The Group's overall risk management plan is targeted at the unpredictability of financial market, trying to minimize the potential adverse influence on the Group's financial results.

Credit risk

The Group only trade with the authorized third parties in good standing. Credit risks are managed in a centralized manner by customer/counterpart, geographic region and industry. As the Group's customers of accounts receivable and long-term receivables are widely dispersed across sectors and industries, there is no significant credit risk concentration within the Group. The Group holds collateral or other credit enhancements for the balance of some accounts receivable, other receivables and long-term receivables.

As the counterparts of monetary funds, receivables financing and derivative financial instruments are banks in good standing and having relatively higher credit rating, these financial instruments have low credit risk.

Other financial assets of the Group include commercial acceptance bill, accounts receivable, other receivables and long-term receivables, the credit risks of these financial assets and contract assets are from the counterpart's default, and the maximum exposure is equal to the book amount of these instruments.

The Group has set relevant policies to control the credit risk exposure. The Group, based on the customers' financial positions, the possibility of obtaining guarantees from the third party, credit records and other factors such as the current market conditions, evaluates the credit qualifications of customers and set the credit period accordingly. The Group will monitor customers' credit records periodically; as for the customers with bad credit records, the Group will take measures, such as requesting a payment in writing, shortening the credit period or canceling the credit term, to ensure that the Group's overall credit risks are within the controllable scope.

Judgment criteria for significant increase in credit risk

On each balance sheet date, the Group will evaluate the credit risks of relevant financial instruments to confirm whether they have had significant increase or not after the initial recognition. On such confirmation, the Group will consider the reasonable and well-founded information which can be obtained without paying unnecessary surcharge or effort, including the information on qualitative and quantitative analysis based on the Group's historical data, external credit risk rating and perspectiveness. Based on the individual financial instrument or portfolio of financial instruments with similar credit risk characteristics, the Group determines the changes in default risk in financial instruments during the estimated duration by comparing the default risks in financial instruments on the balance sheet date with those on the initial recognition date.

In case of one or more quantitative or qualitative standards, the Group will consider that the credit risk of a financial instrument has had significant increase:

- (1) The quantitative standard mainly refers to the situation that the reporting date is overdue for certain days.
- (2) The qualitative standard mainly refers to the situation that the debtor encounters any significant and adverse operating or financial change, or prepares the list of warning customers.

Definition of assets with credit impairment

In order to determine whether there is credit impairment, the Group adopts a definition standard to keep pace with the internal credit risk management target regarding relevant financial instruments, and takes the quantitative and qualitative indicators into account. The Group mainly considers the following factors on evaluating whether the debtor has had credit impairment:

- (1) The issuer or the debtor suffers significant financial difficulties;
- (2) The debtor violates any contract, such as default or delay in repayment of interest or principal;
- (3) Considering the economic or contractual reasons relevant to the debtor's financial difficulty, the debtor makes concession which it will not make in any other circumstance;
- (4) The debtor is likely to go bankrupt or carry out other financial reorganization;
- (5) The active market of such financial assets disappears due to the issuer or the debtor's financial difficulty;
- (6) A financial asset is purchased or generated through the substantial discount, and such discount reflects the fact of credit loss.

The credit impairment of financial assets may be caused by several events, not just one event which can be individually identified.

Parameters for the measurement of expected credit loss

Based on the information whether the credit risk has had significant increase or there is credit impairment, the Group makes the provision for impairment of expected credit losses of various assets for 12 months or the entire duration. Key parameters for the measurements of expected credit loss include the probability of default, loss given default and exposure at default. Considering the quantitative analysis on historical statistical data (including the rating of the counterpart, way of guarantee and category of collateral) and prospective information, the Group builds models for probability of default, loss given default and exposure at default.



Relevant definitions:

(1) The probability of default refers to the probability that the debtor may fail to perform the payment obligation over the next 12 months or the entire duration. The Group's probability of default is adjusted based on the credit loss model, adding the prospective information to reflect the debtor's probability of default in the current macroeconomic environment;

(2) The loss given default refers to the expectation made by the Group regarding the degree of loss on default risk exposure. As the type of counterpart, way of recourse and priority as well as collateral may be different, the loss given default may also be different. The loss given default refers to the percentage of the risk exposure loss at default, calculated based on the term over the next 12 months or the entire duration;

(3) The exposure at default refers to the amount paid by the Group at default over the next 12 months or the entire remaining duration.

The prospective information is involved in the evaluation on significant change in credit risk and the calculation of expected credit loss. Through the historical data analysis, the Group identifies the key economic indicators affecting the credit risks in various types of business and the expected credit loss.

The impact of these economic indicators on the probability of default and the loss given default is different for different type of business. In such course, the Group makes the reference to the authoritative predictive values, expect these economic indicators based on results of those values, and determine the impact of these economic indicators on the probability of default and the loss given default.

2022

The maximum risk exposure and the year-end classification of credit risk degrees regarding the Group's financial assets and contract assets are as follows:

	Expected credit loss over the next 12 months	Expected credit loss in the entire lifecycle			Total
	Stage I	Stage II	Stage III	Simple method	
Monetary funds	2,397,047,713	-	-	-	2,397,047,713
Held-for-trading financial assets	877,483,342	-	-	-	877,483,342
Notes receivable	56,114,657	-	-	-	56,114,657
Accounts receivable	-	-	-	7,193,649,855	7,193,649,855
Contract assets	-	-	-	3,243,073,136	3,243,073,136
Receivables financing	439,912,428	-	-	-	439,912,428
Other receivables	667,029,582	97,751,424	230,764,291	-	995,545,297
Non-current assets due within one year	900,213,411	-	-	-	900,213,411
Other non-current assets	-	-	-	4,246,061,211	4,246,061,211
Long-term receivables	2,402,265,565	-	-	-	2,402,265,565
	7,740,066,698	97,751,424	230,764,291	14,682,784,202	22,751,366,615

2021

	Estimated credit loss in future 12 months	Estimated credit loss in the entire lifecycle			Total
	Stage I	Stage II	Stage III	Simple method	
Monetary funds	4,571,837,584	-	-	-	4,571,837,584
Held-for-trading financial assets	1,153,533,922	-	-	-	1,153,533,922
Notes receivable	3,979,800	-	-	-	3,979,800
Accounts receivable	-	-	-	6,448,850,756	6,448,850,756
Contract assets	-	-	-	1,971,455,850	1,971,455,850
Receivables financing	245,408,260	-	-	-	245,408,260
Other receivables	665,440,431	44,318,174	230,764,291	-	940,522,896
Non-current assets due within one year	1,437,034,591	-	-	-	1,437,034,591
Other non-current assets	-	-	-	3,723,160,470	3,723,160,470
Long-term receivables	2,674,407,383	-	-	-	2,674,407,383
	10,751,641,971	44,318,174	230,764,291	12,143,467,076	23,170,191,512

Liquidity risk

Subsidiaries within the Group are responsible for their own cash-flow prospects. The financial section of the head office continues to monitor the short-term and long-term capital demands at the group level after collecting the cash flows prospects of all subsidiaries, to guarantee the sufficient cash reserve and cashable securities. Meanwhile, the financial section of the head office continues to monitor the financial and non-financial indicators prescribed in credit-granting agreements and loan agreements, to ensure that the Group can get sufficient line of credit from major financial institutions, so as to satisfy the short-term and long-term capital demands of all subsidiaries of the Group.

As at December 31, 2022, the various financial liabilities of the Group are listed as follows by due dates based on undiscounted contracted cash flows (including principal and interest):

2022

2022					
	Within 1 year	1-2 years	2-5 years	Over 5 years	Total
Short-term borrowings	1,828,151,415	-	-	-	1,828,151,415
Notes payable	5,401,258,897	-	-	-	5,401,258,897
Accounts payable	7,255,123,334	-	-	-	7,255,123,334
Other payables	1,299,724,875	-	-	-	1,299,724,875
Non-current liabilities due within one year	7,108,829,479	-	-	-	7,108,829,479
Long-term borrowings	-	8,910,688,144	11,306,743,678	2,077,872,630	22,295,304,452
Long-term payables	-	746,492,462	636,721,312	848,481,954	2,231,695,728
	22,893,088,000	9,657,180,606	11,943,464,990	2,926,354,584	47,420,088,180

2021

2021					
	Within 1 year	1-2 years	2-5 years	Over 5 years	Total
Short-term borrowings	6,039,107,924	-	-	-	6,039,107,924
Notes payable	4,160,666,800	-	-	-	4,160,666,800
Accounts payable	6,966,472,639	-	-	-	6,966,472,639
Other payables	409,527,645	-	-	-	409,527,645
Non-current liabilities due within one year	2,629,217,287	-	-	-	2,629,217,287
Long-term borrowings	-	11,094,362,064	13,679,165,744	1,483,886,999	26,257,414,807
Long-term payables	-	1,094,905,975	619,424,936	1,055,544,185	2,769,875,096
	20,204,992,295	12,189,268,039	14,298,590,680	2,539,431,184	49,232,282,198

Market risk

Interest rate risk

The Group's interest rate risk is mainly from such long-term interest-bearing liabilities as long-term bank borrowings and long-term payables. Floating-rate financial liabilities expose the Group to cash flow interest rate risk while fixed-rate financial liabilities expose the Group to fair value interest rate risk. The Group determines the relative proportion of contracts with fixed interest rate and contracts with floating interest rate according to the current market environment. As at December 31, 2022, the Group's long-term interest-bearing liabilities mainly were the floating rate contracts priced in USD, and the fixed rate contracts priced in RMB.

The market interest rate fluctuating risks that the Group encounters are mainly relevant to the long-term liabilities where the interest is calculated at the floating interest rate.

The finance department in the headquarters of the Group continues monitoring and controlling the interest rate level of the Group. The increase in interest rate will increase the costs of the new interest-bearing debts and the interest expenses of interest-bearing debts failing to be paid up by the Group and subject to the interest calculation at floating interest rate, and will, significantly and adversely, affect the Group's financial results; the management will control partial interest rate risk based on the newest market situation through the swap contract and other interest rate swap arrangements. In 2021 and 2022, the Group had no interest rate swap arrangement.



The following table shows the sensitivity analysis of the interest rate risk, reflecting the effect of the reasonable and possible changes in the interest rate on net profit or loss (through the impact on loan with floating interest rate) and the net amount of other comprehensive income after tax, based on the assumption of no change in other variables.

2022

	Base point Increase / (Decrease)	Net profit or loss Increase/(Decrease)	Net of tax of other comprehensive income Increase/(Decrease)	Total shareholders' equity Increase / (Decrease)
RMB	100	(26,340,273)	-	(26,340,273)
RMB	(100)	26,340,273	-	26,340,273

2021

	Base point Increase / (Decrease)	Net profit or loss Increase / (Decrease)	Net of tax of other comprehensive income Increase / (Decrease)	Total shareholders' equity Increase / (Decrease)
RMB	100	(28,254,774)	-	(28,254,774)
RMB	(100)	28,254,774	-	28,254,774

Exchange rate risk

The Group is exposed to transactional exchange rate risk. Such risks are due to sales or purchases made by the operating entity in currencies other than its functional currency. The Group's main production is within the territory of China, but its sales and purchase is settled in USD. However, there still were foreign exchange risks in the foreign currency assets and liabilities and future foreign currency transactions that have been recognized by the Group (foreign currency assets and liabilities and foreign currency transactions are priced mainly in USD). The finance department of the Headquarters of the Group is responsible for supervising the scale of the Group's foreign currency transactions and foreign currency assets and liabilities to minimize the foreign exchange risks.

The following table is a sensitivity analysis of exchange rate risk, reflecting the assumption that all other variables will remain the same, when the USD exchange rate changes reasonably and possibly, it will affect the net profit or loss (due to the change in fair value of monetary assets and liabilities) and other comprehensive income, net of tax (due to the change in fair value of forward foreign exchange contract).

2022

	USD exchange rate Increase / (Decrease)	Net profit or loss Increase / (Decrease)	Net of tax of other comprehensive income Increase / (Decrease)	Total shareholders' equity Increase / (Decrease)
RMB appreciation against USD	1%	12,823,427	-	12,823,427
RMB depreciation against USD	-1%	(12,823,427)	-	(12,823,427)

2021

	USD exchange rate Increase / (Decrease)	Net profit or loss Increase / (Decrease)	Net of tax of other comprehensive income Increase / (Decrease)	Total shareholders' equity Increase / (Decrease)
RMB appreciation against USD	1%	13,174,484	-	13,174,484
RMB depreciation against USD	-1%	(13,174,484)	-	(13,174,484)

Price risk of equity instrument investment

The price risk of equity instrument investment refers to the risk that the fair value of equity securities decreases due to the change of stock index level and individual securities value. As at December 31, 2022, the Group was exposed to the price risk of equity instrument investment arising from the individual equity instrument investment classified as equity instrument investment measured at fair value through the current profit or loss. The listed equity instrument investment held by the Group is listed on the stock exchanges of Shanghai, Shenzhen and Hong Kong, and measured at the market quotation on the balance sheet date.

The market stock indexes of the following stock exchanges at the closing of the trading day closest to the balance sheet date, as well as their respective highest and lowest closing points in the year:

	At the end of 2022	Highest / lowest in 2022	At the end of 2021	Highest / lowest in 2021
Shanghai - A-share index	3,238	3,872/3,001	3,814	3,912/3,472
Shenzhen - A-share index	2,067	2,661/1,804	2,648	2,691/2,229
Hong Kong - Hang Seng Index	19,781	25,051/14,597	23,398	31,183/22,665

The following table shows the sensitivity of the Group's net profit or loss to the change of 1% of the fair value of equity instrument investment (based on the book value on the balance sheet date) under the assumption that all other variables remain unchanged.

2022

	Book value of equity instrument investment	Increase / (decrease) in net profit or loss	Increase / (decrease) in net of tax of other comprehensive income	Increase / (decrease) in total shareholders' equity
Equity instrument investment				
Shanghai - equity instrument investment measured at fair value through the current profit or loss	40,132,122	341,123	-	341,123
Shenzhen - equity instrument investment measured at fair value through the current profit or loss	200,522,582	1,704,442	-	1,704,442
Hong Kong - equity instrument investment measured at fair value through the current profit or loss	628,390,362	5,247,060	-	5,247,060
Investment in unlisted equity instruments measured at fair value				
- Equity instrument investment measured at fair value through the other comprehensive income	73,475,619	-	624,543	624,543

2021

	Book value of equity instrument investment	Increase / (decrease) in net profit or loss	Increase / (decrease) in net of tax of other comprehensive income	Increase / (decrease) in total shareholders' equity
Equity instrument investment				
Shanghai - equity instrument investment measured at fair value through the current profit or loss	72,893,037	619,591	-	619,591
Shenzhen - equity instrument investment measured at fair value through the current profit or loss	421,346,608	3,581,446	-	3,581,446
Hong Kong - equity instrument investment measured at fair value through the current profit or loss	650,855,999	5,434,648	-	5,434,648
Investment in unlisted equity instruments measured at fair value				
- Equity instrument investment measured at fair value through the other comprehensive income	66,280,045	-	563,380	563,380

4 Capital management

The Group's objectives of capital management policy 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.



The total capital of the Group is the shareholders' equity as listed in the consolidated balance sheet. The Group is not subject to external mandatory capital requirements and makes use of the asset-liability ratio to monitor capital. This ratio is calculated by the net debt divided by total capital. The net debt is the total borrowing (including short-term borrowings listed in the consolidated balance sheet, other non-current liabilities due within one year (excluding lease liabilities), long-term borrowings, other payables and interest-bearing liabilities in long-term payables minus cash and cash equivalents). The total capital is the total shareholders' equity plus net debt.

As at December 31, 2022 and December 31, 2021, the debt ratio of the Group is listed as follows:

	2022	2021
Debt ratio	63%	64%

XI. Fair value disclosure

1 Ending fair value of assets and liabilities measured at fair value

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	Ending fair value			
	Fair value measurement at level 1	Fair value measurement at level 2	Fair value measurement at level 3	Total
I. Continuous fair value measurement				
(I) Held-for-trading financial assets	869,045,064		8,438,278	877,483,342
1. Financial assets measured at fair value through the current profit or loss	869,045,064		8,438,278	877,483,342
(1) Debt instrument investment				
(2) Equity instrument investments				
(3) Derivative financial assets			8,438,278	8,438,278
(4) Equity of listed companies	869,045,064			869,045,064
2. Financial assets designated to be measured at fair value through the current profit or loss				
(1) Debt instrument investment				
(2) Equity instrument investments				
(II) Other debt investment				
(III) Investment in other equity instruments			73,475,619	73,475,619
(IV) Investment property				
1. Land use right for lease				
2. Buildings for lease				
3. Land use right held for transfer after appreciation				
(V) Biological assets				
1. Consumptive biological assets				
2. Productive biological assets				
(VI) Receivables financing		439,912,428		439,912,428
Total assets measured with continuous fair value continuously	869,045,064	439,912,428	81,913,897	1,390,871,389
(VI) Held-for-trading financial liabilities				
1. Financial liabilities measured at fair value through current profit or loss				
Including: Trading bonds issued				
Derivative financial liabilities				
Others				
2. Financial liabilities designated to be measured at fair value through the current profit or loss				
Total liabilities measured with continuous fair value continuously				
II. Non-continuous fair value measurement				
(I) Assets held for sale				
Total assets not continuously measured at fair value				
Total liabilities not continuously measured at fair value				

2 The basis for determining the market value of continuous and non-continuous fair value measurement items at level 1

Applicable Not applicable

3 Valuation techniques and the qualitative and quantitative information of important parameters for continuous and non-continuous fair value measurement items at level 2

Applicable Not applicable

The Group recognizes the date when the conversion of levels occurs as the time point of the conversion of all levels. There was no conversion among levels in this year.

Where there is an active market traded for a financial instrument, the Group shall adopt the quoted price in the active market to determine the fair value thereof; where there is no active market traded for a financial instrument, the Group shall adopt value appraisal techniques to determine its fair value. The valuation models used are discounted cash flow model and market comparable company model. The input value of valuation techniques mainly includes the weighted average cost of capital, liquidity discount, price to book ratio of comparable companies.

Relevant information about the measurement of fair value at level 2 is as follows:

	Fair value in 2022	Valuation technique	Observable input value	
			Name	Scope
Receivables financing	439,912,428	Discounted cash flow model	Similar open market lending rate	4.4%

4 Valuation techniques and the qualitative and quantitative information of important parameters for continuous and non-continuous fair value measurement items at level 3

Applicable Not applicable

The significant and unobservable input value of fair value measurement at Level 3 is as follows:

	Fair value in 2022	Valuation technique	Unobservable input value	
			Name	Weighted average/ scope
Held-for-trading financial assets	8,438,278	Discounted cash flow model	Weighted average capital cost	11%
- equity instrument investments	73,475,619	Market comparable company model	Liquidity discount	28%
			P/B ratio of comparable company	1.3-2.6

5 For continuous fair value measurement items at level 3, the adjustment information between beginning and ending book value and the sensitivity analysis of unobservable parameters

Applicable Not applicable

6 For continuous fair value measurement items, if there is conversion between different levels in the current period, the reasons for conversion and the policies for determining the conversion time

Applicable Not applicable

7 Changes in valuation technology in the current period and reasons for changes

Applicable Not applicable

8 Fair values of financial assets and financial liabilities not measured at fair value

Applicable Not applicable

9 Others

Applicable Not applicable

The management has evaluated the monetary funds, accounts receivables, notes payable and accounts payable, and the fair value is equal to the book value due to short remaining term.

The long-term receivables of the Group are the receivables with floating rate, and the difference between the book value and fair value is small.



As for the long-term borrowings and long-term payables, the book value shall be determined by the future cash flow specified in the contract after discounting according to the interest rate which has comparable credit rating on the market and provides almost the same cash flow under the same conditions, and the difference between the book value and such fair value is small.

In this year, there was no transfer of fair value measurement of financial assets and financial liabilities between level 1 and level 2, and there was no transfer into or out of the level 3.

For continuous fair value measurement items at level 3, the adjustment information is as follows:

2022

	Beginning balance	Transfer into level 3	Transfer out of level 3	Total gains or losses for the current period		Purchase	Issue	Sale	Settlement	Ending balance	Assets held at the end of the year
				Included in profit or loss	Included in other comprehensive income						Changes in unrealized gains or losses for the period included in profit or loss
Held-for-trading financial assets											
Equity instrument investments	8,438,278	-	-	-	-	-	-	-	-	8,438,278	-
Other equity instruments	66,280,045	-	-	-	7,195,574	-	-	-	-	73,475,619	-
Total	74,718,323	-	-	-	7,195,574	-	-	-	-	81,913,897	-

2021

	Beginning balance	Transfer into level 3	Transfer out of level 3	Total gains or losses for the current period		Purchase	Issue	Sale	Settlement	Ending balance	Assets held at the end of the year
				Included in profit or loss	Included in other comprehensive income						Changes in unrealized gains or losses for the period included in profit or loss
Held-for-trading financial assets											
Equity instrument investments	8,438,278	-	-	-	-	-	-	-	-	8,438,278	-
Other equity instruments	61,505,751	-	-	-	4,774,294	-	-	-	-	66,280,045	-
Total	69,944,029	-	-	-	4,774,294	-	-	-	-	74,718,323	-

XII Related parties and related party transactions

1 Parent company

Applicable Not applicable

Unit: Yuan Currency: CNY

Parent company	Registration place	Business nature	Registered capital	Shareholding ratio in the Company (%)	Voting ratio in the Company (%)
China Communications Construction Group Co., Ltd.	Beijing City	Port project contracting and related business	5,855,423,830	46	46

Description of the parent company of the Company

None

The final controlling party of the Company is the China Communications Construction Group Co., Ltd.

Other description:

None

2 Subsidiaries

For details of subsidiaries of the Company, please refer to Note IX (1).

Applicable Not applicable

For details of subsidiaries, please refer to Note IX (1).

3 Joint ventures and associates

For details of major joint ventures and associates, please refer to Note IX (2).

Applicable Not applicable

Other joint ventures or associates that have related party transactions with the Company in the current period or formed balance in the previous period are as follows.

Applicable Not applicable

Other description

Applicable Not applicable

4 Other related parties

Applicable Not applicable

Name of other related parties	Relationship with related party
China Communications Construction Company Ltd.	Controlled by the same parent company
China Harbour Engineering Co., Ltd.	Controlled by the same parent company
CCCC Finance Company Ltd.	Controlled by the same parent company
CCCC Second Highway Engineering Co., Ltd.	Controlled by the same parent company
CCCC Second Highway Consultants Co., Ltd.	Controlled by the same parent company
CCCC Second Harbor Engineering Co., Ltd.	Controlled by the same parent company
CCCC Second Harbor Consultants Co., Ltd.	Controlled by the same parent company
CCCC Third Highway Engineering Co., Ltd.	Controlled by the same parent company
CCCC Third Harbor Engineering Co., Ltd.	Controlled by the same parent company
CCCC Construction Group Co., Ltd. (former: CCCC Fourth Highway Engineering Co., Ltd.)	Controlled by the same parent company
CCCC Fourth Harbor Engineering Co., Ltd.	Controlled by the same parent company
CCCC Fourth Harbor Consultants Co., Ltd.	Controlled by the same parent company
CCCC First Highway Engineering Co., Ltd.	Controlled by the same parent company
CCCC First Harbor Engineering Co., Ltd.	Controlled by the same parent company
CCCC First Harbor Consultants Co., Ltd.	Controlled by the same parent company
CCCC - SHEC Second Highway Engineering Co., Ltd.	Controlled by the same parent company
CCCC - SHEC Fourth Highway Engineering Co., Ltd.	Controlled by the same parent company
CCCC - SHEC Railway Construction Co., Ltd.	Controlled by the same parent company
No.2 Engineering Co., Ltd. of CCCC Second Harbor Engineering Co., Ltd.	Controlled by the same parent company
No.3 Engineering Co., Ltd. of CCCC Second Harbor Engineering Co., Ltd.	Controlled by the same parent company
No.4 Engineering Co., Ltd. of CCCC Second Harbor Engineering Co., Ltd.	Controlled by the same parent company
The First Construction Company of CCCC Second Harbor Engineering Co., Ltd.	Controlled by the same parent company
Zhen Hwa Harbour Construction Co., Ltd.	Controlled by the same parent company
Beijing Rate Electronic Technology Developing Co., Ltd.	Controlled by the same parent company
CCCC Guidu Highway Construction Co., Ltd.	Controlled by the same parent company
Shanghai Waterway Logistics Co., Ltd.	Controlled by the same parent company
Shanghai Jiangtian Industrial Co., Ltd.	Controlled by the same parent company
Shanghai Communications Construction Contracting Co., Ltd.	Controlled by the same parent company
Shanghai Interlink Road & Bridge Engineering Co., Ltd.	Controlled by the same parent company
Shanghai Zhensha Longfu Machinery Co., Ltd.	Controlled by the same parent company
Shanghai China Communications Water Transportation Design & Research Co., Ltd.	Controlled by the same parent company
CCCC Tianjin Dredging Co., Ltd.	Controlled by the same parent company
Zhenhua Engineering Co., Ltd.	Controlled by the same parent company
Xiangtan CCCC Infrastructure Investment and Construction Co., Ltd.	Controlled by the same parent company
Yueyang Chenglingji New Port Co., Ltd.	Controlled by the same parent company



Name of other related parties	Relationship with related party
China Road & Bridge Corporation	Controlled by the same parent company
China Highway Engineering Consultants Corporation	Controlled by the same parent company
Chuwa Risheng (Beijing) International Trade Co., Ltd.	Controlled by the same parent company
CCCC (Xiamen) Information Co., Ltd.	Controlled by the same parent company
CCCC North Industrial Co., Ltd.	Controlled by the same parent company
CCCC Highway Consultants Co., Ltd.	Controlled by the same parent company
CCCC Highway Bridges National Engineering Research Centre Co., Ltd.	Controlled by the same parent company
CCCC Guangzhou Dredging Co., Ltd.	Controlled by the same parent company
CCCC International (Hong Kong) Holdings Limited	Controlled by the same parent company
CCCC Marine Engineering & Technology Research Center Co., Ltd.	Controlled by the same parent company
CCCC East China Investment Co., Ltd.	Controlled by the same parent company
CCCC Electrical and Mechanical Engineering Co., Ltd.	Controlled by the same parent company
CCCC Infrastructure Maintenance Group Co., Ltd.	Controlled by the same parent company
Road & Bridge East China Engineering Co., Ltd.	Controlled by the same parent company
Road & Bridge South China Engineering Co., Ltd.	Controlled by the same parent company
Road & Bridge International Co., Ltd.	Controlled by the same parent company
CCCC Financial Leasing (Guangzhou) Co., Ltd.	Controlled by the same parent company
CCCC Financial Leasing Co., Ltd.	Controlled by the same parent company
No.2 Engineering Co., Ltd. of CCCC Third Harbor Engineering Co., Ltd.	Controlled by the same parent company
No.3 Engineering Co., Ltd. of CCCC Third Harbor Engineering Co., Ltd.	Controlled by the same parent company
Xing An Ji Engineering Co., Ltd. of CCCC Third Harbor Engineering Co., Ltd.	Controlled by the same parent company
CCCC Shanghai Harbor Engineering Design & Research Institute Co., Ltd.	Controlled by the same parent company
CCCC Shanghai Dredging Co., Ltd.	Controlled by the same parent company
CCCC Shanghai Channel Equipment Industry Co., Ltd.	Controlled by the same parent company
CCCC Shanghai Equipment Engineering Co., Ltd.	Controlled by the same parent company
CCCC Worldcom (Chongqing) Heavy Industries Co., Ltd.	Controlled by the same parent company
CCCC National Engineering Research Center of Dredging Technology and Equipment Co., Ltd.	Controlled by the same parent company
CCCC Water Transportation Planning and Design Institute Co., Ltd.	Controlled by the same parent company
No. 2 Engineering Co., Ltd. of CCCC Fourth Highway Engineering Co., Ltd.	Controlled by the same parent company
No.2 Engineering Co., Ltd. of CCCC Fourth Harbor Engineering Co., Ltd.	Controlled by the same parent company
CCCC Tunnel Engineering Company Limited	Controlled by the same parent company
Tianjin International Marine Engineering Co., Ltd. (former: Binhai Environmental Protection Dredging Co., Ltd. of CCCC Tianjin Dredging Co., Ltd.)	Controlled by the same parent company
CCCC Tianhe Mechanical Equipment Manufacturing Co., Ltd.	Controlled by the same parent company
CCCC Tianjin Industry and Trade Co., Ltd.	Controlled by the same parent company
CCCC Tianjin Dredging Co., Ltd.	Controlled by the same parent company
CCCC Xi'an Road Construction Machinery Co., Ltd.	Controlled by the same parent company
CCCC Xingyu Technology Co., Ltd.	Controlled by the same parent company
CCCC Xiongan Financial Leasing Co., Ltd.	Controlled by the same parent company
CCCC Yancheng Construction Development Co., Ltd.	Controlled by the same parent company
No. 6 Engineering Co., Ltd. of CCCC First Highway Engineering Co., Ltd.	Controlled by the same parent company
CCCC First Highway Fifth Engineering Co., Ltd.	Controlled by the same parent company
CCCC First Highway Electrification Engineering Co., Ltd.	Controlled by the same parent company
Chongqing Yongjiang Expressway Investment and Construction Co., Ltd. of FHEC of CCCC	Controlled by the same parent company
Installation Engineering Co., Ltd. of CCCC First Harbor Engineering Co., Ltd.	Controlled by the same parent company
No.2 Engineering Co., Ltd. of CCCC First Harbor Engineering Co., Ltd.	Controlled by the same parent company
Harbor Construction Engineering Co., Ltd. of CCCC Tianjin Dredging Co., Ltd.	Controlled by the same parent company

Name of other related parties	Relationship with related party
DaHua Technology Co., Ltd.	Controlled by the same parent company
Shanghai Donghua Construction Co., Ltd.	Controlled by the same parent company
CCCC Third Harbor Engineering Co., Ltd. Xiamen Branch	Controlled by the same parent company
CCCC Dredging (Group) Co., Ltd.	Controlled by the same parent company
No.1 Engineering Co., Ltd. of CCCC First Harbor Engineering Co., Ltd.	Controlled by the same parent company
CCCC Leasing Jiahua No.2 Co., Ltd.	Controlled by the same parent company
CCCC Leasing Jiahua No.1 Co., Ltd.	Controlled by the same parent company
CNPC & CCCC Petroleum Sales Co., Ltd.	Controlled by the same parent company
Friede & Goldman, Ll.	Controlled by the same parent company
CCCC (Xiamen) Information Co., Ltd.	Controlled by the same parent company
China Communications Information Technology Group Co., Ltd.	Controlled by the same parent company
Road and Bridge Construction Chongqing Fengfu Expressway Development Co., Ltd.	Controlled by the same parent company
Road and Bridge Construction Chongqing Fengshi Expressway Development Co., Ltd.	Controlled by the same parent company
CCCC Chenzhou Road Construction Machinery Co., Ltd.	Controlled by the same parent company
SanYa Phoenix Island International Cruise Terminal Development Co., Ltd.	Controlled by the same parent company
CCCC Capital Holdings Co., Ltd.	Controlled by the same parent company
CCCC (Tianjin) Ecological and Environmental Protection Design Institute Co., Ltd.	Controlled by the same parent company
Beijing BLDJ Landscape Architecture Institute Co., LTD.	Controlled by the same parent company
Chongqing Zhongwan Expressway Co., Ltd.	Controlled by the same parent company
Jiangsu CCCC Green Energy Photovoltaic Technology Co., Ltd.	Controlled by the same parent company
Sichuan Road & Bridge Group Co., Ltd.	Controlled by the same parent company
CCCC (Zhengzhou) Construction Co., Ltd.	Controlled by the same parent company
Tianjin Harbour Engineering Quality Inspection Center Co., Ltd.	Controlled by the same parent company
CCCC Haifeng Wind Power Development Co., Ltd.	Controlled by the same parent company
Airport Construction Engineering Co., Ltd.	Controlled by the same parent company
Jiujiang Education Consulting Co., Ltd. of CCCC Second Harbor Engineering Co., Ltd.	Controlled by the same parent company
Jiangmen Hangtong Shipbuilding Co., Ltd. of CCCC Fourth Harbor Engineering Co., Ltd.	Controlled by the same parent company
CCCC-SHEC First Highway Engineering Co., Ltd.	Controlled by the same parent company
CCCC-SHEC Fifth Highway Engineering Co., Ltd.	Controlled by the same parent company
CCCC-SHEC Railway Construction Co., Ltd.	Controlled by the same parent company
CCCC Xiongan Urban Construction Development Co., Ltd.	Controlled by the same parent company
CCCC Northeast Investment Co., Ltd.	Controlled by the same parent company
CCCC Worldcom (Beijing) Heavy Industries Co., Ltd.	Controlled by the same parent company
Xiamen Jiehang Engineering Testing Technology Co., Ltd.	Controlled by the same parent company
China Highway Vehicle & Machinery Co., Ltd.	Controlled by the same parent company
CCCC Leasing (Shandong) Co., Ltd.	Controlled by the same parent company
CCCC Third Harbor Consultants Co., Ltd.	Controlled by the same parent company

Other description

None



5 Related party transactions

(1) Purchase and sales of goods, and rendering and receipt of labor services

Purchase of goods/receipt of labor services

√Applicable □Not applicable

Unit: Yuan Currency: CNY

Related party	Content of transaction	Amount incurred in the current period	Approved transaction limit (if applicable)	Exceeding transaction limit (if applicable)	Amount incurred in the previous period
No.2 Engineering Co., Ltd. of CCCC Third Harbor Engineering Co., Ltd.	Receipt of labor services	452,903,273			395,812,379
CCCC Shanghai Equipment Engineering Co., Ltd.	Receipt of labor services	368,095,891			267,095,811
CCCC First Highway Engineering Co., Ltd.	Receipt of labor services	293,136,519			300,665,193
CCCC Second Harbor Engineering Co., Ltd.	Receipt of labor services	227,255,981			132,279,839
CCCC Third Highway Engineering Co., Ltd.	Receipt of labor services	220,317,269			166,239,672
CCCC Tianjin Dredging Co., Ltd.	Receipt of labor services	152,397,803			300,755,835
CCCC Third Harbor Engineering Co., Ltd.	Receipt of labor services	134,197,024			164,243,707
Road & Bridge East China Engineering Co., Ltd.	Receipt of labor services	50,674,337			129,730,802
ZPMC Southeast Asia Pte. Ltd.	Receipt of labor services	40,615,972			114,109,010
CCCC Construction Group Co., Ltd. (former: CCCC Fourth Highway Engineering Co., Ltd.)	Receipt of labor services	28,301,887			5,299,846
China Communications Information Technology Group Co., Ltd.	Receipt of labor services	18,659,881			
Jiangsu Longyuan Zhenhua Marine Engineering Co., Ltd.	Receipt of labor services	14,150,943			
CCCC Shanghai Dredging Co., Ltd.	Receipt of labor services	9,147,073			
Shanghai Communications Construction Contracting Co., Ltd.	Receipt of labor services	7,018,983			
China Road & Bridge Corporation	Receipt of labor services	4,281,621			5,897,691
Shanghai China Communications Water Transportation Design & Research Co., Ltd.	Receipt of labor services	4,139,151			
CCCC Second Highway Consultants Co., Ltd.	Receipt of labor services	3,475,462			1,329,962
CCCC First Harbor Engineering Co., Ltd.	Receipt of labor services	2,321,373			10,475,623
Shanghai Waterway Logistics Co., Ltd.	Receipt of labor services	1,492,658			856,132
Installation Engineering Co., Ltd. of CCCC First Harbor Engineering Co., Ltd.	Receipt of labor services	1,344,340			781,386
Shanghai Interlink Road & Bridge Engineering Co., Ltd.	Receipt of labor services	1,159,917			
CNPC & CCCC Petroleum Sales Co., Ltd.	Receipt of labor services	965,323			
CCCC Third Harbor Consultants Co., Ltd.	Receipt of labor services	939,041			47,170
ZPMC Mediterranean Liman Makinalari Ticaret Anonim Sirketi	Receipt of labor services	885,446			6,424,633
CCCC Xingyu Technology Co., Ltd.	Receipt of labor services	861,426			2,049,877
Beijing BLDJ Landscape Architecture Institute Co., LTD.	Receipt of labor services	366,037			
CCCC Second Harbor Consultants Co., Ltd.	Receipt of labor services	230,063			1,150,316
CCCC (Xiamen) Information Co., Ltd.	Receipt of labor services	45,217			5,209
CCCC Worldcom (Chongqing) Heavy Industries Co., Ltd.	Receipt of labor services				19,476,868
CCCC First Harbor Consultants Co., Ltd.	Receipt of labor services				7,528,374
ZPMC Changzhou Coatings Co., Ltd.	Receipt of labor services				2,973,451
CCCC Shanghai Harbor Engineering Design & Research Institute Co., Ltd.	Receipt of labor services				1,258,302
CCCC Marine Engineering & Technology Research Center Co., Ltd.	Receipt of labor services				692,025
CCCC Water Transportation Planning and Design Institute Co., Ltd.	Receipt of labor services				73,943
China Communications Construction Company Ltd.	Receipt of labor services				27,080
Shanghai Jiangtian Industrial Co., Ltd.	Receipt of labor services				8,332
CCCC Shanghai Equipment Engineering Co., Ltd.	Purchase of goods	370,483,873			381,457,531
ZPMC Changzhou Coatings Co., Ltd.	Purchase of goods	131,829,860			122,100,652

Related party	Content of transaction	Amount incurred in the current period	Approved transaction limit (if applicable)	Exceeding transaction limit (if applicable)	Amount incurred in the previous period
CNPC & CCCC Petroleum Sales Co., Ltd.	Purchase of goods	53,399,047			21,563,726
CCCC Third Harbor Engineering Co., Ltd.	Purchase of goods	37,699,113			
CCCC Third Harbor Consultants Co., Ltd.	Purchase of goods	31,363,816			
ZPMC Southeast Asia Pte. Ltd.	Purchase of goods	28,685,372			
Shanghai Jiangtian Industrial Co., Ltd.	Purchase of goods	13,419,612			11,826,245
CCCC Water Transportation Planning and Design Institute Co., Ltd.	Purchase of goods	8,336,283			
Chuwa Risheng (Beijing) International Trade Co., Ltd.	Purchase of goods	7,280,458			
Jiangmen Hangtong Shipbuilding Co., Ltd. of CCCC Fourth Harbor Engineering Co., Ltd.	Purchase of goods	6,318,584			
Shanghai Zhensha Longfu Machinery Co., Ltd.	Purchase of goods	5,974,560			15,863
Installation Engineering Co., Ltd. of CCCC First Harbor Engineering Co., Ltd.	Purchase of goods	4,867,257			
China Communications Information Technology Group Co., Ltd.	Purchase of goods	4,001,152			
CCCC Tianjin Industry and Trade Co., Ltd.	Purchase of goods	3,899,530			1,866,300
CCCC Fourth Harbor Consultants Co., Ltd.	Purchase of goods	3,623,894			
ZPMC Mediterranean Liman Makinalari Ticaret Anonim Sirketi	Purchase of goods	2,347,434			
CCCC Highway Bridges National Engineering Research Centre Co., Ltd.	Purchase of goods	1,189,381			
CCCC (Xiamen) Information Co., Ltd.	Purchase of goods	1,022,057			152,192
Xing An Ji Engineering Co., Ltd. of CCCC Third Harbor Engineering Co., Ltd.	Purchase of goods	775,633			
CCCC Xingyu Technology Co., Ltd.	Purchase of goods	266,896			347,434
Shanghai Waterway Logistics Co., Ltd.	Purchase of goods	33,033			22,697
CCCC National Engineering Research Center of Dredging Technology and Equipment Co., Ltd.	Purchase of goods				22,472,100
CCCC Shanghai Channel Equipment Industry Co., Ltd.	Purchase of goods				21,777,619
CCCC Second Highway Engineering Co., Ltd.	Purchase of goods				3,161,250
Friede & Goldman, Llc.	Purchase of goods				2,285,348
CCCC (Xiamen) Information Co., Ltd.	Purchase of goods				990,028
Chongqing Yongjiang Expressway Investment and Construction Co., Ltd. of FHEC of CCCC	Purchase of goods				286,716
China Communications Construction Company Ltd.	Purchase of goods				256,441
Shanghai China Communications Water Transportation Design & Research Co., Ltd.	Purchase of goods				79,565
No.1 Engineering Co., Ltd. of CCCC First Harbor Engineering Co., Ltd.	Purchase of goods				77,324

Sales of goods/rendering of labor services

√Applicable □Not applicable

Unit: Yuan Currency: CNY

Related party	Content of transaction	Amount incurred in the current period	Amount incurred in the previous period
Jiangsu Longyuan Zhenhua Marine Engineering Co., Ltd.	Sales of goods/other inflows	1,290,408,439	371,622,372
China Road & Bridge Corporation	Sales of goods/other inflows	447,741,507	1,076,133,465
China Harbour Engineering Co., Ltd.	Sales of goods/other inflows	441,437,766	13,183
China Harbour Engineering Co., Ltd.	Sales of goods/other inflows	407,944,621	464,677,293
CCCC Haifeng Wind Power Development Co., Ltd.	Sales of goods/other inflows	374,901,683	
No.1 Engineering Co., Ltd. of CCCC First Harbor Engineering Co., Ltd.	Sales of goods/other inflows	213,716,814	
No.2 Engineering Co., Ltd. of CCCC Third Harbor Engineering Co., Ltd.	Sales of goods/other inflows	208,387,950	
CCCC First Harbor Engineering Co., Ltd.	Sales of goods/other inflows	167,694,228	658,454,907



Related party	Content of transaction	Amount incurred in the current period	Amount incurred in the previous period
CCCC Third Highway Engineering Co., Ltd.	Sales of goods/other inflows	93,106,456	55,241,845
CCCC Fourth Harbor Engineering Co., Ltd.	Sales of goods/other inflows	45,044,248	
CCCC Second Highway Engineering Co., Ltd.	Sales of goods/other inflows	36,106,344	222,256,873
CCCC Tianhe Mechanical Equipment Manufacturing Co., Ltd.	Sales of goods/other inflows	32,668,690	58,852,099
China Communications Construction Company Ltd.	Sales of goods/other inflows	28,946,178	22,832,895
Road & Bridge International Co., Ltd.	Sales of goods/other inflows	10,805,548	12,612,240
CCCC - SHEC Second Highway Engineering Co., Ltd.	Sales of goods/other inflows	8,060,013	2,770,866
CCCC Tianjin Industry and Trade Co., Ltd.	Sales of goods/other inflows	6,767,181	9,416,830
CCCC Second Harbor Engineering Co., Ltd.	Sales of goods/other inflows	3,669,477	108,882,731
ZPMC Southeast Asia Pte. Ltd.	Sales of goods/other inflows	2,611,725	7,916,694
Road and Bridge Construction Chongqing Fengfu Expressway Development Co., Ltd.	Sales of goods/other inflows	2,335,010	934,633
Road and Bridge Construction Chongqing Fengshi Expressway Development Co., Ltd.	Sales of goods/other inflows	1,959,278	828,665
CCCC Tianjin Dredging Co., Ltd.	Sales of goods/other inflows	1,670,636	17,322,772
Shanghai Jiangtian Industrial Co., Ltd.	Sales of goods/other inflows	1,504,488	744,530
CCCC Shanghai Dredging Co., Ltd.	Sales of goods/other inflows	1,458,199	757,248
CCCC Shanghai Equipment Engineering Co., Ltd.	Sales of goods/other inflows	838,967	
CCCC Construction Group Co., Ltd. (former: CCCC Fourth Highway Engineering Co., Ltd.)	Sales of goods/other inflows	270,456	2,148,874
ZPMC Changzhou Coatings Co., Ltd.	Sales of goods/other inflows	200,664	
No.2 Engineering Co., Ltd. of CCCC First Harbor Engineering Co., Ltd.	Sales of goods/other inflows	188,679	
Chongqing Yongjiang Expressway Investment and Construction Co., Ltd. of FHEC of CCCC	Sales of goods/other inflows	172,087	105,334
CCCC (Xiamen) Information Co., Ltd.	Sales of goods/other inflows	166,240	362,697
China Communications Information Technology Group Co., Ltd.	Sales of goods/other inflows	47,830	66,835
Jiujiang Education Consulting Co., Ltd. of CCCC Second Harbor Engineering Co., Ltd.	Sales of goods/other inflows	1,698	
CCCC Electrical and Mechanical Engineering Co., Ltd.	Sales of goods/other inflows		567,936,071
CCCC - SHEC Fourth Highway Engineering Co., Ltd.	Sales of goods/other inflows		60,379,716
ZPMC Mediterranean Liman Makinalari Ticaret Anonim Sirketi	Sales of goods/other inflows		3,595,115
Friede & Goldman, Llc.	Sales of goods/other inflows		2,346,934
Beijing Rate Electronic Technology Developing Co., Ltd.	Sales of goods/other inflows		1,774,844
CCCC First Highway Engineering Co., Ltd.	Sales of goods/other inflows		1,387,096
CCCC - SHEC Railway Construction Co., Ltd.	Sales of goods/other inflows		1,288,888
Installation Engineering Co., Ltd. of CCCC First Harbor Engineering Co., Ltd.	Sales of goods/other inflows		702,083
CCCC Financial Leasing Co., Ltd.	Sales of goods/other inflows		454,989
CCCC Guangzhou Dredging Co., Ltd.	Sales of goods/other inflows		244,956
CCCC First Highway Electrification Engineering Co., Ltd.	Sales of goods/other inflows		231,707

Description of related party transactions of purchase and sales of goods, rendering and receipt of labor services

Applicable Not applicable

(2) Trusteeship/contracting and entrustment/outsourcing

Trusteeship/contracting of the Company:

Applicable Not applicable

Description of the trusteeship/contracting with related parties

Applicable Not applicable

Entrustment/outsourcing of the Company

Applicable Not applicable

Management/outsourcing with related parties

Applicable Not applicable

(3) Leases with related parties

The Company as the lessor:

Applicable Not applicable

The Company as the lessee:

Applicable Not applicable

Description of leases with related parties

Applicable Not applicable

(4) Guarantees with related parties

The Company as the guarantor

Applicable Not applicable

The Company as the guaranteed party

Applicable Not applicable

Description of the guarantees with related parties

Applicable Not applicable

(5) Lendings with related parties

Applicable Not applicable

(6) Assets transfer and debt restructuring of related parties

Applicable Not applicable

(7) Remuneration of key management personnel

Applicable Not applicable

Unit: 10,000 Yuan Currency: CNY

Item	Amount incurred in the current period	Amount incurred in the previous period
Remuneration of key management personnel	1,535	1,540

(8) Other related party transactions

Applicable Not applicable

Distribution of dividends to related parties

	2022	2021
CCCG	75,938,271	-
CCCC International (Hong Kong) Holdings Limited	45,837,792	-
	121,776,063	-

Deposits in (withdrawal of deposits from) related parties

	2022	2021
CCCC Finance Company Ltd.	(1,600,236,793)	1,524,770,252

Borrowings from related parties

	2022	2021
CCCC Finance Company Ltd.	544,000,000	100,000,000
CCCC Xiongan Financial Leasing Co., Ltd.	120,000,000	326,000,000
	664,000,000	426,000,000

Interest collected from related parties

	2022	2021
Xiangtan CCCC Infrastructure Investment and Construction Co., Ltd.	28,423,585	-
CCCC Finance Company Ltd.	672,361	229,748
	29,095,946	229,748



Interest paid to related parties

	2022	2021
CCCC Xiongan Financial Leasing Co., Ltd.	14,591,870	13,874,222
CCCC Finance Company Ltd.	7,437,556	20,356,489
CCCC Financial Leasing Co., Ltd.	156,318	5,918,543
CCCC Leasing Jiahua No.1 Co., Ltd.	95,492	8,795,303
CCCC Leasing Jiahua No.2 Co., Ltd.	95,492	4,131,498
CCCC Financial Leasing (Guangzhou) Co., Ltd.	-	1,713,225
	22,376,728	54,789,280

6 Accounts receivable and payable by related parties

(1) Receivables

√Applicable □Not applicable

Unit: Yuan Currency: CNY

Item	Related parties	Balance as at December 31, 2022		Balance as at December 31, 2021	
		Book balance	Provision for bad debt	Book balance	Provision for bad debt
Accounts receivable	CCCC Haifeng Wind Power Development Co., Ltd.	243,735,000			
Accounts receivable	CCCC Third Harbor Engineering Co., Ltd.	211,646,105		182,219,562	
Accounts receivable	CCCC First Harbor Engineering Co., Ltd.	192,888,613		166,044,484	
Accounts receivable	China Road & Bridge Corporation	138,480,715		97,208,155	
Accounts receivable	Jiangsu Longyuan Zhenhua Marine Engineering Co., Ltd.	119,803,239		151,651,546	
Accounts receivable	China Harbour Engineering Co., Ltd.	93,246,900		6,926,061	
Accounts receivable	CCCC Electrical and Mechanical Engineering Co., Ltd.	86,806,696		138,547,709	
Accounts receivable	No.1 Engineering Co., Ltd. of CCCC First Harbor Engineering Co., Ltd.	64,841,100		52,779,503	
Accounts receivable	CCCC Second Harbor Engineering Co., Ltd.	47,380,307		97,888,662	
Accounts receivable	Xiangtan CCCC Infrastructure Investment and Construction Co., Ltd.	36,599,733			
Accounts receivable	CCCC Marine Engineering & Technology Research Center Co., Ltd.			23,647,274	
Accounts receivable	CCCC Fourth Harbor Engineering Co., Ltd.	26,986,726			
Accounts receivable	ZPMC-OTL MARINE CONTRACTOR LIMITED	24,248,168		22,838,856	
Accounts receivable	China Communications Construction Company Ltd.	20,714,844		35,437,005	
Accounts receivable	CCCC First Harbor Consultants Co., Ltd.	20,307,006		22,829,248	
Accounts receivable	Zhenhua Marine Energy (HK) Co., Ltd.	17,872,453		10,510,025	
Accounts receivable	CCCC Financial Leasing Co., Ltd.	16,865,821		14,888,332	
Accounts receivable	Friede & Goldman, Llc.	16,293,389		17,063,248	
Accounts receivable	Jiangsu CCCC Green Energy Photovoltaic Technology Co., Ltd.	14,446,169			
Accounts receivable	CCCC Tianjin Industry and Trade Co., Ltd.	13,863,129		52,046,271	
Accounts receivable	CCCC - SHEC Fourth Highway Engineering Co., Ltd.	13,833,457		10,622,056	
Accounts receivable	CCCC Tianhe Mechanical Equipment Manufacturing Co., Ltd.	13,805,933		9,220,004	
Accounts receivable	ZPMC Southeast Asia Pte. Ltd.	13,486,165		19,345,412	
Accounts receivable	ZPMC Mediterranean Liman Makinalari Ticaret Anonim Sirketi	11,282,084		10,799,805	
Accounts receivable	Tianjin International Marine Engineering Co., Ltd. (former: Binhai Environmental Protection Dredging Co., Ltd. of CCCC Tianjin Dredging Co., Ltd.)	8,160,365		8,160,365	

Item	Related parties	Balance as at December 31, 2022		Balance as at December 31, 2021	
		Book balance	Provision for bad debt	Book balance	Provision for bad debt
Accounts receivable	CCCC Fourth Harbor Consultants Co., Ltd.	7,398,000		7,398,000	
Accounts receivable	No.3 Engineering Co., Ltd. of CCCC Second Harbor Engineering Co., Ltd.	7,282,296		747,641	
Accounts receivable	No.4 Engineering Co., Ltd. of CCCC Second Harbor Engineering Co., Ltd.	6,137,565			
Accounts receivable	CCCC Second Highway Engineering Co., Ltd.	5,546,487		19,461,889	
Accounts receivable	CCCC-SHEC Fifth Highway Engineering Co., Ltd.	5,031,955			
Accounts receivable	The First Construction Company of CCCC Second Harbor Engineering Co., Ltd.	3,750,000		4,235,276	
Accounts receivable	CCCC First Highway Engineering Co., Ltd.	3,110,301		2,391,979	
Accounts receivable	No. 6 Engineering Co., Ltd. of CCCC First Highway Engineering Co., Ltd.	3,032,564		2,000,000	
Accounts receivable	CCCC - SHEC Second Highway Engineering Co., Ltd.	2,479,578		75,045	
Accounts receivable	Road and Bridge Construction Chongqing Fengfu Expressway Development Co., Ltd.	2,335,010		934,633	
Accounts receivable	Sichuan Road & Bridge Group Co., Ltd.	2,156,724			
Accounts receivable	Shanghai Jiangtian Industrial Co., Ltd.	2,014,799		432,337	
Accounts receivable	CCCC Third Harbor Consultants Co., Ltd.	2,007,459		12,771,119	
Accounts receivable	Chongqing Zhongwan Expressway Co., Ltd.	1,679,281			
Accounts receivable	Road & Bridge International Co., Ltd.	1,143,748		11,187,853	
Accounts receivable	CCCC Third Highway Engineering Co., Ltd.	1,128,632		1,952,749	
Accounts receivable	Beijing Rate Electronic Technology Developing Co., Ltd.	891,517		1,155,417	
Accounts receivable	Shanghai Interlink Road & Bridge Engineering Co., Ltd.	670,488		1,900,000	
Accounts receivable	CCCC-SHEC Railway Construction Co., Ltd.	656,275			
Accounts receivable	Road and Bridge Construction Chongqing Fengshi Expressway Development Co., Ltd.	601,676		828,665	
Accounts receivable	CCCC Chenzhou Road Construction Machinery Co., Ltd.	531,658		531,658	
Accounts receivable	No.2 Engineering Co., Ltd. of CCCC Second Harbor Engineering Co., Ltd.	417,150		417,150	
Accounts receivable	CCCG	300,000			
Accounts receivable	Installation Engineering Co., Ltd. of CCCC First Harbor Engineering Co., Ltd.	213,349		978,404	
Accounts receivable	No.2 Engineering Co., Ltd. of CCCC First Harbor Engineering Co., Ltd.	200,000			
Accounts receivable	CCCC Shanghai Equipment Engineering Co., Ltd.	168,000		232,500	
Accounts receivable	CCCC Tianjin Dredging Co., Ltd.	82,800			
Accounts receivable	CCCC Construction Group Co., Ltd. (former: CCCC Fourth Highway Engineering Co., Ltd.)	82,015		1,228,228	
Accounts receivable	CCCC Guidu Highway Construction Co., Ltd.	63,951		63,951	
Accounts receivable	Yueyang Chenglingji New Port Co., Ltd.	48,680		48,680	
Accounts receivable	Chongqing Yongjiang Expressway Investment and Construction Co., Ltd. of FHEC of CCCC	36,257		105,334	
Accounts receivable	SanYa Phoenix Island International Cruise Terminal Development Co., Ltd.	33,740		33,740	
Accounts receivable	CCCC First Highway Electrification Engineering Co., Ltd.	26,407		440,118	



Item	Related parties	Balance as at December 31, 2022		Balance as at December 31, 2021	
		Book balance	Provision for bad debt	Book balance	Provision for bad debt
Accounts receivable	CCCC - SHEC Railway Construction Co., Ltd.	23,980		2,660,549	
Accounts receivable	ZPMC ISTANBUL LIMAN MAKINALARI Tic A.S.	3,482		3,188	
Accounts receivable	Chuwa Risheng (Beijing) International Trade Co., Ltd.			5,420,000	
Accounts receivable	Road & Bridge South China Engineering Co., Ltd.			3,297,002	
Accounts receivable	CCCC Xi'an Road Construction Machinery Co., Ltd.			200,000	
Receivables financing	CCCC Third Harbor Engineering Co., Ltd.	52,661,823		34,650,000	
Receivables financing	CCCC First Harbor Engineering Co., Ltd.	51,766,155		32,647,622	
Receivables financing	CCCC Third Highway Engineering Co., Ltd.	38,000,000			
Receivables financing	CCCC Second Highway Engineering Co., Ltd.	34,367,325		3,000,000	
Receivables financing	Road & Bridge International Co., Ltd.	22,230,347			
Receivables financing	No.1 Engineering Co., Ltd. of CCCC First Harbor Engineering Co., Ltd.	10,537,271		51,736,656	
Receivables financing	CCCC Tianjin Industry and Trade Co., Ltd.	3,498,829			
Receivables financing	CCCC First Highway Electrification Engineering Co., Ltd.	300,000		599,796	
Receivables financing	CCCC-SHEC Railway Construction Co., Ltd.	202,412			
Receivables financing	Installation Engineering Co., Ltd. of CCCC First Harbor Engineering Co., Ltd.	63,000			
Receivables financing	Road & Bridge East China Engineering Co., Ltd.			17,500,000	
Receivables financing	CCCC Fourth Harbor Engineering Co., Ltd.			10,500,000	
Other receivables	Zhenhua Marine Energy (HK) Co., Ltd.	164,124,678	164,124,678	164,124,678	164,124,678
Other receivables	CCCC First Harbor Engineering Co., Ltd.	40,331,081		13,413,065	
Other receivables	CCCC Third Harbor Engineering Co., Ltd.	34,863,137			
Other receivables	China Road & Bridge Corporation	32,174,052			
Other receivables	CCCC Second Harbor Engineering Co., Ltd.	26,080,121			
Other receivables	Jiangsu Longyuan Zhenhua Marine Engineering Co., Ltd.	25,033,390		23,227,824	
Other receivables	CCCC National Engineering Research Center of Dredging Technology and Equipment Co., Ltd.	12,167,079			
Other receivables	CCCC Third Highway Engineering Co., Ltd.	11,671,593		10,000	
Other receivables	CCCC Electrical and Mechanical Engineering Co., Ltd.	11,230,777		40,000	
Other receivables	Road & Bridge International Co., Ltd.	10,311,354			
Other receivables	CCCC Xiongan Financial Leasing Co., Ltd.	6,000,000		4,000,000	
Other receivables	China Communications Construction Company Ltd.	3,782,930		4,220,126	
Other receivables	CCCC Fourth Harbor Engineering Co., Ltd.	3,117,699			
Other receivables	CCCC First Harbor Consultants Co., Ltd.	2,602,610			
Other receivables	No.4 Engineering Co., Ltd. of CCCC Second Harbor Engineering Co., Ltd.	2,116,091			
Other receivables	CCCC - SHEC Second Highway Engineering Co., Ltd.	1,623,738			
Other receivables	CCCC Second Highway Engineering Co., Ltd.	1,611,506		153,605	
Other receivables	CCCC Yancheng Construction Development Co., Ltd.	1,600,000		1,600,000	
Other receivables	CCCCG	1,356,800			
Other receivables	No.2 Engineering Co., Ltd. of CCCC Third Harbor Engineering Co., Ltd.	1,327,942			
Other receivables	CCCC Fourth Harbor Consultants Co., Ltd.	992,576			

Item	Related parties	Balance as at December 31, 2022		Balance as at December 31, 2021	
		Book balance	Provision for bad debt	Book balance	Provision for bad debt
Other receivables	CCCC Xiongan Urban Construction Development Co., Ltd.	550,000			
Other receivables	CCCC Financial Leasing Co., Ltd.	206,389			
Other receivables	CCCC East China Investment Co., Ltd.	194,959		132,207	
Other receivables	ZPMC Mediterranean Liman Makinalari Ticaret Anonim Sirketi	178,642			
Other receivables	CCCC Northeast Investment Co., Ltd.	152,002			
Other receivables	China Harbour Engineering Co., Ltd.	138,462		101,203	
Other receivables	Shanghai Jiangtian Industrial Co., Ltd.	77,552			
Other receivables	ZPMC-OTL MARINE CONTRACTOR LIMITED	49,038		14,553	
Other receivables	ZPMC Southeast Asia Pte. Ltd.	15,165			
Other receivables	Jiujiang Education Consulting Co., Ltd. of CCCC Second Harbor Engineering Co., Ltd.	1,800			
Other receivables	CCCC Capital Holdings Co., Ltd.			62,210,484	
Other receivables	China Communications Information Technology Group Co., Ltd.			11,713	
Other receivables	CCCC Shanghai Dredging Co., Ltd.			4,400	
Other receivables	ZPMC Changzhou Coatings Co., Ltd.			2,157	
Advances to suppliers	Road & Bridge East China Engineering Co., Ltd.	24,847,917		14,149,179	
Advances to suppliers	CCCC First Highway Engineering Co., Ltd.	16,625,967			
Advances to suppliers	CCCC Third Harbor Consultants Co., Ltd.	10,651,759		11,850,000	
Advances to suppliers	Jiangmen Hangtong Shipbuilding Co., Ltd. of CCCC Fourth Harbor Engineering Co., Ltd.	7,000,000			
Advances to suppliers	CCCC Fourth Harbor Consultants Co., Ltd.	4,095,000			
Advances to suppliers	CCCC Worldcom (Chongqing) Heavy Industries Co., Ltd.	385,568			
Advances to suppliers	China Harbour Engineering Co., Ltd.	5,000			
Advances to suppliers	CCCC Third Harbor Engineering Co., Ltd. Xiamen Branch	2,000			
Advances to suppliers	CCCC Second Harbor Engineering Co., Ltd.	600			
Advances to suppliers	CCCC First Harbor Engineering Co., Ltd.			5,500,000	
Advances to suppliers	CCCC Third Harbor Engineering Co., Ltd.			11,770	
Advances to suppliers	ZPMC Changzhou Coatings Co., Ltd.			4,145	
Contract assets	Jiangsu Longyuan Zhenhua Marine Engineering Co., Ltd.	605,354,047			
Contract assets	CCCC First Harbor Engineering Co., Ltd.	62,352,928		16,790,746	
Contract assets	CCCC Haifeng Wind Power Development Co., Ltd.	48,181,663			
Contract assets	CCCC Second Harbor Engineering Co., Ltd.	30,082,851		58,199,415	
Contract assets	China Road & Bridge Corporation	22,477,343		15,314,507	
Contract assets	CCCC Second Highway Engineering Co., Ltd.	21,831,279		16,603,220	
Contract assets	CCCC Third Highway Engineering Co., Ltd.	15,018,912		2,597,625	
Contract assets	No.4 Engineering Co., Ltd. of CCCC Second Harbor Engineering Co., Ltd.	9,311,494			
Contract assets	CCCC - SHEC Second Highway Engineering Co., Ltd.	4,497,454		3,944,683	
Contract assets	CCCC Third Harbor Engineering Co., Ltd.	3,004,388		6,049,547	
Contract assets	Sichuan Road & Bridge Group Co., Ltd.	2,297,016			



Item	Related parties	Balance as at December 31, 2022		Balance as at December 31, 2021	
		Book balance	Provision for bad debt	Book balance	Provision for bad debt
Contract assets	CCCC Electrical and Mechanical Engineering Co., Ltd.			27,477,285	
Contract assets	CCCC - SHEC Fourth Highway Engineering Co., Ltd.			6,211,400	
Contract assets	China Communications Construction Company Ltd.			3,067,965	
Contract assets	Road & Bridge International Co., Ltd.			2,131,171	
Contract assets	The First Construction Company of CCCC Second Harbor Engineering Co., Ltd.			1,836,207	
Contract assets	CCCC First Harbor Consultants Co., Ltd.			720,513	
Other non-current assets	China Harbour Engineering Co., Ltd.	16,115,040			
Other non-current assets	CCCC Fourth Harbor Engineering Co., Ltd.	2,252,212			
Other non-current assets	Jiangsu Longyuan Zhenhua Marine Engineering Co., Ltd.			4,690,047	
Other non-current assets	CCCC First Harbor Engineering Co., Ltd.			16,790,746	
Other non-current assets	CCCC Second Harbor Engineering Co., Ltd.			41,510,434	
Other non-current assets	CCCC Second Highway Engineering Co., Ltd.			16,516,684	
Other non-current assets	Road & Bridge International Co., Ltd.			2,131,171	
Other non-current assets	China Road & Bridge Corporation			15,314,507	
Other non-current assets	CCCC Third Highway Engineering Co., Ltd.			1,467,889	
Other non-current assets	CCCC Third Harbor Engineering Co., Ltd.			2,874,326	
Other non-current assets	CCCC - SHEC Fourth Highway Engineering Co., Ltd.			6,211,400	

(2) Payables

√Applicable □Not applicable

Unit: Yuan Currency: CNY

Item	Related parties	Ending book balance	Beginning book balance
Accounts payable	CCCC Third Harbor Engineering Co., Ltd.	331,634,582	237,337,752
Accounts payable	CCCC First Highway Engineering Co., Ltd.	259,160,857	109,513,338
Accounts payable	CCCC Third Highway Engineering Co., Ltd.	250,106,814	171,953,904
Accounts payable	CCCC Construction Group Co., Ltd. (former: CCCC Fourth Highway Engineering Co., Ltd.)	101,897,141	174,746,384
Accounts payable	CCCC Shanghai Equipment Engineering Co., Ltd.	83,614,468	51,172,227
Accounts payable	CCCC Second Harbor Engineering Co., Ltd.	74,160,316	132,281,871
Accounts payable	ZPMC Changzhou Coatings Co., Ltd.	43,778,590	33,794,779
Accounts payable	CCCC Tianjin Dredging Co., Ltd.	33,225,252	
Accounts payable	Road & Bridge International Co., Ltd.	22,984,931	
Accounts payable	Shanghai Communications Construction Contracting Co., Ltd.	21,494,837	13,844,146
Accounts payable	CCCC Shanghai Dredging Co., Ltd.	20,295,398	13,355,089
Accounts payable	CCCC Second Highway Consultants Co., Ltd.	20,038,332	18,804,342
Accounts payable	CNPC & CCCC Petroleum Sales Co., Ltd.	18,903,424	10,696,813

Item	Related parties	Ending book balance	Beginning book balance
Accounts payable	No.1 Engineering Co., Ltd. of CCCC First Harbor Engineering Co., Ltd.	16,878,682	18,318,225
Accounts payable	ZPMC Southeast Asia Pte. Ltd.	16,657,949	18,035,599
Accounts payable	Jiangmen Hangtong Shipbuilding Co., Ltd. of CCCC Fourth Harbor Engineering Co., Ltd.	14,280,000	
Accounts payable	No. 2 Engineering Co., Ltd. of CCCC Fourth Highway Engineering Co., Ltd.	8,581,250	8,581,250
Accounts payable	No.3 Engineering Co., Ltd. of CCCC Third Harbor Engineering Co., Ltd.	7,815,018	7,815,018
Accounts payable	CCCC First Harbor Consultants Co., Ltd.	7,631,212	7,631,212
Accounts payable	Shanghai Zhensha Longfu Machinery Co., Ltd.	6,751,252	
Accounts payable	CCCC First Harbor Engineering Co., Ltd.	6,498,606	10,054,549
Accounts payable	CCCC Water Transportation Planning and Design Institute Co., Ltd.	5,907,891	5,907,891
Accounts payable	Shanghai Jiangtian Industrial Co., Ltd.	4,419,111	17,864,928
Accounts payable	CCCC National Engineering Research Center of Dredging Technology and Equipment Co., Ltd.	3,962,714	4,091,155
Accounts payable	CCCC Shanghai Channel Equipment Industry Co., Ltd.	594,418	2,196,743
Accounts payable	Jiangsu Longyuan Zhenhua Marine Engineering Co., Ltd.	450,000	3,998,467
Accounts payable	Chongqing Yongjiang Expressway Investment and Construction Co., Ltd. of FHEC of CCCC	323,990	323,990
Accounts payable	Xiamen Jiehang Engineering Testing Technology Co., Ltd.	256,536	
Accounts payable	CCCC Second Highway Engineering Co., Ltd.	121,494	121,494
Accounts payable	CCCC Marine Engineering & Technology Research Center Co., Ltd.		2,874,835
Accounts payable	Installation Engineering Co., Ltd. of CCCC First Harbor Engineering Co., Ltd.	33,849	33,849
Accounts payable	ZPMC Mediterranean Liman Makinalari Ticaret Anonim Sirketi	11,691	
Accounts payable	Zhenhua (Singapore) Engineering Co., Ltd.	9,774	
Accounts payable	CCCC Tianjin Dredging Co., Ltd.		70,685,645
Accounts payable	Xing An Ji Engineering Co., Ltd. of CCCC Third Harbor Engineering Co., Ltd.		10,051,352
Accounts payable	China Road & Bridge Corporation		6,251,552
Accounts payable	Friede & Goldman, Llc.		2,582,443
Accounts payable	CCCC Tianjin Industry and Trade Co., Ltd.		1,952,627
Accounts payable	CCCC Xingyu Technology Co., Ltd.		1,259,406
Accounts payable	CCCC (Tianjin) Ecological and Environmental Protection Design Institute Co., Ltd.		385,000
Accounts payable	CCCC Third Harbor Consultants Co., Ltd.		100,000
Accounts payable	CCCC (Xiamen) Information Co., Ltd.		40,990
Accounts payable	China Communications Information Technology Group Co., Ltd.		40,189
Notes payable	CCCC Shanghai Equipment Engineering Co., Ltd.	106,040,000	73,347,092
Notes payable	ZPMC Changzhou Coatings Co., Ltd.	12,215,422	4,000,000
Notes payable	CCCC Second Highway Engineering Co., Ltd.		15,123,879
Notes payable	Road & Bridge East China Engineering Co., Ltd.		15,000,000
Contract liabilities	CCCC Third Harbor Engineering Co., Ltd.	197,449,765	25,770,208
Contract liabilities	No.2 Engineering Co., Ltd. of CCCC Third Harbor Engineering Co., Ltd.	170,288,676	
Contract liabilities	Jiangsu Longyuan Zhenhua Marine Engineering Co., Ltd.	125,675,111	2,155,195
Contract liabilities	China Harbour Engineering Co., Ltd.	92,144,941	92,397,526
Contract liabilities	Road & Bridge International Co., Ltd.	80,598,342	
Contract liabilities	China Road & Bridge Corporation	28,615,217	248,581,718
Contract liabilities	CCCC Yancheng Construction Development Co., Ltd.	19,370,518	
Contract liabilities	CCCC First Harbor Engineering Co., Ltd.	18,506,940	86,331,637
Contract liabilities	CCCC Third Highway Engineering Co., Ltd.	15,160,936	
Contract liabilities	Zhenhua Engineering Co., Ltd.	11,480,886	11,480,886



Item	Related parties	Ending book balance	Beginning book balance
Contract liabilities	CCCC-SHEC First Highway Engineering Co., Ltd.	10,757,478	
Contract liabilities	No.1 Engineering Co., Ltd. of CCCC First Harbor Engineering Co., Ltd.	3,000,000	175,641,593
Contract liabilities	Tianjin International Marine Engineering Co., Ltd. (former: Binhai Environmental Protection Dredging Co., Ltd. of CCCC Tianjin Dredging Co., Ltd.)	1,190,280	10,280
Contract liabilities	CCCC Tianjin Industry and Trade Co., Ltd.	1,158,633	
Contract liabilities	China Communications Construction Company Ltd.	644,250	50,000,000
Contract liabilities	CCCC Second Highway Engineering Co., Ltd.	516,117	
Contract liabilities	ZPMC Southeast Asia Pte. Ltd.	336,651	2,388,488
Contract liabilities	No.3 Engineering Co., Ltd. of CCCC Second Harbor Engineering Co., Ltd.	248,624	4,857,786
Contract liabilities	Xing An Ji Engineering Co., Ltd. of CCCC Third Harbor Engineering Co., Ltd.	200,000	200,000
Contract liabilities	CCCC Shanghai Equipment Engineering Co., Ltd.	100,000	100,000
Contract liabilities	Friede & Goldman, Llc.	67,174	135,518,892
Contract liabilities	China Highway Vehicle & Machinery Co., Ltd.	200	
Contract liabilities	CCCC Fourth Harbor Engineering Co., Ltd.		12,265,487
Contract liabilities	The First Construction Company of CCCC Second Harbor Engineering Co., Ltd.		11,009,174
Contract liabilities	CCCC Tianjin Dredging Co., Ltd.		522,000
Contract liabilities	No.2 Engineering Co., Ltd. of CCCC Second Harbor Engineering Co., Ltd.		303,149
Contract liabilities	No.2 Engineering Co., Ltd. of CCCC Fourth Harbor Engineering Co., Ltd.		71
Other payables	Shanghai Jiangtian Industrial Co., Ltd.	5,571,886	4,586,085
Other payables	CCCC Dredging (Group) Co., Ltd.	2,000,000	
Other payables	Road & Bridge International Co., Ltd.	1,600,000	
Other payables	CCCCG	1,599,944	243,144
Other payables	No.2 Engineering Co., Ltd. of CCCC Third Harbor Engineering Co., Ltd.	1,327,942	
Other payables	CCCC Third Highway Engineering Co., Ltd.	743,216	5,724
Other payables	No.3 Engineering Co., Ltd. of CCCC Second Harbor Engineering Co., Ltd.	657,337	295,750
Other payables	CCCC (Zhengzhou) Construction Co., Ltd.	600,000	
Other payables	CCCC Second Highway Engineering Co., Ltd.	200,000	
Other payables	Shanghai Zhensha Longfu Machinery Co., Ltd.	170,000	
Other payables	CCCC Shanghai Equipment Engineering Co., Ltd.	107,000	100,000
Other payables	Xiamen Jiehang Engineering Testing Technology Co., Ltd.	64,237	
Other payables	ZPMC Changzhou Coatings Co., Ltd.	57,600	79,872
Other payables	CCCC Third Harbor Engineering Co., Ltd.	51,664	
Other payables	CCCC Tianjin Dredging Co., Ltd.	51,129	
Other payables	Tianjin Harbour Engineering Quality Inspection Center Co., Ltd.	49,000	
Other payables	CCCC Leasing (Shandong) Co., Ltd.	20,000	
Other payables	Shanghai China Communications Water Transportation Design & Research Co., Ltd.	15,200	
Other payables	Harbor Construction Engineering Co., Ltd. of CCCC Tianjin Dredging Co., Ltd.	11,434	
Other payables	DaHua Technology Co., Ltd.	10,000	
Other payables	CCCC National Engineering Research Center of Dredging Technology and Equipment Co., Ltd.	100	
Other payables	CCCC Tianjin Dredging Co., Ltd.		2,000,000
Other payables	Zhen Hwa Harbour Construction Co., Ltd.		6,593
Other payables	Beijing BLDJ Landscape Architecture Institute Co., LTD.		3,000
Other payables	Shanghai Donghua Construction Co., Ltd.		3,000

Item	Related parties	Ending book balance	Beginning book balance
Short-term borrowings	CCCC Xiongan Financial Leasing Co., Ltd.	20,000,000	126,906,111
Non-current liabilities due within one year	CCCC Xiongan Financial Leasing Co., Ltd.	117,003,704	66,666,667
Long-term payables	CCCC Tianjin Dredging Co., Ltd.	243,811,149	219,719,005
Long-term payables	CCCC Second Harbor Engineering Co., Ltd.	137,123,967	60,846,413
Long-term payables	CCCC Construction Group Co., Ltd. (former: CCCC Fourth Highway Engineering Co., Ltd.)	39,558,526	39,558,526
Long-term payables	CCCC Third Harbor Engineering Co., Ltd.	34,665,923	34,665,923
Long-term payables	CCCC Xiongan Financial Leasing Co., Ltd.	33,555,556	100,333,333
Long-term payables	No. 2 Engineering Co., Ltd. of CCCC Fourth Highway Engineering Co., Ltd.	9,520,885	9,520,885
Long-term payables	CCCC - SHEC Second Highway Engineering Co., Ltd.	125,862	125,862
Long-term payables	CCCC Leasing Jiahua No.1 Co., Ltd.		85,721,883
Long-term borrowings	CCCC Finance Company Ltd.	644,393,556	100,055,556
Long-term borrowings	CCCC Xiongan Financial Leasing Co., Ltd.	25,168,519	

7 Commitments with related parties

√Applicable □Not applicable

Rendering of services for the Group by related parties

	2022	2021
CCCC Third Harbor Engineering Co., Ltd.	761,097,020	770,463,672
CCCC Tianjin Dredging Co., Ltd.	393,318,809	545,716,613
CCCC First Highway Fifth Engineering Co., Ltd.	388,366,210	388,366,210
No. 2 Engineering Co., Ltd. of CCCC Fourth Highway Engineering Co., Ltd.	305,931,400	305,931,400
CCCC First Highway Engineering Co., Ltd.	185,310,227	478,446,746
No.1 Engineering Co., Ltd. of CCCC First Harbor Engineering Co., Ltd.	56,568,996	56,568,996
Shanghai Communications Construction Contracting Co., Ltd.	2,631,313	9,650,296
CCCC Tunnel Engineering Company Limited	158,070	158,070
	2,093,382,045	2,555,302,003

	2022	2021
CCCC Haifeng Wind Power Development Co., Ltd.	942,273,538	-
CCCC National Engineering Research Center of Dredging Technology and Equipment Co., Ltd.	528,800,000	-
Road & Bridge International Co., Ltd.	241,720,000	-
CCCC First Harbor Engineering Co., Ltd.	224,844,126	390,361,699
CCCC Second Highway Engineering Co., Ltd.	154,280,200	254,806,857
CCCC Third Harbor Engineering Co., Ltd.	145,655,357	69,920,757
China Harbour Engineering Co., Ltd.	55,177,980	770,512,465
CCCC-SHEC First Highway Engineering Co., Ltd.	36,000,000	-
China Road & Bridge Corporation	34,957,678	785,312,864
No.1 Engineering Co., Ltd. of CCCC First Harbor Engineering Co., Ltd.	27,783,186	-
Jiangsu Longyuan Zhenhua Marine Engineering Co., Ltd.	25,950,000	103,090,433
CCCC Fourth Harbor Engineering Co., Ltd.	5,855,752	-
China Communications Construction Company Ltd.	3,681,416	-
CCCC - SHEC Second Highway Engineering Co., Ltd.	-	101,152,667



	2022	2021
CCCC Third Highway Engineering Co., Ltd.	-	89,095,627
CCCC Second Harbor Engineering Co., Ltd.	-	55,563,116
	2,426,979,233	2,619,816,485

8 Others

Applicable Not applicable

Monetary funds deposited in the related parties

	2022	2021
CCCC Finance Company Ltd.	435,568	1,600,000,000

XIII Share-based payment

1 General of share based payment

Applicable Not applicable

2 Equity-settled share-based payments

Applicable Not applicable

3 Cash-settled share-based payments

Applicable Not applicable

4 Modification and termination of share-based payment

Applicable Not applicable

5 Others

Applicable Not applicable

XIV Commitments and contingencies

1 Significant commitments

Applicable Not applicable

Significant external commitments, nature and amount on the balance sheet date

Matters related to capital expenditure commitments

Commitments related to capital expenditure contracted for but not provided in the financial statements as at the balance sheet date:

	2022	2021
Buildings and constructions, machinery equipment	569,759,423	623,727,601

L/C commitments

The Group had entrusted the bank to issue several L/Cs to purchase imported components and parts. As at December 31, 2022, the unpaid amount under the L/Cs was about RMB 2,201,297,673 (as at December 31, 2021: RMB 2,160,907,314).

2 Contingencies

(1) Significant contingencies on the balance sheet date

Applicable Not applicable

(2) If the company has no significant contingencies to be disclosed, it shall also explain:

Applicable Not applicable

3 Others

Applicable Not applicable

XV. Post balance sheet events**1 Significant non-adjustment events**

Applicable Not applicable

2 Profit distribution

Applicable Not applicable

3 Sales return

Applicable Not applicable

4 Description of other post balance sheet events

Applicable Not applicable

XVI. Other significant events**1 Correction of previous accounting errors**

(1) Retrospective restatement

Applicable Not applicable

(2) Prospective application

Applicable Not applicable

2 Debt restructuring

Applicable Not applicable

3 Assets exchange

(1) Non-monetary assets exchange

Applicable Not applicable

(2) Other assets exchange

Applicable Not applicable

4 Pension plan

Applicable Not applicable

5 Discontinuing operations

Applicable Not applicable

6 Segments

(1) Determination basis and accounting policies of reporting segment

Applicable Not applicable

The Group determines operating segments based on internal organization structure, management requirements and internal reporting system, determines reporting segments based on operating segments, and disclose the information of the segments.

Operating segment refers to the component part of the Group that meet the following requirements: (1) it can generate income and expenses in daily activities; (2) the management of the Group can regularly evaluate its operating results to determine its allocation of resources and to evaluate its performance; (3) the Group is able to obtain its accounting information regarding financial position, operating results and cash flows, etc. If two or more operating segments have similar economic characteristics, and have met a certain condition, they will be merged into one operating segment.

The Group identified the business as an operating segment for analysis and assessment based on internal organization structure, management requirement and internal report system.

(2) Financial information of reporting segment

Applicable Not applicable



(3) If the Company has no reporting segments or cannot disclose the total assets and liabilities of each reporting segment, the reasons shall be stated

Applicable Not applicable

(4) Other description

Applicable Not applicable

Product and labor information

Income from external transactions

	2022	2021
Port machinery	20,731,800,489	17,480,944,149
Steel structure and related income	2,731,132,322	3,754,693,300
Engineering construction projects	1,613,996,721	2,216,802,462
Shipping and lifting services	1,719,708,160	1,317,441,452
Heavy equipment	3,085,509,098	760,120,955
Lease income	225,960,519	245,663,739
Sales of materials and others	83,685,678	202,310,911
Total	30,191,792,987	25,977,976,968

Geographic information

Income from external transactions

	2022	2021
Chinese Mainland	16,017,286,405	13,821,963,961
Asia (excluding Chinese Mainland)	7,867,109,144	4,459,069,862
North America	2,181,504,594	3,226,645,406
Africa	1,368,578,664	1,394,212,611
Chinese Mainland (export sales)	968,104,389	718,960,209
Europe	877,042,956	2,038,120,499
South America	600,144,518	206,298,856
Oceania	312,022,317	112,705,564
Total	30,191,792,987	25,977,976,968

The income from external transaction is attributable to where the customer is located.

Total non-current assets

	2022	2021
Chinese Mainland	19,253,173,359	19,258,280,848
Asia (excluding Chinese Mainland)	10,140,996,412	9,267,671,402
Others	111,020,668	53,531,410
Total	29,505,190,439	28,579,483,660

The non-current assets are attributable to where they are located, excluding financial assets, long-term equity investment, goodwill, deferred income tax assets and other non-current assets.

7 Other significant transactions and events with impacts on investors' decisions

Applicable Not applicable

Lease

(1) As a lessor

The Group leases out some buildings and constructions for periods ranging from 10-12 years, forming operating lease. In accordance with the lease agreement, the rental is subject to annual adjustment according to the market rental status. In 2022, the Group's income from the lease of buildings and constructions was RMB 74,079,295 (2021: RMB 98,983,314), which is detailed in Note VII (61). The buildings and constructions leased out are presented in investment real estate, which is detailed in Note VII (20).

The Group leases out some ships for periods ranging from 2-3 years, forming operating lease. In accordance with the lease agreement, the rental is subject to annual adjustment according to the market rental status. In 2022, the Group's income from the lease of ships was RMB 140,717,121 (2021: RMB 125,616,125), which is detailed in Note VII (61). The ships leased out are presented in fixed assets, which is detailed in Note VII (21).

The Group leases out some of its machinery and equipment for periods ranging from 10 to 180 days, forming operating lease. In 2022, the Group's income from the lease of machinery and equipment was RMB 11,164,103 (2021: RMB 21,064,302), which is detailed in Note VII (61).

Operating lease

The profit or loss related to operating leases is presented as follows:

	2022	2021
Lease income	225,960,519	245,663,739

According to the lease agreement signed with the lessee, the minimum lease receipts of non-cancellable leases are as follows:

	2022	2021
Within 1 year (including 1 year)	239,242,941	96,052,177
1 to 2 years (including 2 years)	132,035,513	98,450,801
2-3 years (including 3 years)	42,528,101	73,936,063
3 to 4 years (including 4 years)	19,751,071	35,084,850
4 to 5 years (including 5 years)	85,516,755	18,508,663
Over 5 years	828,273	84,274,346
Total	519,902,654	406,306,900

(2) As a lessee

	2022	2021
Interest expense of lease liabilities	615,840	443,939
Short-term lease expenses with simplified treatment included in the current profit or loss	104,487,307	92,747,477
Total cash outflows related to leases	122,403,881	104,632,378
Cash inflow from leaseback	-	732,028,920
Cash outflow from leaseback	242,328,806	662,155,962

The leased assets leased by the Group include buildings and constructions, machinery and equipment, transportation equipment and other equipment used in the course of operations, and the lease term is usually 1-3 years. The lease contract usually stipulates that the Group cannot sublet the leased assets. A few lease contracts include the option of renewal.

Leaseback

The Group usually enters into leaseback transactions for the purchase price of large ships or equipment, where the transfer of the assets is not a sale. The Group continues to recognize the transferred assets together with a financial liability equal to the transfer income. The Group takes such leaseback transactions as mortgage loans for accounting treatment. The Group makes annual leaseback financing payments to the finance leasing company in accordance with the terms of the contract.

Other lease information

Right-of-use assets are detailed in Note VII (25). The simplified treatment of short-term lease and low-value assets lease is detailed in Note V (34). The lease liabilities are detailed in Note VII (47).

8 Others

Applicable Not applicable



XVII. Notes to main items of the financial statements of the parent company

1 Accounts receivable

(1) Disclosure by aging

√Applicable □Not applicable

Unit: Yuan Currency: CNY

Aging	Ending book balance
Within 1 year	
Including: subitem within 1 year	
Sub-total of items within 1 year	15,808,520,882
1-2 years	580,444,164
2-3 years	1,854,369,394
Over 3 years	
3-4 years	666,023,611
4-5 years	83,902,642
Over 5 years	1,126,924,513
Total	20,120,185,206

(2) Disclosure by bad debt calculation method

√Applicable □Not applicable

Unit: Yuan Currency: CNY

Category	December 31, 2022					December 31, 2021				
	Book balance		Provision for bad debts		Book value	Book balance		Provision for bad debts		Book value
	Amount	Proportion (%)	Amount	Proportion of provision (%)		Amount	Proportion (%)	Amount	Proportion of provision (%)	
Provision for bad debts accrued on an individual basis	896,540,136	4	825,285,390	92	71,254,746	898,273,314	5	655,457,495	73	242,815,819
Including:										
Provision for bad debts by portfolio	19,223,645,070	96	1,280,658,766	7	17,942,986,304	16,035,525,320	95	1,233,339,095	8	14,802,186,225
Including:										
Total	20,120,185,206	/	2,105,944,156	/	18,014,241,050	16,933,798,634	/	1,888,796,590	/	15,045,002,044

Individual provision for bad debts:

√Applicable □Not applicable

Unit: Yuan Currency: CNY

Name	December 31, 2022			
	Book balance	Provision for bad debts	Proportion of provision (%)	Reason for provision
Accounts receivable 1	475,031,639	403,776,893	85	Counterparty financial shortage
Accounts receivable 2	173,768,233	173,768,233	100	Contract dispute
Accounts receivable 3	93,954,000	93,954,000	100	Counterparty financial shortage
Accounts receivable 4	51,028,800	51,028,800	100	Contract dispute
Accounts receivable 5	43,053,946	43,053,946	100	Contract dispute
Accounts receivable 6	27,858,470	27,858,470	100	Contract dispute
Accounts receivable 7	10,208,916	10,208,916	100	Contract dispute
Accounts receivable 8	7,450,764	7,450,764	100	Contract dispute
Accounts receivable 9	7,495,088	7,495,088	100	Contract dispute
Accounts receivable 10	2,220,314	2,220,314	100	Contract dispute
Accounts receivable 11	3,576,178	3,576,178	100	Contract dispute
Accounts receivable 12	893,788	893,788	100	Counterparty financial shortage
Total	896,540,136	825,285,390	92	/

Description of individual provision for bad debts:

Applicable Not applicable

As at December 31, 2021, the accounts receivables with individual provision for bad debts are as follows:

	Book balance	Provision for bad debts	Estimated credit loss ratio %	Reason for provision
Accounts receivable 1	485,631,638	242,815,819	50	Counterparty financial shortage
Accounts receivable 2	169,011,372	169,011,372	100	Contract dispute
Accounts receivable 3	93,954,000	93,954,000	100	Counterparty financial shortage
Accounts receivable 4	51,028,800	51,028,800	100	Contract dispute
Accounts receivable 5	42,979,947	42,979,947	100	Contract dispute
Accounts receivable 6	25,502,864	25,502,864	100	Contract dispute
Accounts receivable 7	9,929,450	9,929,450	100	Contract dispute
Accounts receivable 8	7,289,912	7,289,912	100	Contract dispute
Accounts receivable 9	6,820,756	6,820,756	100	Contract dispute
Accounts receivable 10	3,273,790	3,273,790	100	Contract dispute
Accounts receivable 11	2,032,572	2,032,572	100	Contract dispute
Accounts receivable 12	818,213	818,213	100	Contract dispute
Total	898,273,314	655,457,495		

Provision for bad debts by portfolio:

Applicable Not applicable

If the provision for bad debts is calculated based on the general model of expected credit loss, please refer to other receivables for disclosure:

Applicable Not applicable

(3) Provision for bad debts

Applicable Not applicable

The recovered or reversed provision for bad debts with significant amount:

Applicable Not applicable

(4) Accounts receivable actually written off in the current period

Applicable Not applicable

Write-off of important accounts receivable

Applicable Not applicable

(5) Top 5 accounts receivable in terms of ending balance presented by debtor

Applicable Not applicable

As at December 31, 2022, top 5 accounts receivable in terms of ending balance presented by debtor are summarized and analyzed as follows:

	Balance	Provision for bad debts	Proportion in total balance of accounts receivable %
Total accounts receivable of top 5 balances	12,573,763,269	542,210,388	62

As at December 31, 2021, top 5 accounts receivable in terms of ending balance presented by debtor are summarized and analyzed as follows:

	Balance	Provision for bad debts	Proportion in total balance of accounts receivable %
Total accounts receivable of top 5 balances	11,702,726,987	321,196,592	69

Other description

None

(6) Accounts receivable derecognized due to the transfer of financial assets

Applicable Not applicable

(7) Amount of assets and liabilities formed by transferring accounts receivable and continuing involvement

Applicable Not applicable



Other description:

Applicable Not applicable

Accounts receivable with provision for bad debts accrued by credit risk features portfolio are as follows:

	2022			2021		
	Book balance of estimated default	Estimated credit loss ratio (%)	Expected credit loss for the entire duration	Book balance of estimated default	Estimated credit loss ratio (%)	Expected credit loss for the entire duration
Within 1 year	15,806,393,464	1	88,542,607	12,442,731,692	1	92,165,108
1-2 years	580,444,164	14	79,426,723	2,324,246,479	15	350,138,491
2-3 years	1,744,608,256	27	464,722,489	254,417,625	26	65,236,040
3-4 years	223,238,665	38	85,019,638	93,702,810	45	42,034,900
4-5 years	69,671,842	58	40,507,107	130,310,749	66	85,404,118
Over 5 years	799,288,679	65	522,440,202	790,115,965	76	598,360,438
Total	19,223,645,070		1,280,658,766	16,035,525,320		1,233,339,095

Changes in the provision for bad debts of accounts receivable are as follows:

	January 1, 2022	Provision in 2022	Reversal in 2022	December 31, 2022
2022	1,888,796,590	677,030,281	(459,882,715)	2,105,944,156
2021	1,803,709,232	646,175,124	(561,087,766)	1,888,796,590

2 Other receivables

Item presentation

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2022	December 31, 2021
Interest receivable		
Dividends receivable	315,789,096	
Other receivables	1,364,774,518	3,836,840,864
Total	1,680,563,614	3,836,840,864

Other description:

Applicable Not applicable

Interest receivable

(1) Classification of interest receivable

Applicable Not applicable

(2) Significant overdue interest

Applicable Not applicable

(3) Provision for bad debts

Applicable Not applicable

Other description:

Applicable Not applicable

Dividends receivable

(4) Dividends receivable

Applicable Not applicable

Project (or invested entity)	December 31, 2022	December 31, 2021
Nanjing Ninggao New Channel Construction Co., Ltd.	315,789,096	
Total	315,789,096	

(5) Significant dividends receivable aging over 1 year

Applicable Not applicable

Provision for bad debts Applicable Not applicable

Other description:

Applicable Not applicable

Other receivables
 (1) Disclosure by aging
Applicable Not applicable

Unit: Yuan Currency: CNY

Aging	December 31, 2022
Within 1 year	
Including: subitem within 1 year	
Sub-total of items within 1 year	1,337,834,798
1-2 years	41,098,467
2-3 years	6,159,589
Over 3 years	
3-4 years	3,740,605
4-5 years	199,800
Over 5 years	9,610,964
Total	1,398,644,223

(2) Classification by nature of funds
Applicable Not applicable

Unit: Yuan Currency: CNY

Nature of funds	December 31, 2022	December 31, 2021
Current accounts between subsidiaries	671,021,717	3,293,532,451
Taxes on outstanding payment receivable	332,163,971	318,884,216
Equity disposal receivables		62,210,484
Customs deposits	267,023,626	61,537,519
Bid and performance bonds	50,292,193	41,731,603
Lease payment receivable	41,353,252	33,434,668
Money on call of on-site product service	21,959,592	21,040,992
Staff loan receivable	13,295,583	14,644,659
Others	1,534,289	149,879
Total	1,398,644,223	3,847,166,471

(3) Provision for bad debts
Applicable Not applicable

Unit: Yuan Currency: CNY

Provision for bad debt	Stage I	Stage II	Stage III	Total
	Expected credit losses over the next 12 months	Expected credit loss for the entire duration (no credit impairment)	Expected credit loss for the entire duration (credit impairment occurred)	
Balance as at January 1, 2022		4,425,519	5,900,088	10,325,607
Balance as at January 1, 2022 in current period				
--Transferred to Stage II				
--Transferred to Stage III				
--Reversal to Stage II				
--Reversal to Stage I				
Provision in the current period		23,544,098		23,544,098
Reversal in the current period				
Write-off in the current period				
Charge-off in the current period				
Other changes				
Balance as at December 31, 2022		27,969,617	5,900,088	33,869,705



Description of significant changes in book balance of other receivables with changes in loss provision in the current period:

Applicable Not applicable

The amount of provision for bad debts in the current period and the basis for assessing whether the credit risk of financial instruments has increased significantly:

Applicable Not applicable

(4) Provision for bad debts

Applicable Not applicable

(5) Other receivables actually written off in the current period

Applicable Not applicable

(6) Top 5 other receivables in terms of ending balance presented by debtor

Applicable Not applicable

Unit: Yuan Currency: CNY

Name	Nature	December 31, 2022	Aging	Proportion in the total balance of other receivables (%)	Balance of provision for bad debts as at December 31, 2022
Other receivables 1	Customs-related security deposit	267,023,626	Within 1 year	19	
Other receivables 2	Transactions with subsidiaries	207,756,614	1-2 years	15	
Other receivables 3	Transactions with subsidiaries	156,491,005	Within 1 year	11	
Other receivables 4	Transactions with subsidiaries	97,081,673	Within 1 year	7	
Other receivables 5	Unpaid taxes receivable	65,462,896	3-4 years	5	23,571,255
Total	/	793,815,814	/	57	23,571,255

(7) Receivables involving government subsidies

Applicable Not applicable

(8) Other receivables derecognized due to transfer of financial assets

Applicable Not applicable

(9) Amount of assets and liabilities formed by transferring other receivables and continuing involvement

Applicable Not applicable

Other description:

Applicable Not applicable

3 Long-term equity investments

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	December 31, 2022			December 31, 2021		
	Book balance	Provision for impairment	Book value	Book balance	Provision for impairment	Book value
Investment in subsidiaries	7,403,925,081		7,403,925,081	7,230,010,801		7,230,010,801
Investment in joint ventures and associates	1,985,654,163		1,985,654,163	1,816,129,602		1,816,129,602
Total	9,389,579,244		9,389,579,244	9,046,140,403		9,046,140,403

(1) Investment in subsidiaries

Applicable Not applicable

Unit: Yuan Currency: CNY

Invested entity	December 31, 2021	Increase in current period	Decrease in current period	December 31, 2022	Provision for impairment in current period	Balance of provision for impairment as at December 31, 2022
Shanghai Zhenhua Heavy Industries Port Machinery General Equipment Co., Ltd.	2,201,086,744			2,201,086,744		
Nanjing Ninggao New Channel Construction Co., Ltd.	100,000,000			100,000,000		
Nantong Zhenhua Heavy Equipment Manufacturing Co., Ltd.	2,500,000,000			2,500,000,000		
ZPMC Transmission Machinery (Nantong) Co., Ltd.	506,112,853			506,112,853		
CCCC Zhenjiang Investment Construction Management Development Co., Ltd.	376,438,604			376,438,604		
CCCC Tianhe Mechanical Equipment Manufacturing Co., Ltd.						
ZPMC Qidong Marine Engineering Co., Ltd.	203,000,000			203,000,000		

Invested entity	December 31, 2021	Increase in current period	Decrease in current period	December 31, 2022	Provision for impairment in current period	Balance of provision for impairment as at December 31, 2022
CCCC Liyang Urban Investment and Construction Co., Ltd.	363,000,000			363,000,000		
Shanghai Zhenhua Shipping Co., Ltd.	140,260,673			140,260,673		
Shanghai Zhenhua Ocean Engineering Service Co., Ltd.	100,000,000			100,000,000		
ZPMC Electric Co., Ltd.	50,000,000			50,000,000		
CCCC Investment & Development Qidong Co., Ltd.	242,500,000	55,000,000		297,500,000		
ZPMC North America Inc.	18,564,520			18,564,520		
ZPMC Netherlands Coöperatie U.A.	29,366,084	68,880		29,434,964		
Shanghai Zhenhua Port Machinery Heavy Industries Co., Ltd.	9,964,200			9,964,200		
ZPMC Machinery Equipment Services Co., Ltd.	7,000,000			7,000,000		
ZPMC Lanka Company (Private) Limited	6,183,978			6,183,978		
ZPMC Middle East Fze	5,271,120			5,271,120		
ZPMC Zhangjiagang Port Machinery Co., Ltd.	4,518,000			4,518,000		
ZPMC Limited Liability Company	10,172,070			10,172,070		
ZPMC Southeast Asia Holding Pte. Ltd.	12,513,114			12,513,114		
ZPMC Engineering Africa (Pty) Ltd.	3,084,000			3,084,000		
ZPMC Engineering (India) Private Limited	2,953,200			2,953,200		
ZPMC Brazil Serviço Portuários LTD.	2,936,771			2,936,771		
ZPMC Korea Co., Ltd.	6,398,059			6,398,059		
ZPMC UK LD	2,797,921			2,797,921		
ZPMC Australia Company (Pty) Limited	2,708,500			2,708,500		
CCCC Rudong Construction Development Co., Ltd.	36,664,600	45,845,400		82,510,000		
CCCC Yongjia Construction Development Co., Ltd.	172,000,000	52,000,000		224,000,000		
CCCC Zhenhua Lvjian Technology (Ningbo) Co., Ltd.	4,000,000			4,000,000		
ZPMC Latin America Holding Corporation	3,307,850			3,307,850		
ZPMC GmbH Hamburg	207,940			207,940		
ZPMC Fuzhou Offshore Construction Co., Ltd.	10,000,000			10,000,000		
CCCC (Dongming) Investment and Construction Co., Ltd.	49,000,000	21,000,000		70,000,000		
Xiong'an Zhenhua Co., Ltd.	15,000,000			15,000,000		
CCCC Zhenhua Intelligent Parking (Hengyang) Co., Ltd.	33,000,000			33,000,000		
Total	7,230,010,801	173,914,280		7,403,925,081		

(2) Investment in joint ventures and associates

√Applicable □Not applicable

Unit: Yuan Currency: CNY

Invested entity	December 31, 2021	Increase/decrease in the current period							December 31, 2022	Balance of provision for impairment as at December 31, 2021
		Further investment	Reduced investment	Profit or loss on investments under the equity method	Adjustment of other comprehensive income	Changes in other equity	Cash dividends or profit declared to be distributed	Provision for impairment		
I. Joint ventures										
Jiangsu Longyuan Zhenhua Marine Engineering Co., Ltd.	323,033,681			76,902,400			-35,000,000			364,936,081
ZPMC Mediterranean Liman Makinalari Ticaret Anonim Sirketi	396,692									396,692
Sub-total	323,430,373			76,902,400			-35,000,000			365,332,773
II. Associates										
CCCC Financial Leasing Co., Ltd.	608,658,400			65,045,550	625,583					674,329,533
CCCC Yancheng Construction Development Co., Ltd.	418,516,242									418,516,242
CCCC Estate Yixing Co., Ltd.	192,917,083			13,878,398						206,795,481
CCCC South American Regional Company SARL	167,286,613			11,622,933	15,481,457					194,391,003
China communications Construction USA Inc.	55,146,147			197,865	4,636,853					59,980,865
CCCC Photovoltaic Technology Co., Ltd.	-	34,765,693		54,070						34,819,763
ZPMC Changzhou Coatings Co., Ltd.	19,729,266			3,299,000			-4,588,107			18,440,159
CCCC Xiongan Urban Construction Development Co., Ltd.	7,512,971			27,362						7,540,333
Shanghai Ocean Engineering Equipment Manufacturing Innovation Center Co., Ltd.	5,820,675			-312,664						5,508,011
CCCC Marine Engineering & Technology Research Center Co., Ltd.	17,111,832		-17,165,758	53,926						
Sub-total	1,492,699,229	34,765,693	-17,165,758	93,866,440	20,743,893		-4,588,107			1,620,321,390
Total	1,816,129,602	34,765,693	-17,165,758	170,768,840	20,743,893		-39,588,107			1,985,654,163

Other description:

None



4 Operating revenue and operating costs

(1) Operating revenue and operating costs
 Applicable Not applicable

Unit: Yuan Currency: CNY

Item	Amount incurred in the current period		Amount incurred in the previous period	
	Revenue	Cost	Revenue	Cost
Primary businesses	23,815,340,356	21,476,119,929	21,041,533,485	19,594,709,968
Other business	2,351,859,784	2,239,174,472	1,947,957,763	1,718,890,668
Total	26,167,200,140	23,715,294,401	22,989,491,248	21,313,600,636

(2) Income from contracts
 Applicable Not applicable

Unit: Yuan Currency: CNY

Classification of Contract	XXX-Division	Total
Type of goods		
Port machinery		19,077,625,724
Heavy equipment		2,583,435,444
Sales of materials and others		2,189,400,559
Steel structure and related income		1,857,271,569
Engineering construction projects		297,007,620
By region of operation		
Chinese Mainland		12,866,518,897
Asia (excluding Chinese Mainland)		7,530,460,148
North America		1,894,585,077
Africa		1,315,268,003
Chinese Mainland (export sales)		860,923,310
Europe		695,308,842
South America		535,048,885
Oceania		306,627,754
Market or customer type		
Contract type		
Revenue recognized at a certain point of time		
Port machinery		18,246,841,951
Sales of materials and others		2,189,400,559
Heavy equipment		1,699,958,881
Steel structure and related income		902,130,874
Revenue recognized in a certain period of time		
Heavy equipment		883,476,562
Port machinery		830,783,774
Steel structure and related income		955,140,695
Engineering construction projects		297,007,620
By time of goods transfer		
By contract term		
By sales channel		
Total		26,004,740,916

Description of income from contracts:

Applicable Not applicable

(3) Performance obligations

Applicable Not applicable

(4) Apportionment to remaining performance obligations

Applicable Not applicable

Other description:

None

5 Investment income

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	Amount incurred in the current period	Amount incurred in the previous period
Income from long-term equity investments calculated under cost method	441,136,785	56,655,365
Income from long-term equity investment calculated under the equity method	170,768,840	232,454,488
Investment income from disposal of long-term equity investment	-95,166	167,833,181
Investment income from held-for-trading financial assets during the holding period	13,458,094	1,112,889
Dividend income from other equity instrument investment during holding	335,790	7,835,826
Interest income from debt investment during holding		
Interest income from other debt investment during holding		
Investment income from disposal of held-for-trading financial assets	5,843	819,204,693
Investment income from disposal of other equity instrument investment		
Investment income from disposal of debt investment		
Investment income from disposal of other debt investment		
Income from debt restructuring		
Investment income from disposal of other non-current financial assets		1,050,134
Losses on derecognition of financial assets measured at amortized cost	-20,135,378	
Others	-1,455,319	
Total	604,019,489	1,286,146,576

Other description:

None

6 Others

Applicable Not applicable

XVIII Supplementary information

1 Items of non-recurring profit or loss in current period

Applicable Not applicable

Unit: Yuan Currency: CNY

Item	Amount	Remarks
Profit or loss from disposal of non-current assets	66,091,456	
Tax refunds, exemptions and reductions with ultra vires approval or without official approval documents		
Government grants included in the current profit or loss (except for the one closely related to the operations of the Company and gained constantly at a fixed amount or quantity according to certain standard)	106,415,947	
Capital occupation fees charged to the non-financial enterprises and included in current profit or loss		



Item	Amount	Remarks
Profit generated when the Company's investment cost in acquiring the subsidiary, affiliated company and joint venture is less than the fair value of the recognizable net assets of the invested unit at the time of acquiring		
Profit or loss from non-monetary assets exchange		
Profit or loss from the assets entrusted to others for investment or management		
Provisions for impairment of assets accrued due to force majeure such as natural disaster		
Profit or loss from debt reorganization		
Cost for enterprise reorganization, such as staffing expenses and integration fees		
Profit or loss in excess of the fair value generated in transaction with unfair price		
Current net profit or loss of the subsidiary generated from the business combination under common control from the beginning of the period to the combination date		
Profit or loss from the contingencies, unrelated to the normal business of the Company		
Profit or loss on changes in fair values of held-for-trading financial assets, derivative financial assets, held-for-trading financial liabilities and derivative financial liabilities, and investment income obtained from disposal of held-for-trading financial assets, derivative financial assets, held-for-trading financial liabilities, derivative financial liabilities and other credit investment, except for effective hedging operations associated with the company's normal operations	-214,877,284	
Reversal of provision for impairment of receivables and contract assets subject to separate impairment test		
Profit or loss from external entrusted loans		
Profit or loss on changes in fair value of investment property by follow-up measurement in fair value mode		
Impact on current profit or loss due to one-off adjustment to current profit or loss according to the requirements of tax and accounting laws and regulations		
Custody fees of entrusted operation		
Other non-operating revenue and expenses except for the above-mentioned items	27,301,769	
Other profit or loss items that conform to the definition of non-recurring profit or loss		
Less: Affected amount of income tax	11,561,380	
Affected amount of minority equity	16,268,600	
Total	-42,898,092	

For the non-recurring profit or loss items defined by the Company according to the "Explanatory Announcement on Information Disclosure of Companies Offering Securities to the Public No. 1 - Non-recurring Profit or Loss", and the recurring profit or loss items defined by the non-recurring profit or loss items listed in "Explanatory Announcement on Information Disclosure of Companies Offering Securities to the Public No. 1 - Non-recurring Profit or Loss", reasons shall be explained.

Applicable Not applicable

2 Return on net assets and earnings per share

Applicable Not applicable

Profit in the reporting period	Weighted average rate of return on net assets (%)	Earnings per share	
		Basic earnings per share	Diluted earnings per share
Net profit attributable to ordinary shareholders of the Company	2.39	0.07	0.07
Net profit attributable to ordinary shareholders of the Company after deducting non-recurring profits and losses	2.68	0.07	0.07

3 Differences in accounting data under domestic and overseas accounting standards

Applicable Not applicable

4 Others

Applicable Not applicable

Chairman: Liu Chengyun

Date of reporting approved by the Board of Directors: March 30, 2023

Revision information

Applicable Not applicable